SHORT RANGE TRANSIT PLAN

Existing Conditions Report

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TMD

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Existing Conditions

The YoloTD Short Range Transit Plan (SRTP) will study and address the transportation needs of the Yolo County community, both now and over the next 5 years. By analyzing the current transit network, travel patterns and demographics, this project will build on the City's prior COA, completed in 2020, and serve as an update to that plan. It is important for YoloTD to update its SRTP regularly to keep in line with the current mobility patterns and needs of the community. In 2020, due to the start of the COVID-19 pandemic, transit service and demand changed. Part of this plan will be to assess these changes and make sure that YoloTD is serving the needs of the entire community.

This Existing Conditions Analysis report is broken into 2 sections:

- **Market Assessment** - understanding of population, employment, and demographic patterns that may affect transit demand; understanding of regional travel patterns; analysis of the built environment and its impact on transit service. Findings from the YoloTD Community Survey conducted in the summer of 2024 will be included to support this analysis.
- **Existing Service Analysis** - understanding of the performance of current YoloTD services; review of ridership trends, route-level performance, community transit access, and strengths and weaknesses of current service delivery.

The findings from this report, along with the comments received in the YoloTD Community Survey will be synthesized into goals and objectives, which will shape the final recommendations of this SRTP.

Market Assessment

Evaluating present travel patterns and demographics is a key part of ensuring the transit network meets the current and future needs of Yolo County. It is also important to understand how travel patterns may have shifted following recent growth and the COVID-19 pandemic.

This Market Assessment focuses on the land use, demographic makeup, and travel patterns within Yolo County to gather insights on where people live and how they choose to travel. This section of the report follows the outline of the 4 D's – Design, Density, Destinations, and Diversity. Understanding the area's land use and the built environment will inform transit's viability as a **primary** mode of transportation. Ultimately, this chapter will help us to better understand Yolo County's mobility needs and its market for transit and will inform future recommendations for YoloTD.

Data for the Market Assessment primarily came from the U.S. Census American Community Survey (ACS) from 2022 5-year estimates and Replica, an online platform aggregating location-based services, credit card transactions, and census data into comprehensive regional travel pattern dashboards for use in transportation planning projects.

Design Analysis

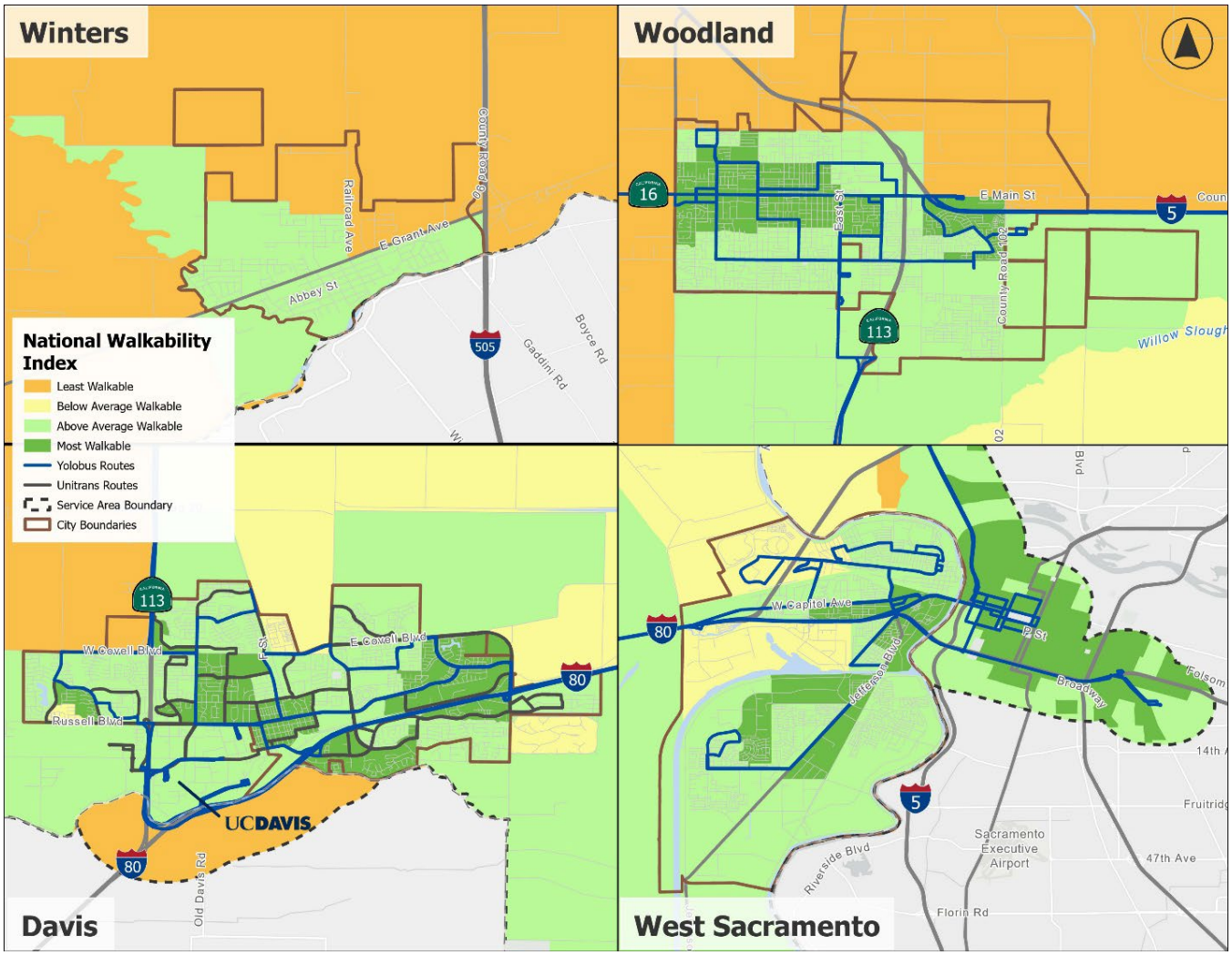
Yolo County in northern California lies between the Bay Area and Sacramento. Much of the County is agricultural land which produces a variety of fruit, seed, grain, and nut crops.[1] Three highways connect the three major cities in Yolo County: I-5 between West Sacramento and Woodland, SR-113 between Woodland and Davis, and I-80 between Davis and West Sacramento. Each city is unique with its own role within the community. The City of Davis is a major college town with its own transportation system, Unitrans and Davis Community Transit, which serves the university and surrounding neighborhoods. West Sacramento is on the eastern edge of the County and is located across the Sacramento River from downtown Sacramento. This community is primarily mixed industrial and suburban. The City of Woodland is very suburban and has expanded from an agricultural community to also a bedroom community for Davis and Sacramento. The rest of the county is very rural with a few small towns and cities dotted along the key highways including Winters, Knights Landing, and Esparto. I-505 connects Dunnigan and Winters to Vacaville in Solano County, a key connection to destinations outside of Yolo County.

The National Walkability Index, developed by the Environmental Protection Agency, creates a walkability score based on intersection density, proximity to transit stops, and diversity of land uses. Figure 1 shows which areas of Yolo County are considered walkable based on this index. The areas in Yolo County with the highest walkability are the downtown centers of the major cities in the region. We can see this pattern particularly along Main Street in Woodland and in Downtown Davis where street densities and sidewalk connectivity is more supportive of pedestrians. A large part of the market assessment will be adding analysis from the YoloTD Community Survey conducted in the summer of 2024. The synthesis of the market data

[1] Industry Priorities in Yolo County

paired with the understanding of rider and community travel behaviors will round out this report. The majority of survey respondents from the YoloTD Community Survey said they walk to and from the bus stop, so ensuring that riders have this connectivity between bus stops and their destinations is vital. All the transit routes and bus stops in Woodland and Davis are in areas that are "Most Walkable" or "Above Average Walkable," which benefits riders. However, in West Sacramento, some areas with bus stops are considered "Below Average Walkable." Understanding these patterns in Yolo County will help make informed decisions about where bus routes are feasible and will be connected to a transit-supportive pedestrian network. In below average areas, improving walkability will be imperative to increase transit accessibility.

Map 1 - EPA Walkability Index: Winters, Woodland, Davis, West Sacramento and Downtown Sacramento



LAND USE, ZONING AND PLANNED DEVELOPMENT

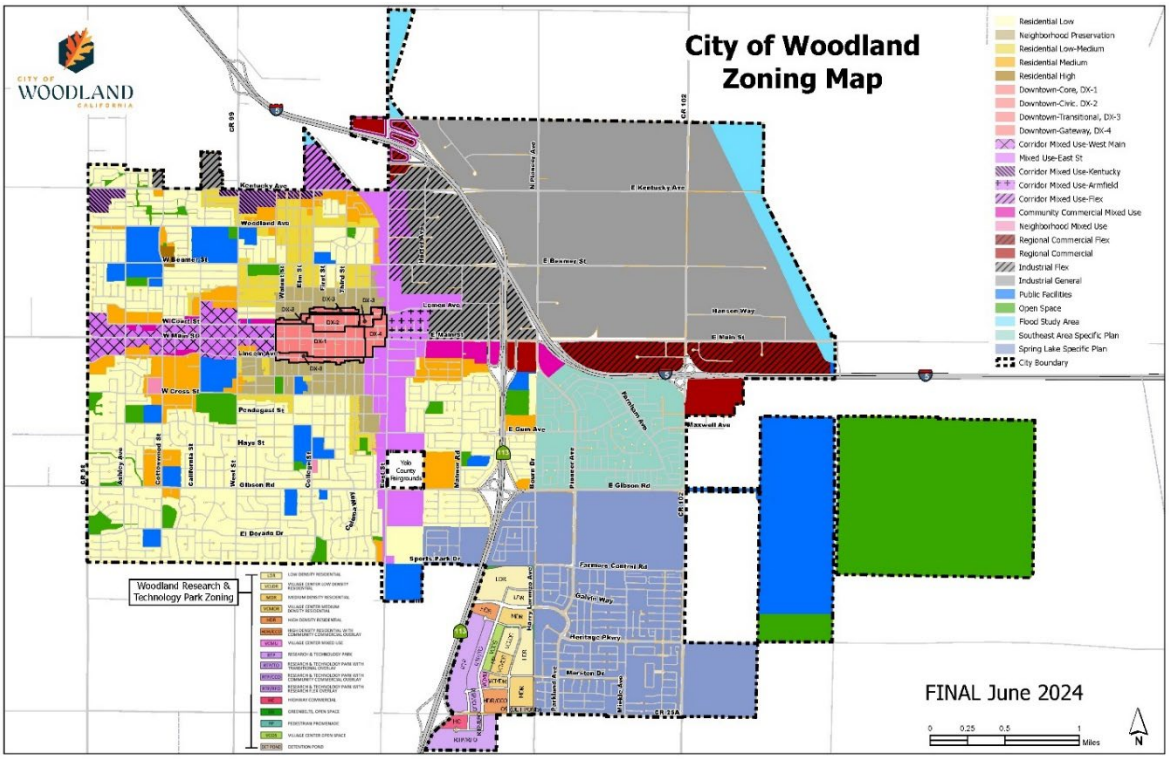
Zoning and land use patterns play an important role in the success of a transit system. In areas with higher densities, clear street connections, and a diversity of destinations, transit works extremely well.

City of Woodland

Much of the zoning in Woodland is low density residential, with mixed use zoning along East Street and Main Street, which can be seen in Map 2. The Downtown Core is zoned between Cleveland St and East Street. There are areas across the city that are also zoned for medium- to high-density residential. To the southeast, the Southeast Area and Spring Lake Specific Plans encompass most of the southern area of the city. To the northeast is a large swath of General Industrial Zoning along I-5.

In Woodland there are 3 new housing developments which will include affordable units. This type of housing typically has higher transit demand than market rate housing. The three projects are the Berrettoni apartments, Vista del Robles, and Opportunity Village with 9, 72, and 12 units, respectively. The Berrettoni apartments and Vista Del Robles are already served by transit in Woodland.[2] The Opportunity Village residents would not have access to fixed-route services within 0.5 miles, however, this development is within the Beeline service area.[3]

Map 2 - City of Woodland Zoning Map



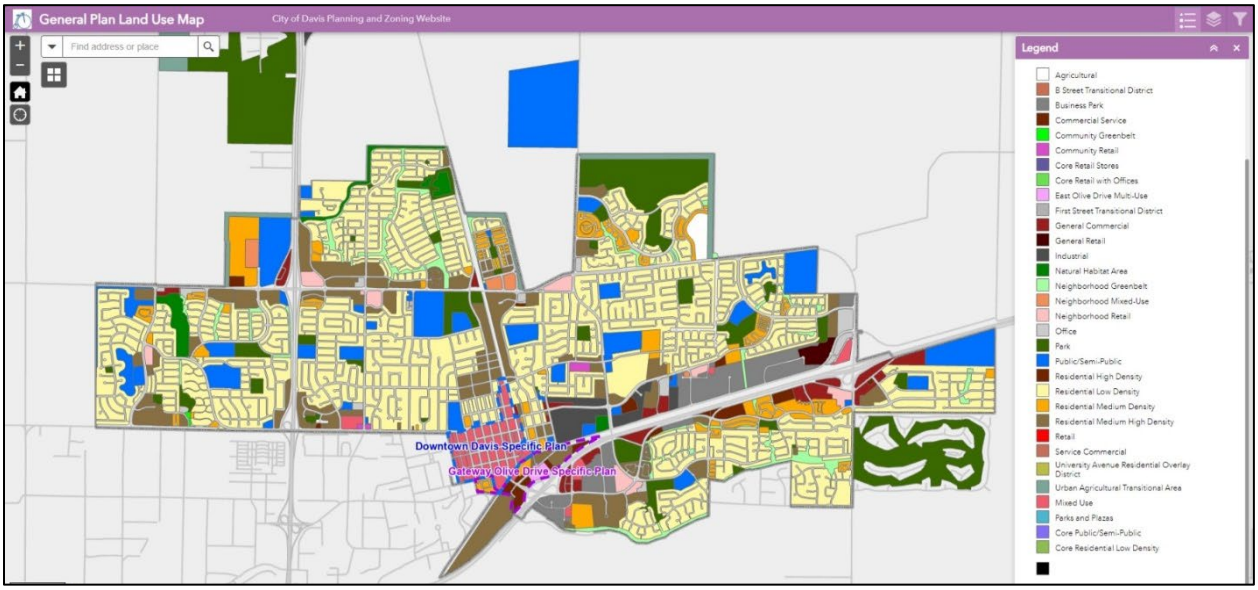
City of Davis

In the City of Davis, the zoning is mainly Residential Low Density with Residential High Density along the major corridors. To the east of Downtown Davis and along I-80 is zoned for 'Industrial' and 'Business Park' uses. The University of California – Davis is not within the city boundaries but is adjacent to downtown.

[2] Main Street Investment
[3] Woodland Opportunity Village

The planned developments in the City of Davis are located across the city, but there are more developments concentrated in downtown Davis and to the north of Covell Boulevard.[4] The developments in downtown will add 506 total units, and 39 of those will be affordable units. This area of Davis is served by transit either by the Unitrans local service or Yolobus regional fixed route service. The developments along Covell Boulevard will add an approximately 4,000 new units, with 762 units designated affordable housing. Yolobus operates express route service along portions of Covell Boulevard but no local all-day service. Unitrans operates their perimeter route on Covell Boulevard in both east and west directions.

Map 3 - City of Davis Zoning Map



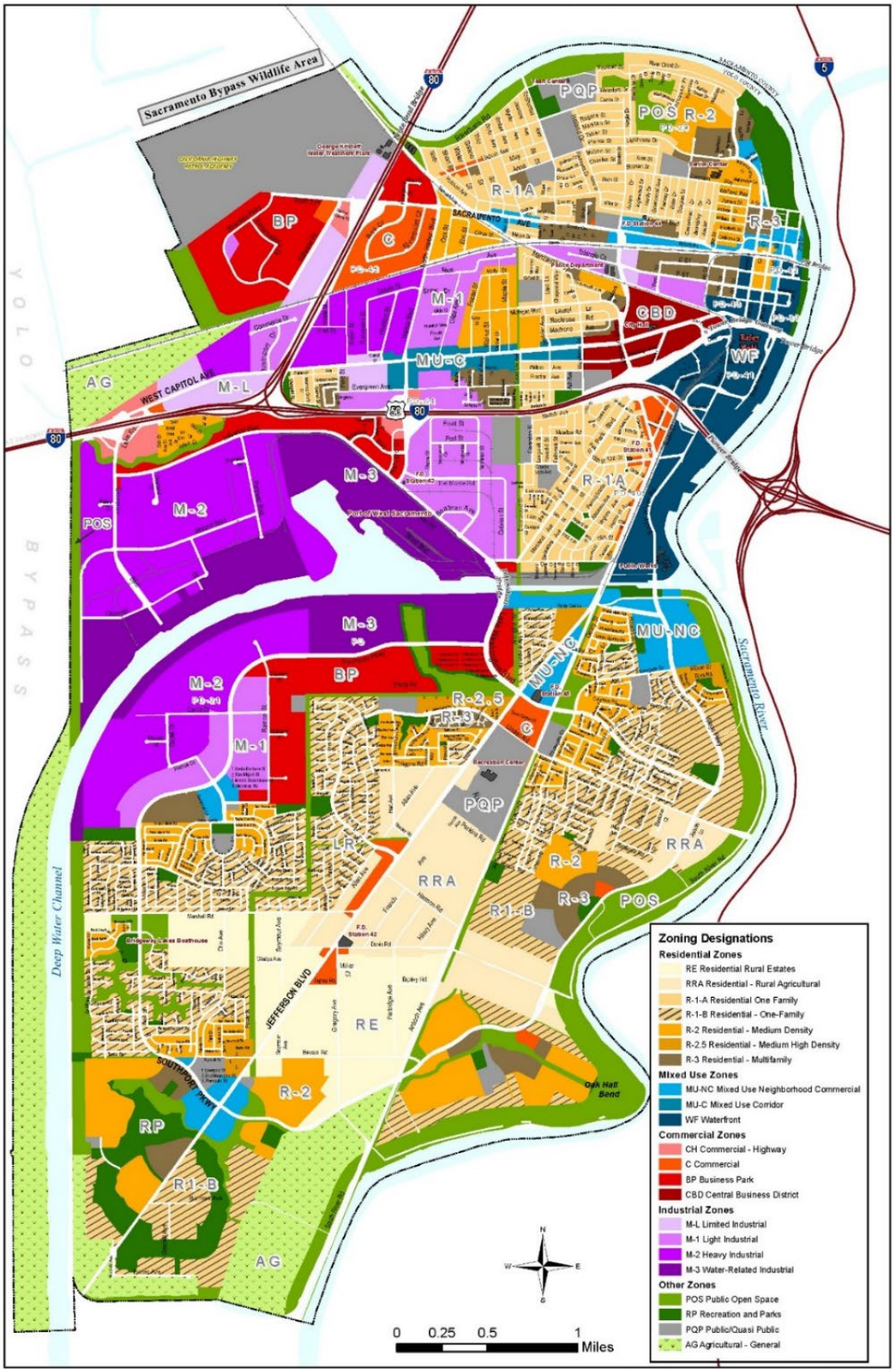
City of West Sacramento

A large part of West Sacramento is also zoned for Industrial uses like the city of Woodland. Many of the areas in the south of the city are zoned for single family residential units and rural residential areas.

There are three new residential development projects in West Sacramento: the 1990 Lake Washington Boulevard Affordable Housing Project, West Gateway Place Phase 2, and the Westgate Assisted Living housing project which each has 152, 60, 94 affordable housing units, respectively.[5] All three developments are served by fixed route transit service in West Sacramento.

[4] 2021 - 2029 Housing Element City of Davis
[5] City of West Sacramento Major Planning Projects

Map 4 - City of West Sacramento Zoning Map

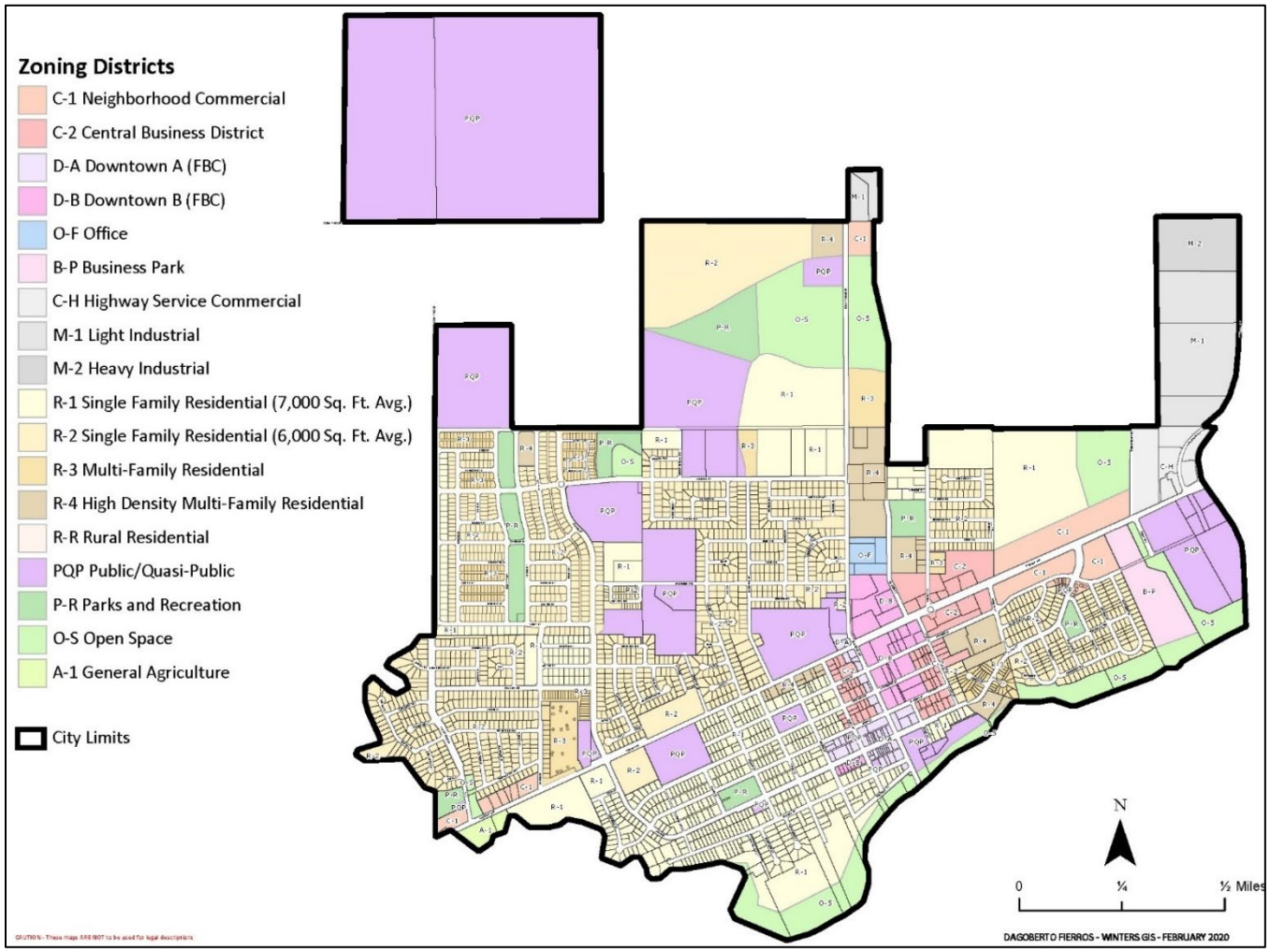


City of Winters

The City of Winters is mainly zoning for single family residential use. Higher density housing and mixed-use development types are primarily along the main arterial streets in Winters. There are pockets of higher density, multi-family residential dwellings near the Central Business District and at intersections of the main arterial streets. Some of this density and diversity of destinations is good for supporting transportation, but the cul-de-sacs and indirect street design make accessing bus stops for pedestrians difficult. Microtransit makes more sense than fixed route in a community like this.

Two of the new development projects in Winters will have affordable units: the Farmstead Project, and the NeighborWorks project with 89 and 24 affordable units.[6,7] These projects are both within less than a quarter mile of current BeeLine stops.

Map 5 - City of Winters Land Use Map



[6] Farmstead development review process underway
[7] Winters Landing Subdivision

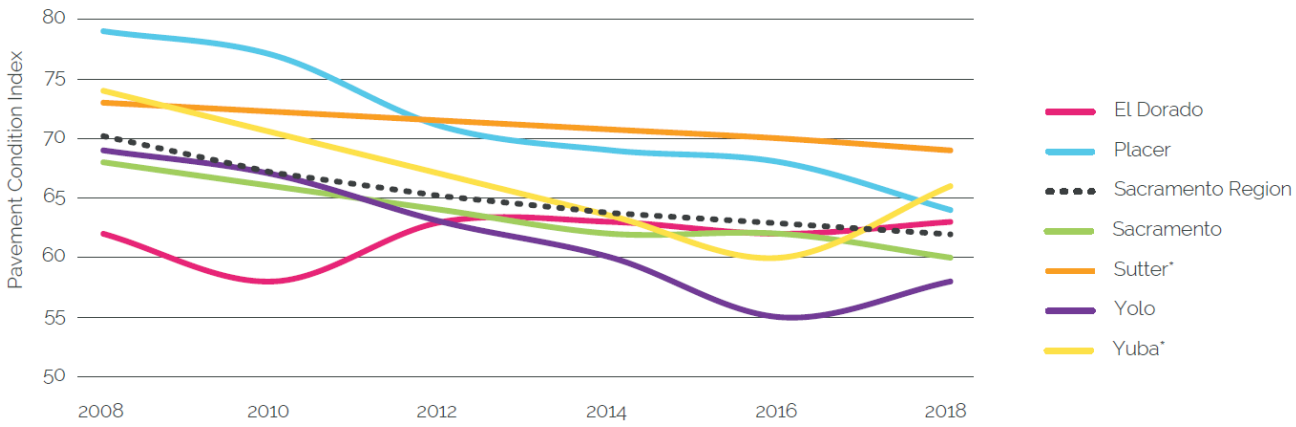
The balance of Yolo Country is primarily zoned for Agriculture or low density residential in the smaller cities and towns.

In conclusion, there is a lot of new affordable housing that will already be served by existing YoloTD transit services. Knowing where these developments and transit supportive land uses are will allow the project team to best plan transit for where demand is highest and makes sense with the land use patterns. One development that stood out as needing better transit access was the Woodland Opportunity Village which is planned to be built further than 0.5 miles from fixed route transit service.

ROAD NETWORK ASSESSMENT

Maintaining flat, paved, clean streets will ensure the success and longevity of the bus system in Yolo County. According to the SACOG 2021 Regional Progress Report, Yolo County has scored the worst in terms of Local Street and Road Pavement Conditions within the region, scoring a Pavement Condition index score of about 57, where a score of 70 or above identifies roads as in good condition.[8]

Figure 1 - Local Street and Road Pavement Conditions, 2008 to 2018



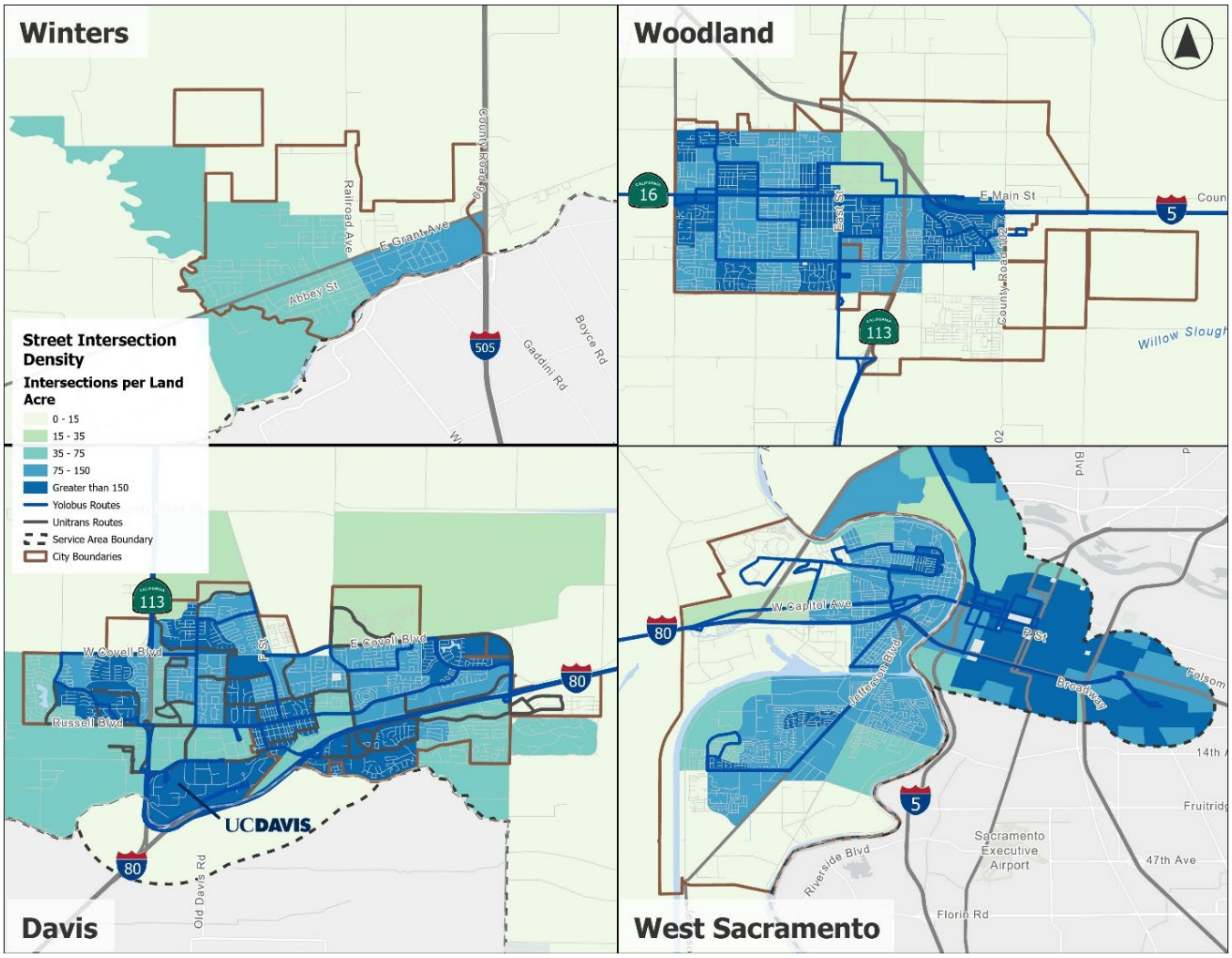
Source: California Statewide Local Streets and Roads Needs Assessments, 2008 - 2018, accessed August 2019.
*Due to limited observed data, PCI for Sutter and Yuba counties is estimated for years 2009-2015.

STREET INTERSECTION DENSITY

The walkability of an area is extremely important in supporting public transportation as many riders walk to and from the bus stop to their destinations. There is better walkability when street intersections are more densely located so understanding the region's street intersection density will be useful. As shown in Map 6, intersection densities are highest in the City of Davis, primarily on and near the UC Davis campus, downtown Davis, and various neighborhoods around the city. The City of Woodland has the next highest densities of intersections, primarily along Main Street and Gibson Road as well as the neighborhood north of Pioneer High School. Intersection densities are lower in West Sacramento compared to Davis and Woodland but are still higher than cities like Winters and the rest of Yolo County.

[8] SACOG 2021 Regional Progress Report

Map 6 - Street Intersection Density: Winters, Woodland, Davis, West Sacramento and Downtown Sacramento



Destination Analysis and Major Activity Generators

Transit is most successful when the routes serve a variety of destinations including housing, job centers, grocery stores, medical facilities, social services, schools, and shopping malls. A route that travels entirely through a residential neighborhood will not carry many riders as there are no destinations.

According to the YoloTD Community Survey, 34 percent of Yolobus riders use the service to commute to work. A key work destination is Downtown Sacramento. As the seat of the California state capital, many state employees travel downtown for work. In July of 2024, the state mandated that all state employees return to work in the office at least two days a week. After years of working from home, commuter trips and ridership on express routes are expected to increase post mandate. Aside from work, there are also recreational destinations in Sacramento like shopping, dining, and events at the Golden 1 Center. In West Sacramento, major activity generators include baseball games and events at Sutter Health Park, and shopping at Ikea and Walmart in the Riverpoint Marketplace. In Woodland, major activity generators include the Woodland Gateway shopping center, city, and county administration buildings on First and Court Streets, and other destinations on Main Street downtown. Pioneer High School and Woodland Community College (WCC) are also both key destinations for students in the area. While conducting outreach, we heard from community members about their need to travel between WCC and UC Davis for classes and vice versa. Aside from the university campus in Davis, there are key destinations in downtown Davis and El Macero Shopping center that generates trips in the area. Outside of these three major cities, the Cache Creek Casino is the largest trip generator for people commuting for work or traveling for recreational purposes.

Density Analysis

Denser areas have more people concentrated together, and the more people there are, the larger the potential rider base. Denser areas are ideal for transit because they concentrate more people within a smaller geography, so the bus does not have to deviate to attract riders.

POPULATION

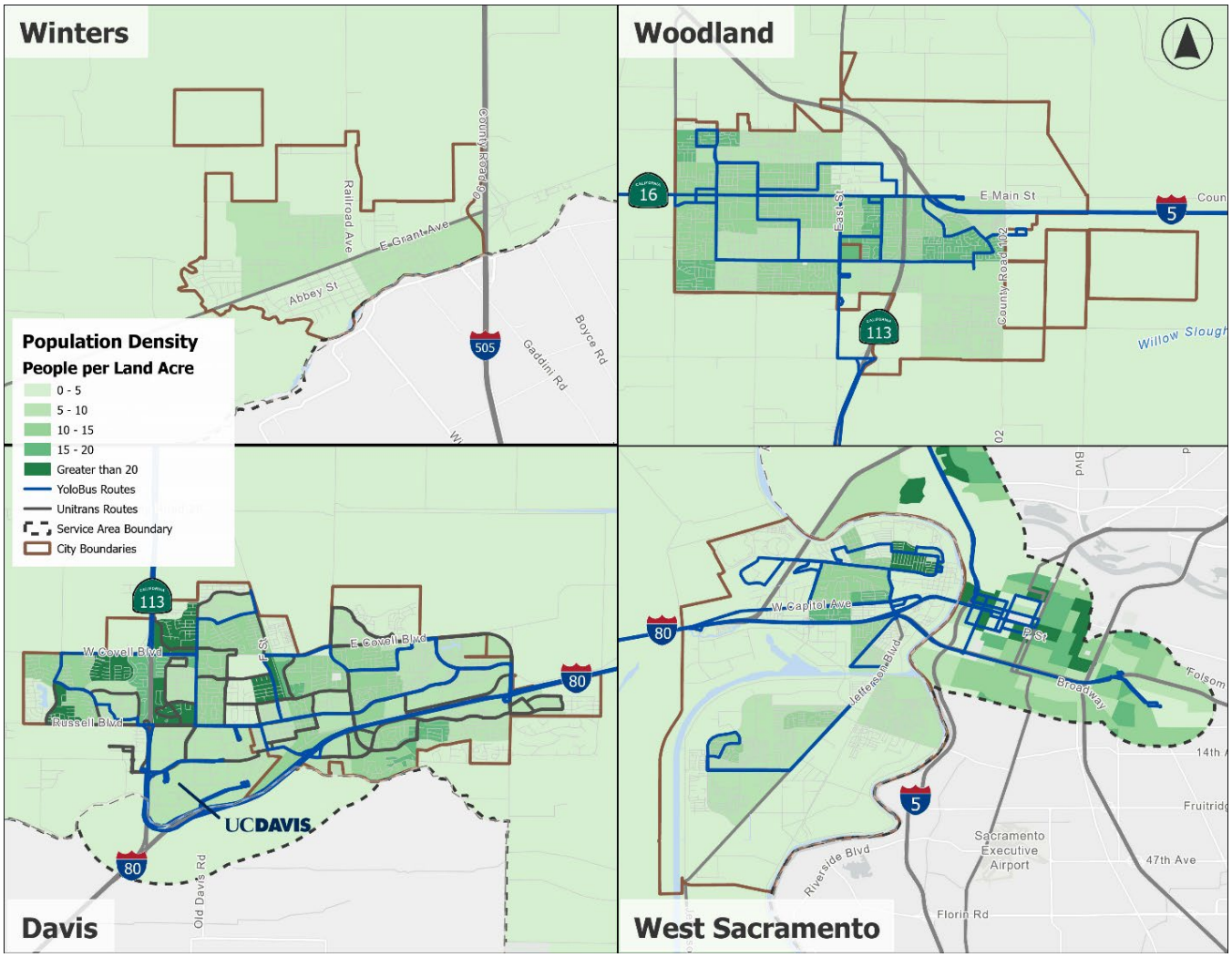
YoloTD service area had an estimated total population of 379,569 in 2022[9]. The population density in Yolo County is relatively low with only 213.3 people per square mile in 2020. The three largest cities in Yolo County, Davis, Woodland, and West Sacramento, have relatively similar population sizes around 60,000 people each. Davis has the highest density of people with 6,703 people per square mile. This is about twice as dense as Woodland, and three times as dense as West Sacramento.[10] Outside of these cities, is very low-density agricultural land, with homes and destinations spread apart from each other. These areas are much harder to serve because travel demand is so much lower than in the major cities.

The Sacramento Area Council of Governments (SACOG) board of directors adopted the 2025 Blueprint Land Use assumptions which project growth population, job, and housing changes by 2050. In these assumptions SACOG predicted an average annual population growth rate of 0.66 percent, which is down from the 2020

[9] 2022 American Community Survey 5-Year Estimates
[10] U.S. Census Bureau QuickFacts: Yolo County, California

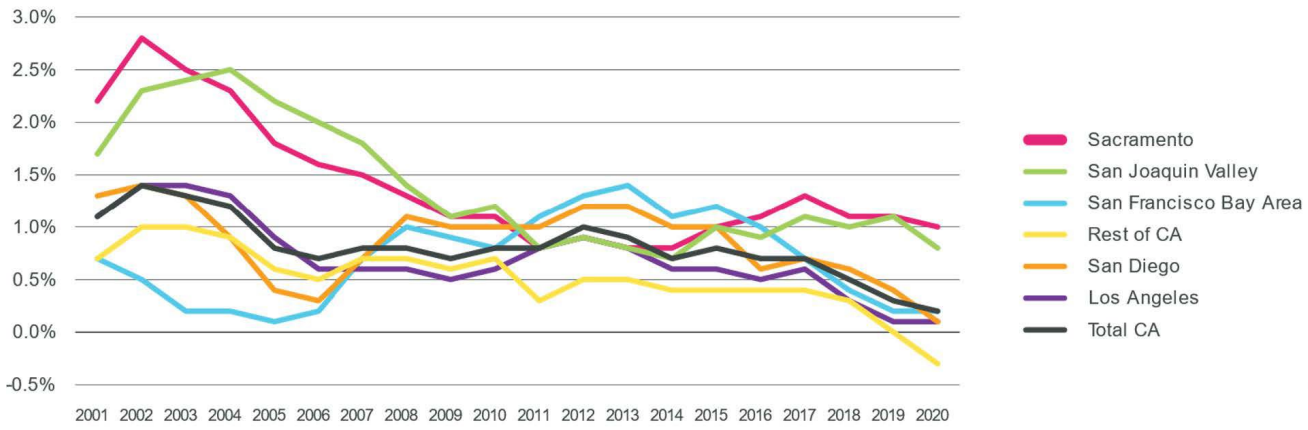
prediction of 0.97 percent.[11] However, the region is predicted to outpace state and national population growth rates. Between 2016 and 2020, the region saw the highest rate of population growth of any California region, as seen in Figure 2. Understanding the growing and changing nature of the region will allow YoloTD to better plan for the future.

Map 7 - Population Density: Winters, Woodland, Davis, West Sacramento and Downtown Sacramento



[11] Sacramento Region Draft Growth Projections Technical Memo

Figure 2 - Annual Population Growth, Sacramento, and Other California Regions 2000 to 2020

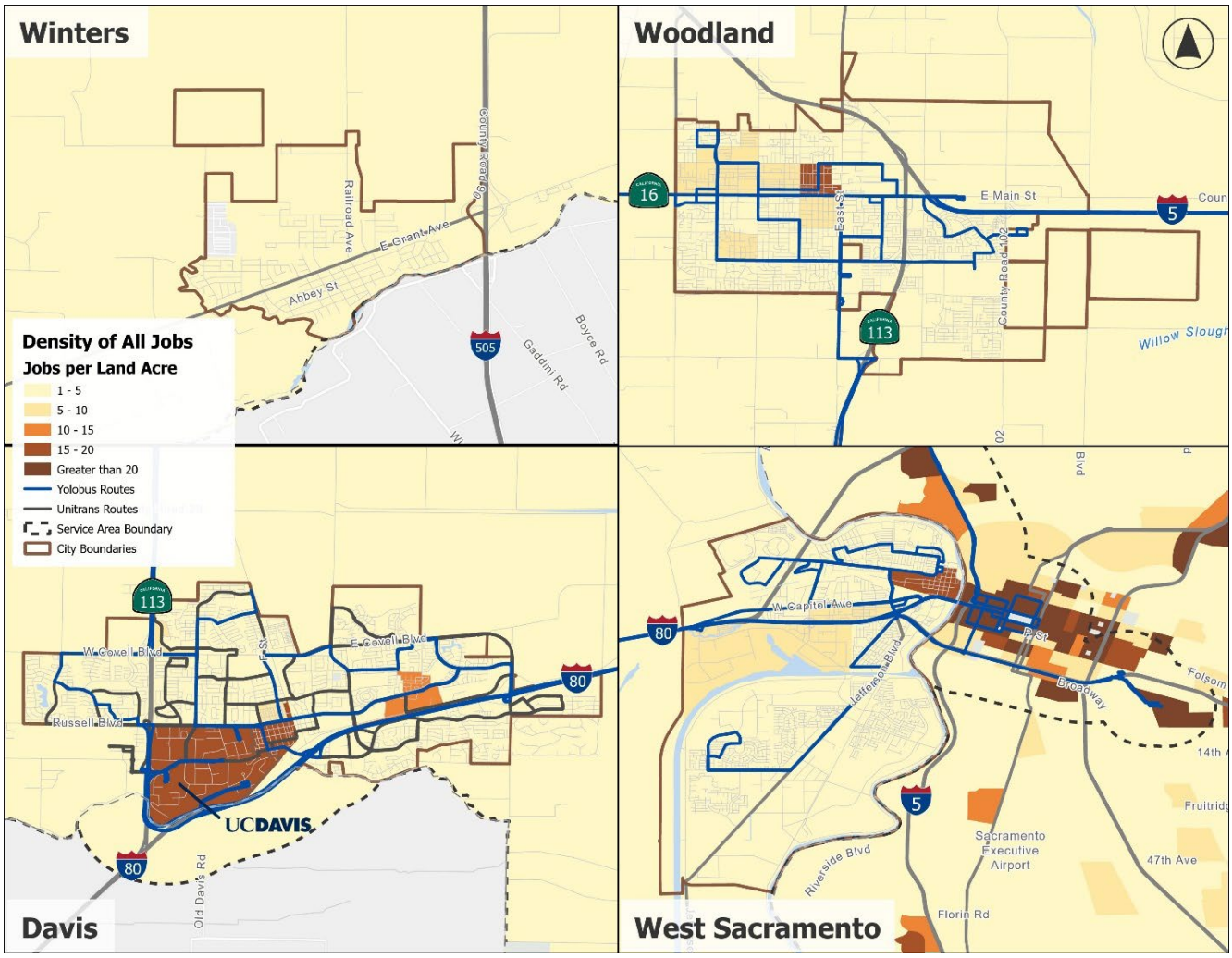


EMPLOYMENT

Employment is the top transit trip generator in the Yolo Region. According to the YoloTD Community Survey conducted in summer of 2024, riders responded that they were coming from or going to work at higher rates than any other trip purpose. The highest concentration of jobs in the YoloTD service area are in Davis at the University of California and Downtown Sacramento, as seen in Map 8. There is additional employment demand to the Cache Creek Casino as one of the largest employers in the region. In Woodland, the highest density of employers is along Court St. and Main St. and the area is served by transit routes in Woodland. In Davis, the highest concentration of employers is the University and Downtown Davis. There is an additional pocket of density between 5th St and I-80 to the east of downtown Davis. In West Sacramento, the density of jobs is centered on the northeastern side of the city, right across the river from Sacramento. Outside of these major cities, there are no densities of major employers.

Similar to the population growth rate estimates, SACOG estimates that the region will capture an increasing share of jobs and therefore outgrowing the state and nation. The region is estimated to have a 6.2 percent share of jobs in the state by 2050, which is a 0.2 percent increase from 2018 and 2019.

Map 8 - Employment Density: Winters, Woodland, Davis, West Sacramento and Downtown Sacramento



Relevant Demographic Groups

While the design and makeup of the service area can affect YoloTD's rider base, it is important to consider **who** is more likely to use transit; the demographic factors that are more closely tied to transit demand. Based on past research and transit industry experience, certain demographic groups are seen as more likely to use transit, based on age, economic status, private vehicle access, and other factors. Actual transit customer demographics and incomes vary between transit agencies and markets, but in more rural U.S. transit markets where private automobile trips are the dominant travel mode, transit use generally increases among those without access to a car due to economic circumstances, or who cannot drive due to age or disability.

The following seven sections focus on demographic groups that may be more likely to use YoloTD's transit services:

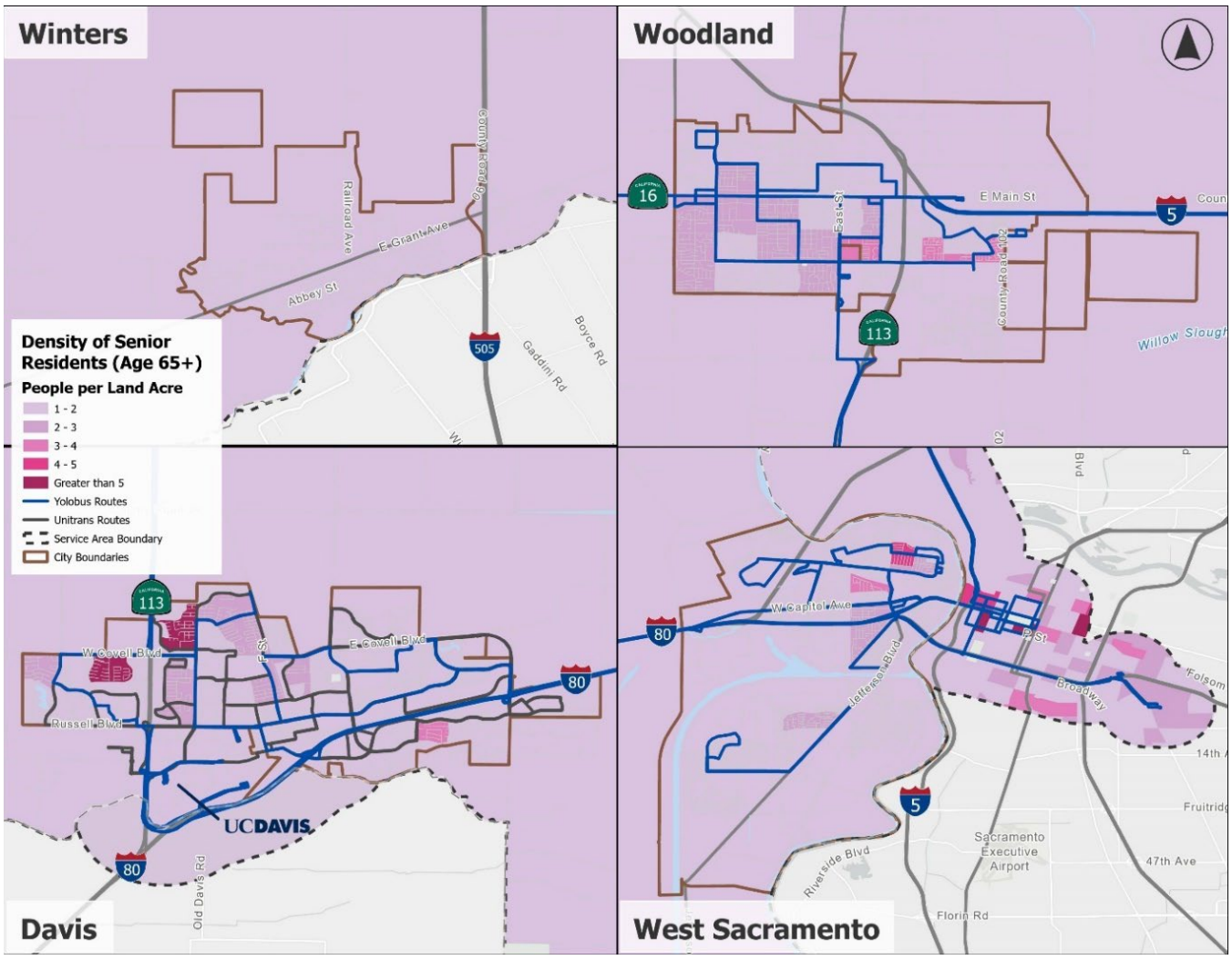
- Seniors
- Youth
- College-aged residents
- Persons with disabilities
- Zero-vehicle households
- Low-income households
- Minority households
- Persons with Limited English Proficiency

For an overview of these population densities at the county level, refer to Appendix A.

SENIORS

According to the ACS 2022 5-year estimate, 13.2 percent of the population of residents in the YoloTD service area are over the age of 65. These seniors are more likely to be transit reliant for their mobility needs as they age out of driving, and biking or walking is less feasible. In Yolo County, seniors are more concentrated around retirement communities along California Hwy 113 and in the center of West Sacramento. In Davis, senior residents live closer to the Sutter Davis Hospital. According to the YoloTD Community Survey recorded in 2024, senior residents made up 21.5 percent of riders and identified medical and shopping as their top trip purposes. Ensuring coverage to these areas will provide seniors in the area with vital mobility. There are no strong concentrations of senior residents in Winters.

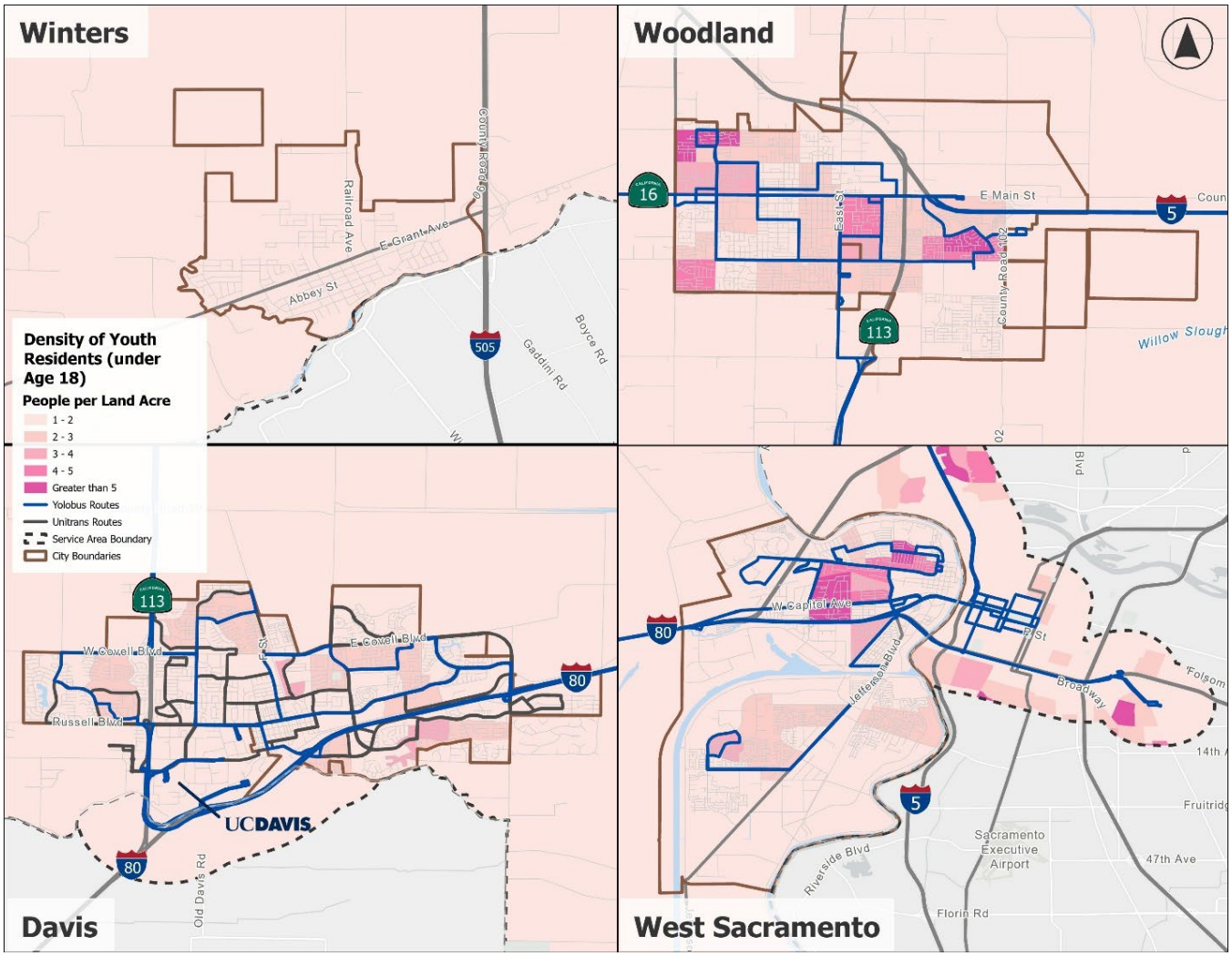
Map 9 - Density of Senior Residents: Winters, Woodland, Davis, West Sacramento, and Downtown Sacramento



YOUTH

The under-18 population can also be more transit-reliant, as they may not have access to a car or are too young to drive but still want to travel independently. Woodland Joint Unified School District and West Sacramento provides school bus services for its students. In West Sacramento, students are only eligible for school transportation if they are within the non-service zone. Davis Joint Unified School District does not provide school buses to their students. Of all residents in the YoloTD service area, 19.2 percent of residents are under the age of 18. There are higher concentrations of youth residents in Woodland and West Sacramento than in Davis. Yolobus provides service to both high schools in Woodland as well as River City High School and Yolo High in West Sacramento. Washington Middle College High School is also served by Yolobus routes in northern West Sacramento. In Davis, the population of Youth residents is generally spread across the city, and they are covered by transit services. There are no strong concentrations of youth residents in Winters.

Map 10 - Density of Youth Residents: Winters, Woodland, Davis, West Sacramento, and Downtown Sacramento

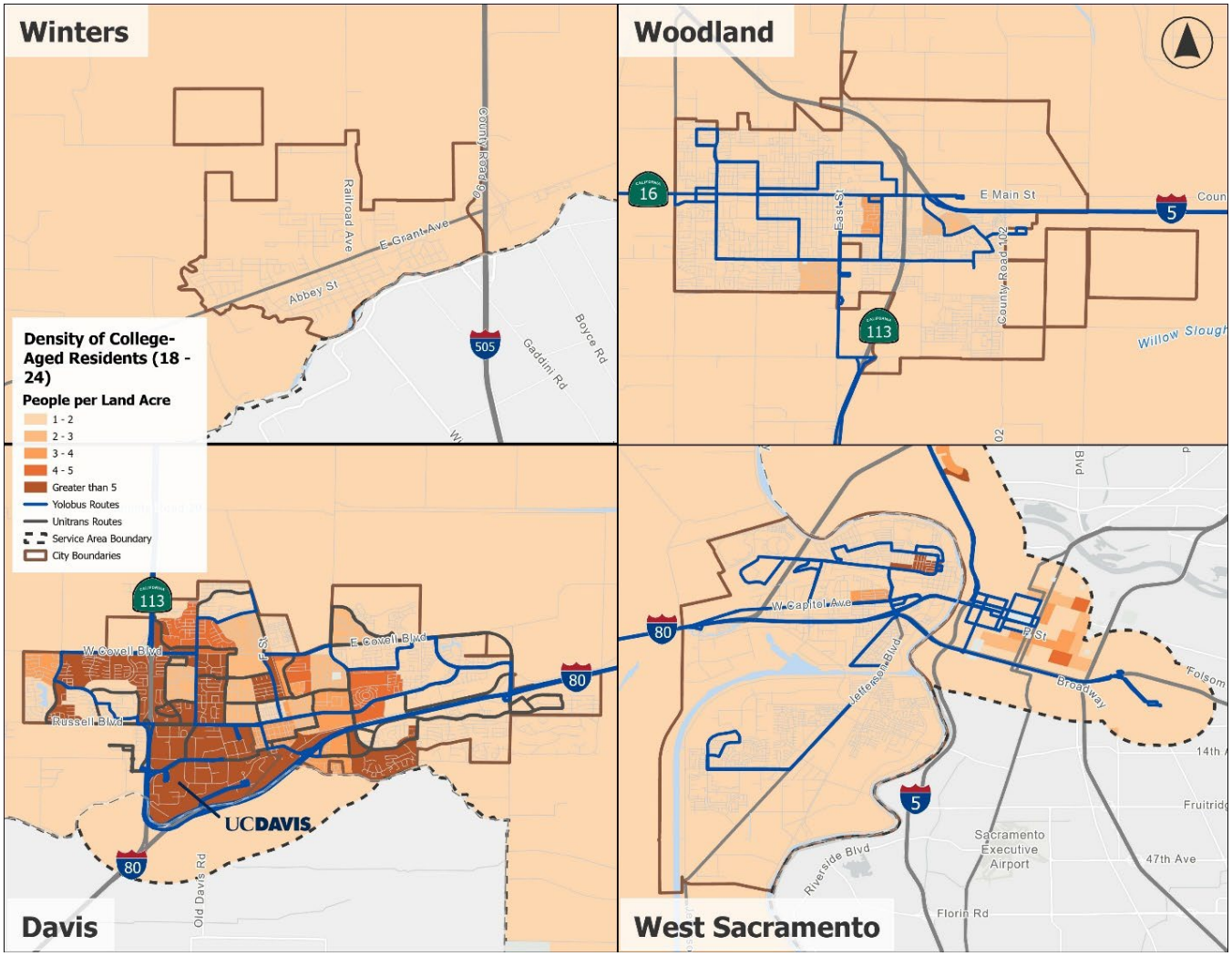


COLLEGE-AGED RESIDENTS

Yolo County is home to the City of Davis, a well-known college town centered around the University of California-Davis. As a college town it contains a high concentration of college-aged residents living on or near campus that use public transportation at higher rates. Many college-aged students may have driver's licenses but do not have full time access to an automobile especially if they live on campus and/or due to the high cost of parking at the university. In the entire YoloTD service area, 14.7 percent of the total population is college aged, and they are concentrated in areas closest to UC Davis due to the short commute and the surrounding housing caters towards students. Unitrans provides coverage for students within Davis, but for students who need intercity travel, Routes 42 A/B provides transit to and from Woodland, West Sacramento, downtown Sacramento, and the airport.

In Woodland and West Sacramento, the concentration of college aged students is much lower. Yolobus provides transit service to Woodland Community College via Route 212. There are no strong concentrations of college-aged students in Winters.

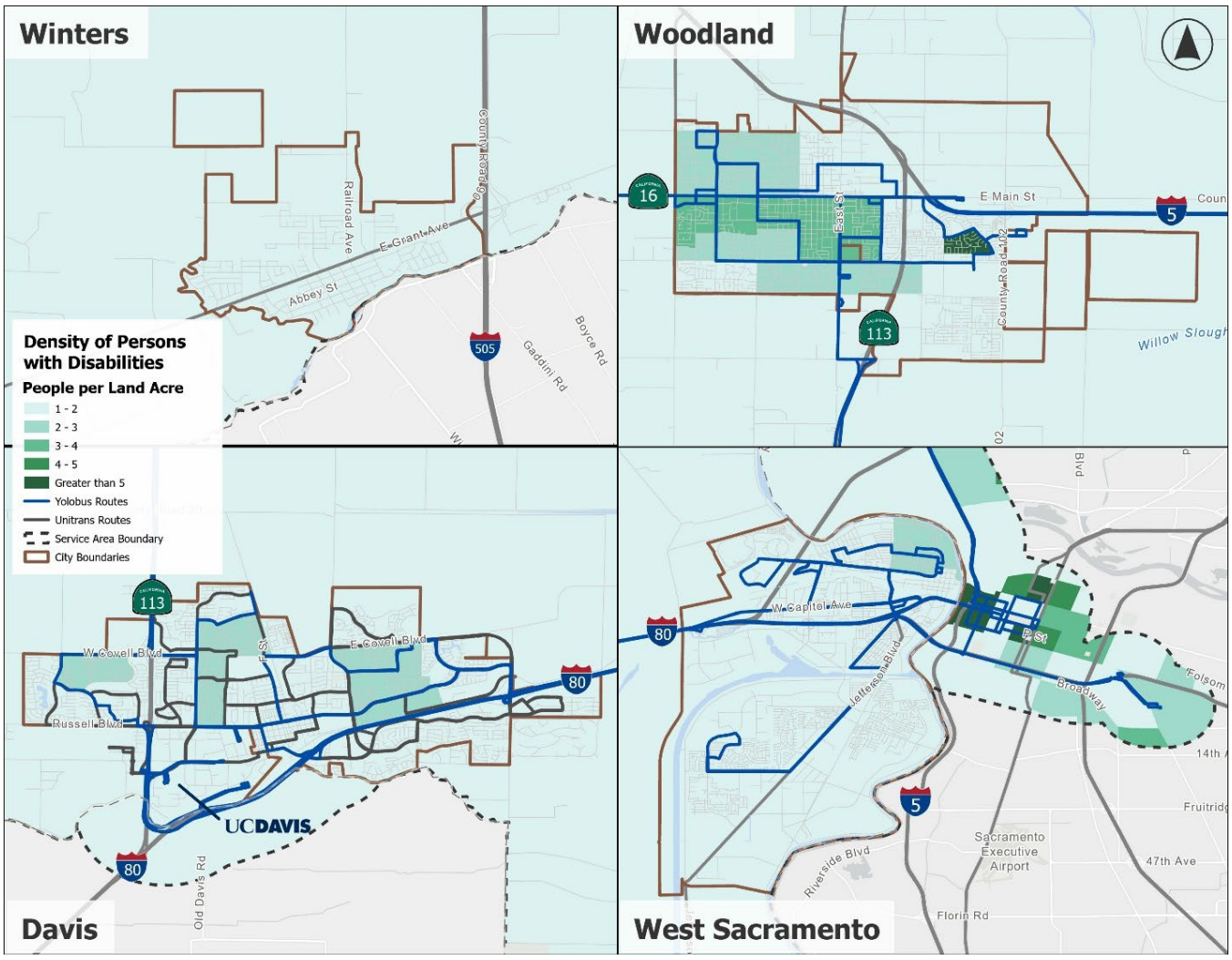
Map 11 - Density of College-Aged Residents: Winters, Woodland, Davis, West Sacramento, and Downtown Sacramento



PERSONS WITH DISABILITIES

Persons with disabilities are more likely to be reliant on transit, as they may not be able to or choose not to drive. Of people under the age of 65, 7.0 percent have a disability and 8.4 percent of respondents from the YoloTD Community Survey said they ride Yolobus Special. The density of people with disabilities is higher in Woodland than the three other major cities in the service area. Winters does not have any strong concentrations of persons with disabilities. Fixed route service is important for persons with disabilities who do not need or qualify for the additional assistance provided by Yolobus Special Paratransit Services. Shopping trips were the most popular trip purposes amongst Yolobus Special users according to the YoloTD Community Survey.

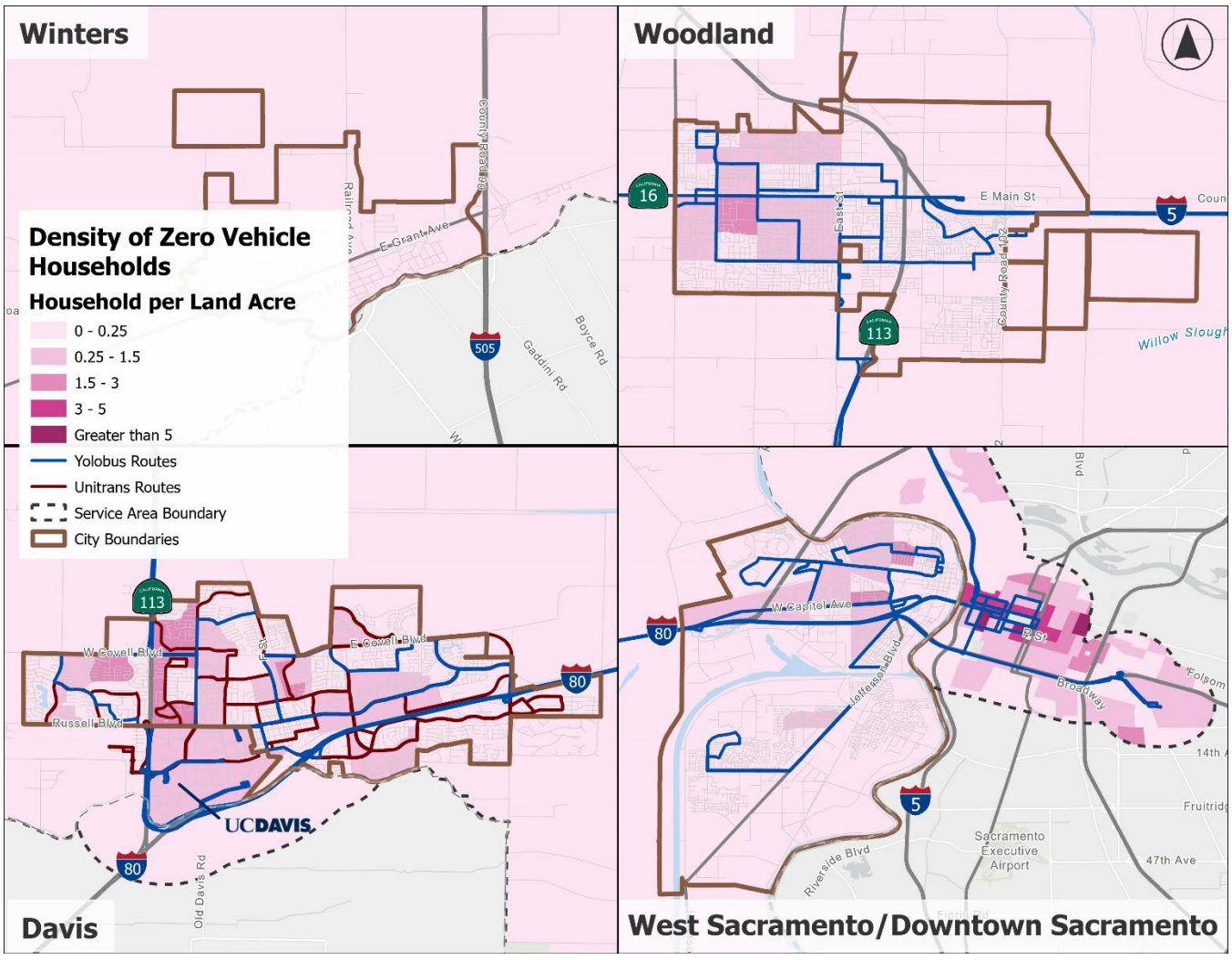
Map 12 - Density of Persons with Disabilities: Winters, Woodland, Davis, West Sacramento, and Downtown Sacramento



ZERO-VEHICLE HOUSEHOLDS

There is a very low density of Zero-Vehicle Households (ZVH) in Yolo County, only 3.6 percent of residents in the YoloTD service area live in a ZVH. The concentrations of ZVHs in Woodland are on the western side of the city. In Davis, the concentrations of ZVHs are in the area just to the north of the UC Davis campus. There are areas that stand out as having densities of ZVHs across Davis compared to Woodland, which has a large gap in the eastern part of the city. In West Sacramento, ZVHs are concentrated in the northern area of the city, with no- to low-density of ZVHs in the south of the city. The areas that have a higher density of ZVHs also have transit coverage which means YoloTD is providing access to transit trips for those who are more dependent on it. There are no strong concentrations of zero-vehicle households in Winters.

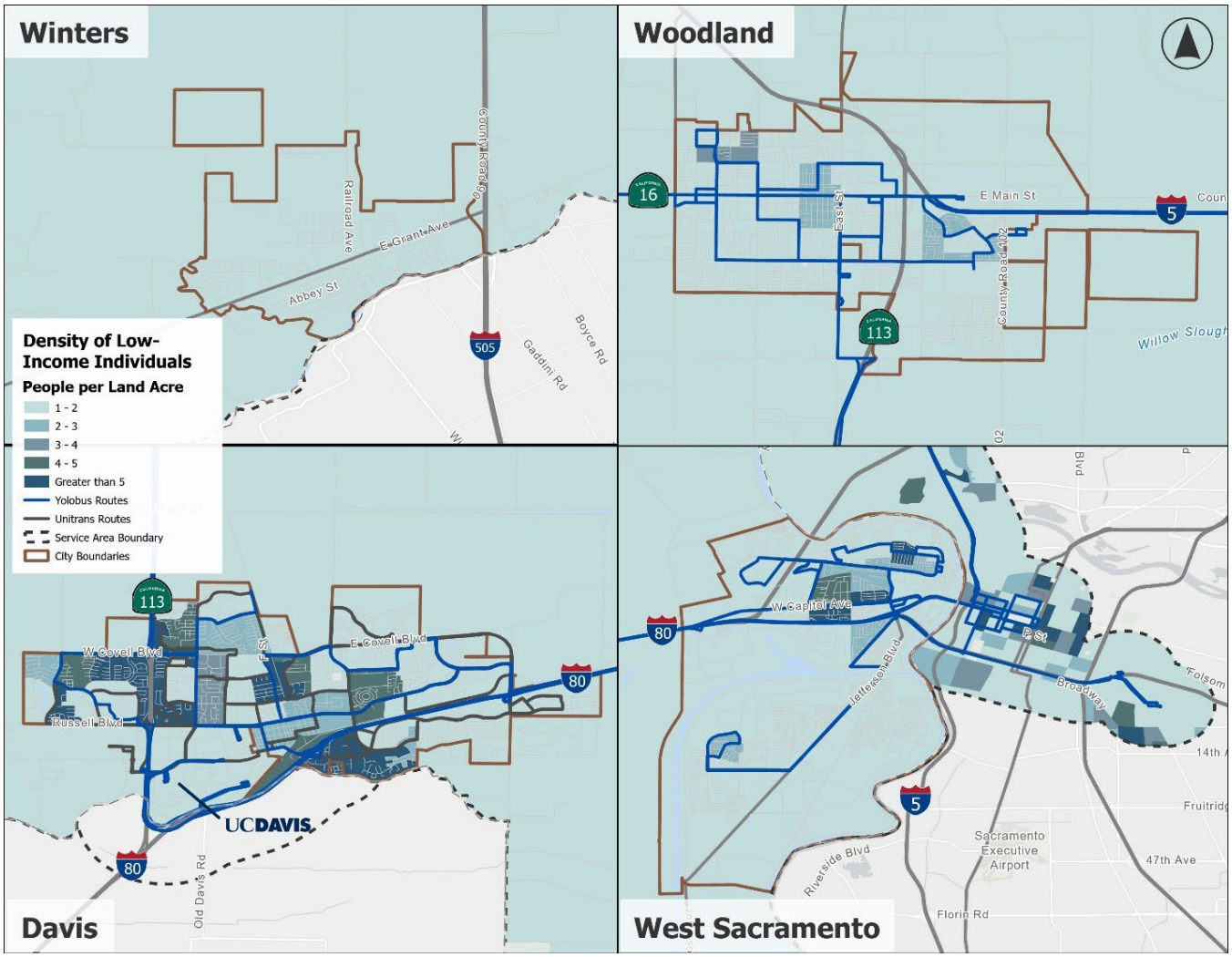
Map 13 - Density of Zero Vehicle Households: Winters, Woodland, Davis, West Sacramento, and Downtown Sacramento



LOW-INCOME RESIDENTS

Due to the financial requirements of car ownership, low-income households have lower rates of car ownership and therefore may rely on other modes, like transit, to meet all their mobility needs. The Federal Transit Administration (FTA) defines a "low-income individual" as "someone whose family income is at or below 150 percent of the poverty line," which is set by the U.S. Department of Health and Human Services (HHS).[12] Based on this definition, 15.2 percent of residents in the YoloTD service area are low-income and they are generally centered around west Davis and southeast Davis, which is where most of the student population of UC Davis are likely to live while attending the university. There are additional concentrations in the northwest part of Woodland and much of north-central West Sacramento. Based on the YoloTD Community Survey, 19.6 percent riders had household incomes under $24,000. There are no strong concentrations of low-income residents in Winters.

Map 14 - Density of Low-Income Individuals: Winters, Woodland, Davis, West Sacramento, and Downtown Sacramento

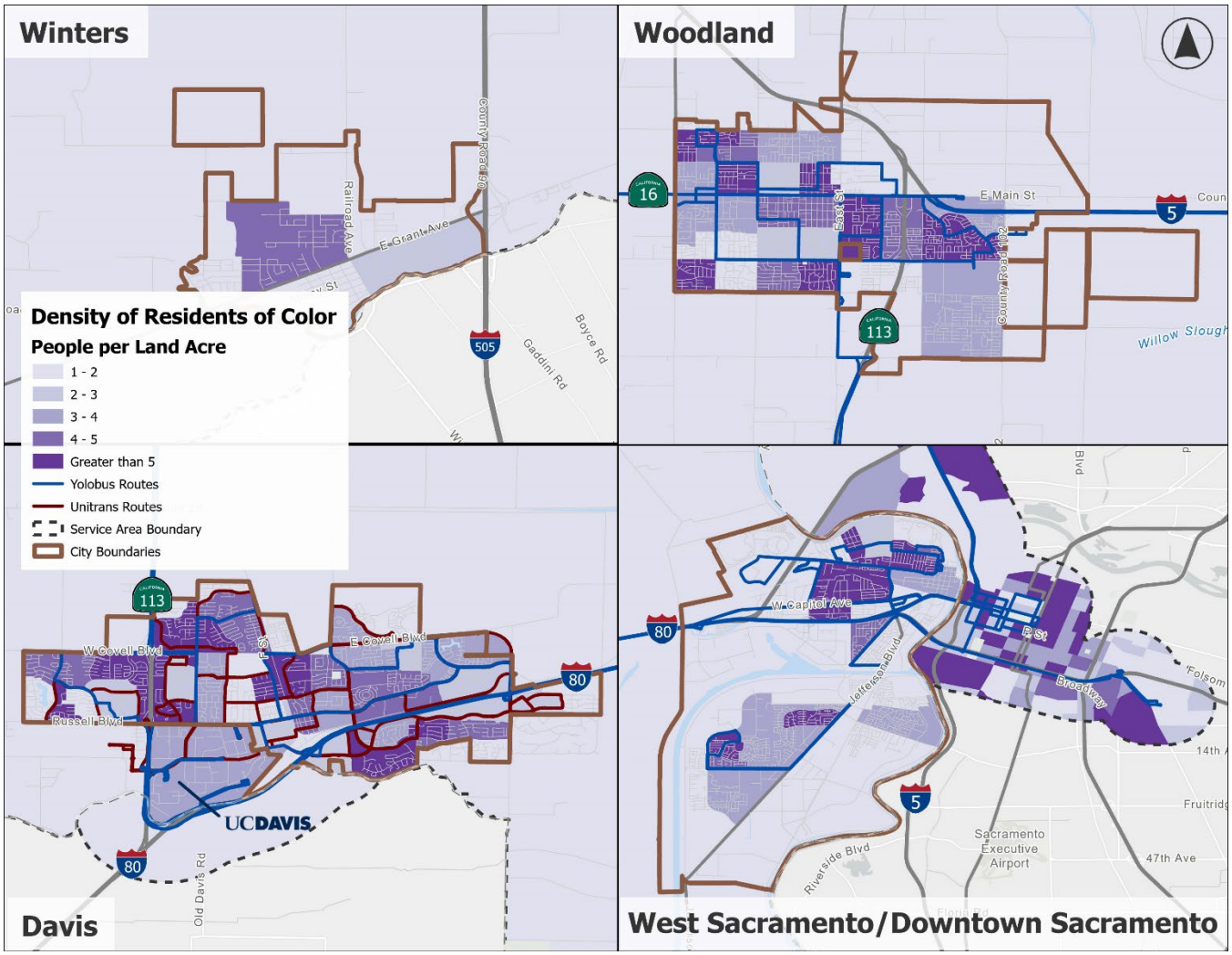


[12] The HHS 2022 Poverty Guideline was used in this analysis along with demographic data from the ACS 2022 5-year estimates. 2022 Poverty Guidelines: 48 Contiguous States

RESIDENTS OF COLOR

While identifying as a person of color is not a direct indicator of higher transit use, it is important to pay close attention to the concentration and distribution of these residents in the service area for two reasons. The first is YoloTD is committed to providing equitable transit service. The second is to ensure compliance with Title VI regulations. Title VI of the Civil Rights Act of 1964 prohibits discrimination based on race, color, or national origin by an entity that receives funding from the federal government, including transit agencies. When transit agencies make service changes, they must ensure that service changes do not disparately impact populations of color. In the YoloTD Community Survey, 43.9 percent of riders identified themselves as non-white. Yolo's residents of color are concentrated within the major cities of Davis, West Sacramento, and Woodland. These concentrations of residents of color are generally within 0.5 miles of transit service. In Winters and Woodland, BeeLine Bus service helps to ensure that all populations to transit service even if it is not necessarily fixed route service.

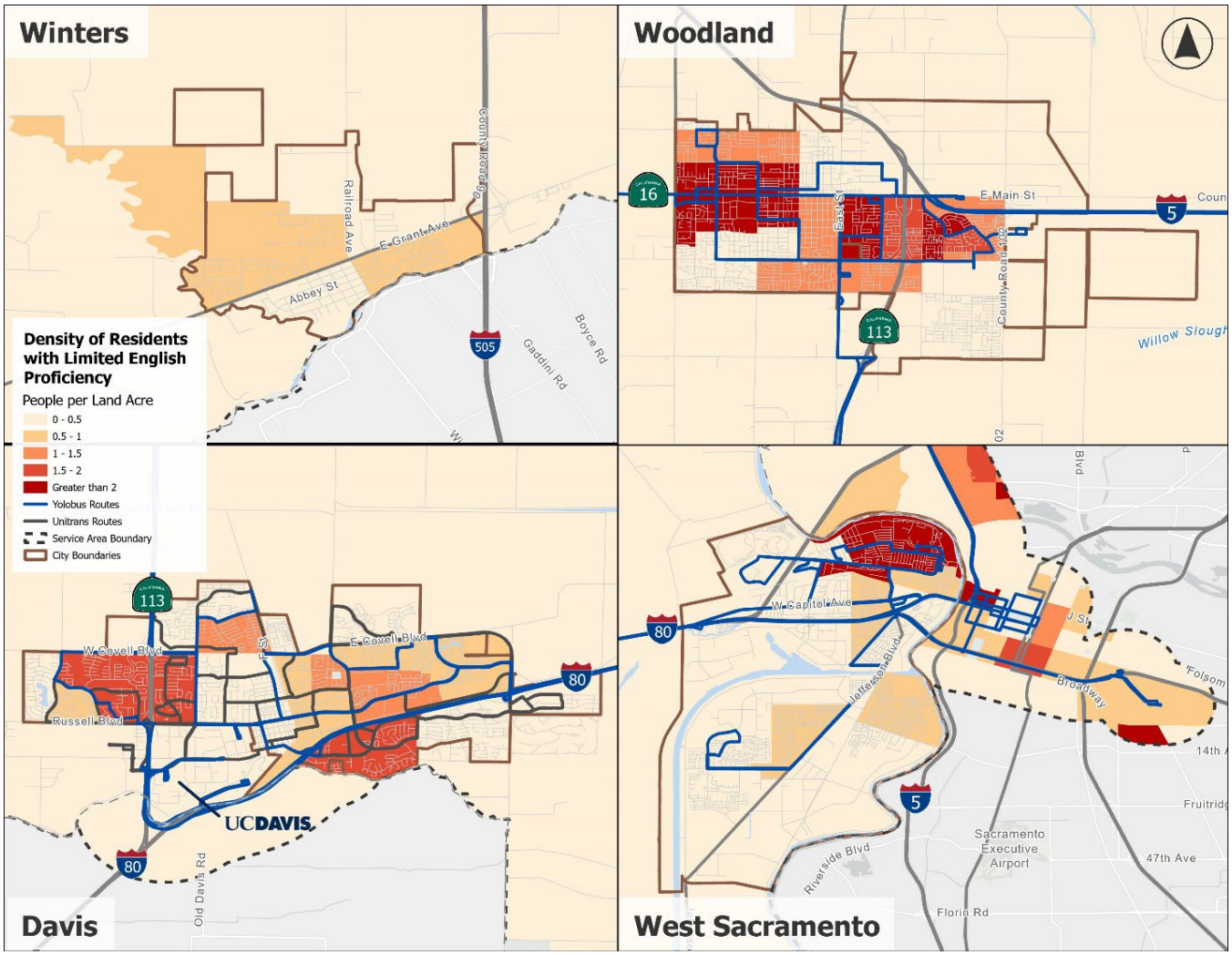
Map 15 - Density of Minority Residents: Winters, Woodland, Davis, West Sacramento, and Downtown Sacramento



PERSONS WITH LIMITED ENGLISH PROFICIENCY

Limited English Proficiency (LEP) is not necessarily an indicator of increased transit usage, but as a demographic group protected under Title VI it is important to understand where there are concentrations of people with LEP. Additionally, YoloTD outlines a Language Assistance Plan in their Title VI program which commits them to providing meaningful transit access to LEP customers. There are high concentrations of people with LEP in Woodland, especially on the western edge of the city, and in the northern part of West Sacramento. In Davis there are concentrations of persons with LEP on the west between Covell Blvd and Russell Blvd, as well as to the south of I-80. Overall,11.1 percent of residents in the YoloTD service area speak English less than very well. The primary secondary language spoken in Yolo County is Spanish.

Map 16 - Density of Residents with Limited English Proficiency: Winters, Woodland, Davis, West Sacramento, and Downtown Sacramento



Access and Equity Analysis

This analysis assesses each demographic group's relative access to YoloTD's services. Using ACS data from 2022, it is possible to determine the percent of the population of the service area within a quarter-mile and half-mile walk of a bus stop. This analysis establishes a baseline of transit access, and a goal of the SRTP will be to increase access for equity populations such as youth and young adults, seniors, minority residents, low-income residents, persons with disabilities and with limited English proficiency, and zero-vehicle households. The findings from this analysis will be used to analyze the impacts from the recommendations, by comparing transit access from the existing system to proposed transit network, which will ensure that no populations experience and disparate impact or disproportional burden.

Currently, 63.8 percent of the population is within a half-mile walk of a fixed transit stop. The only demographic group that stands out with slightly worse access to fixed route transit is persons with disabilities. However, this analysis does not consider the ADA paratransit service which is available to eligible persons with disabilities within ¾ of a mile of fixed route transit stops. It is still important to serve these populations with fixed route service when possible. Three demographic groups exceed the average of 63.8 percent within a half-mile of a bus stop, this includes college aged residents, zero-vehicle residents, and low-income residents. Most other groups are only slightly under the population average. Access to jobs from transit is very similar to the total population average

Table 1 - Percent of Population, Jobs, and Demographic Groups with Access to Transit

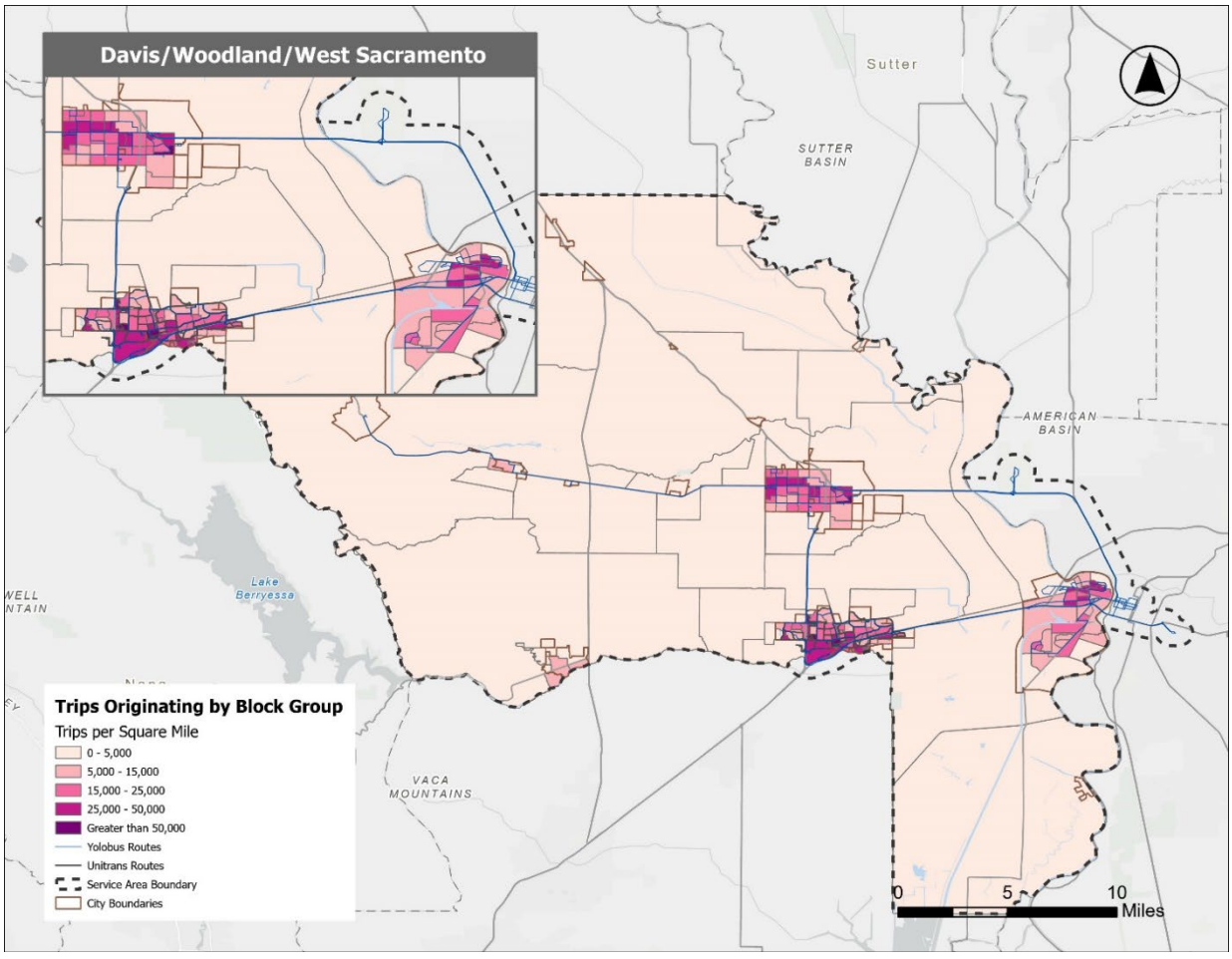
Demographic Group	Total Within YoloTD Service Area	Number Within Quarter Mile	Number Within Half Mile	Percent Within Quarter Mile	Percent Within Half Mile
Total Population	379,569	171,078	242,078	45.1	63.8
Total Jobs	20,614	8,913	13,318	43.2	64.6
Seniors	50,072	22,261	31,013	44.5	61.9
Youth	72,867	31,119	44,229	42.7	60.7
College Aged Residents	55,809	32,238	42,762	57.8	76.6
Persons With Disabilities	75,778	30,594	41,794	40.4	55.2
Zero-Vehicle Residents	13,612	8,030	12,378	59.0	90.9
Low-Income Residents	57,758	30,481	41,228	52.8	71.4
Residents of Color	170,745	76,275	108,375	44.7	63.5
Persons With Limited English Proficiency	42,240	19,169	25,583	45.4	60.6

Replica Demand Analysis

Advancements in data collection and technology have made it possible to better understand and document travel behavior. Replica, an online software program, utilizes location-based data from cell phones, credit card transaction data, US Census data, and other sources to provide comprehensive and representative databases of local travel patterns. This analysis examines regional and countywide travel patterns primarily based on Replica data from fall 2023 weekdays, excluding trips with distances less than 0.5 miles because they are unlikely to be taken on transit. The focus is to understand the demand for trips that could be captured by transit in the service area.

According to Replica, 840,000 trips took place in the service area across all modes on an average weekday in fall of 2023. The number of trips has increased since 2019 despite the COVID-19 pandemic in 2020, but the growth did slow between 2021 and 2022. In fall 2019, 734,000 trips took place in Yolo County on an average weekday, 815,000 in 2021, and 804,000 in 2022. On an average weekend day in fall 2023, 779,000 trips were made compared to only 638,000 trips in fall 2019. This is a 14.4 percent increase on weekdays and 22.1 percent on weekends. There has been a larger increase in trips on the weekends than there has been on weekdays in the region.

Map 17 - Density of Weekday Trips Originating by Block Group

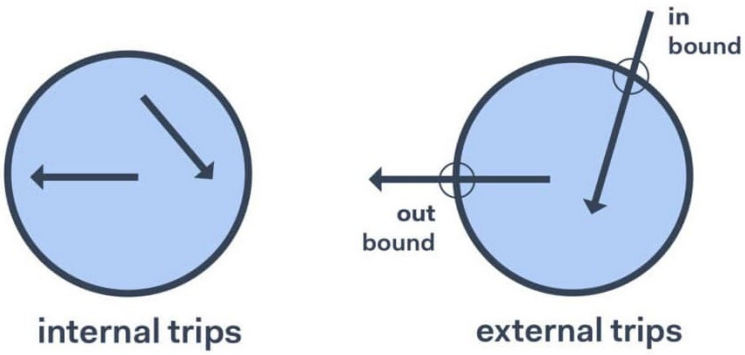


Trips originating in Yolo County, seen in Map 17, are concentrated in the three biggest cities in the county. There are some smaller densities of trips originating in Esparto and Winters as well. In Woodland, the areas around Main Street and the housing between County Road 102 and Farnham Ave stand out as key areas with trips originating. In West Sacramento, the northern part of the city, has more trips than the south. These trips are mainly coming from along W Capitol Avenue and Sacramento Avenue. In the City of Davis, the majority of trips originate from the University and areas surrounding the campus including downtown and West Davis. Additionally in Davis, the area south of I-80 on the eastern side of the city has a large density of trips originating. These densities of trips originating closely follow the population and job densities seen in the earlier sections.

INTERNAL VS EXTERNAL TRIPS

Understanding where trip demand is from different cities and census designated places (CDPs) within the service area will help YoloTD better plan routes. An internal trip is one that stays within the city or CDP, and an external trip is one that starts or ends in a different city or CDP. The external trip counts bi-directional trips, or travel in both directions. For this analysis we looked at trips in Yolo, Sacramento, and Solano Counties where either the origin or destination was a Yolo County place. For example, trips from Sacramento to Vacaville were not analyzed as this is outside of YoloTD's service area.

Figure 3 - Internal vs. External Trips[13]



Of places in the YoloTD service area that have more than 2,000 internal trips, all but Woodland have more external trips than internal trips. This makes providing regional connections very important. However, in Woodland for example, there are more trips occurring internally than externally, so ensuring that the city has transit service that serves the key destinations will be more successful. In the YoloTD service area, Woodland, Davis, and West Sacramento in that order had the most internal trips on an average weekday in fall 2023. West Sacramento, Davis, and Woodland in that order had the most external trips over the same time period.

[13] Trip trait 5: Trans-locale — the where and when of moving between zones versus moving within them

Table 2 - Internal/External Trip Count on an Average Weekday Fall 2023

City Or Census Designated Place With More Than 2,000 Internal Trips	Internal Trip Count	External Trip Count	Total Trips
West Sacramento, CA	101,784	**224,049**	325,833
Davis, CA	108,697	**162,638**	271,335
Woodland, CA	**142,610**	114,380	256,990
University of California-Davis, CA	18,439	**103,842**	122,281
Winters, CA	7,647	**15,988**	23,635
Esparto, CA	2,343	**7,981**	10,324

ORIGIN-DESTINATION PAIRS

It is important to understand not only where trips originate, but where are the strongest travel flows between cities and CDPs, origin-destination pairs (O-D pair), in the region. Map 18 below displays travel flows of bidirectional trips with over 2,000 trips per O-D pair. The strongest flows are between the City of Davis and UC Davis, Sacramento and West Sacramento, and Woodland and the City of Davis which average 133,890, 129,589 and 70,396 trips on an average weekday, respectively. Outside of these five major areas, there are strong travel flows between Davis and Dixon, between Winters and Vacaville, and between West Sacramento and Elk Grove.

Map 18 - Origin-Destination Pairs Average Weekday Fall 2023

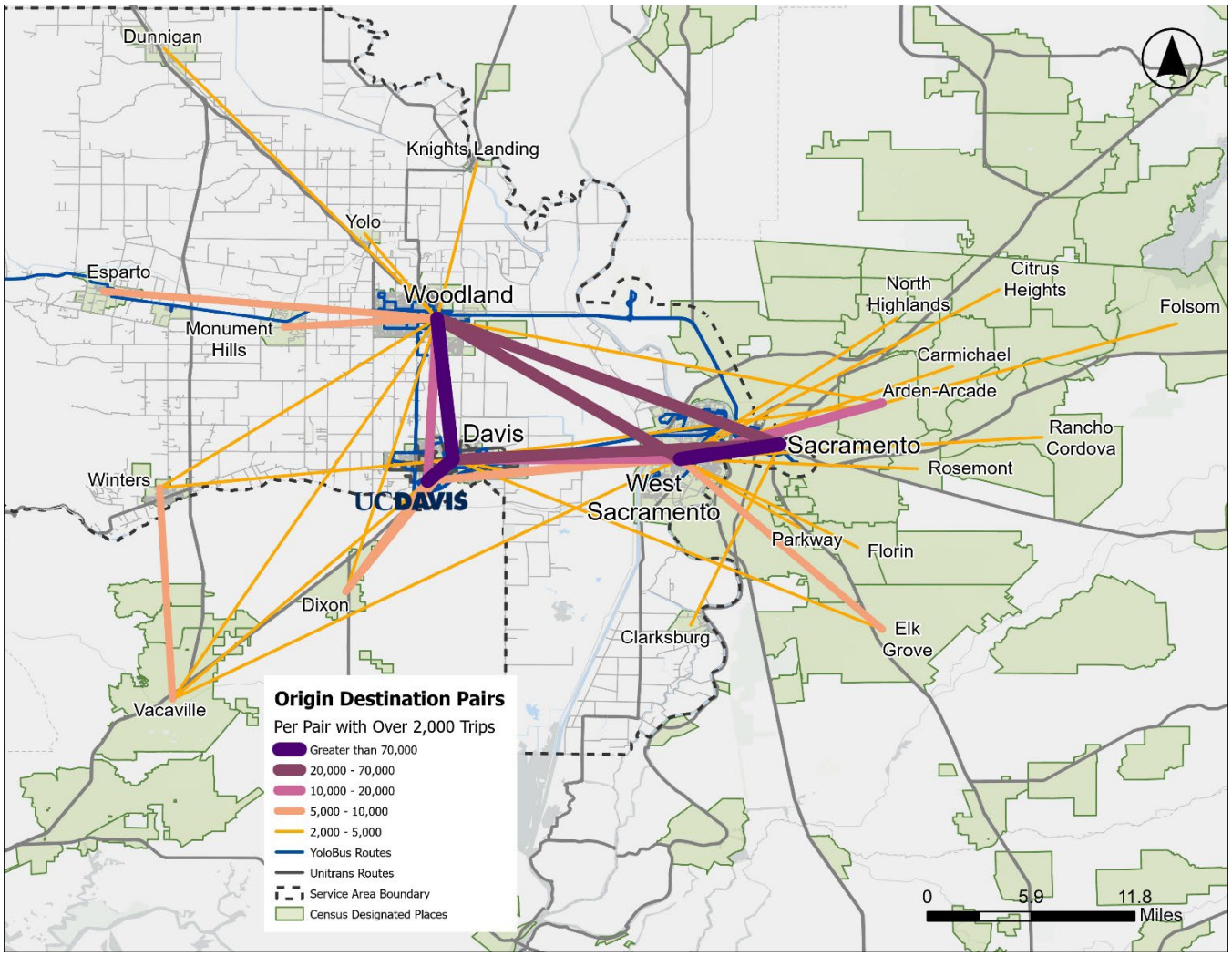


Table 3 - Top Origin Destination Trip Flows on an Average Weekday Fall 2023

Origin - Destination Pair	Total Bi-Directional Trips
Sacramento - West Sacramento	129,589
Davis - UC Davis	66,945
Davis - Woodland	35,198
Sacramento - Woodland	21,814
Davis - Sacramento	21,180
West Sacramento - Woodland	11,166
Arden-Arcade - West Sacramento	11,017
Woodland – UC Davis	9,888
Elk Grove - West Sacramento	8,506

One travel pattern that did not stand out in this analysis was travel from these three major cities to Sacramento International Airport. On an average weekday in fall 2023, there were only 446 trips between Davis and the airport, which is 42 percent reduction for the average travel demand in 2019. Trips between the airport and West Sacramento and Woodland, however, have increased to around the same amount of average weekday trips, about 1,800. Travel to the airport has grown the most between Woodland and the airport.

Table 4 - Count of Trips to and From Sacramento International Airport between Fall 2019 and Fall 2023

Bi-Directional Airport Trips	Fall 2019	Fall 2023	Percent Change
Davis	767	446	-42%
West Sacramento	1,460	1,885	+29%
Woodland	1,258	1,837	+46&

Additional analysis was also conducted to understand travel patterns to Downtown Sacramento from the major cities in Yolo County. These changes can be seen in Table 5. Travel to Downtown Sacramento was down in fall 2023 compared to 2019 from Davis and West Sacramento. The only city that experienced a growth in trips to and from downtown was Woodland.

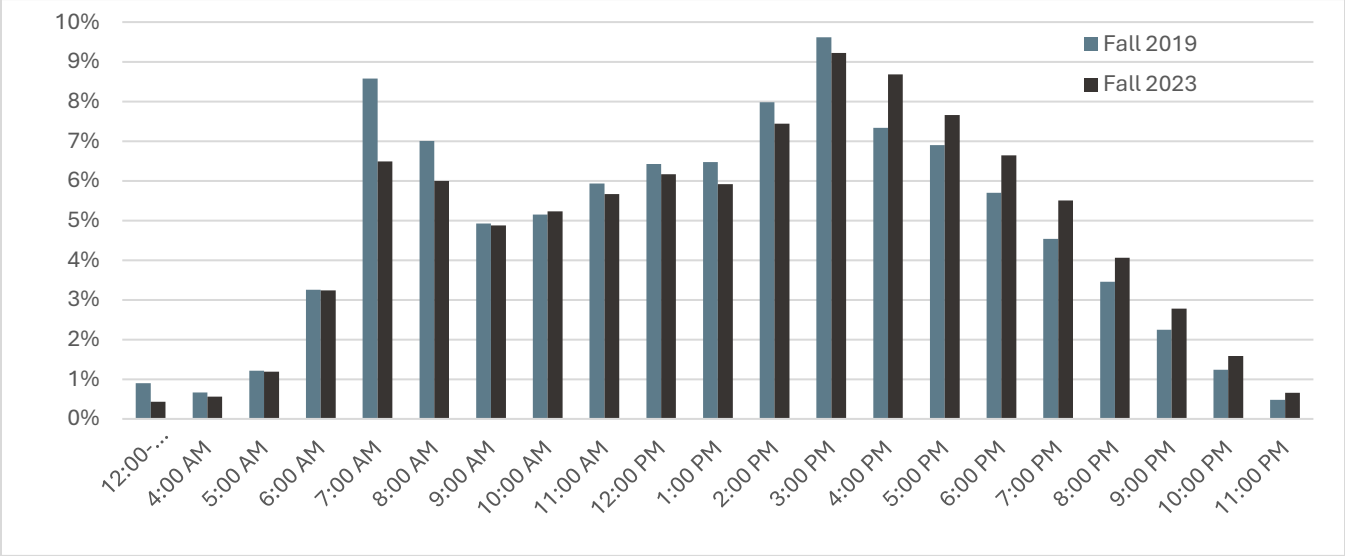
Table 5 - Count of Trips to and From Downtown Sacramento between Fall 2019 and Fall 2023

Bi-Directional Downtown Sacramento Trips	Fall 2019	Fall 2023	Percent Change
Davis	5,274	4,346	-18%
West Sacramento	21,240	20,456	-4%
Woodland	2,745	3,305	+20%

TRIPS STARTING BY TIME OF DAY

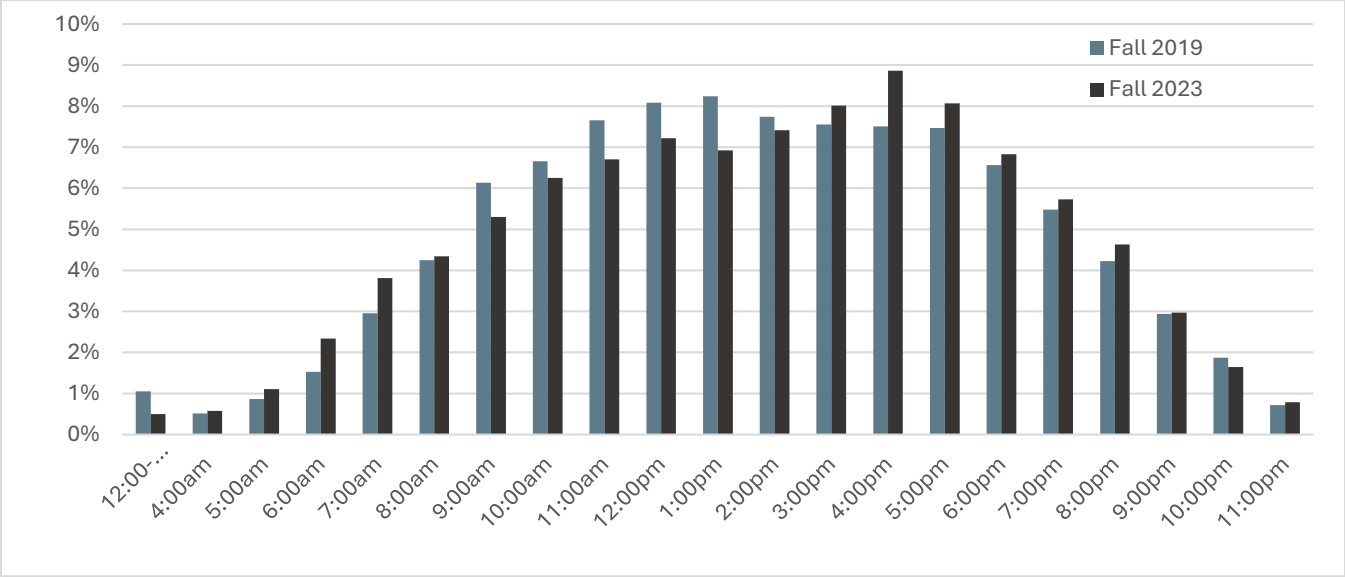
The distribution of trips by hour of the day has also changed since 2019. People are taking more trips in the afternoon and evening than in the morning, which is a change from the trip patterns from 2019. This could be due to changing work schedules with more people working from home. It is likely that those who work from home are no longer making their morning commute and then leaving the house for the first time in the afternoon and evening for recreation and errands.

Figure 4 - Comparison of Total Average Weekday Trips by Hour: Fall 2019, Fall 2023



Over the weekend trip start times have also changed since 2019. There was a lower share of trips made in the morning in the fall of 2023 than in the fall of 2019. Ensuring that weekend transit span of service hours matches this overall weekend trip demand can help YoloTD capture trips within the service area.

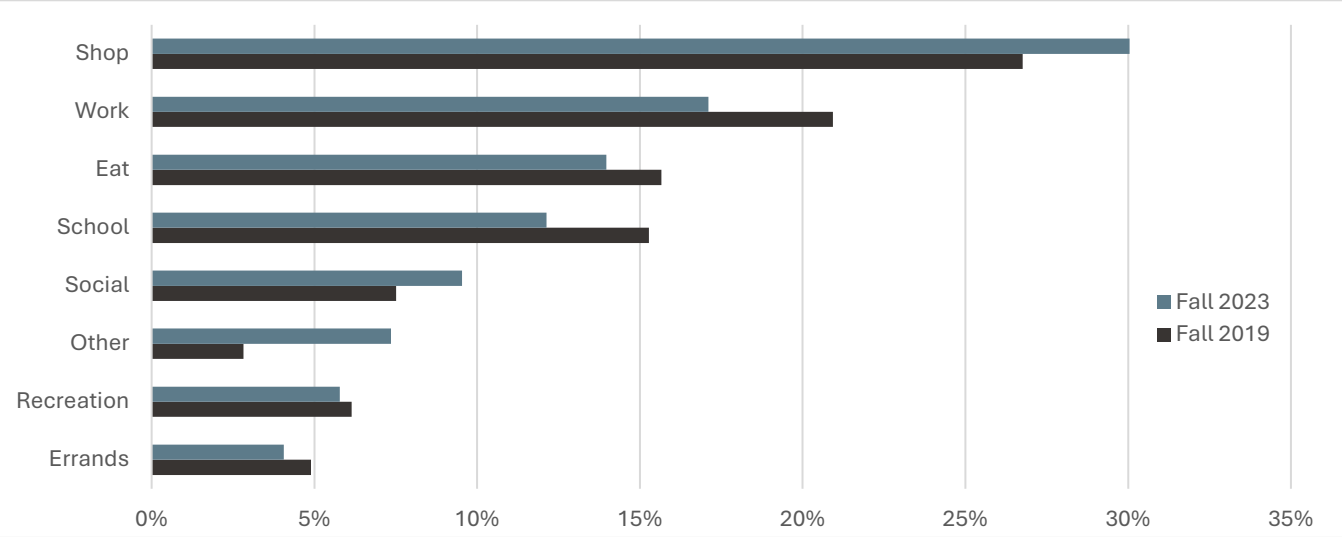
Figure 5 - Comparison of Total Average Weekend Trips by Hour: Fall 2019, Fall 2023



TRIP PURPOSE

Trip purposes in Yolo County have also changed since 2019 with people making more shopping trips and fewer trips to work. This is also consistent with the increase in remote and hybrid work schedules since the COVID-19 pandemic. Additionally, school trips are down compared to 2019; this could be due to more students being enrolled in online classes than before the pandemic. Another possibility could be that due to an increase in out-of-district transfers from Woodland, Dixon, and West Sacramento to DJSUD, school trips are getting miscounted as parent commute trips and therefore showing a decrease in travel to school.

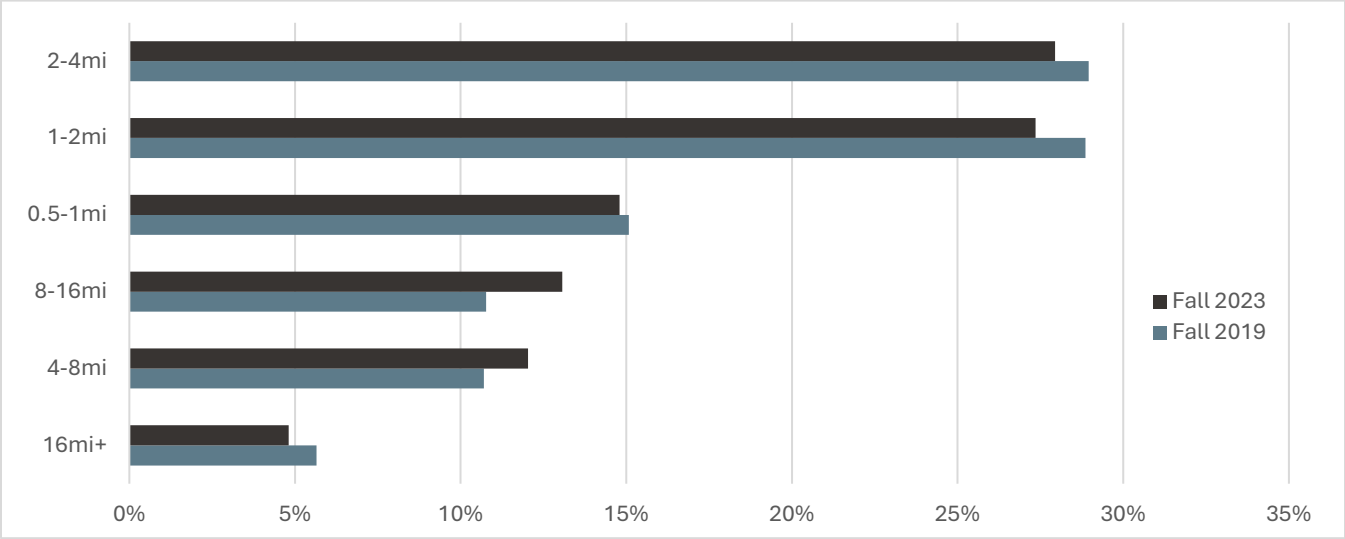
Figure 6 - Comparison of Trip Purposes between Fall 2019 and Fall 2023 - Weekday



TRIP LENGTH

Additionally, trip distances have changed with people taking more 4–16-mile trips in 2023 and fewer 1-4-mile trips compared to 2019. The most popular trip distance is 2-4 miles. Understanding these patterns and planning routes that can take riders the distances they need to travel will help YoloTD capture more travel demand for their transit services.

Figure 7 - Comparison of Trip Lengths in Miles Fall 2019 and Fall 2023 – Weekday



Transit Propensity

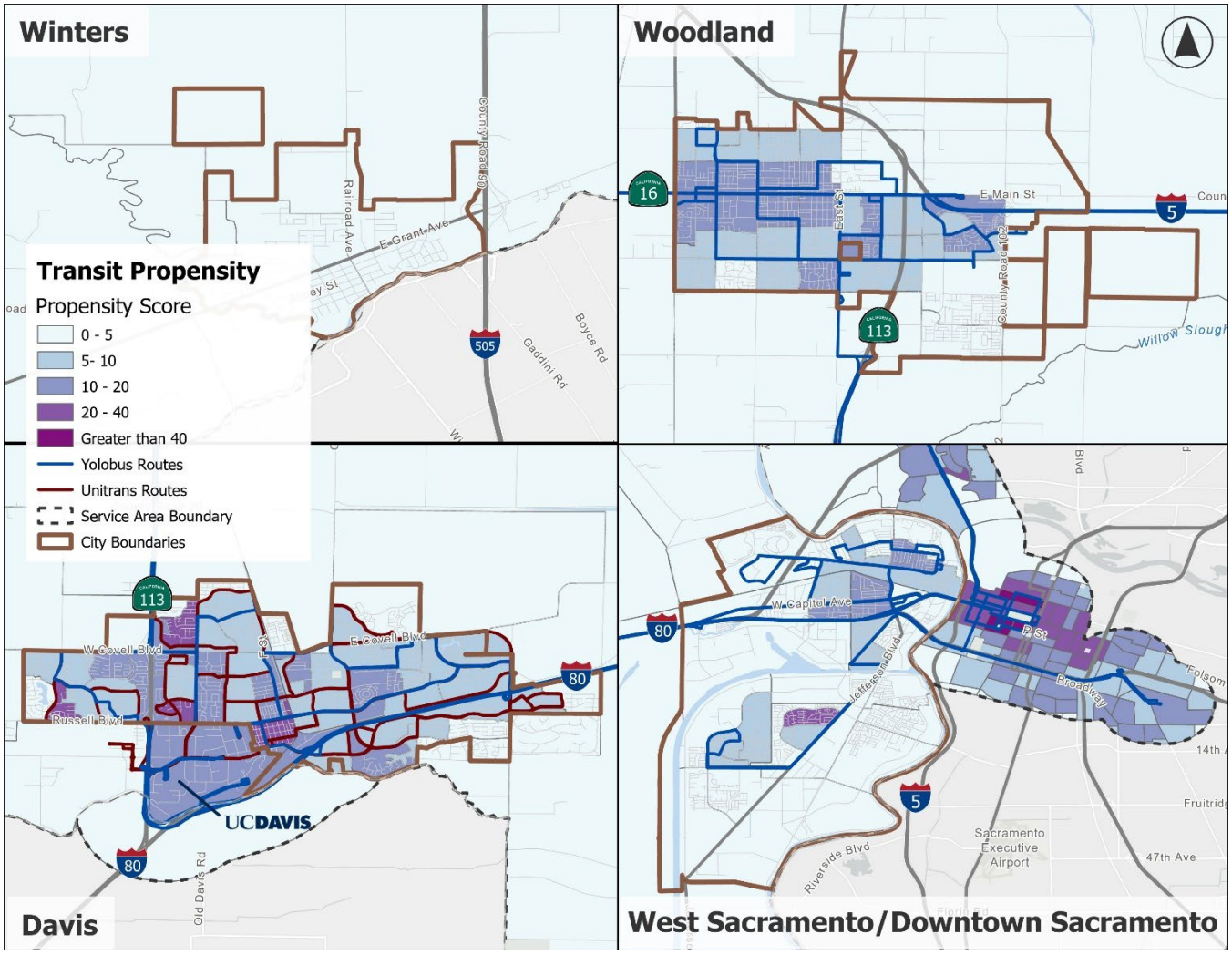
Certain populations have higher rates of transit usage. An important part of designing an effective bus network is identifying where these populations live and designing services that effectively connect them to their destinations. A "Transit Propensity" score was developed for each census block group in the YoloTD service area based on the key demographics shown in Table 4. These demographics were weighted based on how closely the variable correlated to existing fixed-route boardings. Current YoloTD ridership correlates strongly with overall trip activity and job density. Street intersection density, density of persons of color, and density of college aged residents had the lowest correlation to existing fixed-route boardings. Youth density was the only variable that had a negative correlation with current fixed-route boardings.

Table 4 - Transit Propensity Variables and Weighting

Variable	Weight	Description (Source)
Population Density	5%	Total Population (2022 ACS)
Youth Density	-2%	Under Age 18 (2022 ACS)
College Density	4%	Ages 18-24 (2022 ACS)
Senior Density	8%	Age 65+ (2022 ACS)
Low-Income Density	5%	Less than 150% Poverty Level (ACS 2022)
Density of Persons of Color	2%	Minority Residents (ACS 2022)
ZVH Density	9%	Household with Zero Vehicles (ACS 2022)
Disabilities Density	4%	Persons with Disabilities (ACS 2022)
Job Density	34%	LEHD LODES8 (2020)
Street Intersection Density	2%	US EPA Intersection Density
Weekly Trip Density	29%	Density of All Trips (Replica Fall 2023)

Areas outlined in Map 19 have demonstrated a high propensity for transit use. While much of the YoloTD service area has a low to very low need for transit, some areas have a moderate to high need for transit. The areas in YoloCounty with the highest propensity are in the City of Davis in downtown and in the neighborhoods adjacent to SR-113. There is very low need for transit in Winters and the majority of West Sacramento. There is one area of West Sacramento, between Linden Road and Higgins Road, which has high need for transit and could be better served by fixed route service. The YoloTD routes generally cover the areas with higher propensity, however some of these areas are only provided hourly bus service.

Map 19 - Transit Propensity: Winters, Woodland, Davis, West Sacramento, and Downtown Sacramento



Market Assessment Key Takeaways

- **Commuting destinations like UC Davis and offices in Sacramento are a large part of trip demand in the region.** Understanding how returning to office mandates are increasing demand for express trips will allow for better transit service planning in the region.
- **Transit routes generally serve "Most Walkable" and "Above Average Walkable" areas in Woodland and Davis.** Easy and safe access to community members' bus stops will promote the success of transit in the region.
- **The areas with the highest densities of transit reliant populations and groups that are more likely to take transit coincide with public transportation services in the area.**
- **Trip times are changing from 2019 to 2023 on both weekdays and weekends to later in the day**. Providing adequate service frequency and span to cover these trips will help YoloTD capture this unmet demand.
- **The strongest trip demand in the region is between West Sacramento and Sacramento, Davis and UC Davis, and Woodland and Davis.** Work and school trips primarily drive these travel flows. Guaranteeing that the Yolo community members can get to work and school on time will ensure a strong commuting cohort of riders.

Service Evaluation

The Existing Service Evaluation of YoloTD services seeks to provide an understanding of how users use YoloTD services and how the routes that make up the Yolobus network compare to one another. The goal is to understand the strengths of existing services and to identify opportunities for improvement, both in improving the customer experience and in improving service operations.

Yolobus

Service Design

The design of YoloTD services, including what types of services are provided, when services are provided, where they are provided, and whom they are provided to, is a key factor in how YoloTD transit services perform. This section analyzes how YoloTD provides its services and how it has changed in the recent past.

SERVICE TYPES

YoloTD operates both fixed-route bus service and two demand response services: the Yolobus Special and Yolobus BeeLine. Figure 27 shows existing YoloTD services while Table 5 highlights frequencies and spans by service and day type.

Fixed Route

Yolobus fixed route service is composed of 13 bus routes that fall into three service tiers.

- **Local:** Six bus routes provide local service within two cities: Routes 37, 40, 41, and 240 serve West Sacramento while Routes 211 and 212 serve Woodland.
- **Intercity:** Three routes provide all day service between cities in Yolo County: Route 138 (aka Causeway Connection) provides service between UC Davis and the UC Davis Medical Center in Sacramento, Route 42 A/B provides service between Woodland, Davis, West Sacramento, Sacramento and the Sacramento Airport, and Route 215 provides service between Woodland the Cache Creek Casino Resort.
- **Express:** Four express Yolobus routes provide peak hour service. Routes 43, 43R and 230 provide service between Davis and Sacramento, and Route 45 provides service between Woodland and Sacramento. Route 44 between South Davis and Sacramento is scheduled to be restored in fall of 2024.

Demand Response

YoloTD also operates two demand response services: Yolobus Special, the ADA paratransit service complementing Yolobus fixed-route service and the BeeLine, YoloTD's microtransit service.

- **Yolobus Special:** The ADA paratransit service for Yolobus fixed route service. Service is provided within a ¾ mile of Yolobus fixed route service and to select medical destinations in Sacramento and Vacaville. Service is requested by phone and must be reserved at least one day or up to seven days in advance; there is limited ability to service same-day reservations as capacity allows.
- **BeeLine:** YoloTD's microtransit serves four different communities in Yolo County. Trips are booked on demand as needed using either the BeeLine by Yolobus smartphone app or by calling a phone number. Passengers select their pickup and drop-off points at designated stops in each service area and then select when they want to ride. Service is provided in:
    - *Knights Landing:* from Knights Landing to and from Woodland and within Knights Landing
    - *Winters:* within Winters and to selected stops in Davis and Vacaville
    - *Woodland:* within Woodland to and from designated stops
    - *Yolo:* within Yolo and to and from Woodland

Map 20 - YoloTD Existing Services

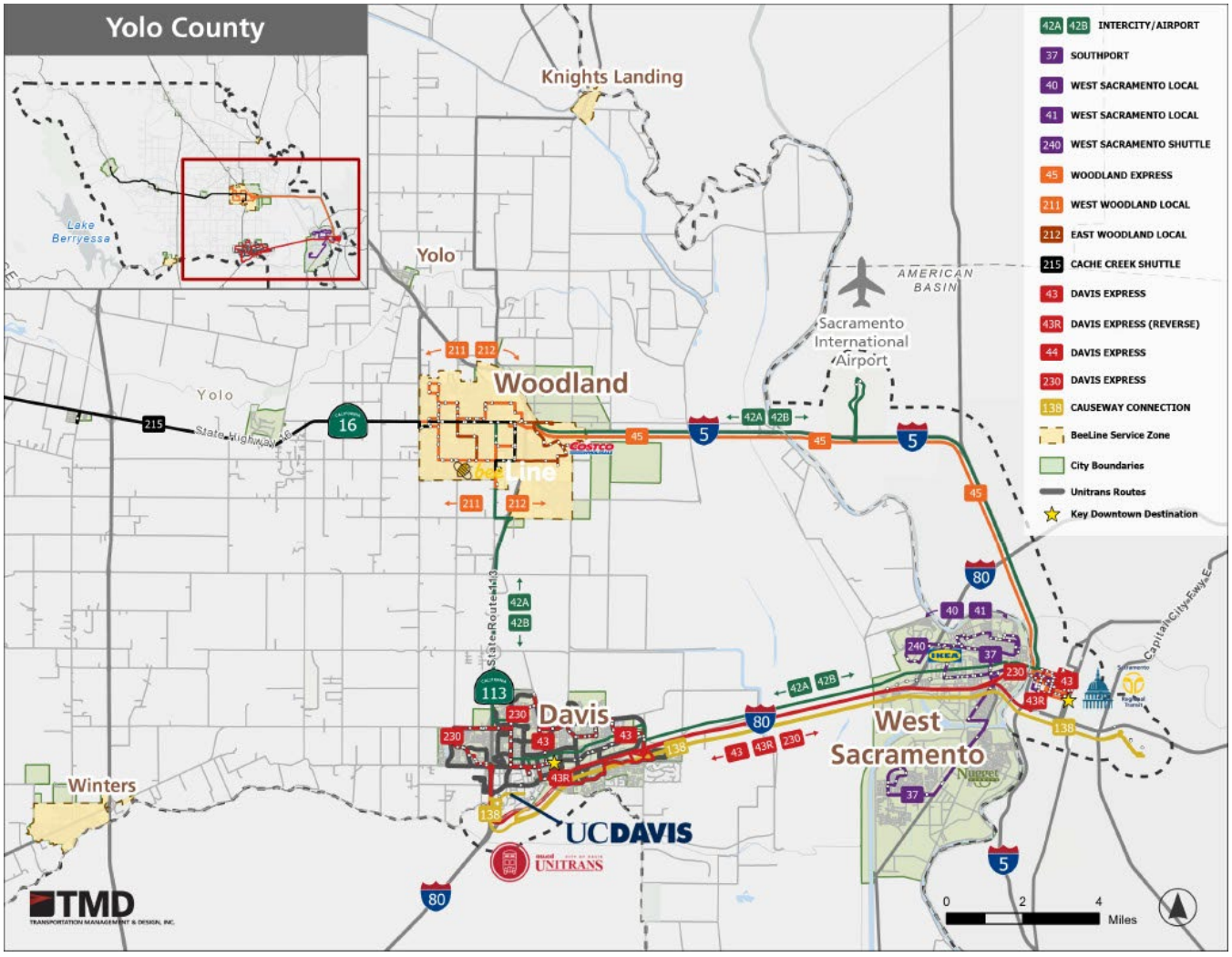


Table 5 - Yolobus Frequency and Span by Route and Day Type

Route Name	Service Type	Weekday Span	Weekday Frequency	Saturday Span	Saturday Frequency	Sunday Span	Sunday Frequency
37 Southport	Local	5:35 AM - 5:20 PM	7 AM Trips / 6 PM Trips	-	-	-	-
40 West Sacramento	Local	6:40 AM - 5:40 PM	60 min	7:40 AM - 5:40 PM	60 min	8:40 AM - 4:40 PM	60 min
41 West Sacramento	Local	6:20 AM - 5:20 PM	60 min	-	-	-	-
240 West Sacramento/ Sacramento Shuttle	Local	7:10 AM - 6:10 PM	60 min	7:10 AM- 6:10 PM	60 min	8:10 AM- 5:10 PM	60 min
211 West Woodland	Local	6:00 AM - 8:00 AM	60 min	8:00 AM - 7:00 PM	60 min	8:00 AM- 6:00 PM	60 min
212 East Woodland	Local	7:00 AM - 8:00 PM	60 min	8:00 AM - 7:00 PM	60 min	8:00 AM- 6:00 PM	60 min
138 EB Causeway Connection	Intercity	6:07 AM - 8:10 PM	60 min	-	-	-	-
138 WB Causeway Connection	Intercity	6:20 AM - 8:20 PM	60 min	-	-	-	-
42A Intercity Loop Clockwise	Intercity	5:00 AM - 10:15 PM	30 min peak/ 45 min off-peak	5:00 AM- 10:15 PM	30 min peak/ 45 min off-peak	5:00 AM- 10:15 PM	30 min peak/ 45 min off-peak
42B Intercity Loop Counterclockwise	Intercity	5:20 AM - 10:20 PM	30 min peak/ 45 min off-peak	5:20 AM- 10:20 PM	30 min peak/ 45 min off-peak	5:20 AM- 10:20 PM	30 min peak/ 45 min off-peak
215 WB Cache Creek Casino/Woodland	Intercity	5:45 AM - 9:55 PM	12 trips per day	5:45 AM- 9:55 PM	12 trips per day	5:45 AM- 9:55 PM	12 trips per day
215 EB Cache Creek Casino/Woodland	Intercity	7:07 AM - 12:07 AM	12 trips per day	7:07 AM- 12:07 AM	12 trips per day	7:07 AM- 12:07 AM	12 trips per day
43 Davis/Sacramento	Express	6:57 AM/4:33 PM	1 AM Trip/ 1 PM Trip	-	-	-	-
43R Sacramento/UC Davis	Express	7:50 AM/5:36 PM	1 AM Trip/ 1 PM Trip	-	-	-	-

Route Name	Service Type	Weekday Span	Weekday Frequency	Saturday Span	Saturday Frequency	Sunday Span	Sunday Frequency
230 West Davis/Sacramento	Express	5:59 AM/4:32 PM	1 AM Trip/ 1 PM Trip	-	-	-	-
45 Woodland/ Sacramento	Express	5:55 AM/4:35 PM	1 AM Trip/ 1 PM Trip	-	-	-	-
BeeLine – Knights Landing	Microtransit	8:30 AM – 5:30 PM	On Demand	-	-	8:30 AM – 5:30 PM	On Demand
BeeLine – Winters	Microtransit	8:30 AM – 4:30 PM	On Demand	8:30 AM– 4:30 PM	On Demand	-	-
BeeLine – Woodland	Microtransit	7:00 AM – 7:00 PM (M-Th); 7:00 AM – 11:00 PM (Fri)	On Demand	9:00 AM- 11:00 PM	On Demand	8:00 AM – 7:00 PM	On Demand
BeeLine - Yolo	Microtransit	8:30 AM – 5:30 AM	On Demand	-	-	8:30 AM – 5:30 AM	On Demand

FARE STRUCTURE

Fares for YoloTD services depend on the age of the user, the service being used, and disability status.

Age/Disability Tiers

- **Under 18:** Riders aged 18 and under can use fixed-route services (Yolobus Local, Express, and Intercity services) free of charge.
  - **Regular:** Riders between the ages of 19 and 61 are charged regular fares for services.
- **Senior:** Riders aged 62 years and older are provided with a discounted fare on Yolobus fixed route and Yolobus BeeLine services.
- **Disabled:** Disabled riders pay the same discounted fare as senior pricing, for Yolobus fixed route and Yolobus BeeLine Service. To meet disabled criteria riders must show a Sacramento Regional Transit District (SacRT) Disabled Photo ID, a Medicare Card, or another discount ID issued by another transit agency.

Fare by Service Type

Fares vary by the type of service being used. Table 6 shows single ride fares by service type.

Table 6 - Fares by Service Type, Single Ride

Service Type	Youth (18 and Under)	Regular (19-61)	Senior/Disabled
Fixed-Route			
Local Route	Free	$2.00	$1.00
Intercity Route	Free	$2.25	$1.00
Express Route	Free	$3.25	$1.50
BeeLine			
Knights Landing/Yolo	$2.00	$2.00	$1.50
Winters	$2.00	$2.00	$1.50
Woodland	$3.00	$3.00	$1.50
Yolobus Special			
Local			$4.00
Intercity			$4.50
Premium			$6.00

Fare Passes

YoloTD riders can use one of three passes for YoloTD services, along with options for passes that work on both YoloTD and SacRT services. Monthly and daily passes are only available for Yolobus fixed-route services. Pass types and prices can be found in Table 7.

Table 7 - YoloTD Passes by Service Tier

Pass Type	Regular Price	Senior/Disabled Price
Local Monthly Pass	$84.00	$42.00
Intercity Monthly Pass	$93.50	$42.00
Express Monthly Pass	$121.00	$42.00
Daily Pass SacRT + Yolobus	$7.00	$3.50
Monthly Pass SacRT + Yolobus	$100.00	$50.00

Fare Media

Yolobus accepts the following fare media:

- **Cash**
- **Connect Card:** The Sacramento region's electronic transit fare payment system. It is accepted by most transit agencies in the Sacramento region.
- **ZipPass:** The ZipPass is a smartphone app that allows users to purchase fares for both Yolobus and SacRT. Users can also purchase Yolobus Special fares on the app.

The following passes are good for unlimited rides on Yolobus:

- UC Davis Aggie Card
- UC Davis Extension International Program ID
- Sacramento State Student ID
- Los Rios Student Access Card
- South Natomas TMA Pass
- Sacramento County DHA Pass

Transfer Policy

Passengers wishing to transfer from Yolobus service must purchase a transfer, which is good for two hours. Transfers cannot be used to purchase a round trip. The costs for transfers within the Yolobus system can be found in Table 8.

Table 8 - Interagency Yolobus Transfer Prices

Transfer from Yolobus to:	Regular	Senior/Disabled
To Yolobus Non-Express	$0.25	$0.25
To Yolobus Express	$1.00	$0.50

Yolobus accepts transfers to and from the following services.

- **Unitrans:** Unitrans' service is free to riders with valid Yolobus Passes. Yolobus accepts Unitrans passes and transfers as valid fare payment within the City of Davis only on Route 42A, 42B, and any Unitrans route temporarily operated by Yolobus.

- **Amtrak - Capital Corridor:** Yolobus accepts Capitol Corridor transfers for one-way trips through the month and date punched on the transfer. Not accepted on Express or Special Service routes.
- **SacRT:** Yolobus and SacRT do not have transfer reciprocity, but riders are able to buy daily and monthly passes that can be used on both services.

OTHER TRANSIT PROVIDERS

In addition to Yolobus, Unitrans provides bus service in and around UC Davis and the City of Davis. Yolobus services also connect to SacRT services in downtown Sacramento.

SERVICE CHANGES SINCE THE 2019 COA

Several service changes have occurred since the 2019 COA[14] that have significantly impacted the Yolobus system, which are summarized in Table 9. Fifteen routes have been discontinued, including most rural service, two local routes in Woodland and several peak-oriented commuter services. A number of rural fixed routes have been replaced by BeeLine microtransit service. The remaining peak hour express routes, 43, 43R, 230, and 45 have reduced trips to one per weekday in each direction, although some service is now being restored including a planned restoration of Route 44.

Some expansion service has occurred since the 2019 COA. Since the last COA, BeeLine microtransit service was introduced in Woodland, Knights Landing, Winters, and Yolo. New routes have also begun operation including Route 37 and Route 138. Frequency has also increased on Routes 42A and 42B with service increasing from hourly service to 30-minute peak and 45-minute off-peak service throughout the week. Details on all service changes since the last COA can be found in Table 10.

Table 9 - Summary of Service Changes Since Last COA

Service Change	Number of Changes
Discontinued Routes	15
New Routes including microtransit	6
Reduced Span	7
Increased Span	1
Reduced Frequency	3
Increased Frequency	1

Table 10 - Yolobus Service Changes Since Last COA by Route

Route	Service Type	2019 Frequency	2024 Frequency	2019 Span	2024 Span
35 - Southport	Local	60	Discontinued	6:30AM-8:30PM	Discontinued

[14] The 2019 COA made recommendations based on the network that was in place prior to the COVID-19 Pandemic. An addendum was added and issued in 2021 to reflect changes implemented at the outset of the Pandemic.

Route	Service Type	2019 Frequency	2024 Frequency	2019 Span	2024 Span
40 – West Sacramento	Local	60	60	5:40AM-10:30PM	6:40PM-5:40PM
41 – West Sacramento	Local	60	60	6:20AM-8:10PM	6:20AM-5:20PM
42A – Intercity Loop CW	Intercity	60	30 peak/45 off peak	4:37AM-11:43PM	5:00AM-12:10AM
42B – Intercity Loop CCW	Intercity	60	30 peak/45 off peak	5:51AM-11:01PM	5:20AM-12:05AM
210 – West Woodland (CCW Loop)	Local	60	Discontinued	7:00AM-6:50PM	Discontinued
211 – West Woodland (CW Loop)	Local	60	60	6:00AM-8:50PM	6:00AM-8:50PM
212 – East Woodland	Local	60	60	7:00AM-8:50PM	7:00AM-8:50PM
214 – East Woodland (CW Loop)	Local	60	Discontinued	6:00AM-6:45PM	Discontinued
215 – Cache Creek Casino/Woodland	Intercity	10 Peak/60 Min	10 Peak/60 Min	4:55AM-1:55AM	5:45AM-12:55AM
216 – Knights Landing/Woodland	Intercity	1 Trip	Discontinued	9:22AM/2:27PM	Discontinued
217 – Dunnigan /Zamora /Yolo /Woodland	Intercity	1 Trip	Discontinued	8:50AM/2:15PM	Discontinued
220 – Davis/ Winters/ Vacaville	Intercity	3 trips	Discontinued	7:51AM-5:02PM	Discontinued
240 - West Sacramento/Sacramento Shuttle	Local	60	60	5:30AM-7:50PM	7:10AM-7:00PM
39 - Southport	Commute	8 Trips	Discontinued	5:35AM-6:37PM	Discontinued
220C – Winters/UC Davis	Commute	2 trips	Discontinued	6:54AM-5:02PM	Discontinued
241 – West Sacramento	Commute	4 trips	Discontinued	6:58AM-5:33PM	Discontinued
242 – Woodland/Davis	Commute	2 trips	Discontinued	6:54AM-5:13PM	Discontinued
243 – Woodland/UC Davis	Commute	2 trips	Discontinued	7:45AM-5:48PM	Discontinued
43 – Davis/Sacramento	Express	10 trips	2 trips	6:08AM-6:06PM	6:57AM-4:33PM
43R – Sacramento/UC Davis	Express	2 trips	2 trips	7:01AM-5:10PM	7:50AM-5:36PM
44 – South Davis/Sacramento	Express	6 trips	Discontinued	6:04AM-6:15PM	Discontinued
45 – Woodland/ Sacramento	Express	8 trips	2 trips	5:55AM-6:17PM	5:55AM-4:35PM
45X – Woodland/ Sacramento	Express	2 trips	Discontinued	7:00AM-5:35PM	Discontinued
46 – Woodland/ Sacramento	Express	2 trips	Discontinued	6:45AM-4:20PM	Discontinued
230 – West Davis/Sacramento	Express	6 trips	2 trips	5:59AM-6:11PM	5:59AM-4:32PM
232 – Davis/Sacramento	Express	2 trips	Discontinued	6:34AM-5:33PM	Discontinued
37 - Southport	Local	New route	40 peak only	-	5:59AM-5:20PM

Route	Service Type	2019 Frequency	2024 Frequency	2019 Span	2024 Span
138 EB – Causeway Connection	Intercity	New route	60	-	6:07AM-8:10PM
138 WB – Causeway Connection	Intercity	New route	60	-	6:20AM-8:20PM

Yolobus Service Performance

RIDERSHIP

System Level Ridership

In 2019, prior to the COVID-19 pandemic, Yolobus services carried 1.2 million passengers annually. Figure 8 shows monthly ridership across all Yolobus routes from January 2019 to March 2024, Figure 29 shows annualized ridership from 2019 to 2023. The pandemic has had a significant impact on ridership, with ridership declining to a low of 527,000 passengers in 2020. Ridership has since recovered somewhat reaching a post-COVID high of 680,000 in 2022. Ridership recovery reversed somewhat in 2023 in which ridership only reached 594,000. Significant to the ridership decline in 2023 is low ridership in May, October, and November during which ridership was on average 17,000 riders lower than during the same time period in 2022. In 2024, ridership increased somewhat during March and April compared to 2023.

Figure 8 - Yolobus Fixed Route Monthly Ridership, January 2019 - March 2024

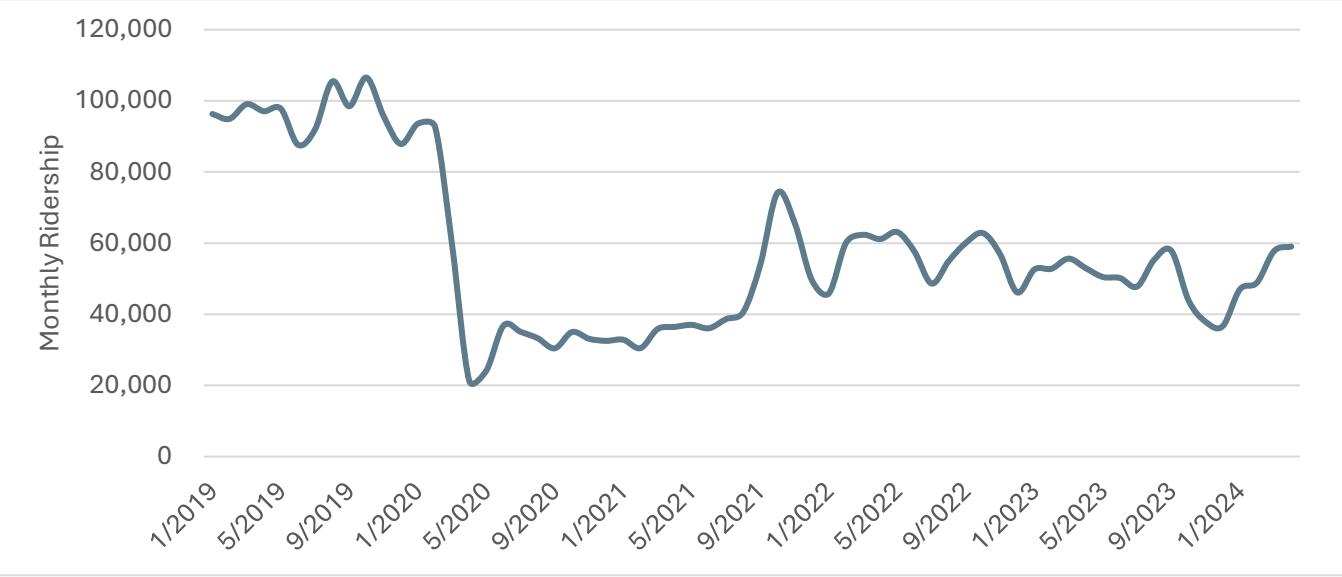


Figure 9 - Yolobus Fixed Route Annual Ridership

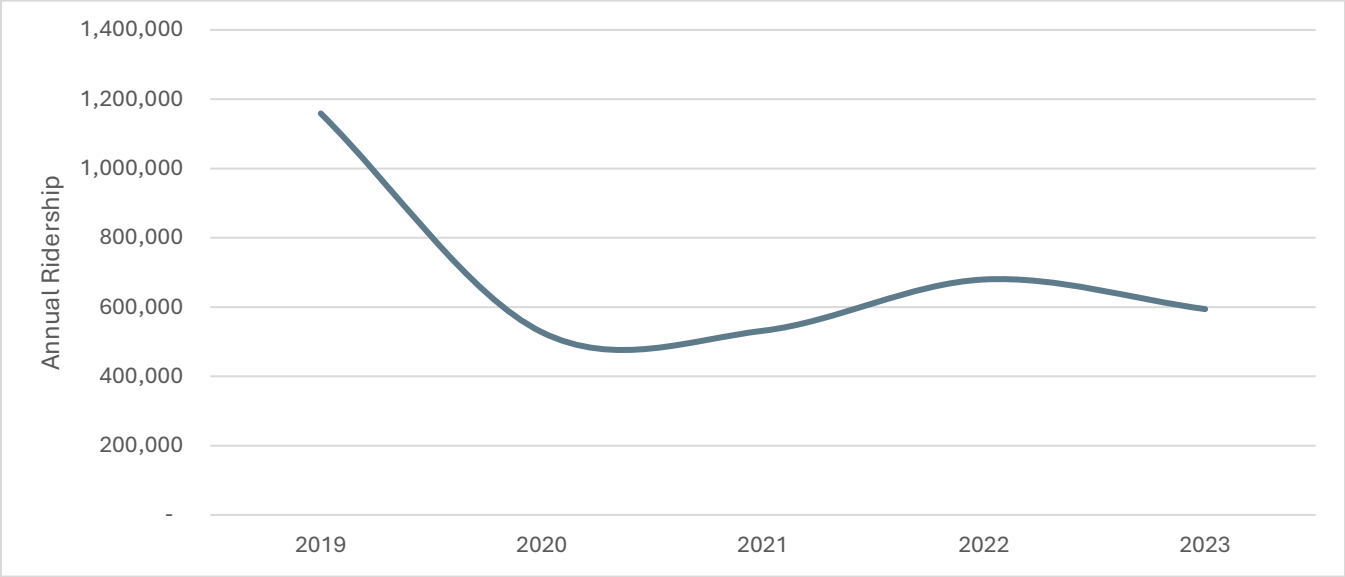
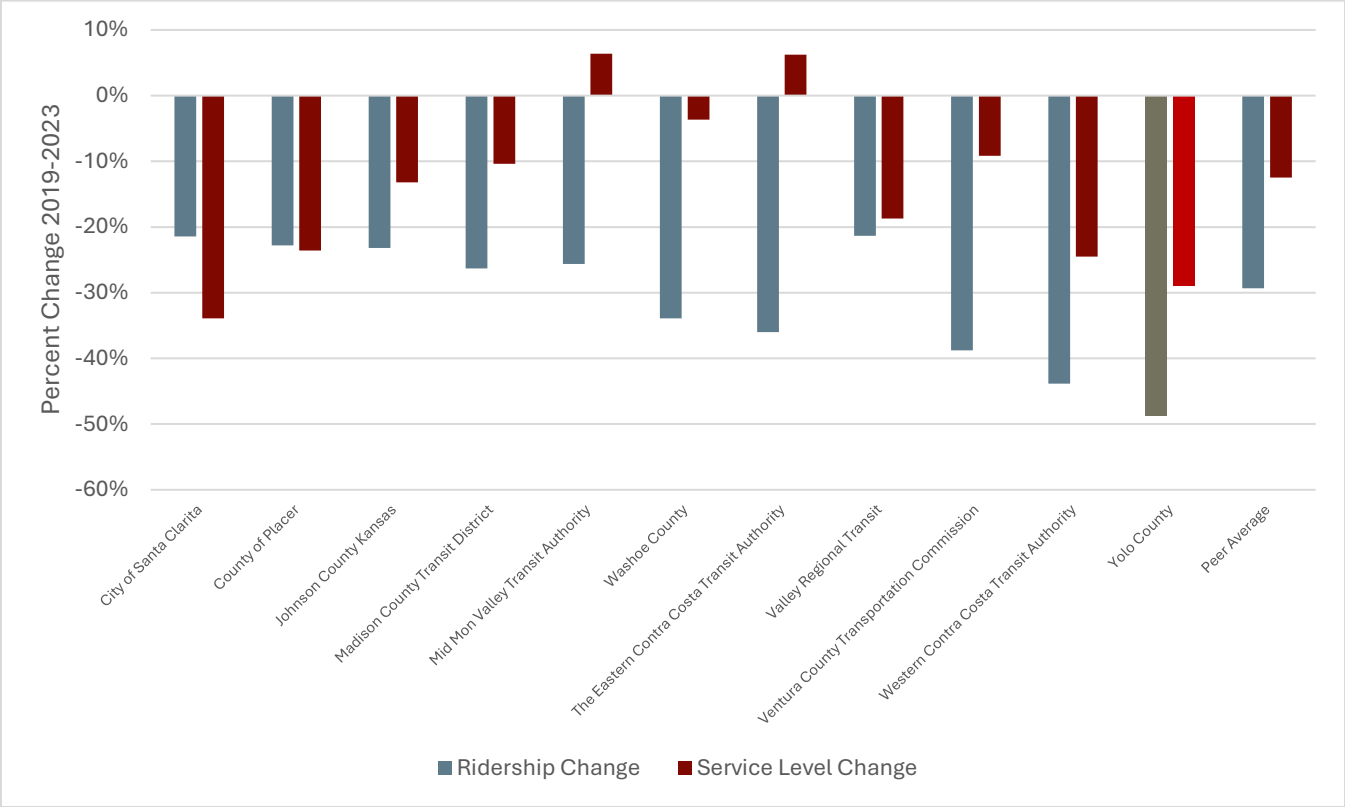


Figure 10 shows that Yolobus Fixed Route saw both above average ridership loss and service level declines when compared to peer agencies with ridership declining 49 declined between 2019 and 2023, compared to a peer average of a 29 percent decline. The decline in Yolobus service levels has had a significant impact on ridership declines: Yolobus fixed route revenue hours declined by 29 percent between 2019 and 2023 compared to a peer average decline of 12 percent.

As analyzed later in this document (Figure 22) BeeLine microtransit service has replaced some Yolobus fixed route service, including Routes 211, 212, 216, and 220, meaning that some fixed route ridership has migrated to microtransit. There were approximately 25,000 BeeLine boardings in 2023.

Figure 10 - Change in Ridership and Revenue Hours for YoloTD and Peer Agencies Fixed Route Services, 2019-2023



Route Level Ridership

The majority of Yolobus riders use two routes, Routes 42 (A and B) and 215. In FY 2023, these two routes carried 73 percent of Yolobus ridership. Route 42 carried 302,000 passengers in FY 2023, while Route 215 carried 168,000 passengers. Ridership is significantly lower on other routes with the next highest ridership occurring on Route 212, which carried 30,100 passengers in FY 2023. Several other routes carried between 20,000 and 30,000 annual passengers including Route 240 (29,000 passengers), Route 211 (26,300 passengers), and Route 40 (21,500 passengers). The lowest ridership routes still operating are express routes Route 43 (6,200 passengers), Route 45 (3,300 passengers), and Route 230 (2,400 passengers) that each provide a single round trip per weekday.

Figure 11 - Annual Ridership by Route FY 22-23

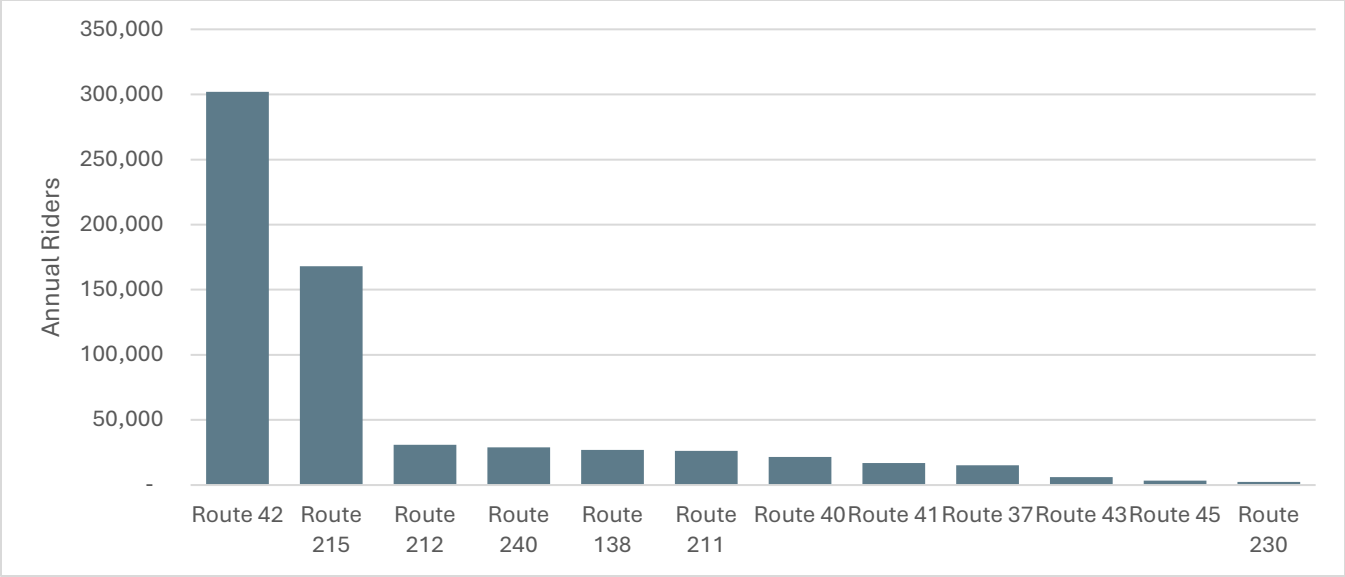


Figure 11 shows that several routes have ridership that has almost recovered to FY 2019-2020 levels, particularly the two highest ridership routes. In FY 2023, Routes 42 A and B (Route 42) carried 92 percent of the riders it carried in FY 2020; ridership recovery on Route 42 is due to natural return of demand post-COVID and public response to increased service levels. Route 215 carried 93 percent of the riders it carried in FY 2020. Route 212 has also recovered a significant portion of its ridership, carrying 97 percent of its FY 2020 ridership. Express routes fared the worst in ridership recovery, Routes 43, 45, and 230 are only carrying between 13 to 14 percent of their FY 2020 ridership. Low ridership recovery on these can be due to both a collapsing demand in peak-hour trips to Sacramento and significantly reduced service levels on these routes.

Figure 12 - Annual Ridership by Route FY 19-20, FY 22-23

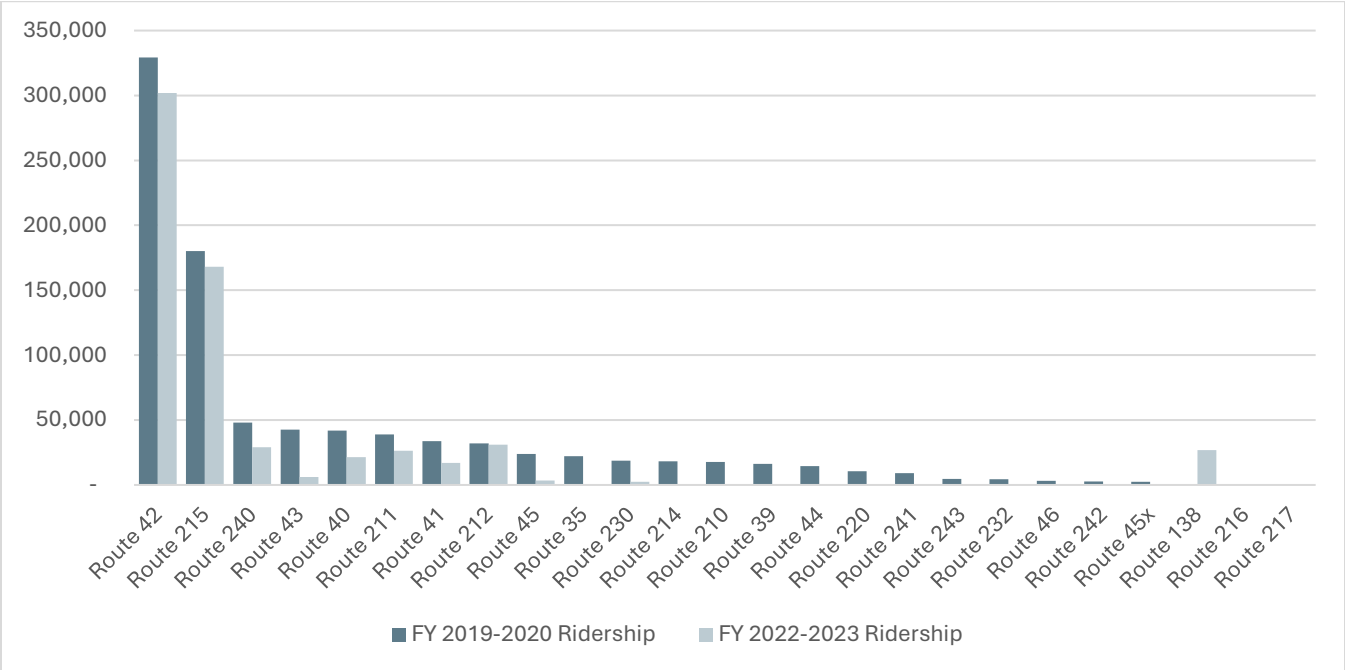


Table 11 - Yolobus Route Ridership FY 2019-2020 and FY 2022-2023

Route	Route Type	Route Description	FY 2019-2020 Ridership	FY 2022-2023 Ridership	Ridership Change
Route 42	Intercity	Intercity Loop	329,382	301,983	-8.3%
Route 215	Intercity	Cache Creek Casino/Woodland	180,102	168,091	-6.7%
Route 240	Local	West Sacramento/Sacramento Shuttle	47,987	28,982	-39.6%
Route 43	Express	Davis/Sacramento Express	42,714	6,162	-85.6%
Route 40	Local	West Sacramento Local	41,937	21,478	-48.8%
Route 211	Local	West Woodland Local	38,817	26,284	-32.3%
Route 41	Local	West Sacramento Local	33,721	16,976	-49.7%
Route 212	Local	East Woodland Local	31,980	30,998	-3.1%
Route 45	Express	Woodland/Sacramento Express	23,967	3,334	-86.1%
Route 35	Local	Southport Local	22,255	Discontinued	-
Route 230	Express	West Davis Sacramento Express	18,775	2,364	-87.4%
Route 214	Local	East Woodland Local	18,198	Discontinued	-
Route 210	Local	West Woodland Local	17,829	Discontinued	-
Route 39	Commute	Southport/Sacramento Commute	16,238	Discontinued	-
Route 44	Express	South Davis/Sacramento Express	14,391	Discontinued	-
Route 220	Commute	Davis/Winters/Vacaville	10,528	Discontinued	-
Route 241	Commute	West Sacramento/Sacramento Shuttle	9,016	Discontinued	-
Route 243	Commute	Woodland/UC Davis Commute	4,614	Discontinued	-
Route 232	Express	Davis/Sacramento Express	4,388	Discontinued	-
Route 46	Express	Woodland/Sacramento Express	3,193	Discontinued	-
Route 242	Commute	Woodland/Davis Commute	2,571	Discontinued	-
Route 45x	Express	Woodland/Sacramento Express	2,331	Discontinued	-
Route 138	Intercity	Causeway Connection	558	26,877	4716.7percent
Route 216	Local	Knights Landing/Woodland	498	Discontinued	-
Route 217	Local	Dunnigan/Yolo/Woodland	389	Discontinued	-

Ridership by Type of Day

Figure 13 shows on average, the busiest days for ridership are weekdays, followed by Saturdays then Sundays. In FY 2022-2023 there were 514,000 riders on weekdays, 76,000 on Saturdays, and 59,000 on Sundays. In FY 2022-2023, on average there were 1,970 trips per weekday, 1,460 trips on Saturdays, and 1,130 trips on Sundays. Since FY 2019, ridership declined across all day types, but the biggest declines were on weekdays, during which average daily ridership declined 32 percent compared to 13 percent on Saturdays and 16 percent on Sundays. Reduced levels of ridership on weekends is both a consequence of reduced demand for weekend service and reduced levels of service on weekends; eight of 16 routes operate on weekends.

Figure 13 - Yolobus Fixed Route Ridership by Day Type, FY 2019-2020, and FY 2022-2023

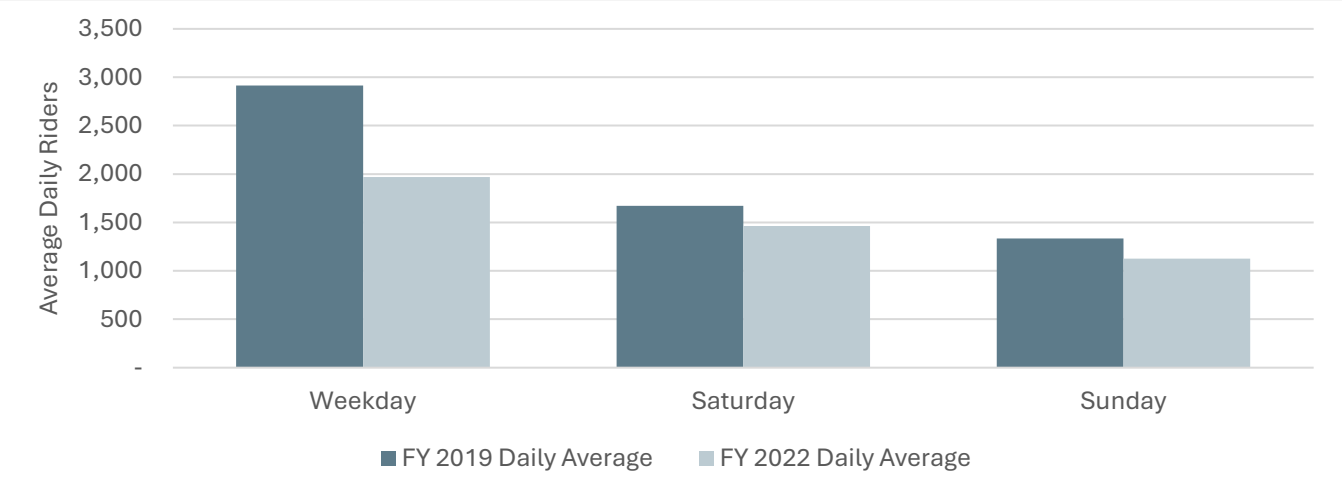
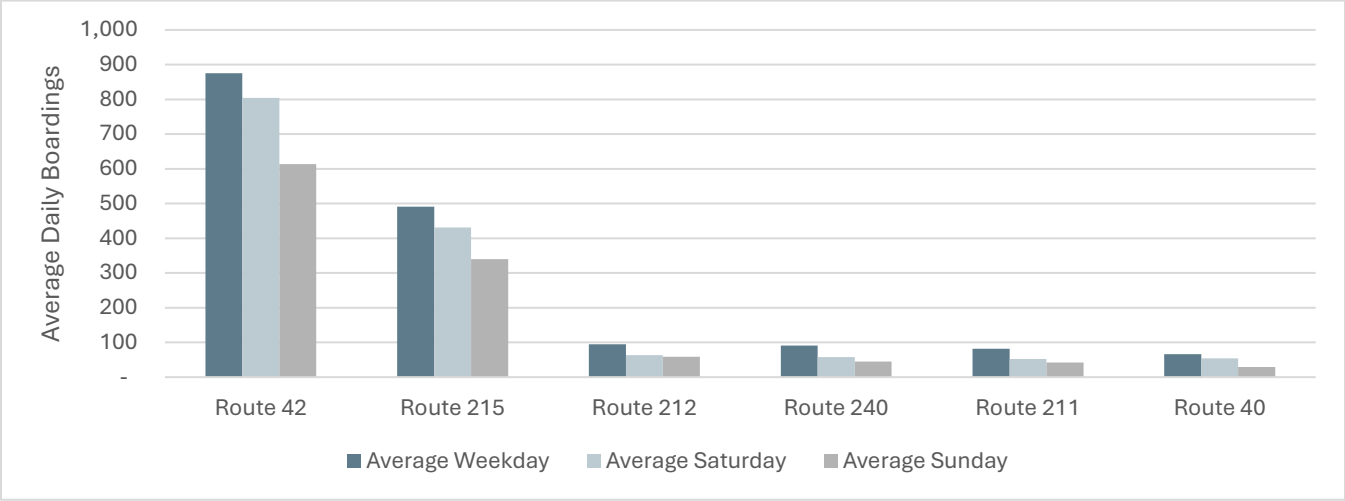


Figure 14 shows that route level ridership patterns are similar on weekends as they are weekdays, but at a diminished scale. Routes 42 and 215 continue to have the highest levels of ridership on weekends, with slightly more demand on Saturday than on Sunday. Ridership on Routes 42 and 215 make up between 84 percent and 85 percent of all weekend ridership, respectively.

Figure 14 - Annual Route Level Ridership by Day Type, FY 2022-2023



SERVICE EFFICIENCY AND EFFECTIVENESS

As ridership declined in 2020, so did service productivity, as measured by passengers per revenue hour, dropping from a system-level productivity of 11.5 passengers per revenue hour in 2019 to a low of 7.2 passengers per revenue hour in 2020. Like ridership, the post-pandemic peak of productivity was in 2022, when the system carried 9.5 passengers per revenue hour. Productivity declined somewhat in 2023 when the system carried 8.3 passengers per revenue hour; between 2022 and 2023 service levels were nearly identical (71,653 revenues hours in 2022 and 71,663 revenue hours in 2023) which means that the slight decline in productivity was due to declines in ridership.

Figure 15 - Yolobus System Level Productivity (Passenger per Revenue Hour) January 2019 - March 2024

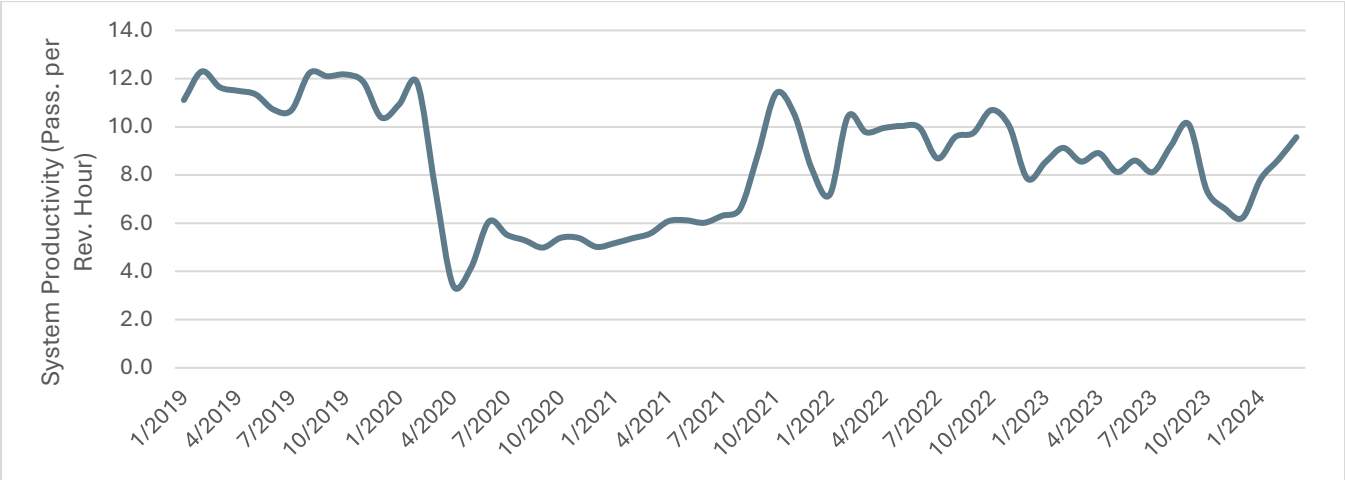
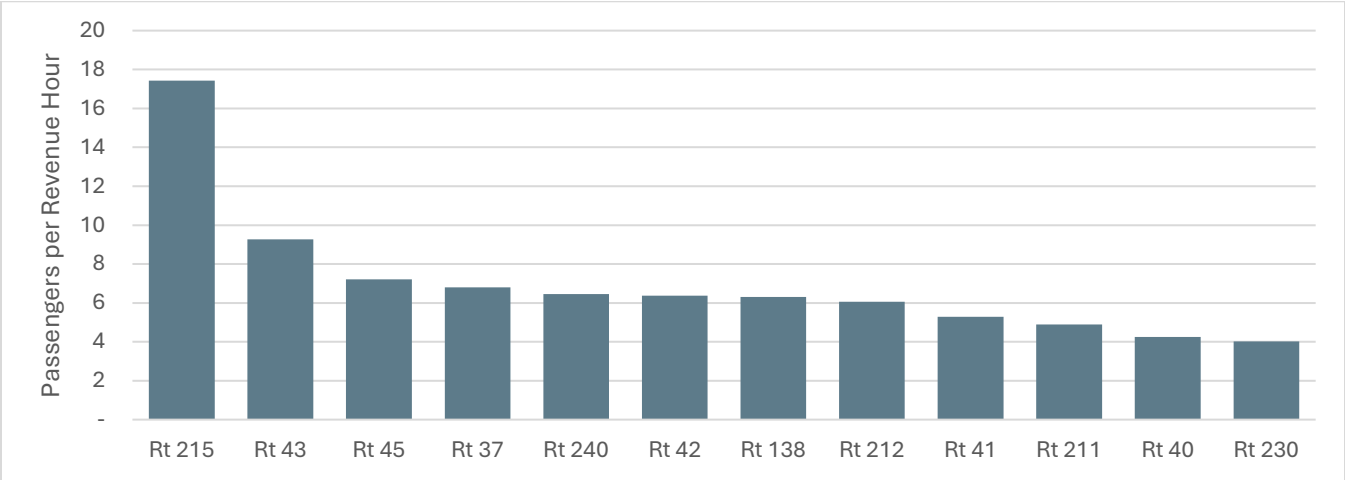


Figure 16 shows productivity at the route level. Route 215 had the highest productivity at the route level averaging 17 passengers per revenue hour; though the route has a long distance, its high productivity is due to high demand for its services and a schedule that is specifically tailored to the travel patterns of the Cache Creek Casino Resort. Route 42 on the other hand has a lower productivity of six passengers per revenue hour despite having higher ridership due to the long trip distances of the route with travel times ranging between

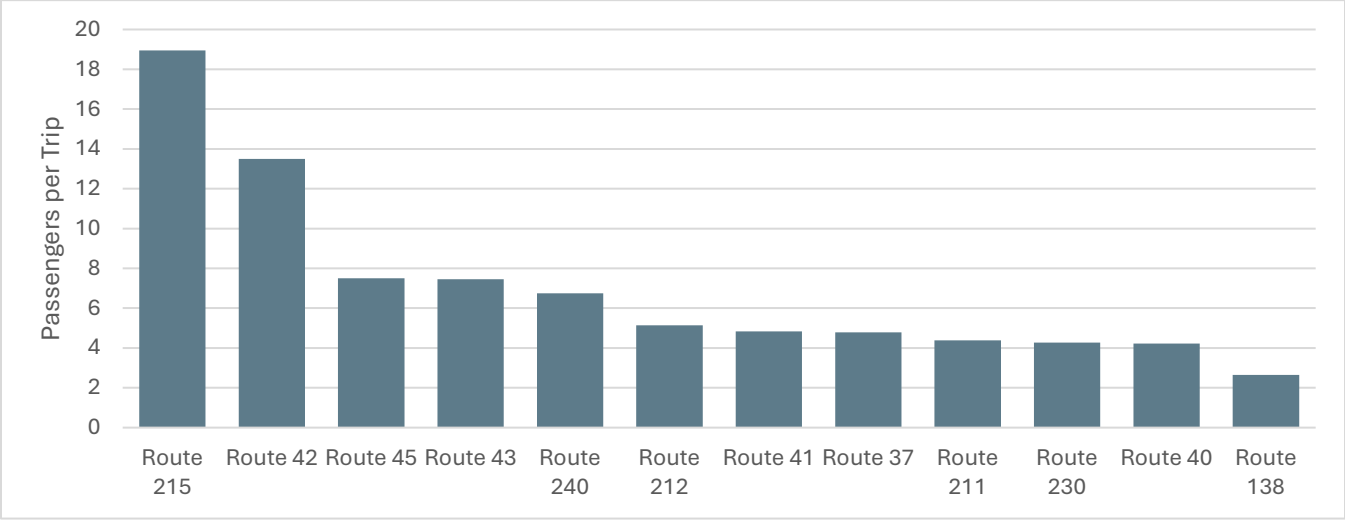
two and three hours, along with the highest levels of service of any route in the network. The least productive routes are Routes 211, 40, and 230, which all average less than five passengers per revenue hour.

Figure 16 - Yolobus Passengers per Revenue Hour by Route, FY 23-24



Looking at service efficiency via passengers per trip (Figure 17) helps account for the fact that many of the routes Yolobus operates are similar to express routes, with long stretches of freeway and highway operation during which buses cannot pick up passengers. On average, Yolobus fixed route service carries nine passengers per trip, down from an average of 12 passengers per trip in FY 2019. The most productive route again is Route 215, which carries 19 passengers per trip on average. Route 42 is the second most productive route in terms of passengers carried per trip, carrying 14 passengers on average per trip. Route 138 carries the least number of passengers per trip, averaging three passengers per trip.

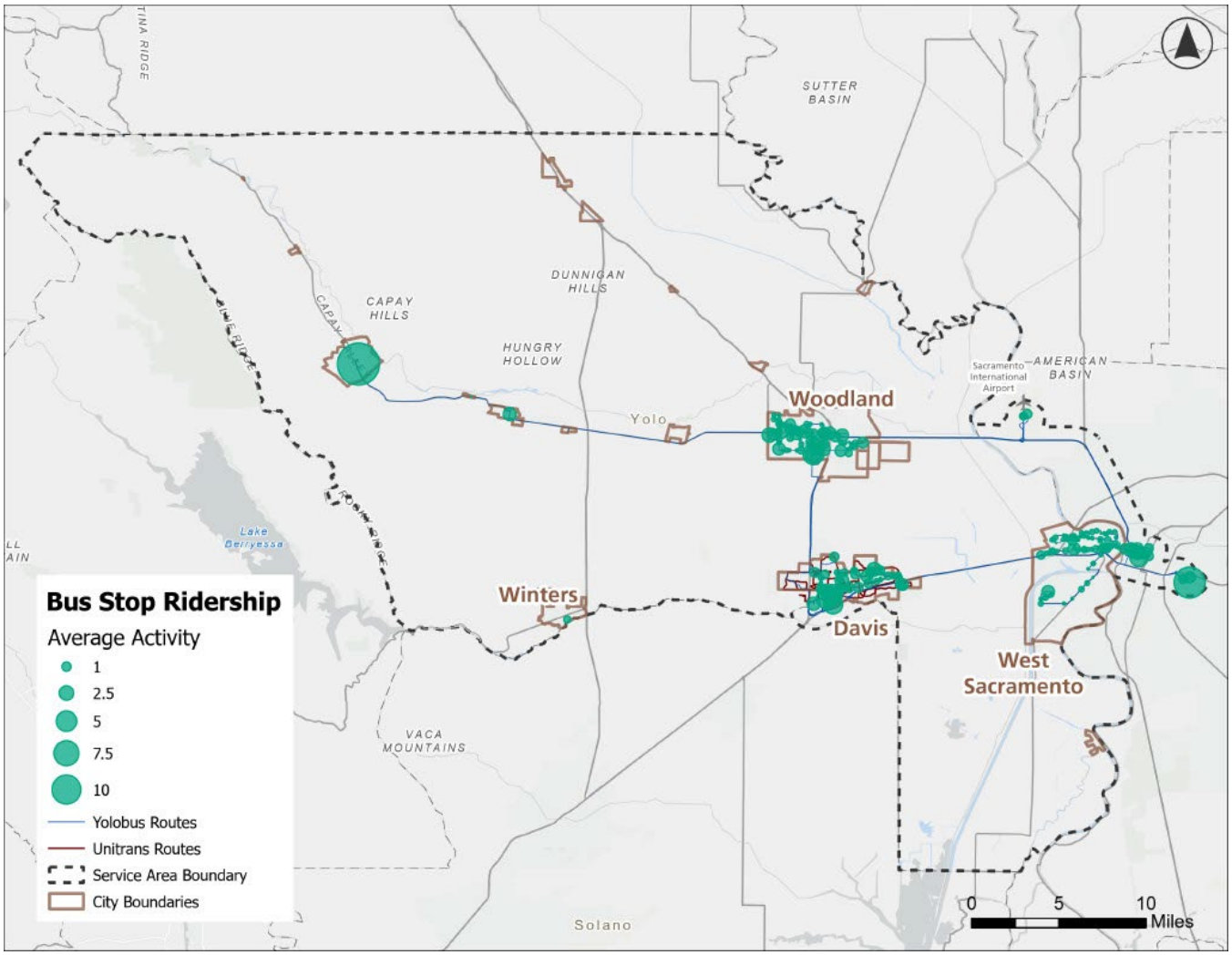
Figure 17 - Yolobus Passengers per Trip by Route, Weekdays, FY 23-24



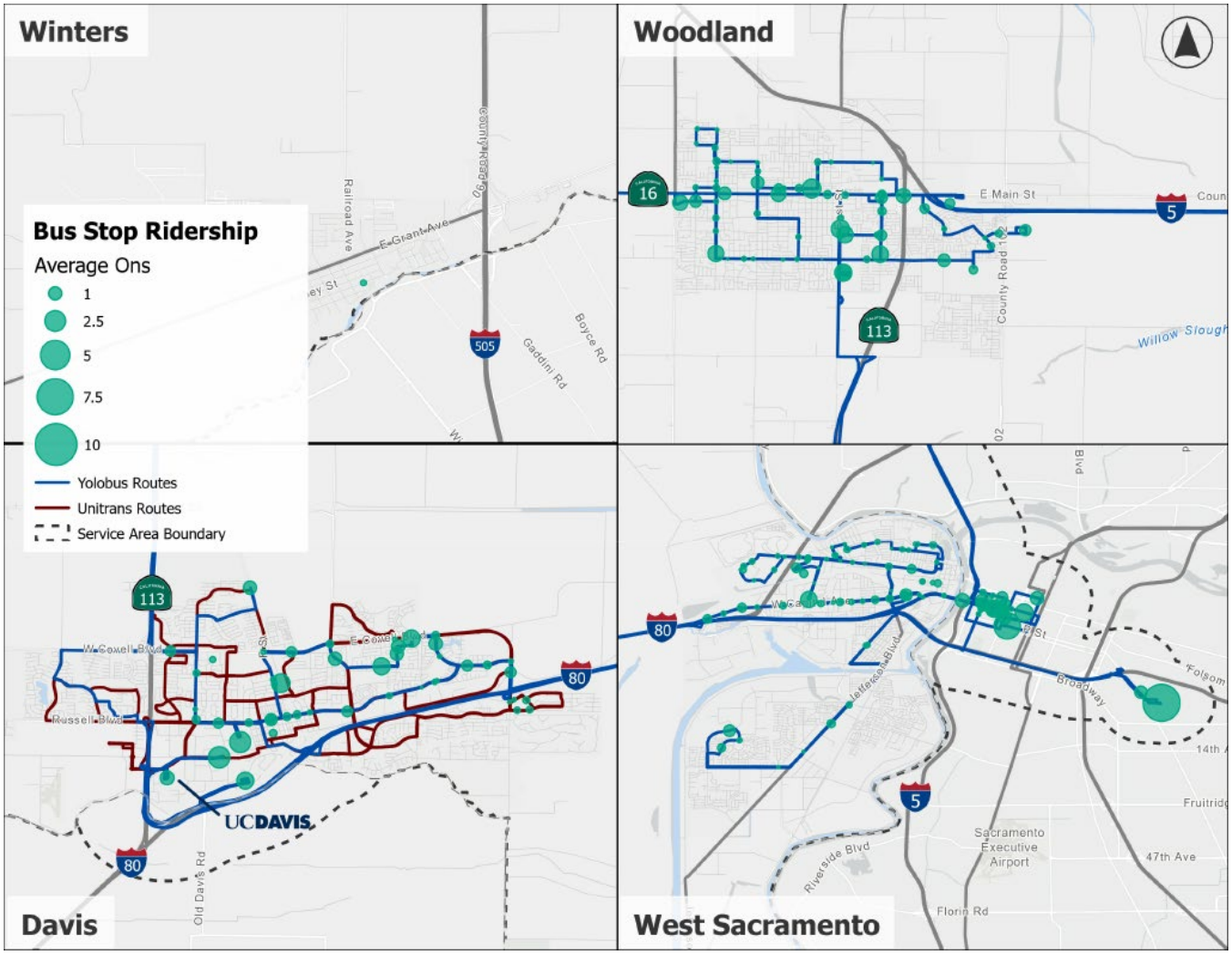
Stop Level Analysis

Analyzing passenger activity at the bus stop level helps provide key insights into how passengers are using the system, popular destinations in the Yolobus network, and potential capacity issues. This section includes an analysis of top bus stops by passenger activity, identifying the most frequented locations in the Yolobus system. The passenger load analysis highlights points in the network where vehicles experience the highest volumes of passengers. By understanding these dynamics, Yolobus can better understand how to optimize service delivery, improve customer satisfaction by addressing crowding, and make informed decisions on future network adjustments.

Map 21 - Average Boardings per Bus Stop, Yolo County, Yolobus Riders



Map 22 - Average Boardings per Bus Stop, Yolobus Riders: Winters, Woodland, Davis and West Sacramento, and Downtown Sacramento



STOPS WITH MOST ACTIVITY

Table 12 shows the Yolobus stops with the highest average activity in the system, which is the sum of average boardings and alightings at a stop per trip. According to this metric, Cache Creek Casino Resort is the stop in the system with the most consistent ridership with an average of 10 passengers boarding and 11 passengers alighting per trip. Other stops with consistent ridership are stops in downtown Sacramento, the County Fair Mall Transit Center, stops in Davis, and stops in Woodland served by routes 42A/B and 215. High ridership stops in downtown Sacramento are mostly a result of concentration of ridership since routes serving downtown Sacramento generally have a limited number of stops overall.

Table 12 - Yolobus Stops with Highest Average Ons, Offs, and Overall Activity (FY 2022-2023)

Stop	City	Routes Serving Stop	Avg. Ons per Trip	Avg. Offs per Trip
Cache Creek Casino Resort	Brooks	215	10.2	10.8
Y Street & 45th	Sacramento	138	7.9	3.6
County Fair Mall Transit Center	Woodland	211, 212, 42A, 42B, 215, 45	1.7	3.6
UC Davis Memorial Union	Davis	42A, 42B	2.5	2.6
Silo at UC Davis	Davis	138	2.6	2.3
Mondavi Center	Davis	138	1.6	2.8
P St. at 11th St.	Sacramento	43, 45, 230	4.0	0.0
F St. at Covell	Davis	43	1.7	1.0
W. Lincoln at Road 98	Woodland	215	1.3	1.2
Monarch at Covell	Davis	43	1.7	0.6
H St. at 11th St.	Sacramento	43, 45, 230	2.0	0.3
Matmor at E. Gibson	Woodland	215, 45	1.5	0.7
Main at Cleveland	Woodland	215, 45	1.3	0.9
UC Davis Health Sciences	Davis	138	1.1	1.0
East at Gum	Woodland	42A, 42B	1.9	0.1

LOAD ANALYSIS

Passenger loads and their impact on crowding are a key indicator of both trip quality for a passenger and an indicator of the spatial distribution of demand for services. This analysis looks at which route segments have the highest average passenger loads to check for potential crowding issues and to provide a greater understanding of areas of higher ridership demand. The highest passenger loads are found primarily on Routes 215, 42A, and 42B. Passenger loads on Route 215 EB/WB are high on select trips the entire week and throughout the day. Higher passenger loads are found on Route 42A in the afternoon and on Route 42B in the mornings. Outside of these select trips, passenger crowding did not appear significant on any other routes in the Yolobus system.

Table 13 - Yolobus Segments with Highest Observed Passenger Loads, Select Dates FY 2022-2023

Route	Trip Time	Day Type	Segment	Average Load
42B	7:05 AM	Weekday	E. Gum & East to Russell & California	56
211	1:00 PM	Weekday	Cottonwood & Gibson to W. Beamer & Mariposa	42
42A	4:35 PM	Weekday	Memorial Union to Covell at Sycamore	42
215 WB	8:55 AM	Saturday	Yolo & Grafton to Cache Creek Casino Resort	41
215 EB	3:07 PM	Weekday	Cache Creek Casino Resort to Railroad & Main	37
215 EB	3:07 PM	Sunday	Cache Creek Casino Resort to Railroad & Main	37
215 WB	7:55 AM	Weekday	Main & Cleveland to Cache Creek Casino Resort	37
42B	9:20 AM	Weekday	County Fair Mall Transit Center to Anderson & Russell	36
215 EB	6:15 PM	Saturday	Cache Creek Casino Resort to W. Lincoln & Road 98	35
215 EB	5:15 PM	Weekday	Cache Creek Casino Resort to W. Lincoln & Road 98	35
215 EB	7:15 AM	Saturday	Cache Creek Casino Resort to Ashley & W. Lincoln	34
215 WB	5:45 AM	Weekday	Main & Cleveland to Cache Creek Casino Resort	34
215 WB	7:07 AM	Sunday	W. Main & Community to Cache Creek Casino Resort	34
215 EB	7:07 AM	Weekday	Cache Creek Casino Resort to Main & Elm	33
215 WB	8:55 AM	Sunday	W. Lincoln & Road 98 to Cache Creek Casino Resort	33
215 WB	1:45 PM	Weekday	W Lincoln & Road 98 to Cache Creek Casino Resort	33
215 WB	5:45 AM	Weekday	W Lincoln & Road 98 to Cache Creek Casino Resort	33
215 WB	1:45 PM	Saturday	W Lincoln & Road 98 to Cache Creek Casino Resort	33
215 EB	7:07 AM	Sunday	Cache Creek Casino Resort to W. Lincoln & Road 98	32
215 EB	10:07 AM	Weekday	Cache Creek Casino Resort to W. Main & Community	32
42A	8:30 PM	Sunday	Memorial Union to County Fair Mall Transit Center	31

Service Availability

To provide a better understanding of how passengers view the accessibility and convenience of the Yolobus system, it is important to understand both the frequency and span of service. This section analyzes how often buses run on each route throughout the day and the hours during which service is available. High-frequency, long-span service accommodates the greatest number of trips for passengers, but transit agencies have limited resources for offering such services. Understanding the existing service availability of Yolobus services is essential for identifying gaps, planning improvements, and ensuring that the system effectively is meeting the travel needs of Yolo County travelers.

FREQUENCY ANALYSIS

Frequency is the number one factor that attracts new riders to transit. Previous surveys conducted for Yolobus[15] have shown that 62 percent of respondents preferred more frequent service over more routes serving more places, and that the number one priority for improvements was higher frequency service.

Table 14 shows the weekday frequency of each Yolobus route. Service that runs all day primarily operates at 60-minute frequencies. An important exception is Routes 42A and 42B, the highest frequency Yolobus routes, which operate 30-minute frequencies during the peak and 45 minutes during the off-peak. Express routes only operate two trips per day, one in the morning and one in the afternoon. Table 15 and Table 16 show that frequency on the weekends is the same as it is on weekdays.

A system that primarily operates 60-minute service is unlikely to generate high ridership demand and will primarily be used by passengers that do not have any alternatives. Improvements to frequencies as seen on Routes 42A and 42B are a step in the right direction in creating a service that will increase ridership.

SPAN ANALYSIS

Table 14, Table 15, and Table 16 show a high-level overview of the current span of Yolobus services. Generally, the longest spans are on weekdays, and the shortest spans are found on Sundays. During weekdays, routes have varying spans with Woodland routes operating generally between 6 AM and 8 PM and West Sacramento routes operating between 6:30 AM and 6:30 PM. Routes 42A, 42B and 215 have the longest operating spans providing service until past midnight all week. On the other end of the spectrum express routes operate only during the peak hours with some routes providing only one trip in each direction.

Yolobus operates 16 routes on weekdays, but only 8 routes operate on weekends; Express services, Route 138 and two West Sacramento Local routes, Routes 37 and 41, do not operate on weekends.

The amount of peak-only service has declined since the pandemic; based on the shift in travel behaviors diminishing the demand for peak-hour commute travel, subsequent route recommendations should consider where best to leverage this shift in service when reallocating resources.

[15] https://Yolobus.com/wp-content/uploads/2022/04/YoloGo_Final_Report_Web.pdf

Table 14 - Frequency by Route, 2024, Weekdays

Route Name	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 AM
Route 37	60	40	40			60			60		60	20	60							
Route 40		60	60	60	60	60	60	60	60	60	60	60	60							
Route 41		60	60	60	60	60	60	60	60	60	60	60	60							
Route 240			60	60	60	60	60	60	60	60	60	60	60	60						
Route 211		60	60	60	60	60	60	60	60	60	60	60	60	60	60	60				
Route 212			60	60	60	60	60	60	60	60	60	60	60	60	60	60				
Route 138 EB		60	60	60	60	60	60	60	60	60	60	60	60	60	60	60				
Route 138 WB		60	60	60	60	60	60	60	60	60	60	60	60	60	60	60				
Route 42A		60	30	30	45	45	45	45	45	45	45	30	30	30	45	45	45	45		
Route 42B	30	30	30	45	45	45	45	45	45	45	30	30	30	45	45	45	45	45		
Route 215WB	30		60	60				50	30		120		120			60	30			
Route 215 EB			10		60	60				60	10		60	60				60	60	60
Route 43		60											60							
Route 43R			60										60							
Route 230		60										60								
Route 45		60										60								

Table 15 - Frequency by Route, 2024, Saturday

Route Name	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 AM
Route 40			60	60	60	60	60	60	60	60	60	60	60							
Route 240			60	60	60	60	60	60	60	60	60	60	60	60						
Route 211				60	60	60	60	60	60	60	60	60	60	60	60					
Route 212			60	60	60	60	60	60	60	60	60	60	60	60	60					
Route 42A	60	30	30	30	45	45	45	45	45	45	45	30	30	30	45	45	45	45		
Route 42B	30	30	30	45	45	45	45	45	45	45	45	30	30	45	45	45	45	45		
Route 215 WB	30		60	60				60	30		60		60			60	30			
Route 215 EB			30		60	60				60	30		60	60				60	60	60

Table 16 - Frequency by Route, 2024, Sunday

Route Name	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 AM
Route 40				60	60	60	60	60	60	60	60	60								
Route 240			60	60	60	60	60	60	60	60	60	60	60	60						
Route 211				60	60	60	60	60	60	60	60	60	60	60						
Route 212			60	60	60	60	60	60	60	60	60	60	60	60						
Route 42A	60	30	30	30	45	45	45	45	45	45	45	30	30	30	45	45	45	45		
Route 42B	30	30	30	45	45	45	45	45	45	45	45	30	30	45	45	45	45	45		
Route 215 WB	30		60	60				60	30		60		60			60	30			
Route 215 EB			30		60	60				60	30		60	60				60	60	60

Yolobus BeeLine

Yolobus BeeLine is the microtransit service provided by YoloTD. Customers can travel within four different service zones by requesting a ride via the BeeLine by Yolobus app or by calling a phone number. After requesting a ride, passengers are given a scheduled pick-up window during which they can expect to be picked up.

Service Design and Policies

SERVICE AREA

BeeLine service is provided in four service areas. Users' trips must start and end within the defined service area at designated stops. The service areas include:

- **Knights Landing:** Passengers can travel within Knights Landing and to and from Woodland.
- **Winters:** Passengers can travel within Winters, and to and from the cities of Davis and Vacaville.
- **Woodland:** Passengers can travel within Woodland.
- **Yolo:** Passengers can travel within Yolo and to and from Woodland.

FARES

Fares for BeeLine service vary based on the service zone they are used in. Seniors (62+), disabled riders and Youth riders (0-18) pay a reduced fare for service.

Table 17 - Yolobus BeeLine Fares

Zone	Regular Fare	Senior/Disabled/Youth
Knights Landing	$2.00	$1.50
Winters	$2.00	$1.50
Woodland	$3.00	$1.50
Yolo	$2.00	$1.50

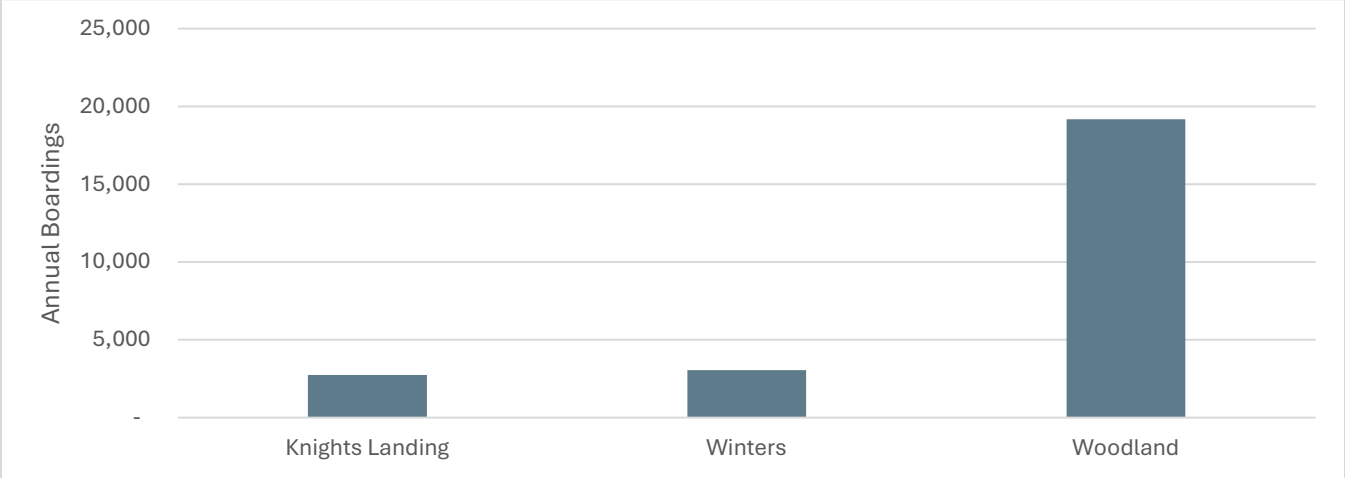
Yolobus BeeLine Service Performance

RIDERSHIP

There were 24,950 trips taken on BeeLine in Fiscal Year 2023, an average of 2,080 boardings per month. The most ridership out of the BeeLine's service zone is in Woodland, which made up 77 percent of BeeLine trips in FY 2023, carrying 19,170 passengers. Winters and Knights Landing ridership was significantly lower than ridership on the Woodland service, with Winters BeeLine carrying 3,050 passengers, and Knights Landing BeeLine carrying 2,740 passengers. Higher ridership in Woodland is primarily due to Woodland having a

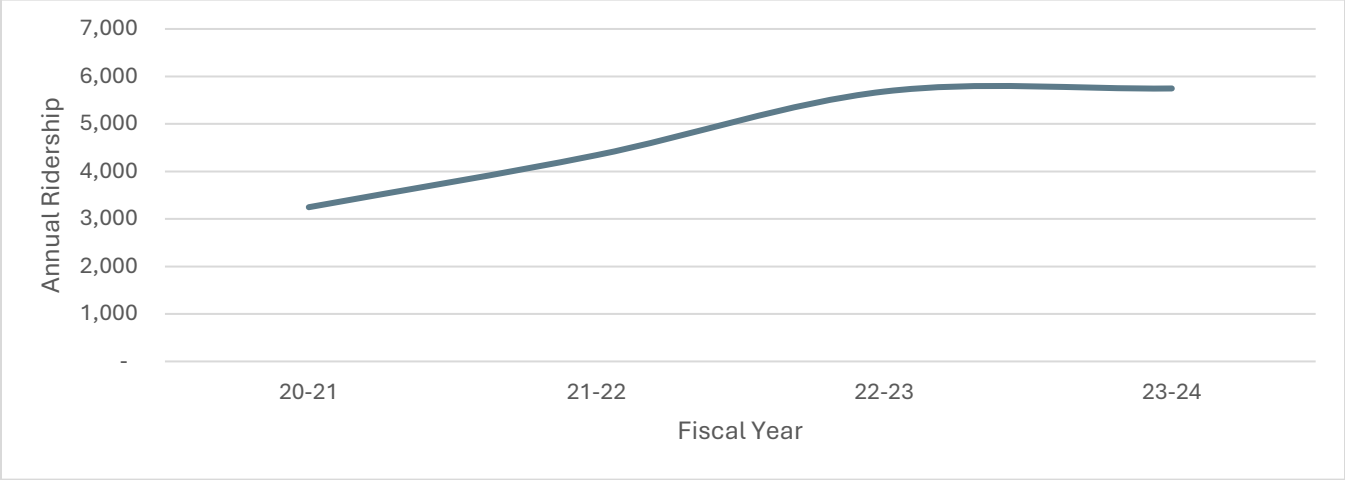
much higher population of 61,000 compared to Winters, which has a population of 7,860 and Knights Landing, which has a population of 995.

Figure 18 - Yolobus BeeLine Ridership by Zone, FY 2023



Looking at ridership trends for Knights Landing and Winters, ridership grew quickly between 2020 and 2022 increasing 75 percent from 3,250 annual trips in 2020 to 5,680 trips in 2022. Similarly to Yolobus fixed-route service, ridership has remained relatively flat between 2022 and 2023, with ridership growing by only one percent from 5,682 annual boardings to 5,747 annual boardings.

Figure 19 - Annual Ridership on BeeLine Services (Knights Landing and Winters Only)

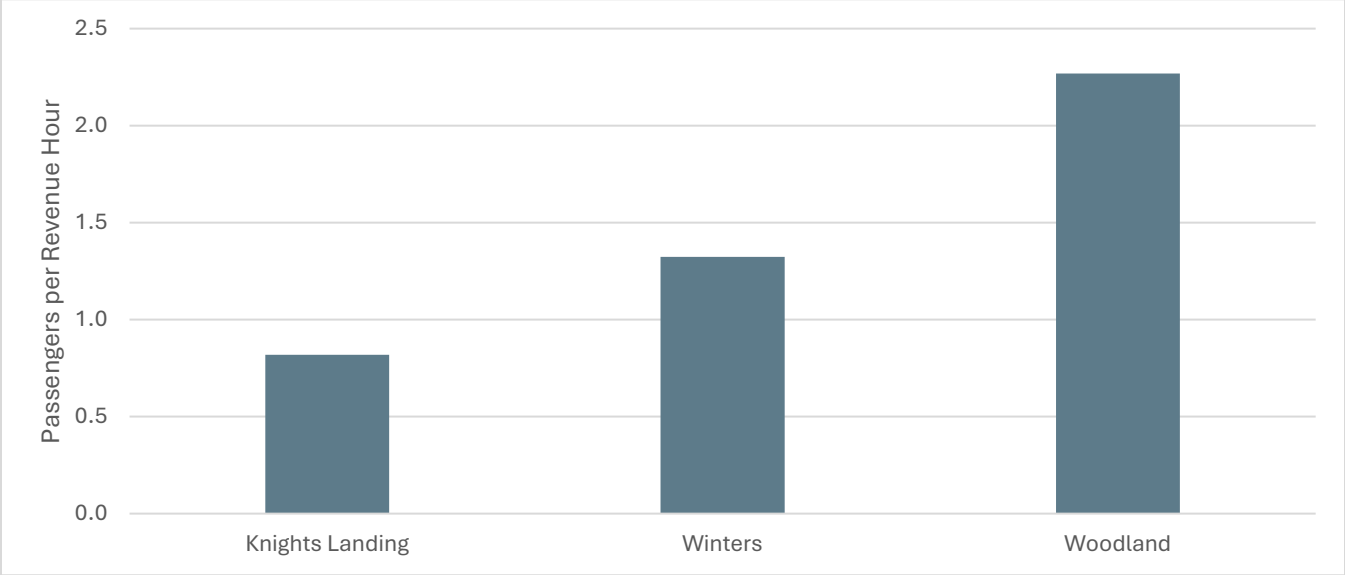


SERVICE EFFICIENCY

Microtransit is a popular choice for transit agencies to replace low performing services, but these services tend to suffer from low productivity in terms of passengers carried per revenue hour; existing services throughout the country have been found to carry between one to four passengers per vehicle hour. Microtransit service efficiency is limited by smaller vehicle capacity and individualized routing. Increasing ridership generally requires more vehicles since each vehicle can carry at most 5-10 passengers per hour, which makes gains in efficiency difficult to achieve.

Woodland is the most productive service, carrying 2.3 passengers per revenue hour. BeeLine service in Knights Landing is the least productive service carrying 0.8 passengers per revenue hour.

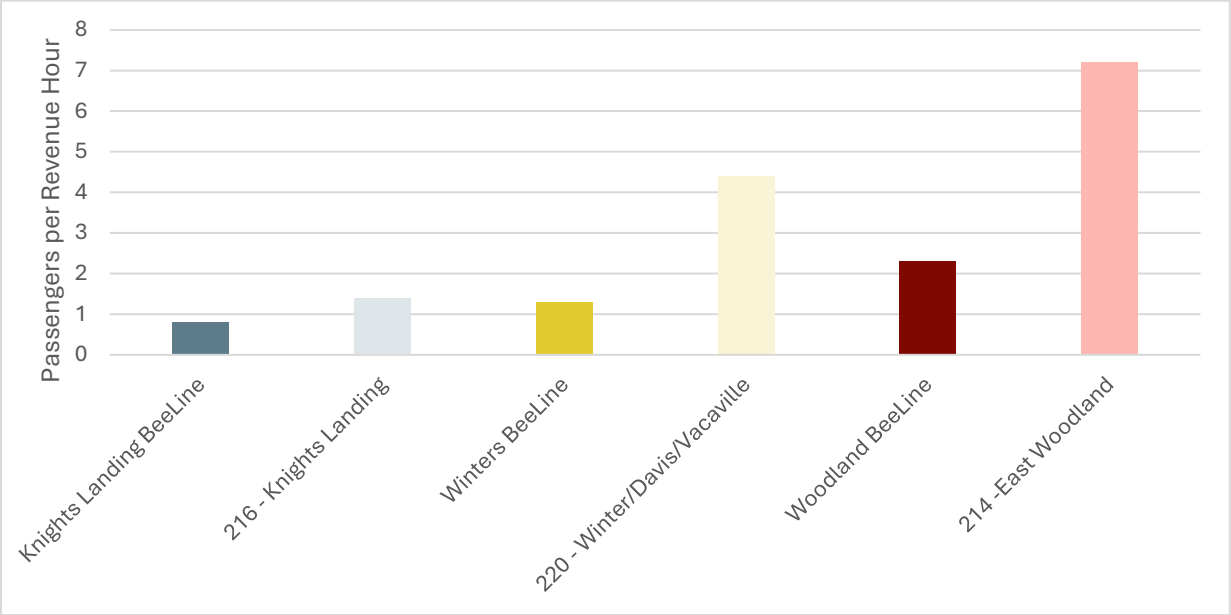
Figure 20 - BeeLine Passengers per Revenue Hour, July 2024



Knights Landing and Winters both utilize one vehicle to provide service, while Woodland BeeLine service uses four vehicles to operate maximum service.

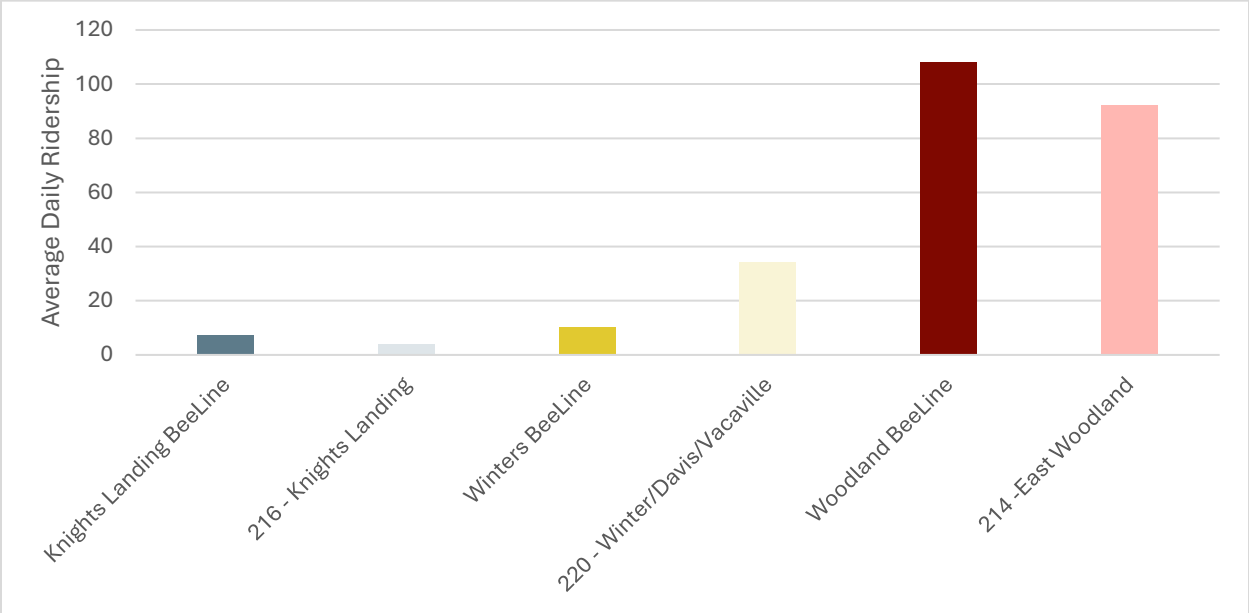
In terms of efficiency of these BeeLine services compared to the fixed route routes that they are replacing, BeeLine service tends to be less efficient, but the routes they are replacing were very low ridership. Route 216, which has been replaced by Knights Landing BeeLine, had very low productivity, carrying 1.4 passengers per revenue hour, even so, the productivity for BeeLine is lower at 0.8 passengers per revenue hour. Route 220 had very low productivity for a fixed route service, at 4.4 passengers per revenue hour, though productivity is lower on BeeLine service, which carries 1.3 passengers per revenue hour. Woodland BeeLine, while being the most productive BeeLine service carrying 2.3 passengers per revenue hour, is still less productive than Route 214, which carried seven passengers per revenue hour.

Figure 21 - Passengers per Revenue Hour, BeeLine (July 2024) and Replaced Fixed Route Yolobus Service (May 2019)



Route 216 in Knights Landing had very low ridership, carrying on average four passengers per day. BeeLine service seems to have relatively little impact on travel demand, carrying seven passengers per day. In Winters, BeeLine service has lower ridership compared to the fixed route service that it replaced, with Winters BeeLine carrying 10 passengers per day when Route 220 carried 34 passengers per day. Woodland BeeLine service is the highest ridership BeeLine service and carries 108 passengers per day compared to 92 passengers per day on Route 214. Routes 211 and 212 still operate in Woodland today and carry an average of 67 and 74 passengers per day respectively, making Woodland BeeLine service the highest ridership service providing local service in Woodland.

Figure 22 – Average Daily Ridership, BeeLine (July 2024) and Replaced Fixed Route Yolobus Service (May 2019)



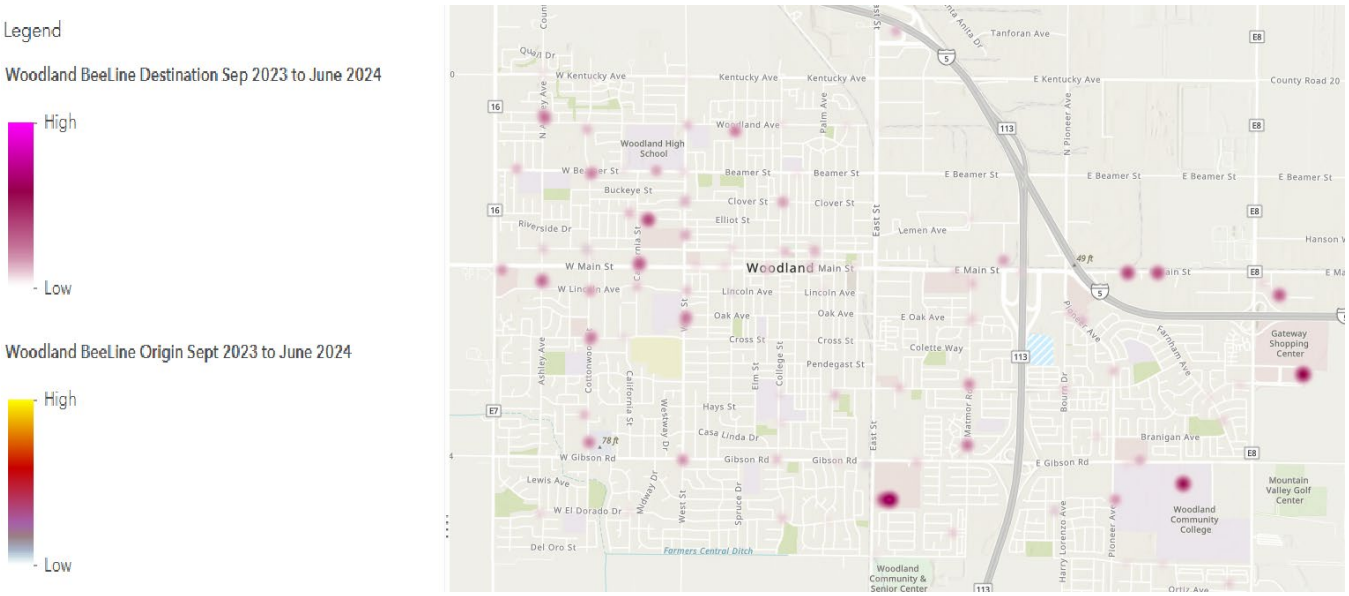
POPULAR DESTINATIONS

Understanding the most popular destinations for users will play a key role in optimizing BeeLine's efficiency, accessibility, and user satisfaction. Identifying popular destinations can also help in planning future expansions of the BeeLine system and integrating the service with other forms of transportation. At the time of this analysis, travel data was available for the Woodland, Winters, and Knights Landing services. The following are popular destinations for the available services:

Woodland

Woodland BeeLine service provides service throughout Woodland. Origins are spread evenly throughout the city, but key destinations include Woodland Community College, shopping at Gateway Shopping Center, and Westcourt Plaza. The transit center at the County Fair Mall is another popular destination. Further analysis should be conducted to understand whether this is a destination or if passengers are using BeeLine to access the fixed route network at this location.

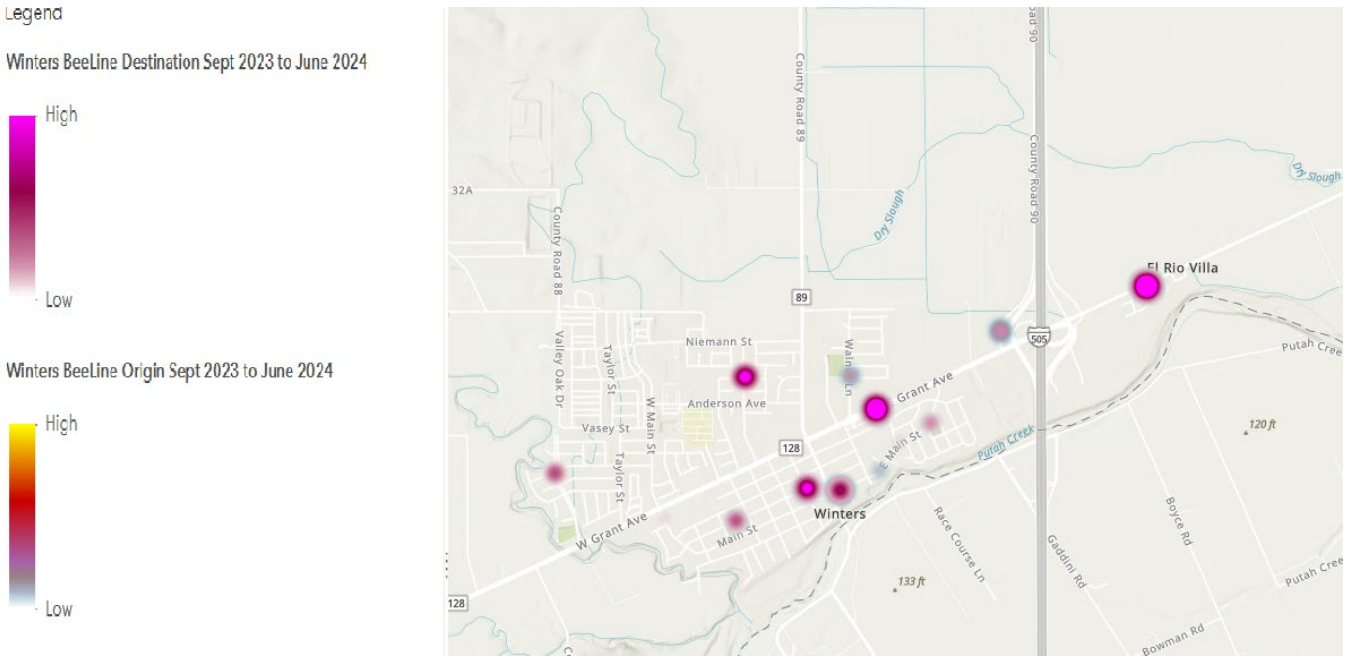
Map 23 - Woodland BeeLine Origin and Destination Heatmap



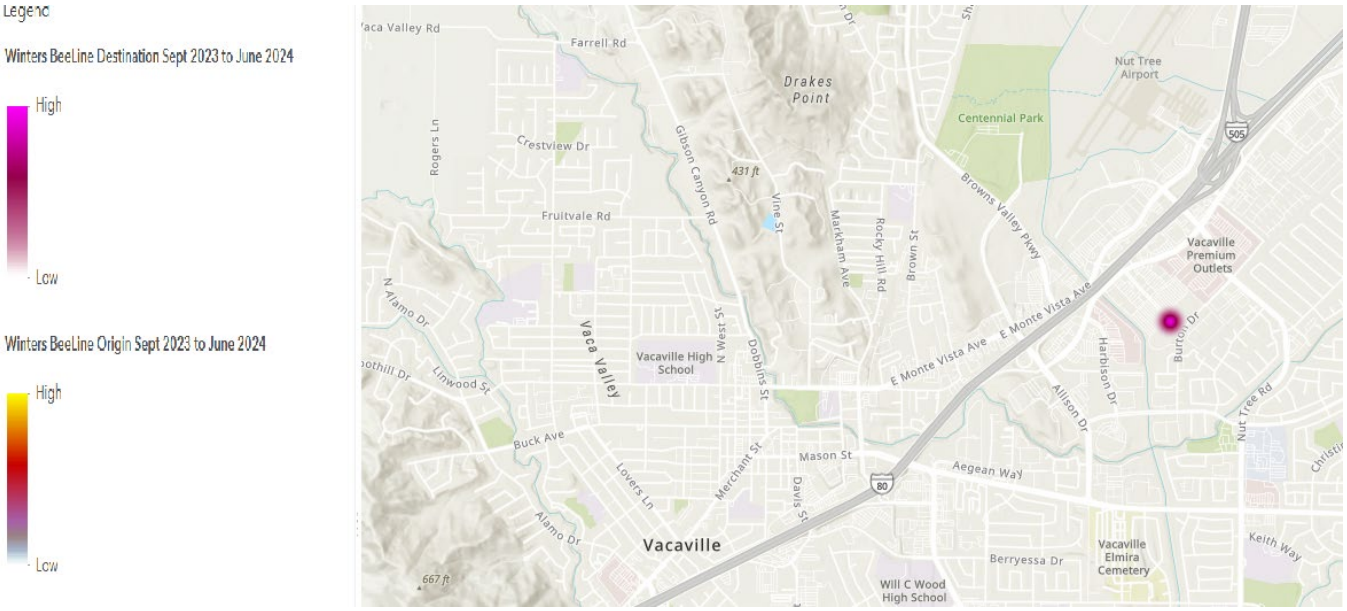
Winters

Winters BeeLine service provides service within Winters and to select destinations in Vacaville and Davis. Travel within Winters is primarily picking people up from their homes, though the Dollar General is a popular destination. Popular destinations in Vacaville include the Vacaville Premium Outlets and the Vacaville Commons Shopping Center, while popular destinations in Davis include UC Davis, University Mall, and commercial destinations around Sycamore Lane and Covell Boulevard.

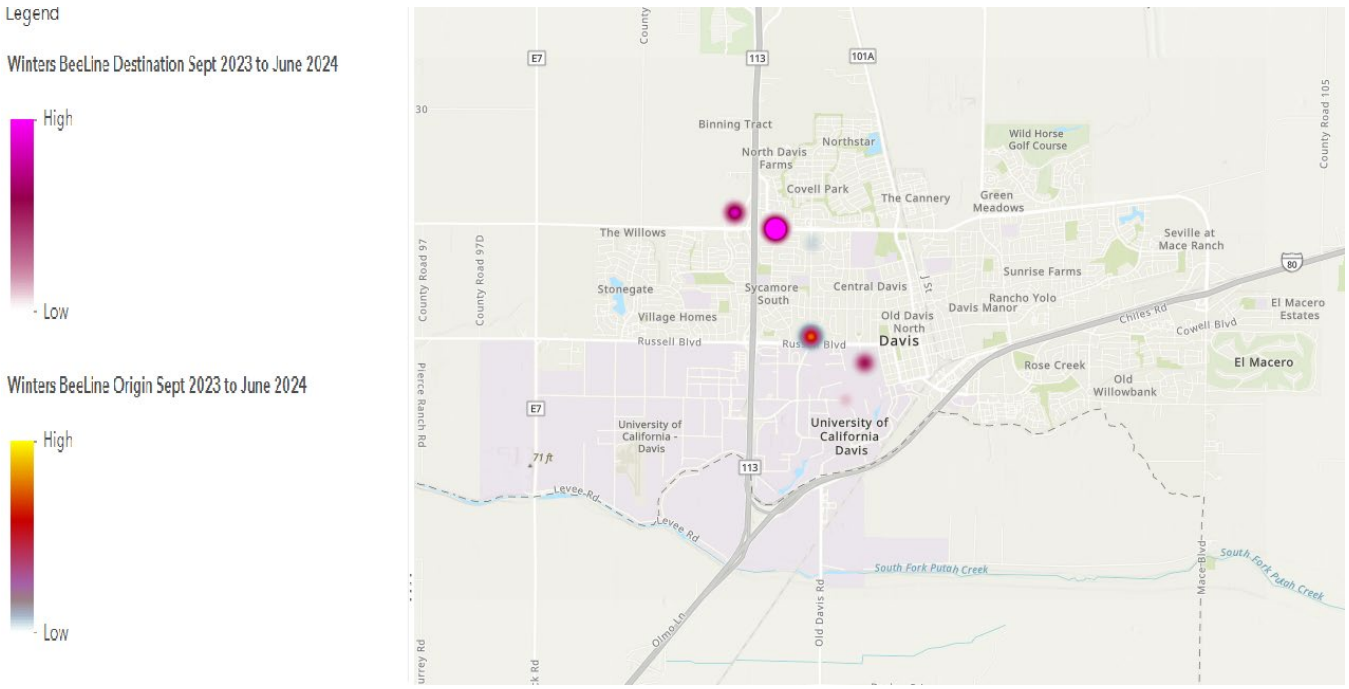
Map 24 - Winters BeeLine Origin and Destination Heatmap, Winters



Map 25 - Winters BeeLine Origin and Destination Heatmap, Vacaville



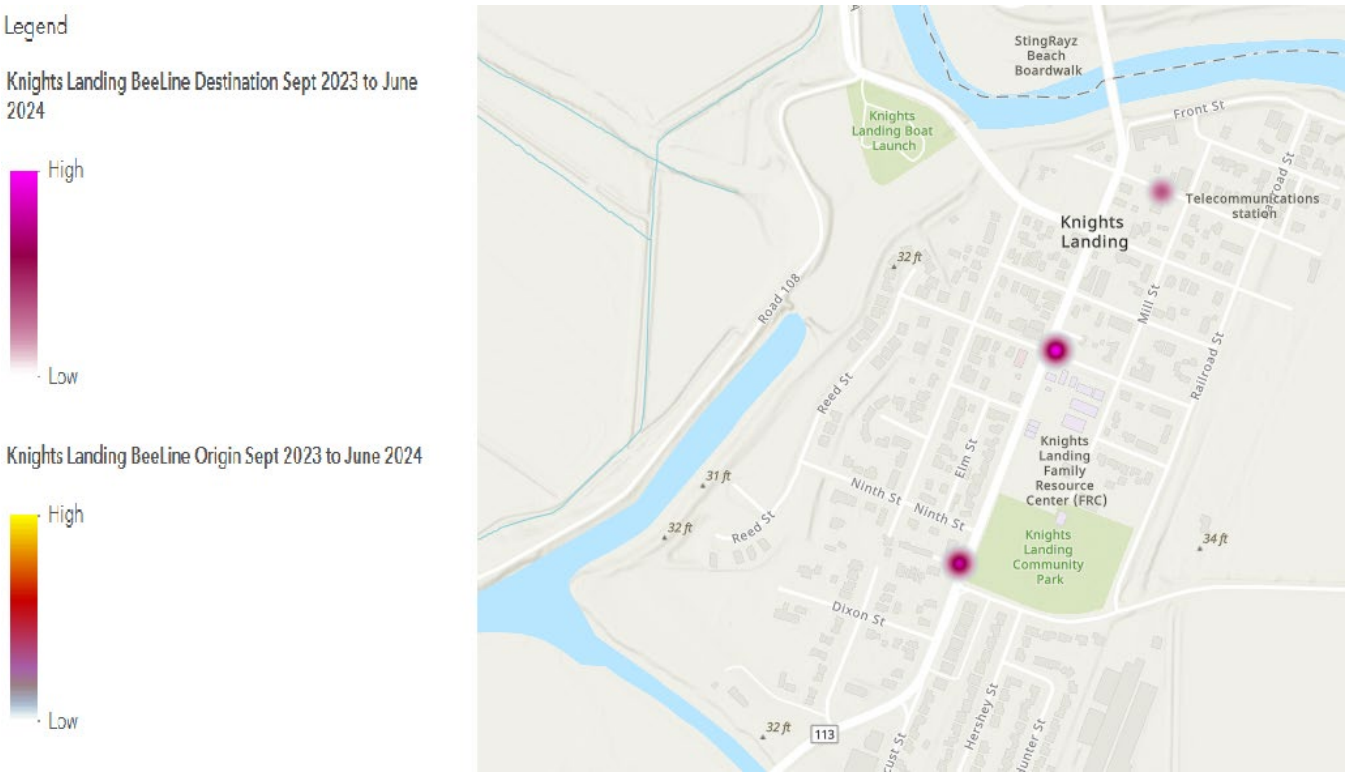
Map 26 - Winters BeeLine Origin and Destination Heatmap, Davis



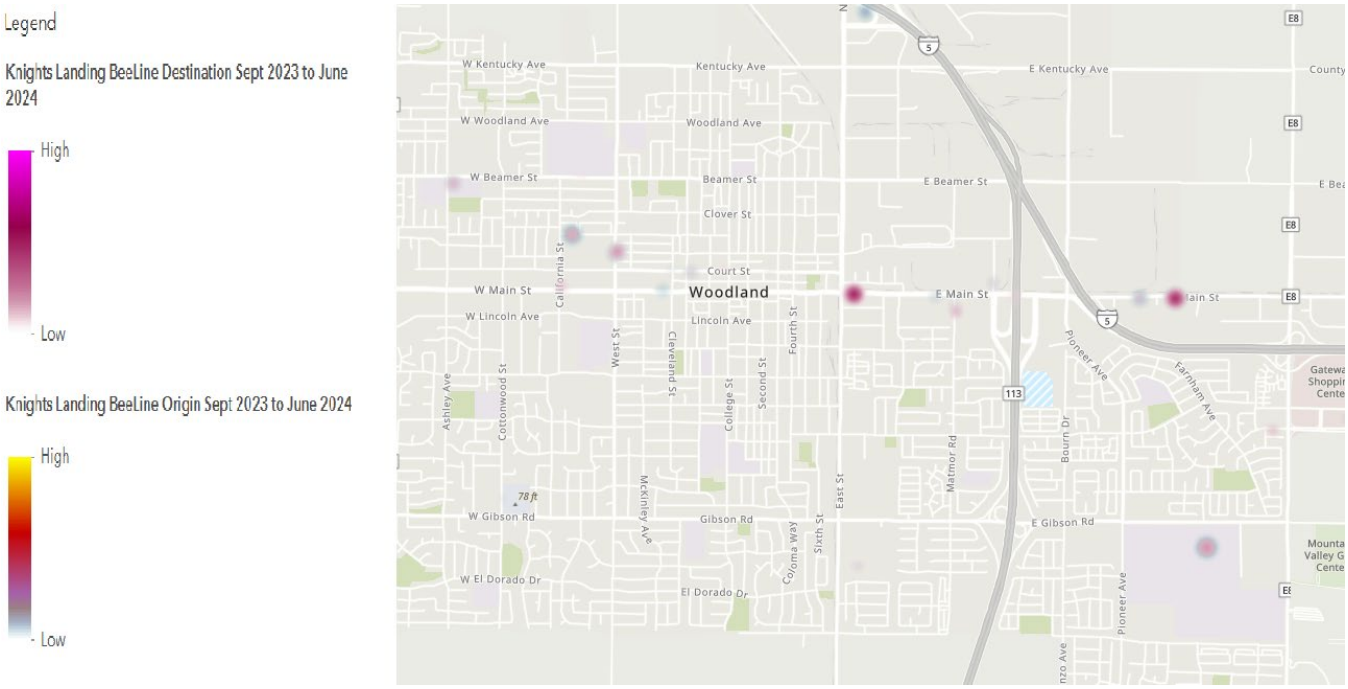
Knights Landing

The Knights Landing BeeLine service provides service within and from Knights Landing and provides connections to Woodland. Service within Knights Landing is primarily residential based and with users travelling to Woodland. Popular destinations in Woodland for passengers arriving from Knights Landing include Woodland Community College, West Court Plaza, and Plaza Woodland, which includes both commercial destinations and a DaVita Dialysis Center.

Map 27 - Knights Landing BeeLine Origin and Destination Heatmap, Knights Landing



Map 28 - Knights Landing BeeLine Origin and Destination Heatmap, Woodland



Yolobus Special

Service Design and Policies

SERVICE AREA

Yolobus Special operates primarily within ¾ mile of Yolobus fixed-route bus services. Premium service is available to medical facilities in portions of Sacramento and Vacaville.

ELIGIBILITY

To use Yolobus Special, prospective passengers must apply via a paper application, with a follow-up medical verification interview occurring in-person or over the phone. Eligibility is conferred for three years, reapplication is required every three years thereafter, even if a qualifying disability is permanent and unchanging. There are three types of eligibility for Yolobus Special:

- **Full Eligibility:** For those that are never able to use Yolobus fixed-route service.
- **Conditional (Limited) Eligibility:** For those able to use Yolobus fixed-route service for some trips, but not others. Those with conditional eligibility are allowed to use Yolobus Special for some trips defined by YoloTD staff.
  - **Temporary Eligibility:** For those whose disabilities are temporary, and whose health is expected to improve. Yolobus Special eligibility is provided for a limited amount of time.

FARES

Fares charged for Yolobus Special service follow federal regulations are double of fares of comparable fixed-route service. There are three tiers for Yolobus Special service. Local service is $4.00, intercity service for paratransit service between cities in Yolo County and within ¾ mile of regular route service are charged an intercity fare of $4.50, and a premium fare of $6.00 is charged for select medical facilities in Sacramento and Vacaville outside of the ¾ mile area around regular route service.

Table 18 - Fares for Yolobus Special Service

Fare Type	One-Way	Sheet of 10 Tickets
Local	$4.00	$40.00
Intercity	$4.50	$45.00
Premium	$6.00	$60.00

RESERVATIONS

Yolobus Special customers can make reservations from one to seven days in advance. Reservations are made via phone call. Same day reservations are only accepted on a limited basis as space is available.

SUBSCRIPTION SERVICE

Customers that regularly make a trip with the same origin and destination at least once a week for at least 90 days can request a standing order through the YoloTD Customer Service Center. Once set up, customers do not have to make reservations for individual trips. YoloTD restricts and prioritizes subscription service to maintain a maximum level of 50 percent capacity on Yolobus Special service at any given time. Excessive advance cancellations on the part of a customer may result in the cancelling of subscription service privileges.

NO SHOWS AND LATE CANCELLATIONS

Cancelling a trip less than two hours before the scheduled pick up is considered a no-show. Yolobus Special's no-show/late cancellation policy will suspend a customer's ability to use the service if:

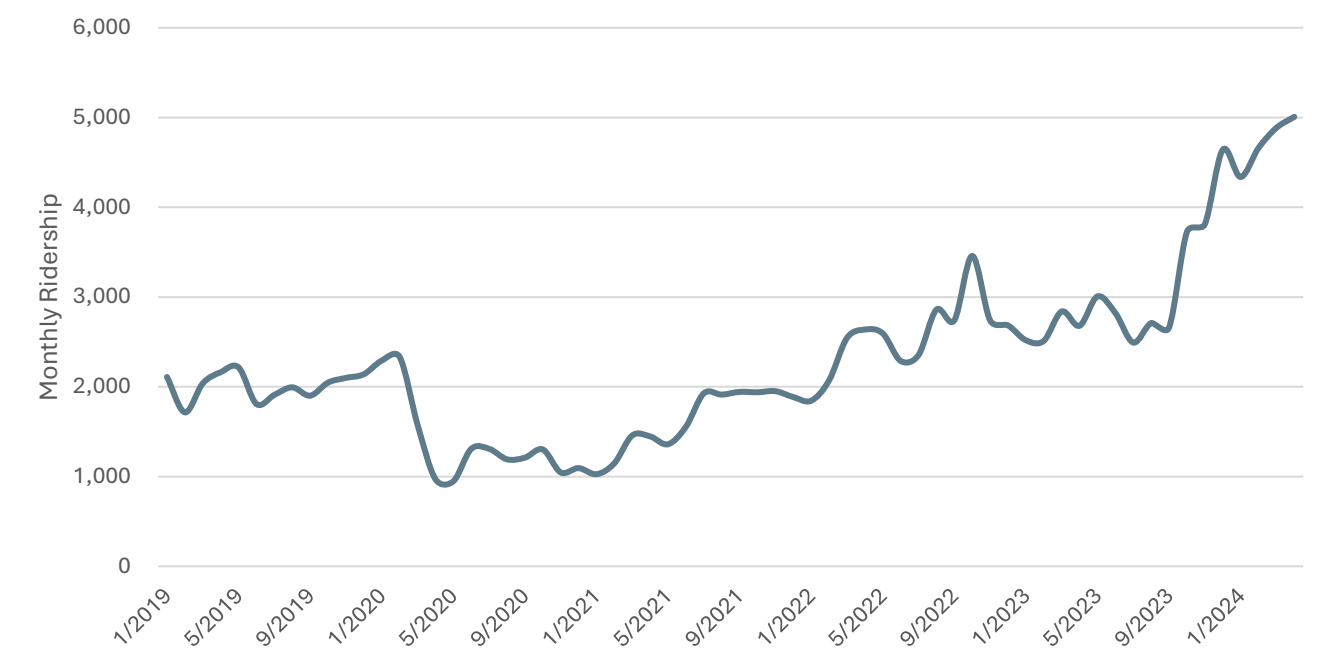
- Over a rolling period of up to 60 days, a customer schedules 10 or more rides and more than 20 percent of those rides are no shows.
- Over a rolling period of up to 60 days, a customer schedules between three and nine rides and no-shows at least three and more than 30 percent of scheduled rides.

Yolobus Special Service Performance

RIDERSHIP

Yolobus Special carried 36,419 passengers in 2023. Ridership has grown significantly on Yolobus Special, ridership in 2023 was 150 percent of ridership in 2019, and ridership in March 2024 was 240 percent of March 2019. The demand for Yolobus Special services is expected to grow as the population of Yolo County grows older; between 2010 and 2022, the population of Yolo County residents that were 65 and older grew from 20,100 to 29,500, a nearly 50 percent increase. A total of 13 percent of the Yolo County population is over the age of 65. The population with disabilities has also grown by 26 percent from 19,140 in 2010 to 24,080 in 2022.

Figure 23 - Monthly Yolobus Special Ridership, 2019-2024



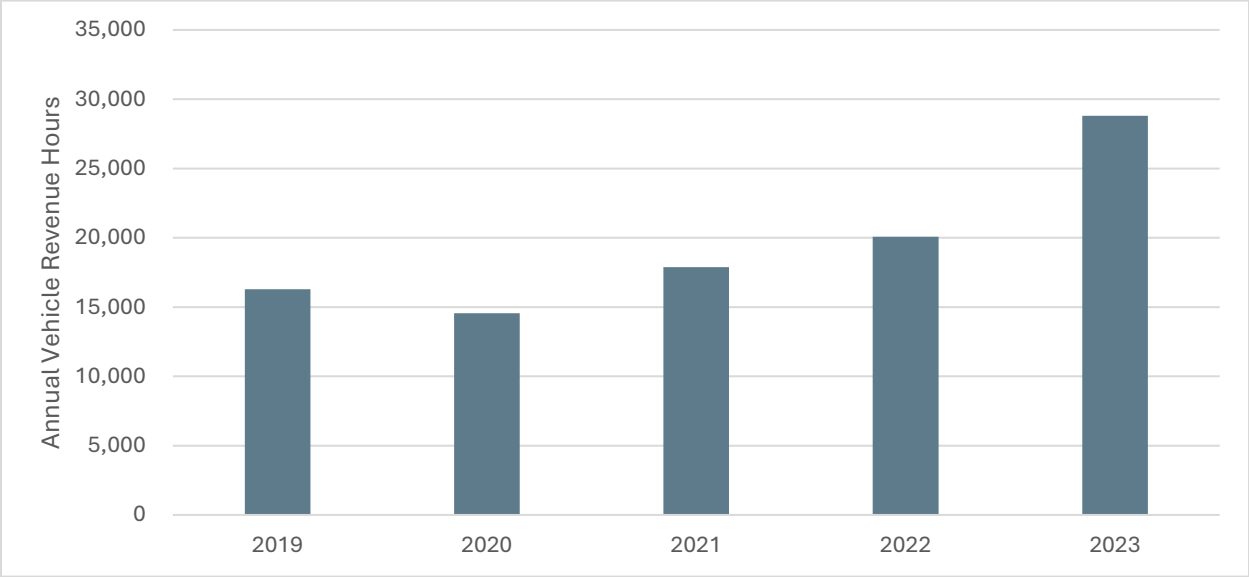
EFFICIENCY

Resources

Due to the nature of paratransit services, individualized trip origins and destinations and the needs of paratransit clients, each trip requires extensive resources that are difficult to scale up. As ridership demand grows for paratransit services, the resources needed to meet that demand rises quickly.

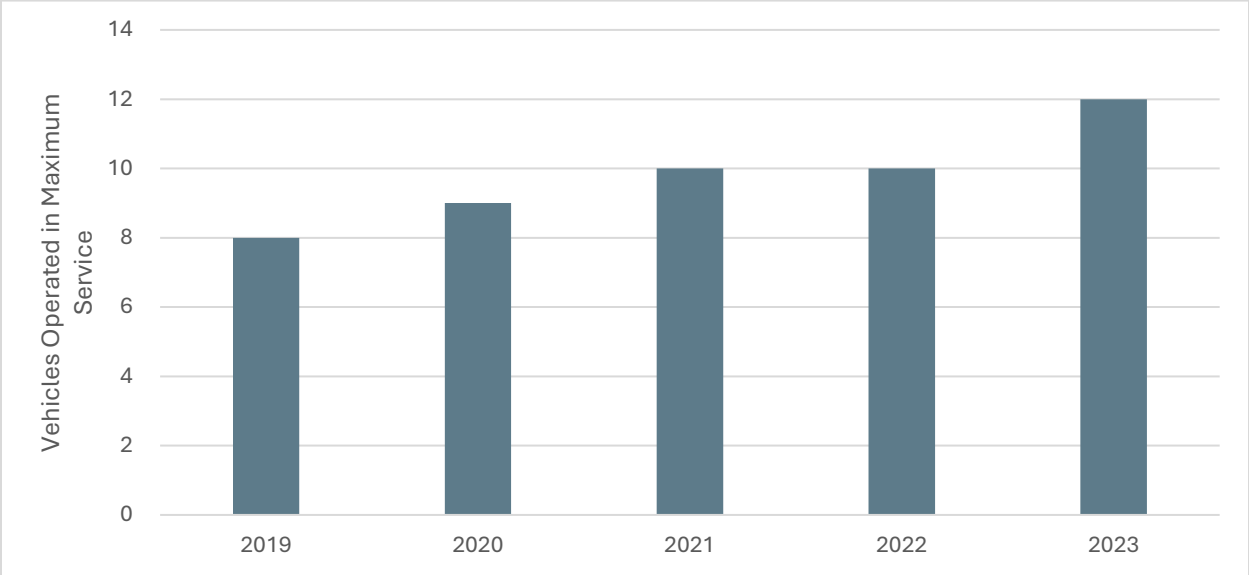
Vehicle revenue hours have increased significantly to meet rising demand for service; Figure 24 shows that annual vehicle revenue hours for Yolobus Special increased by 77 percent between 2019 and 2023 from 16,300 revenues hours to 28,800 revenue hours.

Figure 24 - Annual Vehicle Revenue Hours, Yolobus Special



The number of vehicles needed to provide Yolobus special has also increased. In 2019, eight vehicles were operated in maximum service while in 2023 that number has increased to 12 vehicles.

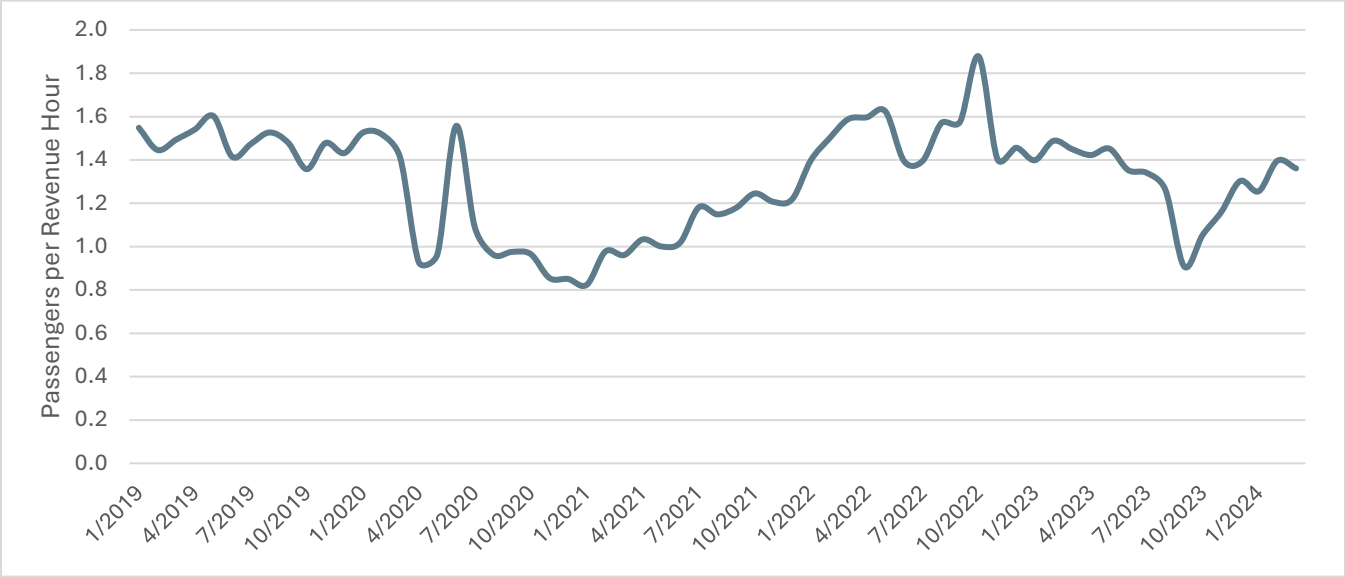
Figure 25 - Vehicles Operated in Maximum Service, Yolobus Special



Productivity

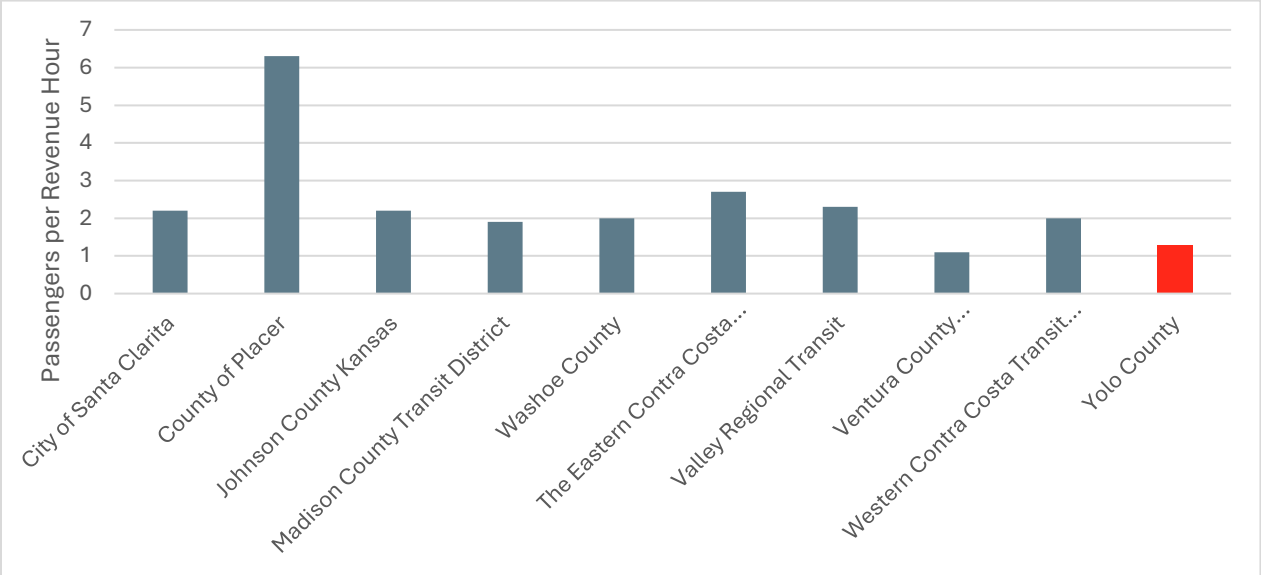
Productivity of Yolobus Special services, as measured by passenger trips per revenue hour, has remained relatively stable. As seen in Figure 42, productivity in 2019 was 1.5 passengers per revenue hour and 1.3 passengers per revenue hour in 2023.

Figure 26 - Yolobus Special Productivity (Passengers per Revenue Hour), 2019-2024



Compared to peer regions, Yolobus Special carries slightly below average passengers per revenue hour, with peers carrying an average of 2.4 passengers per revenue hour on their demand response services in 2023.

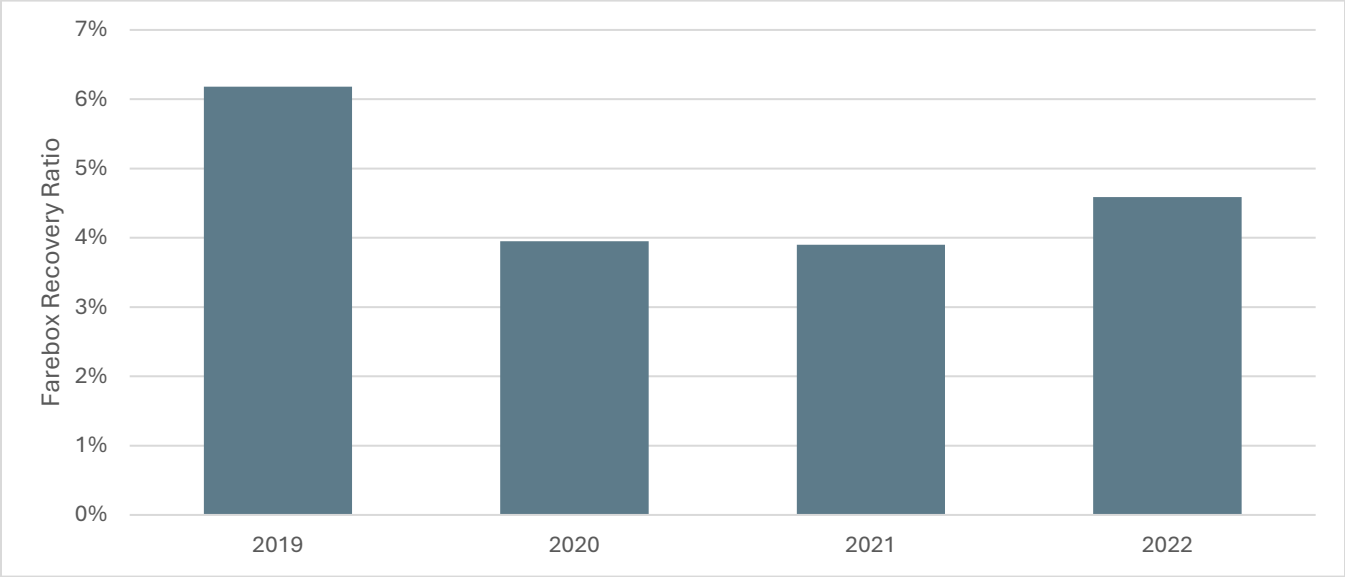
Figure 27 – 2023 Annual Passengers per Revenue Hour, Demand Response Services, YoloTD and Peer Agencies



Cost Effectiveness

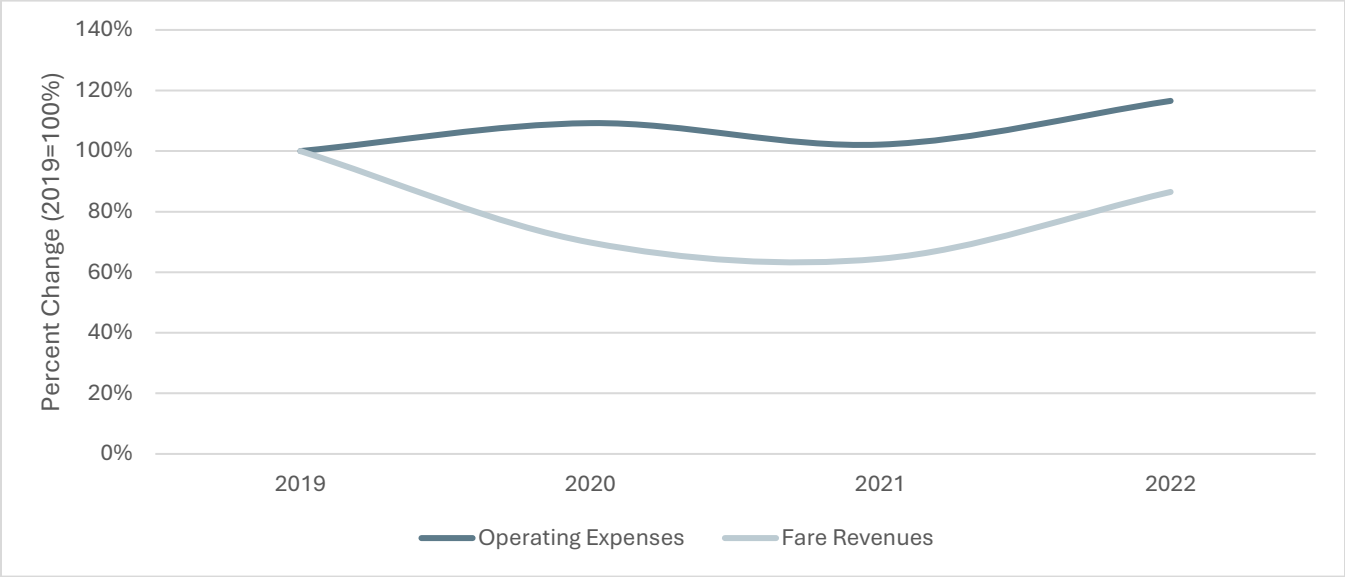
The cost-effectiveness of Yolobus Special services has declined slightly since 2019. Figure 24 shows that the farebox recovery ratio of Yolobus Special has declined slightly since 2019 from 6.2 percent to 4.6 percent in 2022.

Figure 28 - Farebox Recovery Ratio, Yolobus Special, 2019-2022



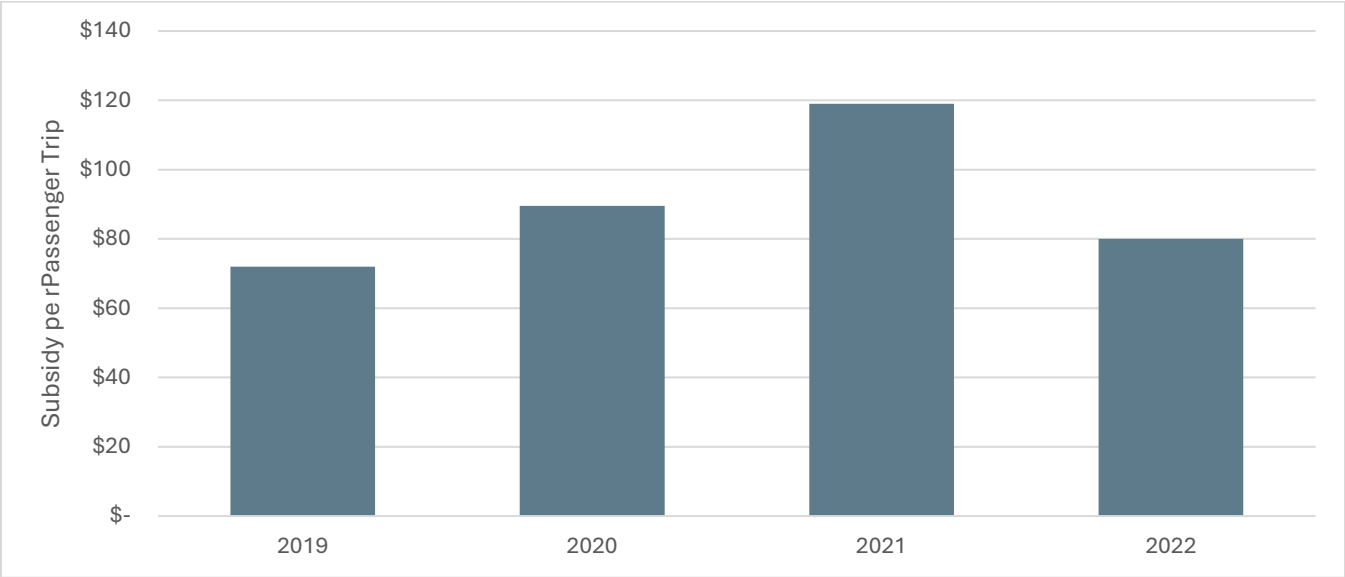
The decline in cost-effectiveness is due to the simultaneous increase in operating expenses and decline in farebox revenue (Figure 44). Between 2019 and 2022 operating expenses for Yolobus special increased by 17 percent from $1.8 million to $2.1 million while farebox revenues declined by 13 percent from $114,000 to $98,000. The rise in operating cost is due to the increase in demand for a service that is relatively inefficient in terms of passengers carried per hour, so the amount of service in terms of revenue hours rises in tandem with ridership demand. This is unlike fixed-route service, which is able to accommodate ridership growth without increasing revenue hours. Cost per revenue hour has remained relatively stable since 2019; between 2019 and 2022 operating expenses per revenue hour increased slightly from $112.89 per revenue hour in 2019 to $113.53 per revenue hour in 2022.

Figure 29 - Change in Yolobus Special Operating Expenses and Fare Revenues 2019-2022



Though overall operating expenses and fare revenues have diverged, subsidies at the trip level have remained relatively stable (Figure 26). Subsidies required per passenger trip have increased from $71.95 per trip in 2019 to $79.99 per trip in 2022.

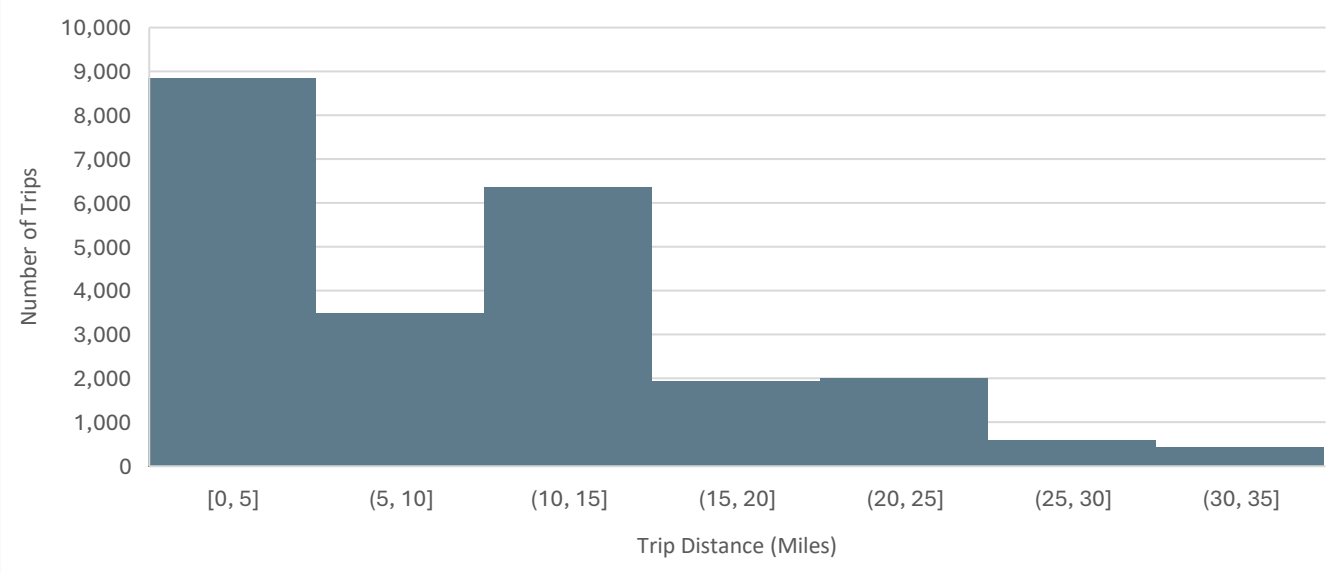
Figure 30 - Subsidy per Passenger Trip, Yolobus Special, 2019-2022



TRIP DISTANCE

The average trip distance for a Yolobus Special trip was 10.3 miles in FY 2023. One-quarter (25 percent) of trips were under three miles while 75 percent of trips were under 14 miles.

Figure 31 - Average Trip Distance, Yolobus Special, FY 2023



Destinations

Yolobus Special passengers use the service for a variety of trip purposes, but trips are concentrated in some particularly high-demand locations. The top 10 destinations for Yolobus Special passengers make up over 50 percent of all trips. Popular destinations for Yolobus Special includes special education schools, adult day care facilities, healthcare facilities, retail locations, and employment services centers. Worth noting is that trips to and from the True Connections special education school in Davis make up 20 percent of all Yolobus Special Trips.

Table 19 - Top Destinations for Yolobus Special Users, FY 2023-2024

Rank	Destination	Location Type	Percent of Trips
1	True Connections (Davis)	Special Education School	20%
2	Summer House, Inc. (Davis)	Assisted Living Facility	5%
3	DaVita Dialysis Center (West Sacramento)	Healthcare	4%
4	Yolo Adult Day Care Center (Woodland)	Assisted Living Facility	4%
5	Yolo Employment Services (Woodland)	Employment Services	4%
6	Raley's (Woodland)	Retail	4%
7	Davita Dialysis (Woodland)	Healthcare	3%
8	Walmart (Woodland)	Retail	3%
9	Woodmark Apartments (Woodland)	Multifamily Residential	2%
10	McDonald's (Woodland)	Restaurant	2%

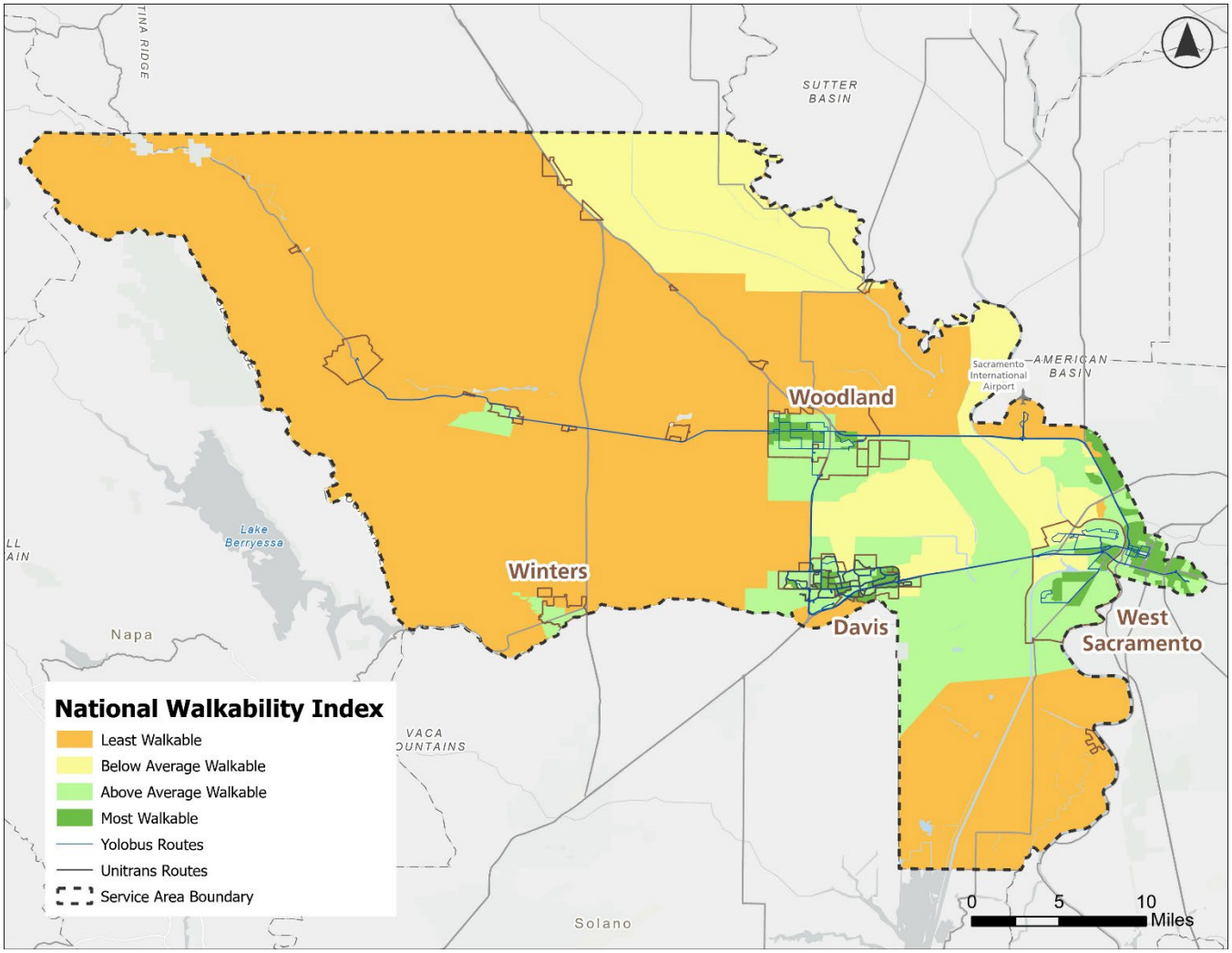
Key Takeaways

- **Like systems throughout the country, ridership on Yolobus fixed route services has declined since the COVID-19 pandemic.** Ridership is recovering but has been relatively flat between 2022 and 2024.
- **Ridership has been significantly impacted by the amount of service being provided.** YoloTD still has not completely restored service to pre-pandemic levels which has had a continued impact on ridership levels, YoloTD had some of the largest declines in service when compared to peers. Ridership recovery has been highest on Routes 42 and 215, the routes which have either maintained or increased their levels of service since 2019.
- **The majority of Yolobus ridership occurs on routes 42A, 42B, and 215.** Approximately 73 percent of system ridership takes place on Routes 42 and 215. Forty-nine percent of Yolobus fixed-route and microtransit revenue hours are dedicated to Route 42 and 11 percent are dedicated to Route 215.
- **System productivity is slightly lower than it was in 2019,** dropping from 12 passengers per revenue hour to eight passengers per revenue hour in 2023, while passengers per trip fell from 12 to nine in the same timeframe. Route 215 is the only route that carries more than 10 passengers per revenue hour with a productivity of 17 passengers per revenue hour. Productivity in the Yolobus system is impacted by the large distances that bus routes must cover per trip, a function of providing service in a primarily rural and suburban environment.
- **The busiest bus stops in the Yolobus system are Cache Creek Casino Resort, downtown Sacramento stops, UC Davis stops, and County Fair Mall.** The latter stop may be reflective that it is a transfer point rather than a destination given the vacancies at the mall.
- **Crowding is not a major issue on most Yolobus trips.** The only routes with potential crowding issues are Routes 215 and 42B during AM peaks and 42A during PM peaks.
- **Low service frequency and limited-service spans limit Yolobus services' competitiveness with other transportation modes.** Most of the service operates at 60-minute frequencies and terminating at 8 PM. Service frequency and span of service is greatest on routes with the highest ridership: Routes 215 and 42 A/B.
- **Service has changed significantly since the COVID-19 pandemic,** with peak-oriented commuter services contracting significantly and rural services replaced by microtransit services.
- **Demand for BeeLine microtransit service has increased since it was initially introduced, with demand rising faster on Woodland BeeLine services.** Popular destinations for BeeLine services include commercial locations in Woodland, Davis, Vacaville, and Woodland Community College.
- **The most popular BeeLine service is the Woodland service**, which has significantly higher demand than the Winters and Knights Landing services.

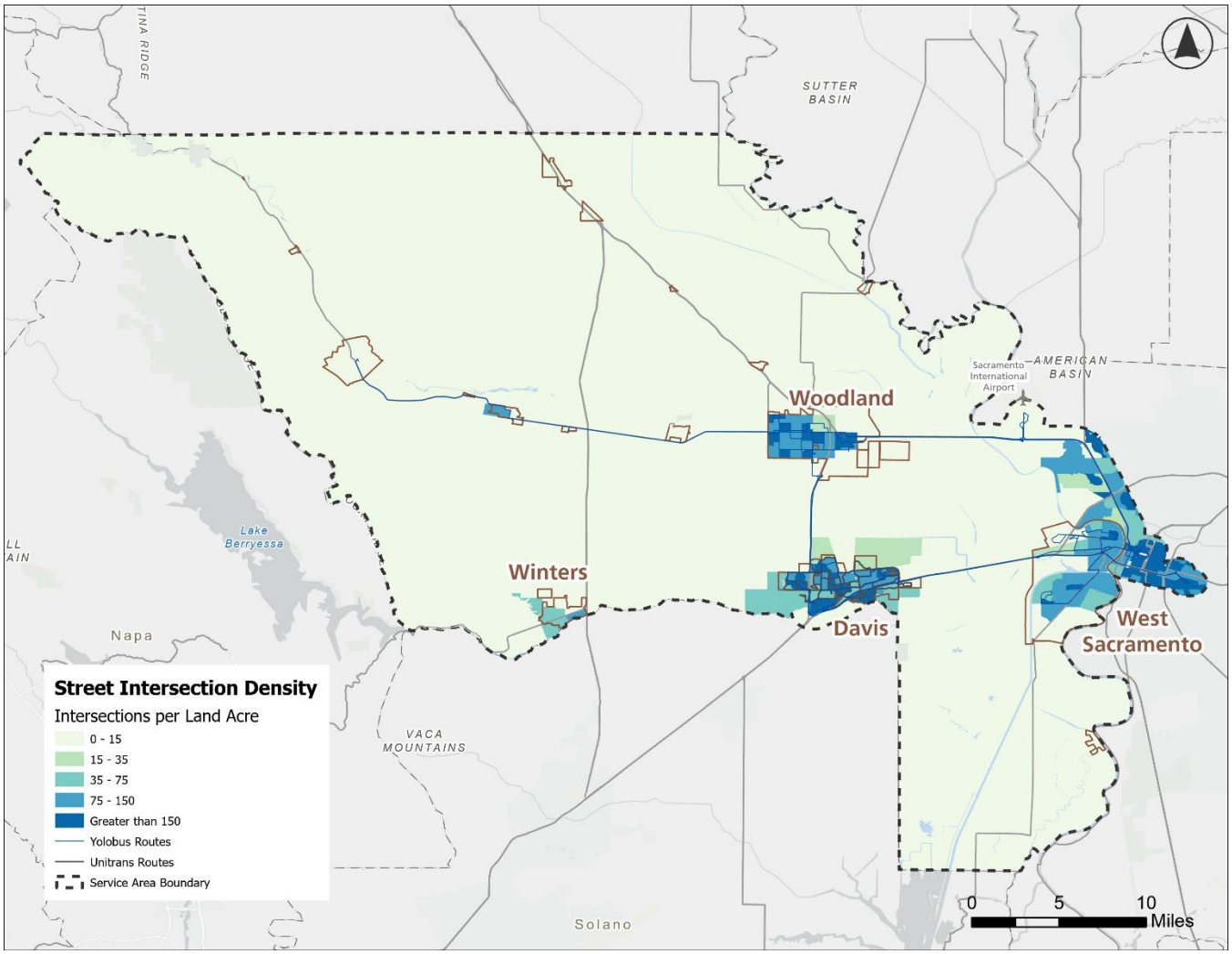
- **BeeLine's performance in replacing low productivity fixed route service is mixed.** Woodland, Winters, and Knights Landing services carry fewer passengers per revenue hour than their respective fixed route services, but Knights Landing BeeLine is carrying more passengers per day than its previous fixed-route service. Ridership demand for Woodland BeeLine service is continuing to grow, but due to the nature of microtransit service, resources needed to meet that demand will increase along with it.
- **Ridership demand for Yolobus Special services has increased significantly since 2019, with** ridership at its highest-ever levels in 2024. Service levels have had to expand to meet this ridership demand with vehicle revenue hours increasing 76 percent between 2019 and 2023.
- **Subsidies for Yolobus Special service have stabilized somewhat since spiking in 2020 and 2021,** With subsidies of $80 per trip, Yolobus Special still requires significant subsidies per passenger.
- **Yolobus Special trips are concentrated** with the top 10 destinations making up over 50 percent of all trips. Special education schools, assisted living facilities, retail, and employment services are popular destinations.

Appendix A: Yolo County Maps

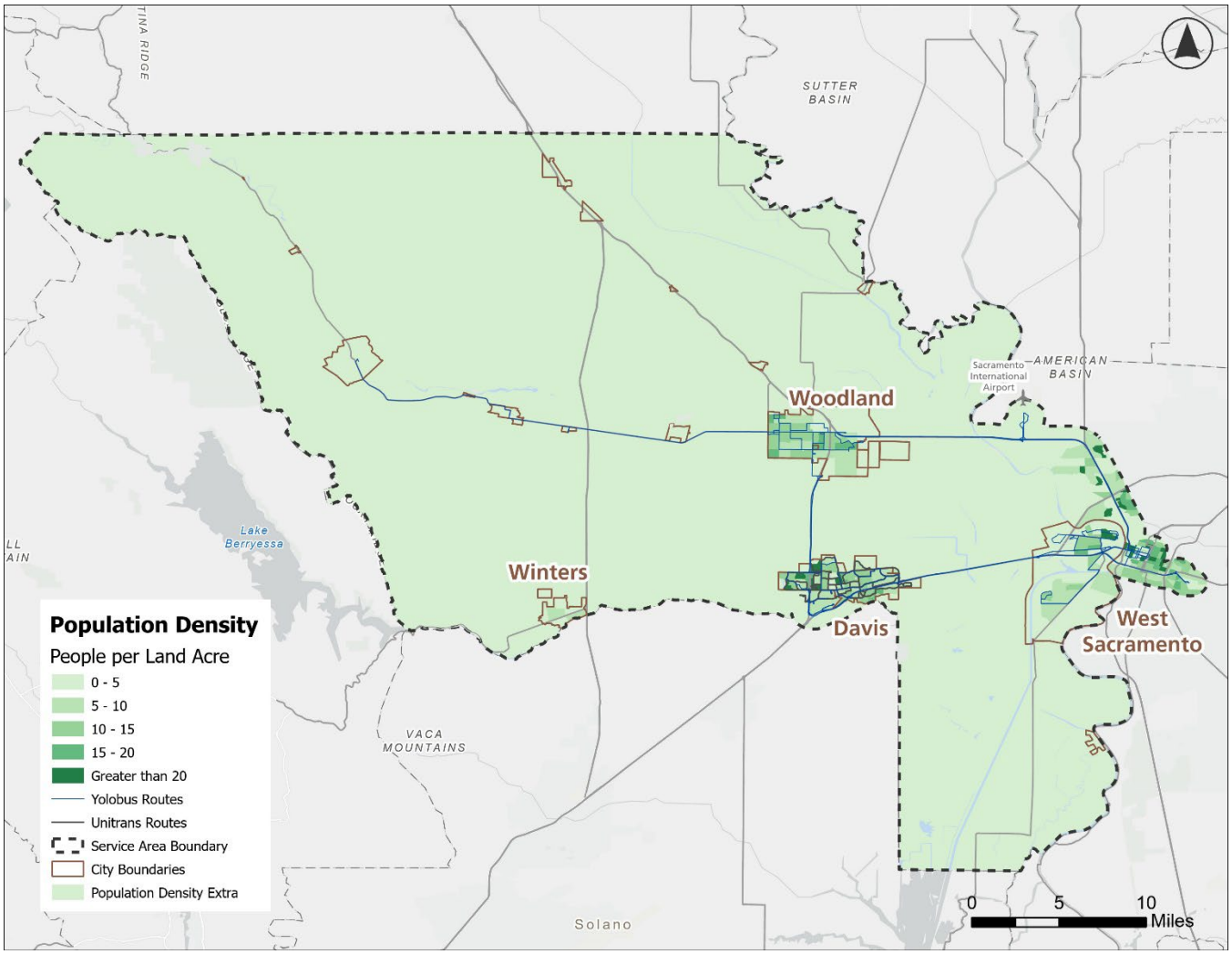
Map 29 - National Walkability Index, Yolo County



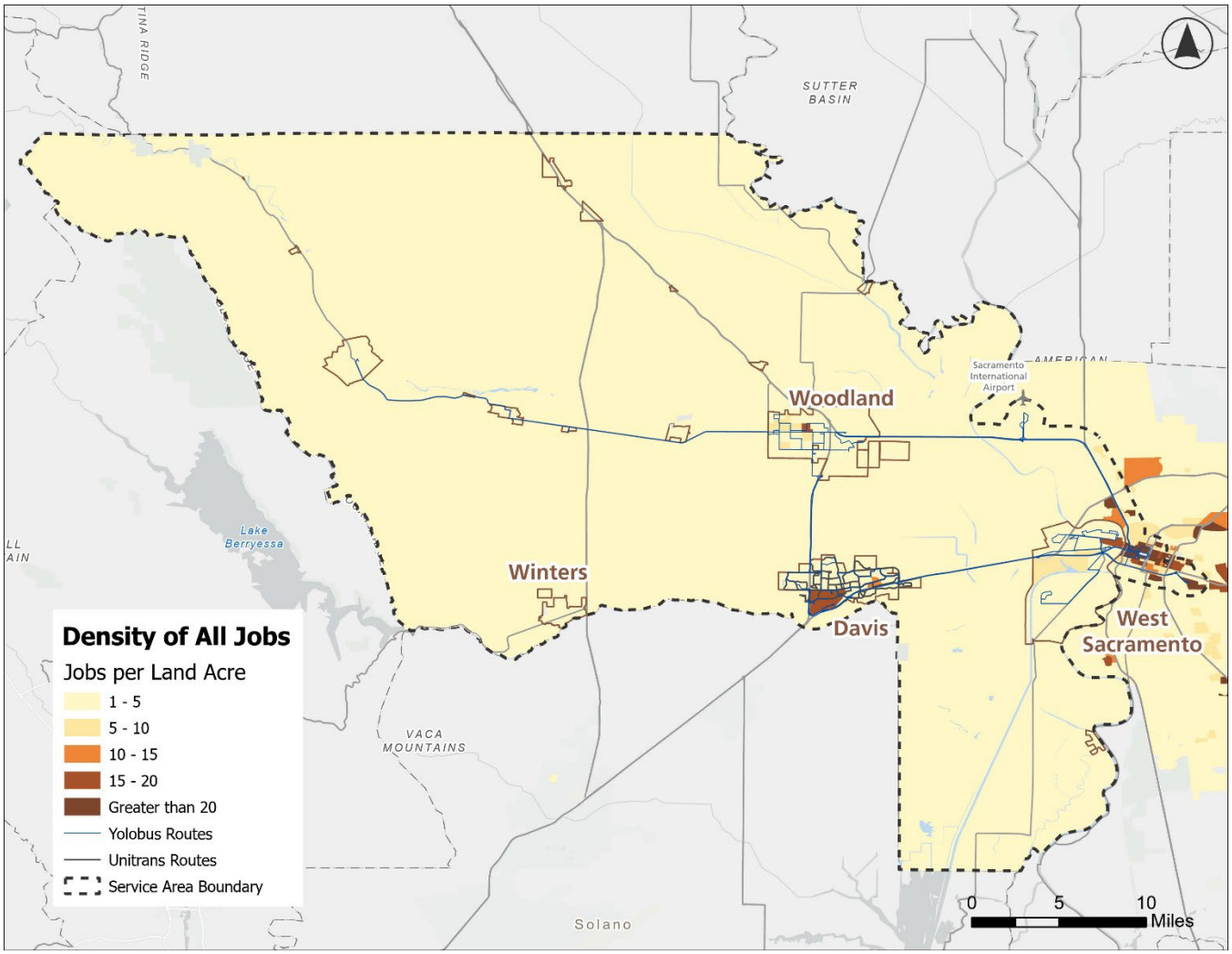
Map 30 - Street Intersection Density, Yolo County



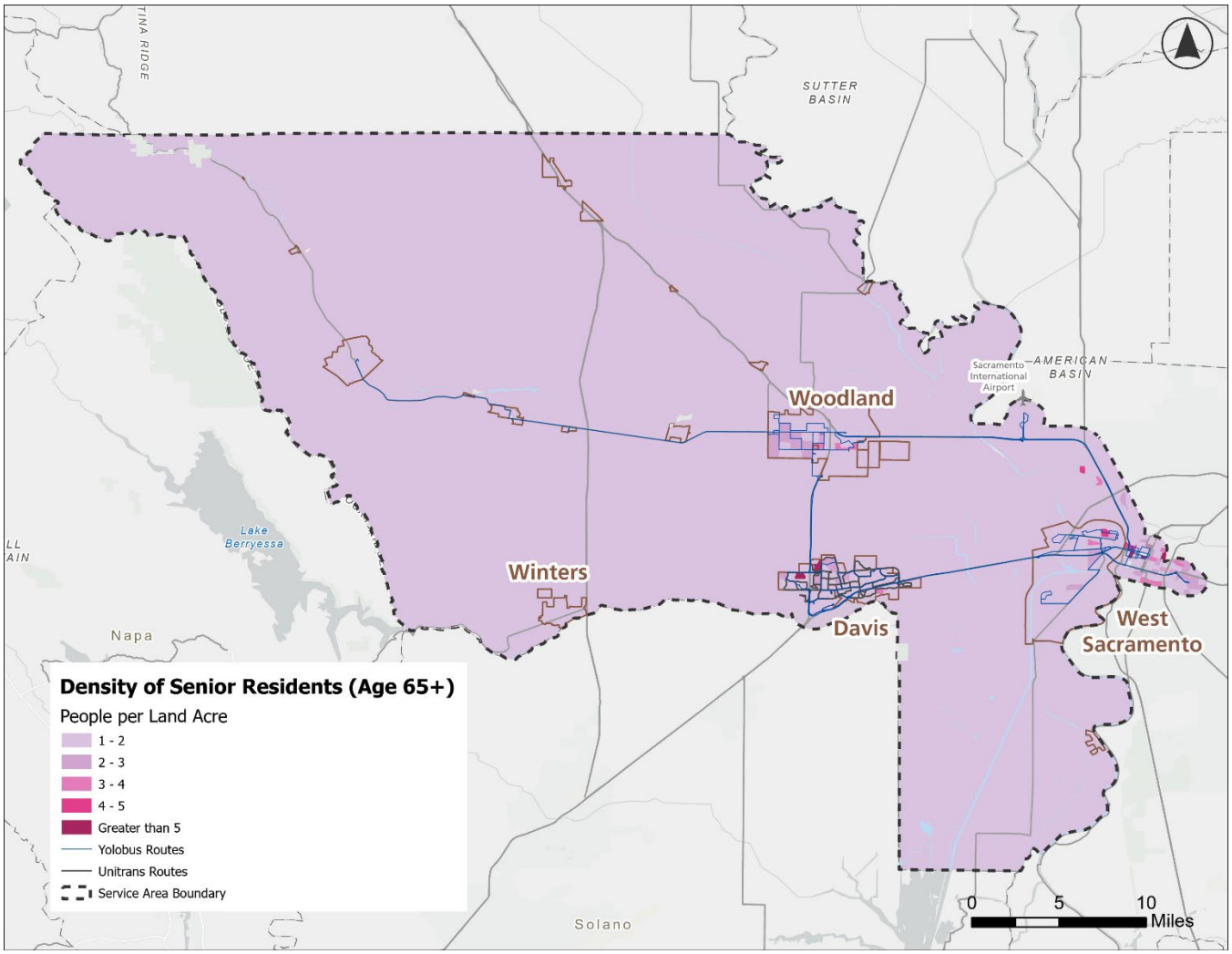
Map 31 - Population Density, Yolo County



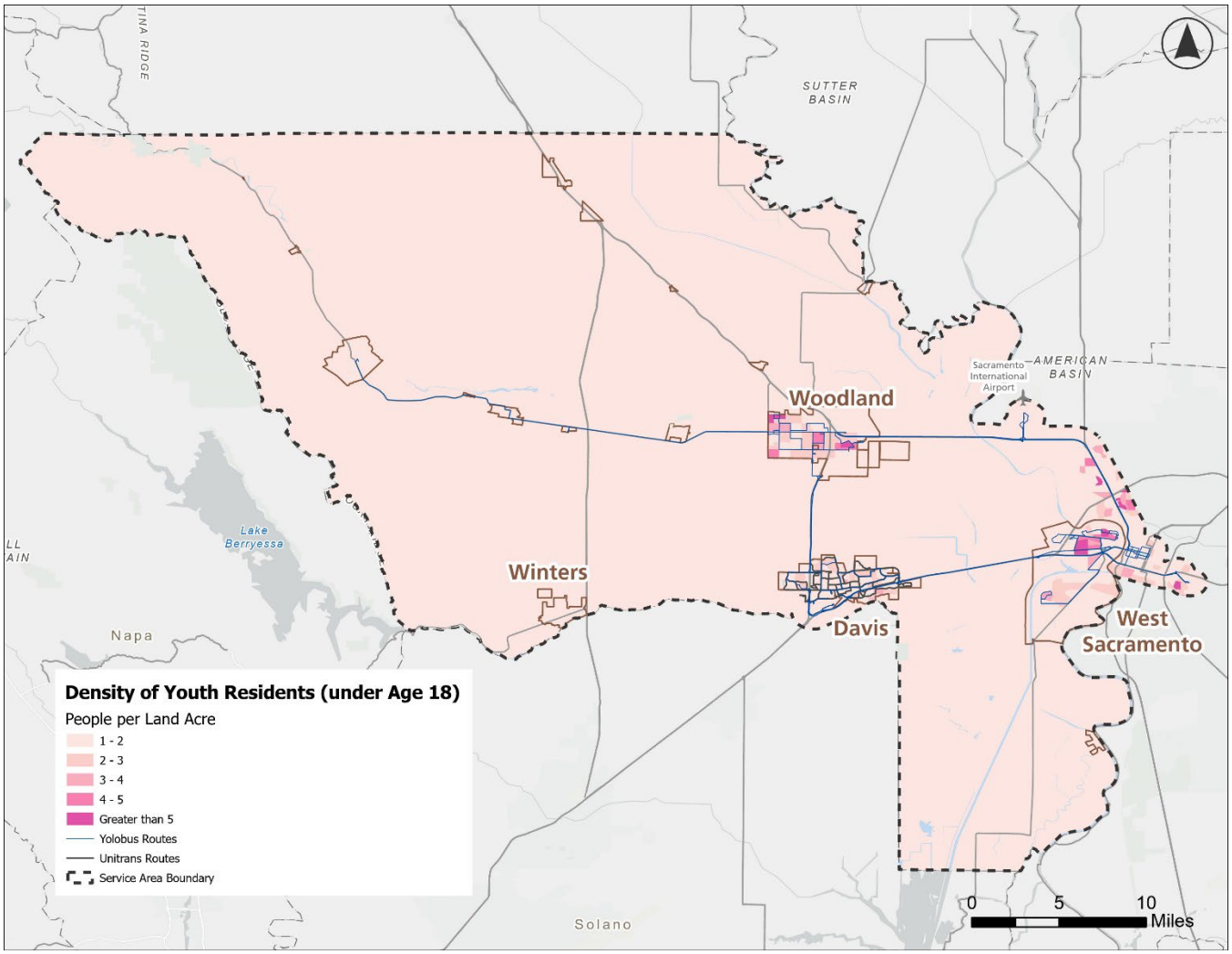
Map 32 - Job Density, Yolo County



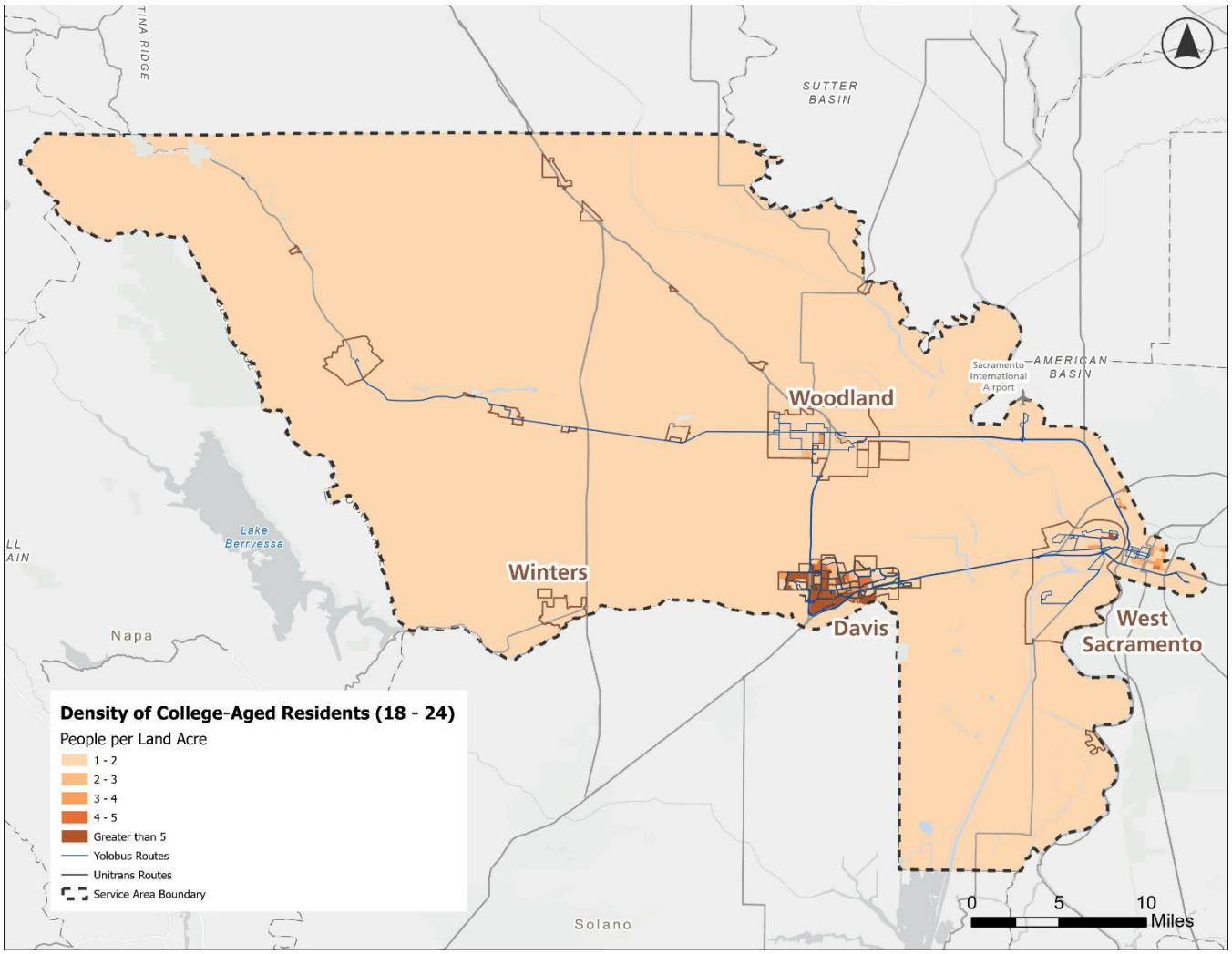
Map 33 - Density of Senior Residents, Yolo County



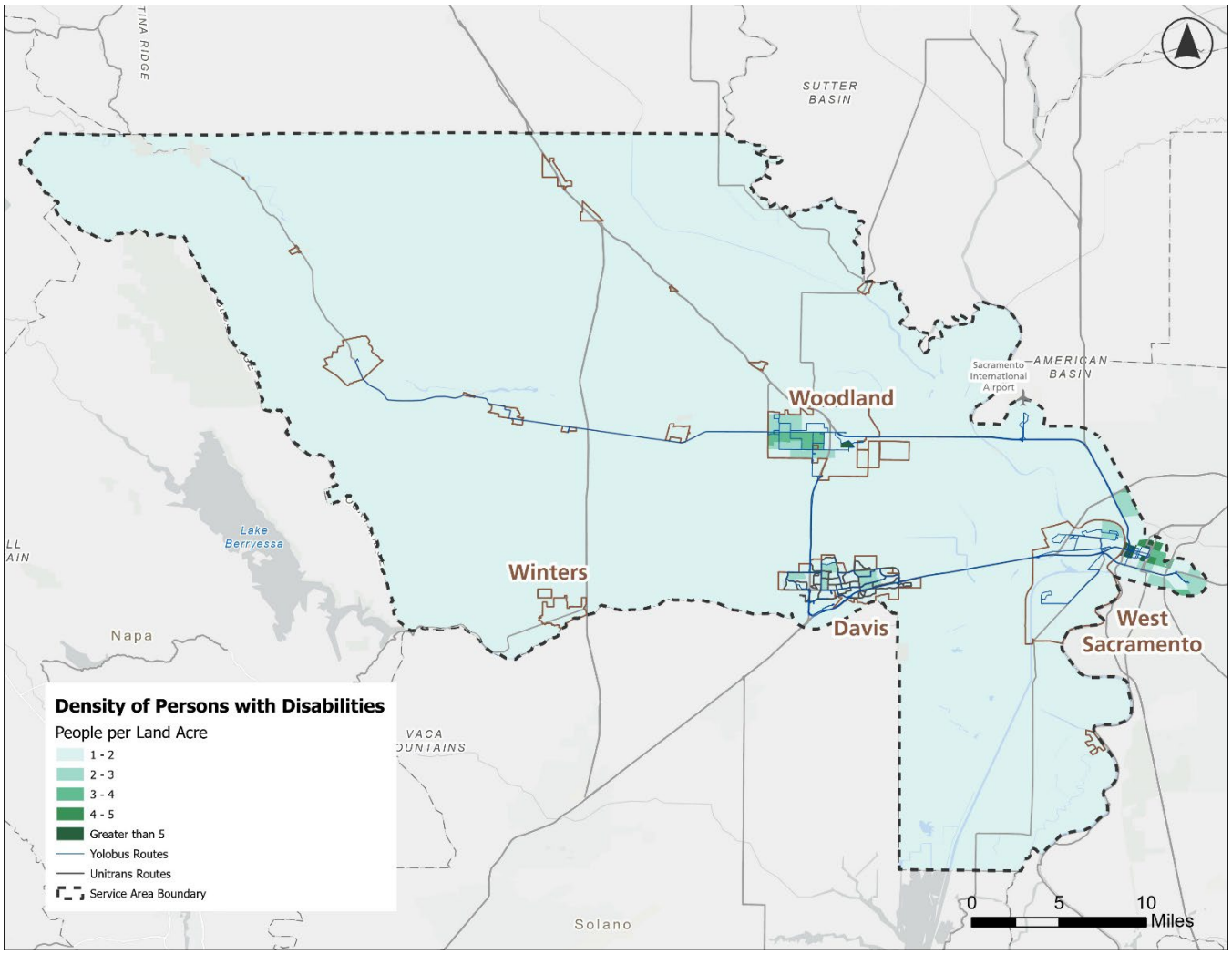
Map 34 - Density of Youth Residents, Yolo County



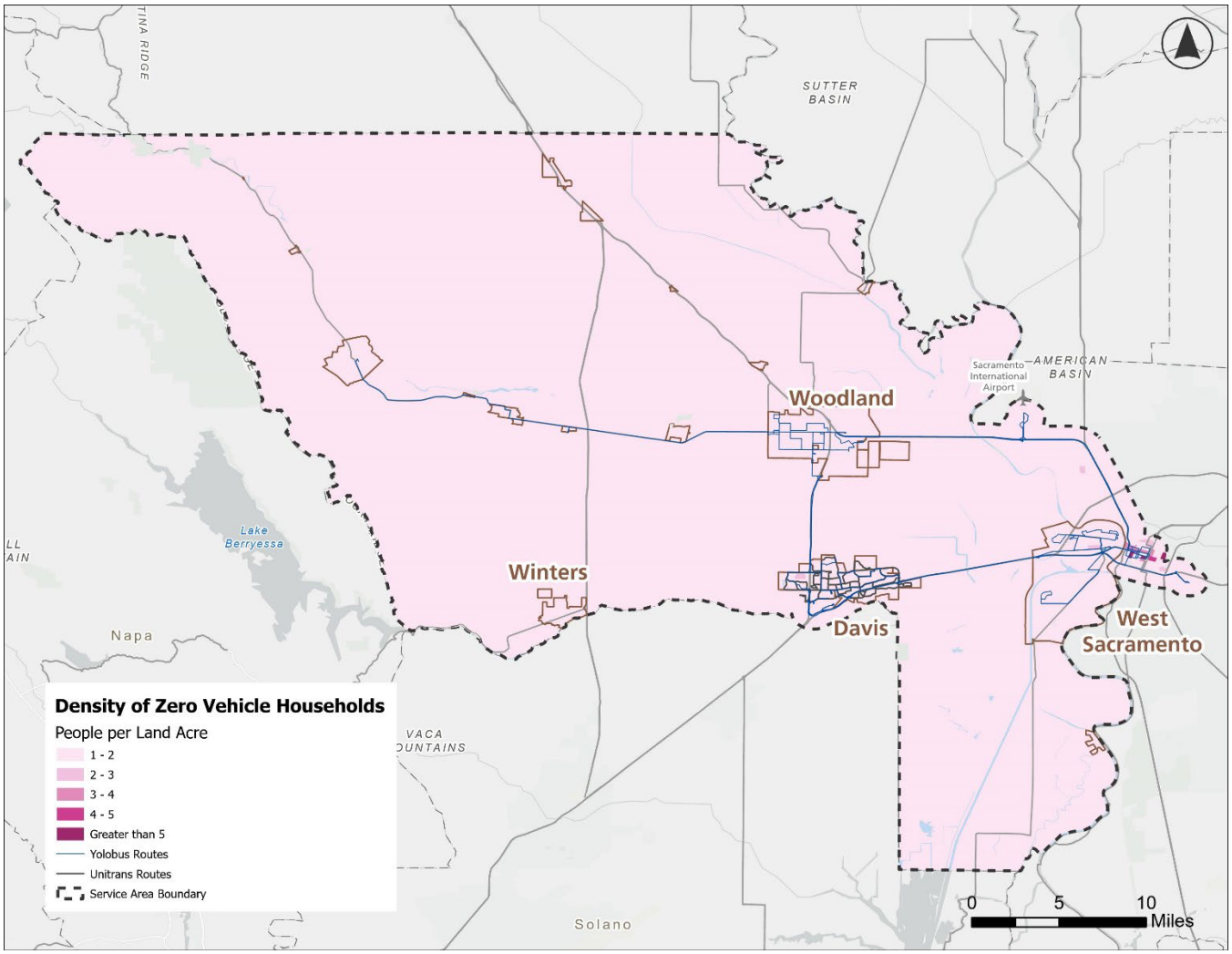
Map 35 - Density of College-Aged Residents, Yolo County



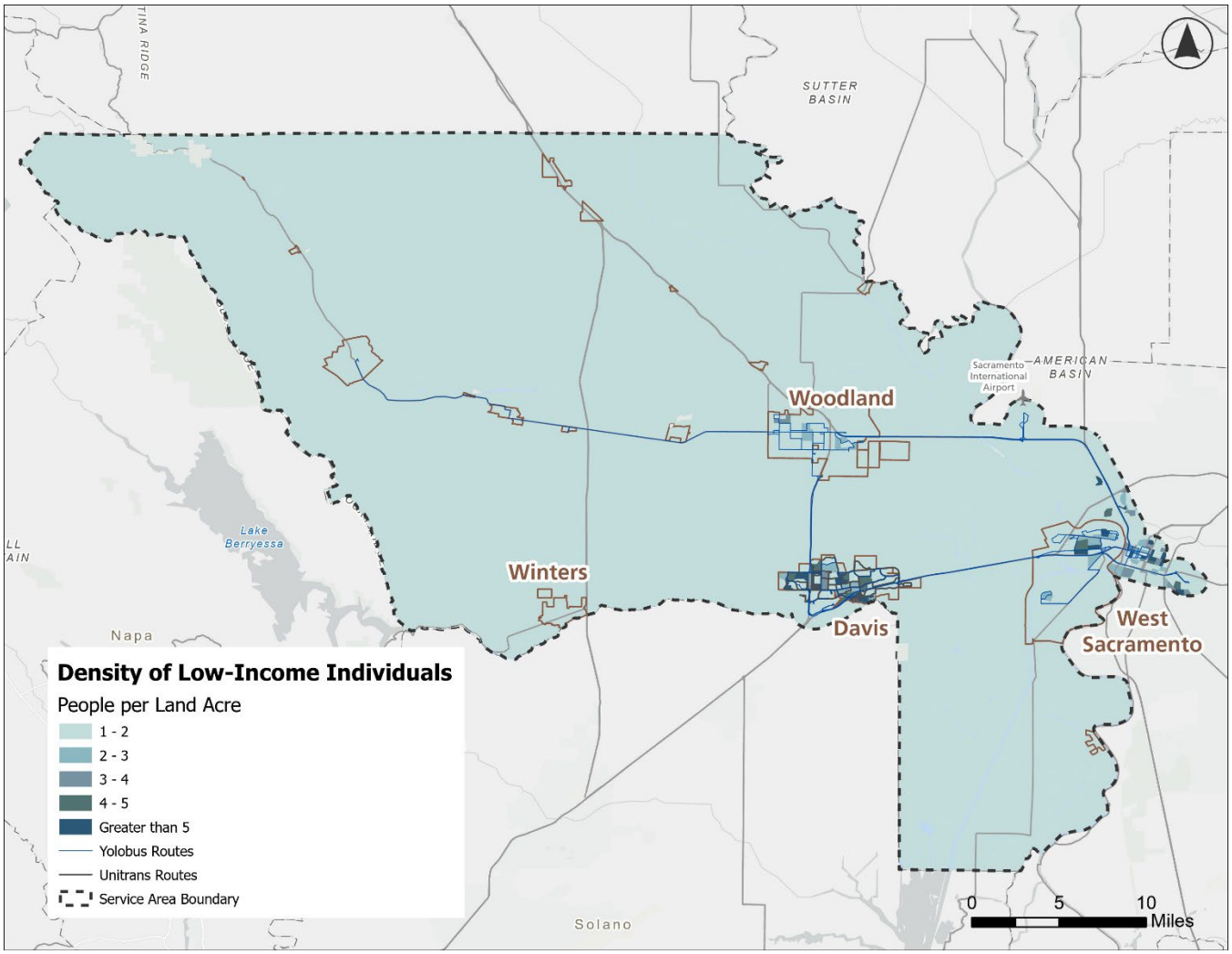
Map 36 - Density of Populations with Disabilities, Yolo County



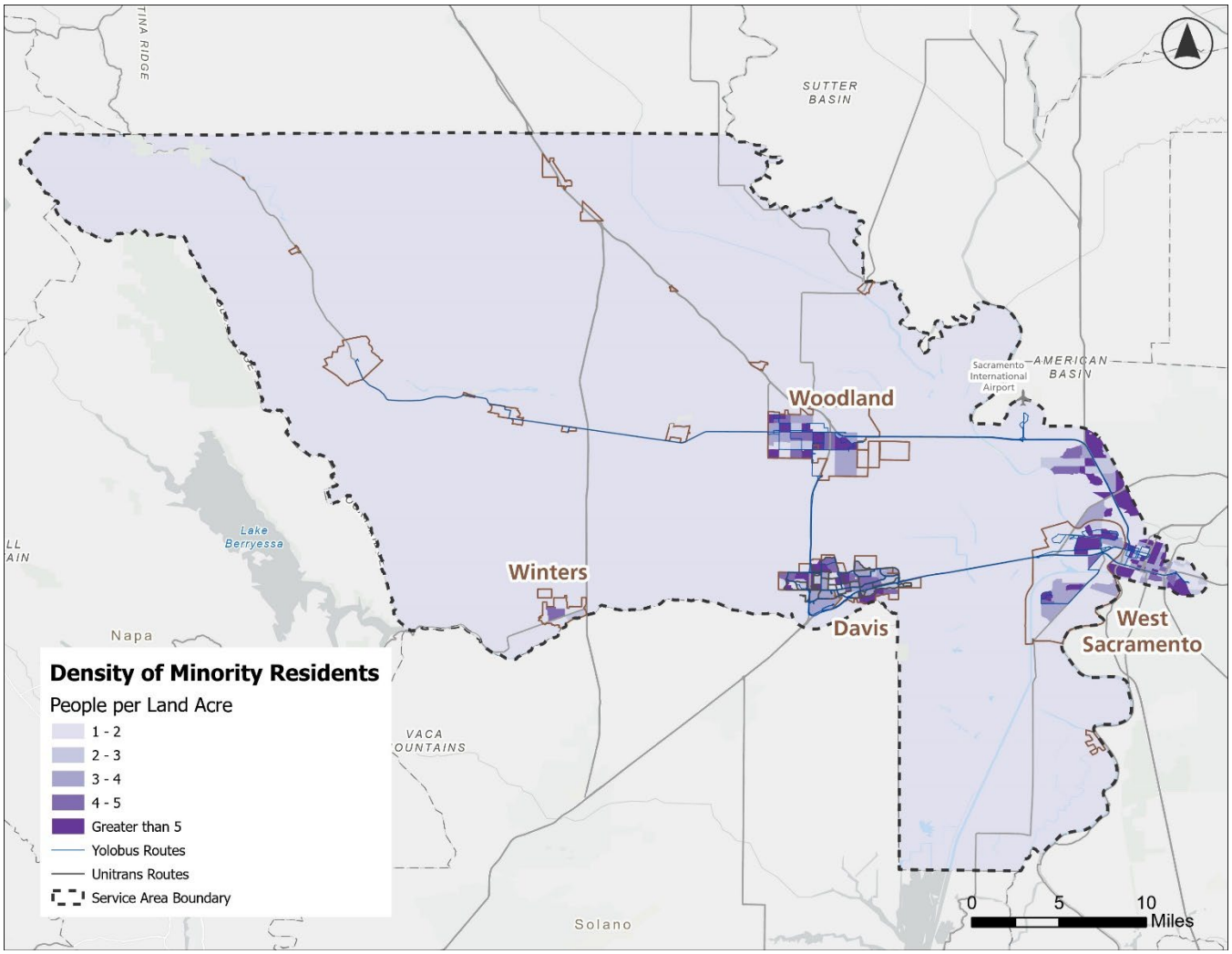
Map 37 - Density of Zero Vehicle Households, Yolo County



Map 38 - Density of Low-Income Individuals, Yolo County



Map 39 - Density of Minority Residents, Yolo County



Map 40 - Density of Residents with Limited English Proficiency, Yolo County