




# Ventura County Short Range Transit Plan

## Ventura County Transportation Commission

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NELSON
NYGAARD

## Table of Contents

**Page**

**1 Executive Summary ..... 1-1**
Introduction ..... 1-1
Plan Development ..... 1-1
**2 Summary of Related Plans ..... 2-1**
Key Findings and Priorities ..... 2-5
**3 Transit Service Evaluation ..... 3-1**
Fixed-Route Bus Service ..... 3-2
Dial-A-Ride Service ..... 3-19
Commuter Rail Service ..... 3-21
**4 Transit Market Analysis ..... 4-1**
Demographic and Socioeconomic Evaluation ..... 4-1
Transit Propensity ..... 4-3
Employee Workplace Analysis ..... 4-12
Commuter Origin and Destinations ..... 4-26
Travel Demand Analysis ..... 4-27
College Student Residential Densities ..... 4-33
**5 Service Gap Analysis ..... 5-1**
Service Coverage ..... 5-1
Service Connectivity ..... 5-2
Scheduling Coordination ..... 5-3
**6 Transit Investment Plan ..... 6-1**
Transit Centers ..... 6-1
Park and Rides ..... 6-9
Operations Facilities ..... 6-11
**7 Vehicle Acquisition Plan ..... 7-1**
Fleet Improvements ..... 7-13
**8 Performance Metrics ..... 8-1**
Route Classification System ..... 8-3
Performance Metrics ..... 8-8
Service Design Guidelines ..... 8-11
Service Consistency ..... 8-15

## Table of Figures

| | | Page |
|---|---|---|
| Figure 1 | Countywide Fixed Route Transit Services | 3-1 |
| Figure 2 | Service Provider Summary | 3-2 |
| Figure 3 | Annual Ridership by Service Provider (FY 2013-2014) | 3-3 |
| Figure 4 | Annual Revenue Hours by Service Provider (FY 2013-2014) | 3-3 |
| Figure 5 | Ridership Productivity (Boardings per Revenue Hour) by Service Provider (FY 2013-2014) | 3-4 |
| Figure 6 | Weekday Ridership by Route (FY 2013-2014) | 3-5 |
| Figure 7 | Saturday Ridership by Route (FY 2013-2014) | 3-6 |
| Figure 8 | Sunday Ridership by Route (FY 2013-2014) | 3-6 |
| Figure 9 | Weekday Productivity (Boardings per Revenue Hour) by Route (FY 2013-2014) | 3-7 |
| Figure 10 | Saturday Productivity (Boardings per Revenue Hour) by Route (FY 2013-2014) | 3-8 |
| Figure 11 | Sunday Productivity (Boardings per Revenue Hour) by Route (FY 2013-2014) | 3-8 |
| Figure 12 | Weekday Service Span by Route (FY 2013-2014) | 3-9 |
| Figure 13 | Saturday Service Span by Route (FY 2013-2014) | 3-10 |
| Figure 14 | Sunday Service Span by Route (FY 2013-2014) | 3-11 |
| Figure 15 | Headways by Route and Service Level (FY 2013-2014) | 3-12 |
| Figure 16 | VCTC Intercity – Average Peak Hour Wait Time (FY 2013-2014) | 3-14 |
| Figure 17 | VCTC Intercity – Average Off-Peak Wait Time (FY 2013-2014) | 3-14 |
| Figure 18 | Gold Coast Transit – Average Peak Hour Wait Time (FY 2013-2014) | 3-16 |
| Figure 19 | Gold Coast Transit – Average Off-Peak Wait Time (FY 2013-2014) | 3-17 |
| Figure 20 | Population Density | 4-4 |
| Figure 21 | Employment Density | 4-5 |
| Figure 22 | Zero Vehicle Household Density | 4-6 |
| Figure 23 | Low Income Households | 4-7 |
| Figure 24 | Senior Population Density | 4-8 |
| Figure 25 | Young Adult Population | 4-9 |
| Figure 26 | Rental Household Population | 4-10 |
| Figure 27 | Transit Propensity Index | 4-11 |
| Figure 28 | Intercity Employment Patterns | 4-12 |
| Figure 29 | Employee Workplace Analysis Zones | 4-15 |
| Figure 30 | Employment Locations of Workers Residing in Ventura | 4-16 |
| Figure 31 | Employment Locations of Workers Residing in Oxnard-Port Hueneme | 4-17 |
| Figure 32 | Employment Locations of Workers Residing in Santa Paula-Fillmore | 4-18 |
| Figure 33 | Employment Locations of Workers Residing in Simi Valley-Moorpark | 4-19 |
| Figure 34 | Employment Locations of Workers Residing in Thousand Oaks | 4-20 |
| Figure 35 | Employment Locations of Workers Residing in Camarillo | 4-21 |
| Figure 36 | Employment Locations of Workers Residing in Ojai | 4-22 |
| Figure 37 | Employment Locations of Workers Residing in East County | 4-24 |
| Figure 38 | Employment Locations of Workers Residing in West County | 4-25 |
| Figure 39 | VCADCD Commuter Origin and Destination Cities | 4-26 |
| Figure 40 | All Trips in Ventura County | 4-29 |
| Figure 41 | Home-Based Work Trips in Ventura County | 4-30 |

Figure 42 Home-Based School/College Trips in Ventura County ..... 4-31
Figure 43 Home-Based Work Trips to and from Los Angeles County ..... 4-32
Figure 44 California State University-Channel Islands Student Density ..... 4-34
Figure 45 Ventura College Student Density ..... 4-35
Figure 46 Moorpark College Student Density ..... 4-36
Figure 47 Oxnard College Student Density ..... 4-37
Figure 48 List of Major Transit Centers ..... 6-1
Figure 49 Park and Ride Locations ..... 6-9
Figure 50 Listing of Park and Rides ..... 6-10
Figure 51 Vehicle Useful Life Guidelines ..... 7-1
Figure 52 Vehicle Ownership Status for Fixed-Route Service Providers ..... 7-2
Figure 53 Vehicle Ownership Status for Demand Response Service Providers ..... 7-2
Figure 54 Gold Coast Transit District - Vehicle Acquisition Schedule ..... 7-3
Figure 55 VCTC Intercity - Vehicle Acquisition ..... 7-3
Figure 56 Simi Valley Transit - Vehicle Acquisition Schedule ..... 7-4
Figure 57 Thousand Oaks Transit - Vehicle Acquisition Schedule ..... 7-4
Figure 58 Valley Express - Vehicle Acquisition Schedule ..... 7-5
Figure 59 Ojai Trolley - Vehicle Acquisition Schedule ..... 7-5
Figure 60 Moorpark City Transit - Vehicle Acquisition Schedule ..... 7-5
Figure 61 Kanan Shuttle - Vehicle Acquisition Schedule ..... 7-6
Figure 62 Camarillo Area Transit - Vehicle Acquisition Schedule ..... 7-6
Figure 63 Gold Coast Access - Vehicle Acquisition Schedule ..... 7-7
Figure 64 Valley Express Dial-a-ride - Vehicle Acquisition Schedule ..... 7-7
Figure 65 Simi Valley Paratransit - Vehicle Acquisition Schedule ..... 7-8
Figure 66 Thousand Oaks Paratransit - Vehicle Acquisition Schedule ..... 7-8
Figure 67 Camarillo Area Paratransit - Vehicle Acquisition Schedule ..... 7-9
Figure 68 Oak Park Dial-a-ride - Vehicle Acquisition Schedule ..... 7-9
Figure 69 Harbor & Beaches Dial-a-ride - Vehicle Acquisition Schedule ..... 7-9
Figure 70 Countywide Fixed-Route Transit Vehicle Acquisition Needs ..... 7-10
Figure 71 Countywide Paratransit/Dial-a-Ride Vehicle Acquisition Needs ..... 7-10
Figure 72 Countywide Fixed-Route Transit Vehicle Acquisition Costs ..... 7-11
Figure 73 Countywide Paratransit/Dial-a-Ride Vehicle Acquisition Costs ..... 7-12
Figure 74 Vehicle Cost Assumptions ..... 7-13
Figure 75 Fixed-Route Transit Operators in Ventura County ..... 8-2
Figure 76 Route Classification Categories ..... 8-3
Figure 77 Recommended Route Classification ..... 8-6
Figure 78 Recommended Performance Standards ..... 8-10
Figure 79 Recommended Fixed Route Design Guidelines ..... 8-14

# 1 EXECUTIVE SUMMARY

## INTRODUCTION

The Ventura County Short Range Transit Plan (SRTP) provides strategies for improved regional coordination and connectivity, in an effort to establish a cohesive and consistent set of transit services. The SRTP also provides a framework for future growth with the primary goal of enhancing customer experience and increasing the viability of transit.

The SRTP incorporates input from VCTC staff, Ventura County Transportation Commission Transit Operators Advisory Committee (TRANSCOM) members, as well as community stakeholders and customers. The SRTP examines services provided by all transit operators in Ventura County and includes regional analyses to identify service gaps and prioritize investments. The SRTP was developed in conjunction with the VCTC Intercity Five-Year Plan.

## PLAN DEVELOPMENT

The following summaries include key tasks and identify important findings for each phase of the SRTP planning process.

### Transit Service Evaluation

The initial phase of the study included a comprehensive evaluation of all transit services within Ventura County, including current service levels and recent ridership performance. A number of important findings were identified during the service evaluation process:

- Service allocation (span, frequency, days of operation) varies significantly across service providers
- The most productive routes offer convenient headways and direct service
- The least productive routes offer highly specialized and/or indirect service

### Transit Market Analysis

An in-depth transit market analysis was conducted to identify areas and corridors that support increased levels of transit service. Countywide socio-economic and demographic characteristics were evaluated to determine areas of high transit propensity. Employment, commuting, and regional travel demand data were analyzed to prioritize future intercity service expansion. College and university student residential densities were also examined, revealing opportunities for improved transit access.

Market analysis reveals strong employment and educational travel patterns between Simi Valley, Thousand Oaks, Moorpark, and Oak Park. The East County Transit Alliance should continue to work together to improve connectivity and coordination.

## Service Gap Analysis

The transit service evaluation and market analysis serve as a basis for identifying service gaps within Ventura County and adjacent counties. Service gaps were evaluated in terms of deficiencies in coverage, connectivity, and schedule coordination.

Identified service gaps include:

- Infrequent and indirect transit service between:
  - Simi Valley and Moorpark College
  - South Oxnard and Camarillo
- Lack of timed transfers at major transit facilities
- Limited service spans across the county, which fail to meet the needs of transit-dependent riders working later shifts

The initial step of improving countywide connectivity is creating consistent clockface headways to better facilitate transfers. The overall lack of frequent and consistent schedules throughout Ventura County is primarily the result of several coverage-based transit systems.

## Transit Investment Plan

Several capital facility projects are recommended to increase customer satisfaction and convenience:

- Upgrade facilities, lighting and pedestrian access at Government Center bus stop located at Hill & Thille
- Establish a transit hub in Simi Valley that supports local and intercity services
- Construct a VCTC Intercity maintenance facility

## Performance Metrics

Countywide service guidelines and standards were developed to create a consistent service evaluation process that is necessary to comply with state requirements and assist in allocation of funding. Service guidelines and standards should be re-evaluated every two years.

# 2 SUMMARY OF RELATED PLANS

This section summarizes relevant planning documents in Ventura County that pertain to countywide transit service, with a focus on inter-jurisdictional coordination.

## Ventura County Transit Investment Study, 2009

Commissioned by the Ventura County Transportation Commission, this study examined funding allocation strategies with the overarching goal of improving coordination and linkages between agencies in and adjacent to Ventura County.

The study characterizes the existing countywide transit services as disjointed, with low frequencies and limited service spans. The study also points out that some systems do not connect despite being directly adjacent to each other. Through public outreach and stakeholder interviews, the study highlighted specific barriers to improved services:

### Barriers to Improved Services

- Few concentrated employment areas
- Too many operators and not enough coordination
- Limited funding
- Transit agency boards generally focus on maintaining, rather than expanding operations

With improved connectivity and coordination as the primary goal, a transit gap analysis identified priority corridors that merit further study for new or improved service:

### Transit Corridor Gaps

- Camarillo to Moorpark via Highway 118
- Camarillo to Moorpark via Santa Rosa Road
- Camarillo to South Oxnard/Port Hueneme
- Simi Valley to Thousand Oaks via E. Olsen Road
- West Oxnard to Ventura via Victory Avenue (served by new Gold Coast Transit Route 21)
- Fillmore to Santa Clarita via State Route 126 (inter-county connection)

Based on the institutional barriers and service gaps outlined above, the study recommended the following near- and long-term recommendations:

### Near-Term Improvements

- Coordinate services and schedules across jurisdictional boundaries
- Consider consolidating services within sub-areas of the county
- Continue and expand public outreach in planning process

### Long-Term Improvements

- Development of a more customer-focused, coordinated and consolidated transit system in Ventura County
  - Progress toward this goal has been made through a number of different forums, including the creation of the Gold Coast Transit District, the Heritage Valley Transit Service Cooperative Committee and the East County Transit Alliance
- Adhere to a long-term transit plan that addresses mobility within and across county borders

## Heritage Valley Transit Study, 2013

This study was commissioned by VCTC to evaluate transit demand and transit performance within the Heritage Valley area, with the purpose of identifying strategies for improving mobility within the constraints of funding and legislative developments. Along with changes to funding allocation, the provision of local transit services also needed to account for VCTC's planned exit from neighborhood transit operations. In drafting recommendations, special consideration was given to maintaining service within the community in coordination with the regional transit network (i.e., VCTC Intercity Hwy 126).

In consideration of community and stakeholder input, various potential service delivery models, and financial and governance constraints, the study put forth the following recommendations:

- Develop a joint powers agreement to retain local control over transit service in the Heritage Valley
- Implement a Modified Traditional service scenario, complemented by VCTC Intercity Hwy 126
  - Fixed-route service in Santa Paula and Fillmore, supplemented with shuttle service between Fillmore and Piru, as well as VCTC Intercity Hwy 126 route
  - General public DAR service in all communities at a fare greater than proposed ADA fare
- Improve marketing, branding, and customer service to improve public awareness of the availability of transit service

## Ventura County Comprehensive Transportation Plan, 2013

Ventura County's Comprehensive Transportation Plan (CTP) is a long-range policy document with the aims of improving inter-regional connectivity. Through community and stakeholder outreach the study team was able to craft a vision for transportation system that is connected, integrative, safe, accessible, sustainable, and inclusive of all community members and needs. Following is a comprehensive state of the system report that establishes the challenges the county faces in maintaining existing networks while accounting for future growth, finance issues, and the diverse needs of different modes.

The plan also demonstrates that there is support among the population to improve transit options and connectivity within the county. The report characterizes current public transit services as presenting a challenge to riders due to differing levels of service and a lack of coordination among multiple operators. Although public transit within the county stands to gain a large portion of transportation funding allocation (53% or $2.5 billion over the next 30 years), the report

anticipates that these revenues will largely maintain existing service rather than expand it. While the plan does explore different funding scenarios that could help bridge the funding gap, it concludes that there is not enough public support to merit the required two-thirds majority approval to pass locally-generated revenue mechanisms. Thus, along with increased public outreach to garner support, recommendations for transit are grounded in a financially constrained scenario that focuses on connectivity, frequency, and capacity.

Based on these guidelines, the Regional Transit Study Steering Committee drafted the following recommendations:

- Support the creation of a Gold Coast Transit District (GCTD) to oversee West County public transit services
  - Cities and communities within this area (including Heritage Valley) could opt to be in the District or form their own Joint Powers Agreement (JPA) to provide local service
- Transition authority for VCTC Intercity services in West County to the newly formed GCTD
  - Services to Heritage Valley, CSUCI, and Santa Barbara County would continue to be operated by VCTC Intercity pending continued funding agreements with each jurisdiction
- Support the creation of a Memorandum of Understanding (MOU) between the County of Ventura and the cities of Camarillo, Moorpark, Simi Valley, and Thousand Oaks to further coordinate services
- Transition authority for VCTC Intercity East services to the new East County MOU
- Support legislation allowing the use of TDA funds for Article 8 purposes (e.g., streets, roads, continued return to source of Local Transit Funds)
- Use VCTC discretionary transit funds to deliver sustainable levels of transit service

Following these recommendations, the Commission approved the following measures in March of 2013:

- VCTC to continue its role as the VCTC Intercity operator
- Support the provision of community transit service in Gold Coast Transit District Area, East County Transit Alliance Area, and Heritage Valley Transit Area
- Continue efforts to obtain equitable treatment for the use of TDA
- Review and reevaluate TDA Unmet Needs process and develop a SRTP

## Ventura County Public Transit-Human Services Transportation Coordination Plan, 2012

Updated every four years, the Ventura County Public Transit-Human Services Transportation Coordination Plan identifies the needs and transportation service gaps of three targeted populations (older persons, persons with disabilities, and persons of limited means). It does not provide funding but serves as a guide for funding decisions. Ventura County projects funded from such programs as Job Access Reverse Commute (JARC), New Freedom, and Capital Program for Seniors and Persons with Disabilities must be derived from this plan.

The two principal recommendations from the previous plan included the implementation of a standard eligibility policy for older adults for publicly-operated paratransit systems, and the implementation of a coordinated approach to automated dispatching and trip scheduling for

public paratransit systems. The current plan accounts for changes in population and demographics (which found an increase among all three target populations), assesses the various modes of transit available to the public, and inventories the eleven projects that VCTC has awarded through JARC and New Freedom projects.

An analysis of the input garnered from various stakeholders identified four themes as they relate to the transportation needs of target population groups:

- **Regional and inter-city travel.** Coordinating smooth connections between cities and speed of travel between jurisdiction via public transit
- **Transit capacity building.** Maintaining existing transit services and expanding where possible
- **Individualized transit information and assistance.** Customizing the provision of information and assistance to facilitate access to specialized transportation
- **Coordination of leadership and administration.** Coordination outcomes that are well reported within the county and to constituents' agency representatives

Based on these themes, the Coordination Plan presents a framework for prioritizing service solutions, with each theme having a corresponding goal and implementing objectives. Finally, the Plan recommends administrative actions for VCTC and agencies working with target populations to support the newly-established goals for mobility improvement.

## KEY FINDINGS AND PRIORITIES

A review of the relevant plans reflects a recognized need among community and agency stakeholders for a more coordinated, connected transit system. While the Ventura County Transit Investment Study demonstrated countywide support for improved services with increased coordination and connectivity, all of the plans recognize that this goal faces barriers in the form of limited funding.

The Ventura County Comprehensive Transportation Plan highlights steps that have been taken towards improving inter-jurisdictional coordination in the form of new, consolidated transit districts. However, the plan does not foresee substantial expansion of services in these areas without the passage of a locally-generating revenue mechanism, a prospect that it found unlikely due to a lack of political support. VCTC will continue to research potential ballot measures that benefit transit. Should voter support reach the required threshold for approval, the Commission could consider placing a measure on the ballet.

July of 2014 saw the launch of the Gold Coast Transit District (GCTD), comprised of the Cities of Oxnard, Ventura, Port Hueneme, Ojai, and nearby, unincorporated areas. Valley Express, the rebranded and expanded transit services provided within the Heritage Valley, was launched in March 2015. The East County Transit Alliance– comprised of Moorpark, Simi Valley, Thousand Oaks, Camarillo, and nearby, unincorporated areas – is a partnership aimed at improving coordination and cooperation.

While VCTC will continue to operate inter-city services, countywide coordination requires the cooperation of all agencies that operate within Ventura County. This includes the coordination of not only schedules and connections but also funding allocation. The Public Transit-Human Services Transportation Coordination Plan and the Transit Investment Study each propose guidelines for prioritizing projects based on goals and objectives, with both placing emphasis on coordination of regional travel and coordination of leadership and administration. Recognizing the constraints of limited funding, continued coordination, along with the prioritization of shared goals, will better facilitate a truly regional system.

# 3 TRANSIT SERVICE EVALUATION

The purpose of this chapter is to provide an overview of all transit services in Ventura County as well as intercounty service operated by transit providers based in Ventura County. An overview of service also identifies how service varies in terms of allocation and ridership performance. Understanding these differences is important in creating a route classification system by which all routes will be measured against peer services. A map of all fixed-route services in Ventura County is provided in Figure 1.

**Figure 1 Countywide Fixed Route Transit Services**

# FIXED-ROUTE BUS SERVICE

A summary of number of routes and peak vehicles operated along with communities served by each service provider is included in Figure 2.

**Figure 2 Service Provider Summary**

| Service Provider | Routes | Peak Vehicles | Communities Served |
|---|---|---|---|
| Gold Coast Transit District | 17 | 54 | Oxnard, Ventura, Port Hueneme, Ojai |
| VCTC Intercity | 8 | 30 | Oxnard, Ventura, Camarillo, Thousand Oaks, Moorpark, Simi Valley, Santa Paula, Fillmore, Piru, Carpinteria, Santa Barbara, Goleta |
| Simi Valley Transit | 4 | 11 | Simi Valley, Chatsworth |
| Thousand Oaks Transit | 5 | 6 | Thousand Oaks, Moorpark |
| Ojai Trolley | 1 | 5 | Ojai |
| Moorpark City Transit | 2 | 2 | Moorpark |
| Camarillo Area Transit | 2 | 2 | Camarillo |
| Kanan Shuttle | 1 | 4 | Oak Park |

At 3.8 million annual boardings, Gold Coast Transit District records more than twice as many boardings as all other service providers combined. Ridership productivity is highest amongst transit providers with robust systems and/or bi-directional routes. Gold Coast Transit District ranks highest in boardings per revenue hour and is closely followed by VCTC Intercity, and Simi Valley Transit (Figure 3). The Kanan Shuttle, which is a fare-free service, also performs well in terms of ridership productivity despite its limited hours and frequency.

Gold Coast Transit District operates nearly four times more annual revenue hours (Figure 4) than VCTC Intercity. Thousand Oaks Transit and Simi Valley Transit form the next tier of service providers in terms of ridership and revenue hours. Likewise, Ojai Trolley, Moorpark City Transit, and the Kanan Shuttle are similar in terms of service levels and ridership. Camarillo Area Transit provides robust dial-a-ride service to offset its limited fixed-route system.

The Valley Express fixed-route service was not included in this FY2013-2014 summary, as the service was not implemented until March of 2015.

**Figure 3 Annual Ridership by Service Provider (FY 2013-2014)**

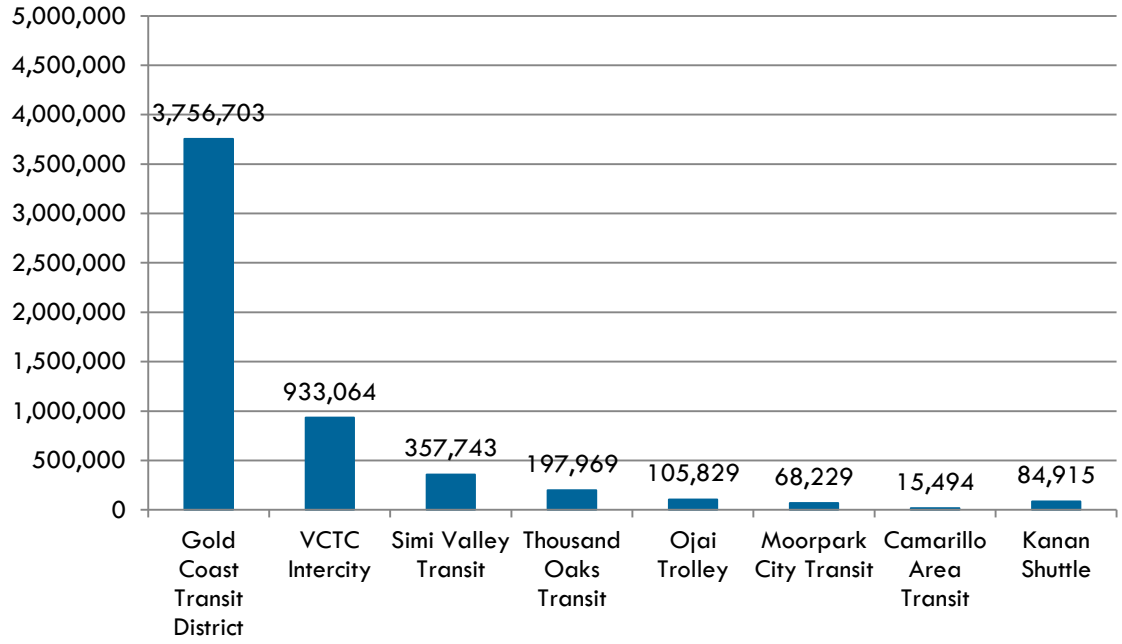
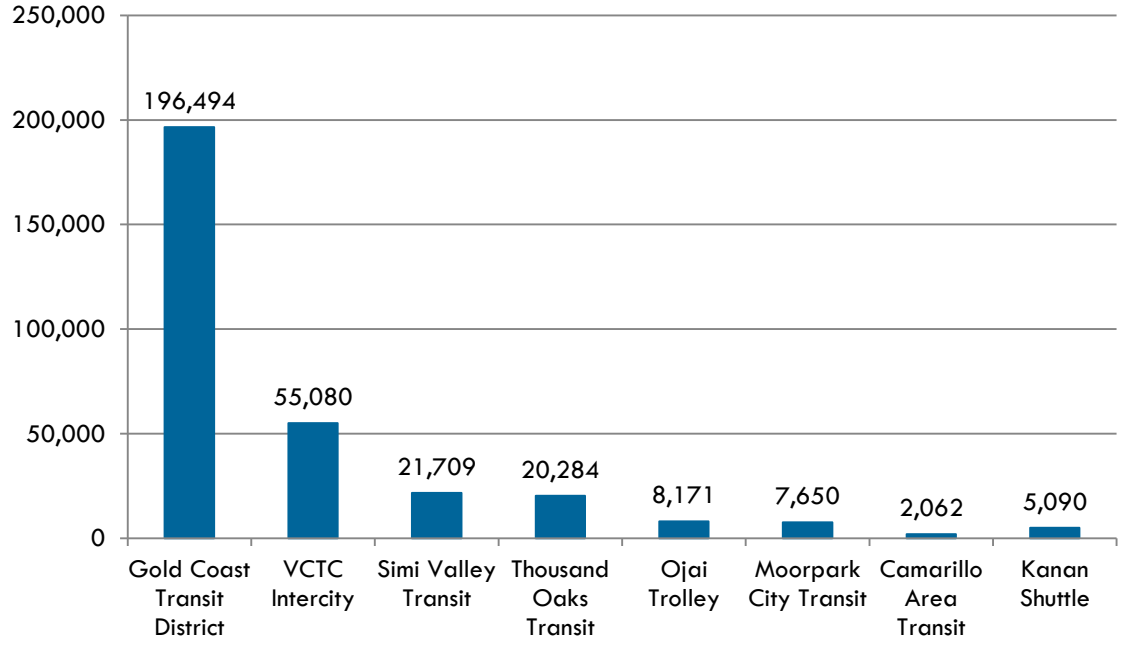
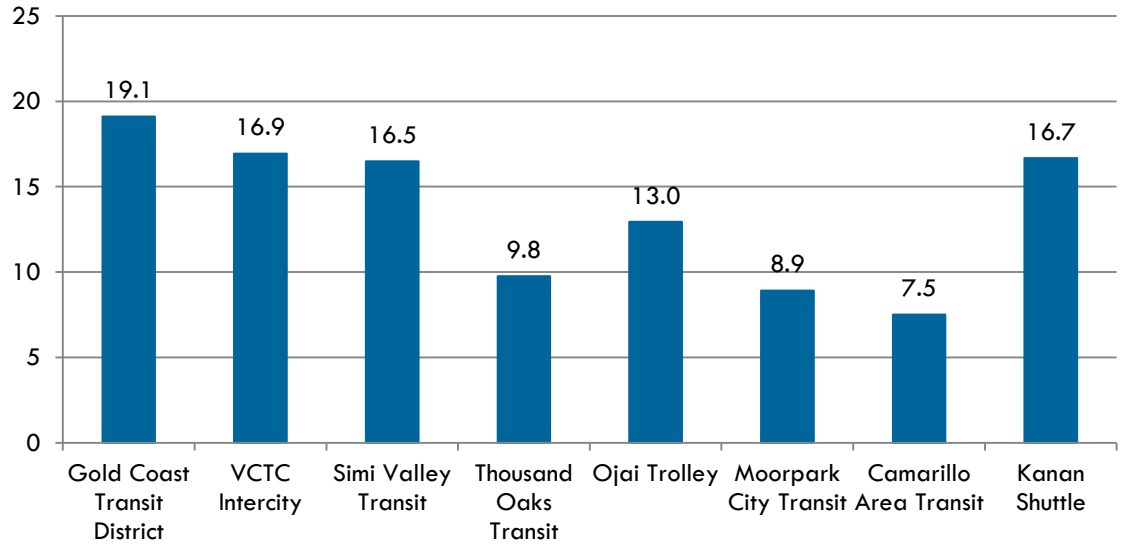



**Figure 4 Annual Revenue Hours by Service Provider (FY 2013-2014)**



Ridership productivity (Figure 5) is comparable across most service providers in Ventura County. Gold Coast Transit District ranks highest in boardings per revenue hour and is closely followed by VCTC Intercity, the Kanan Shuttle, and Simi Valley Transit.

**Figure 5 Ridership Productivity (Boardings per Revenue Hour) by Service Provider (FY 2013-2014)**



Charts from Figure 6 to Figure 8 show individual route ridership and productivity for weekdays, Saturdays, and Sundays, grouped by service provider. Gold Coast's Route 6 (3,300) and Route 1 (1,800 per day) average the highest amount of daily boardings. VCTC Intercity routes average fewer than 1,000 weekday boardings per day, and the majority of remaining routes average fewer than 500 daily weekday boardings.

**Figure 6 Weekday Ridership by Route (FY 2013-2014)**

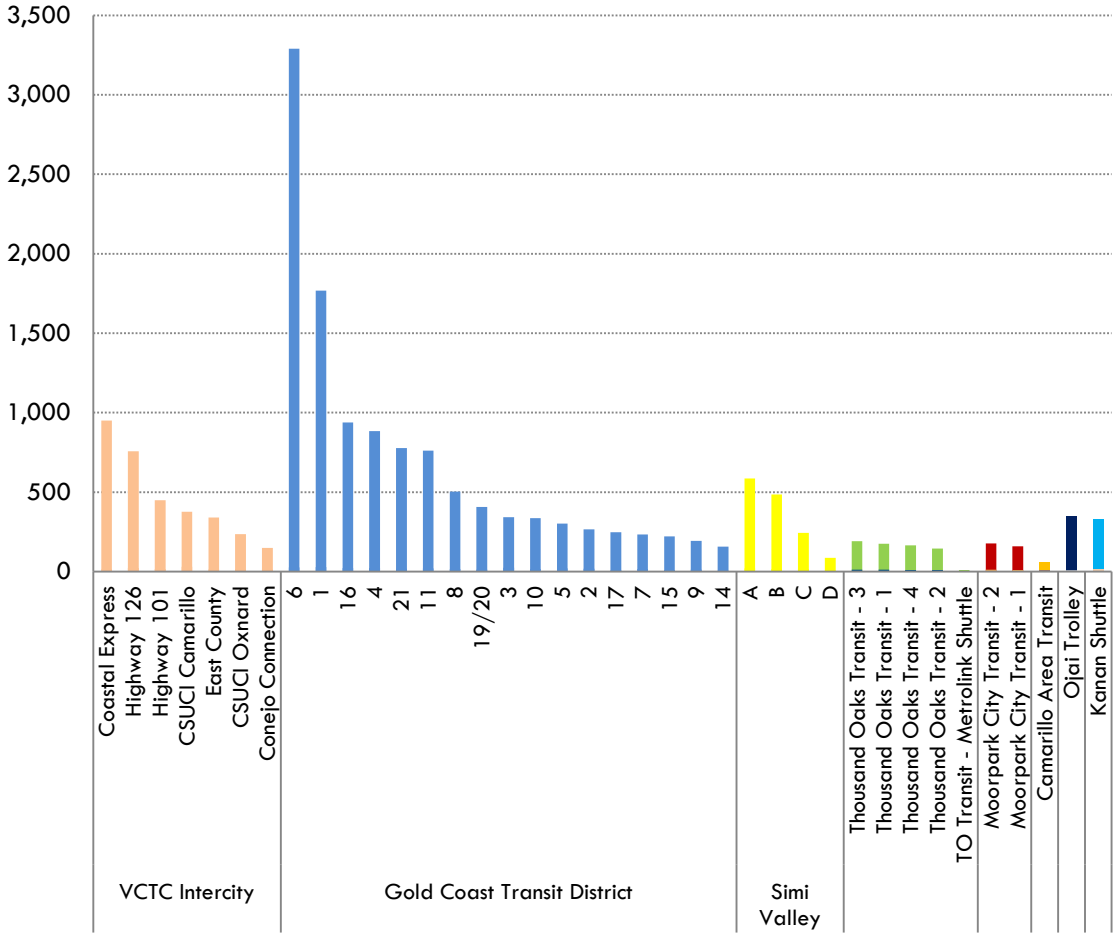


**Figure 7 Saturday Ridership by Route (FY 2013-2014)**

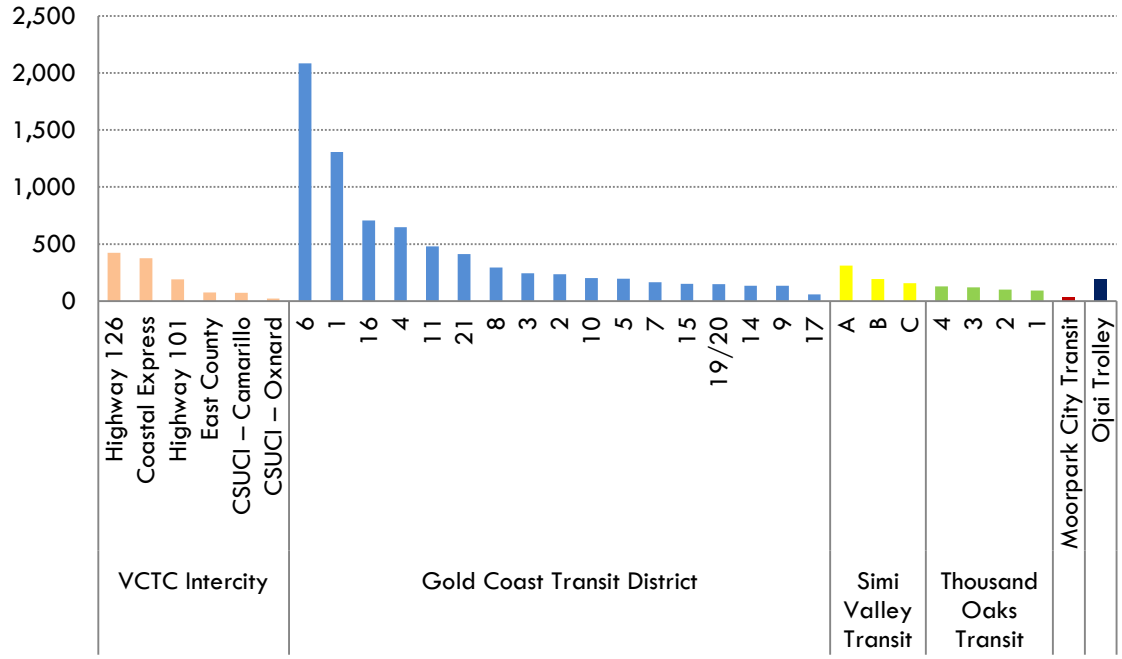
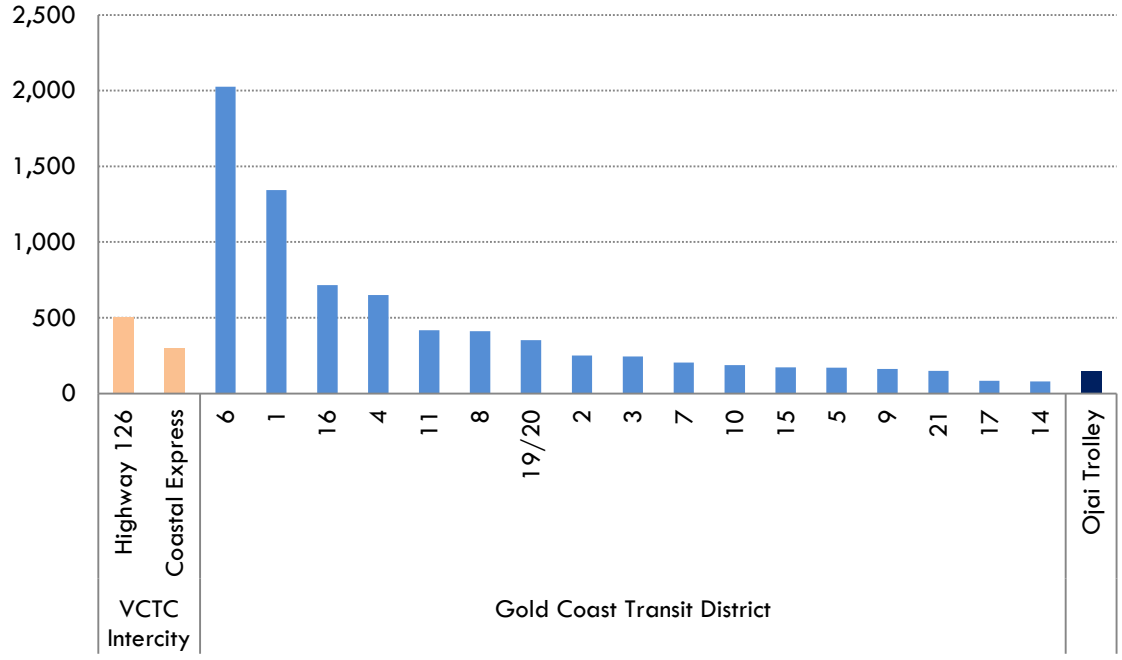



**Figure 8 Sunday Ridership by Route (FY 2013-2014)**



Route productivity (Figure 9) has a much smaller variance between higher- and lower-performing routes. The highest performing routes are VCTC Intercity CSUCI Camarillo, which primarily shuttles CSUCI students from Camarillo Station to campus, and Gold Coast's Routes 1 and 6. Routes averaging fewer than 10 boardings per hour productivity consist of limited stop routes and neighborhood feeders.

Weekday and weekend service are similar in terms of route productivity. The most notable differences between weekday and weekend productivity can be seen in the significant ridership drops of VCTC Intercity CSUCI Oxnard, Camarillo Area Transit and Moorpark City Transit.

**Figure 9 Weekday Productivity (Boardings per Revenue Hour) by Route (FY 2013-2014)**

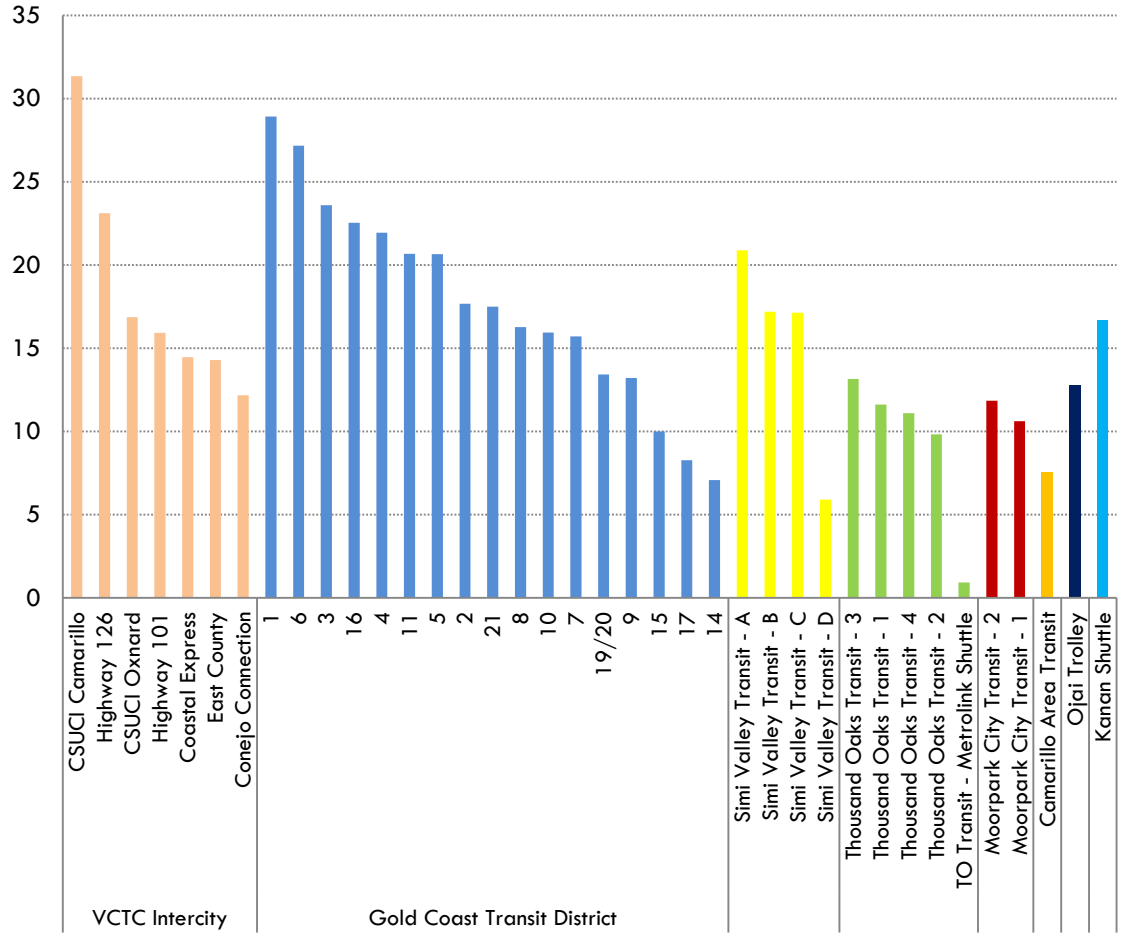


**Figure 10 Saturday Productivity (Boardings per Revenue Hour) by Route (FY 2013-2014)**

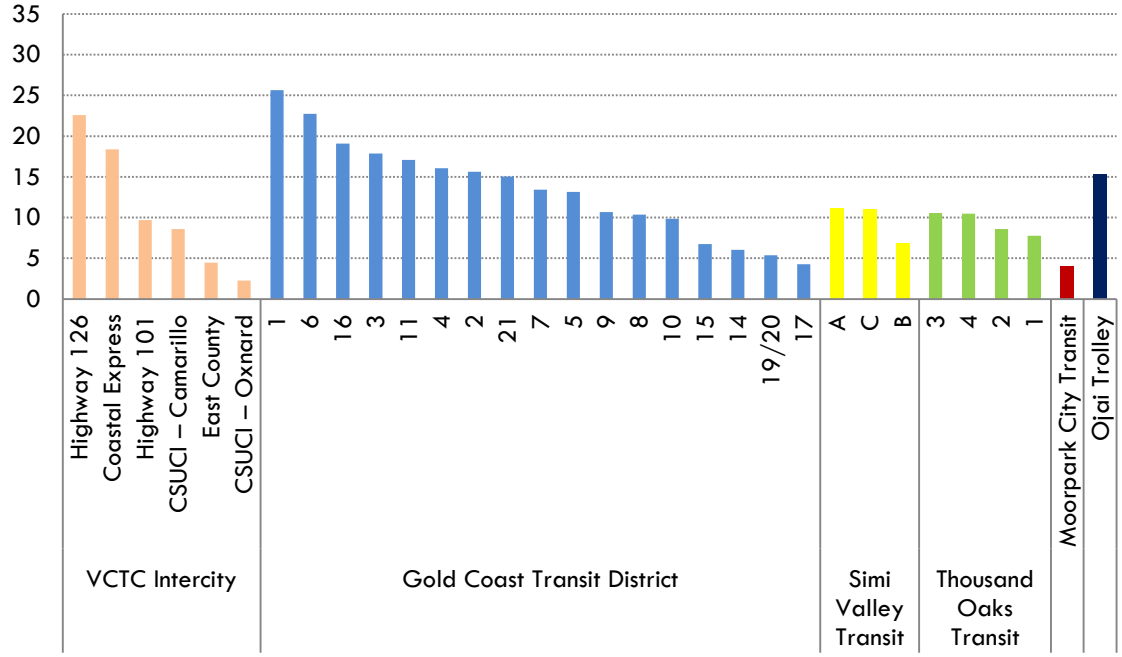



**Figure 11 Sunday Productivity (Boardings per Revenue Hour) by Route (FY 2013-2014)**

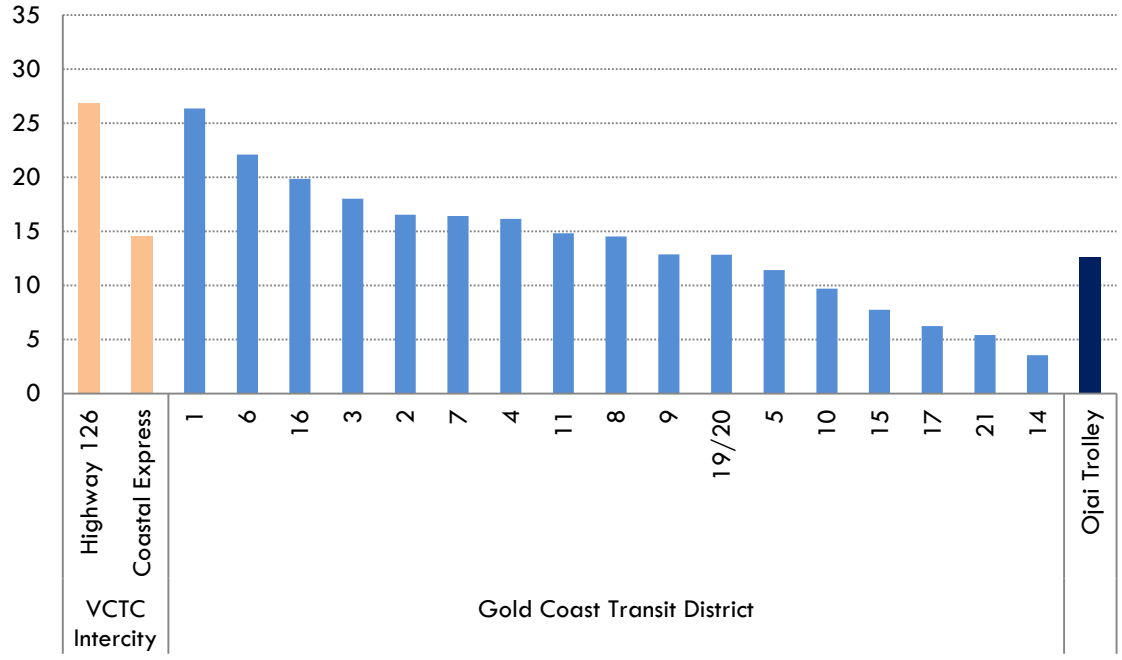


Figure 12 through Figure 14 provide a visualization of individual route service spans on weekdays, Saturdays, and Sundays, grouped by agency. On weekdays, there are 40 routes operating among all service providers, with an average span of 6 a.m. to 8 p.m.. On Saturdays, there are 33 routes operating, with an average span of 6:30 a.m. to 8 p.m. On Sundays, there are 21 routes operating, with an average span of 6:20 a.m. to 8:15 p.m. Gold Coast operates 17 out of the 21 routes that run on Sundays.

**Figure 12 Weekday Service Span by Route (FY 2013-2014)**

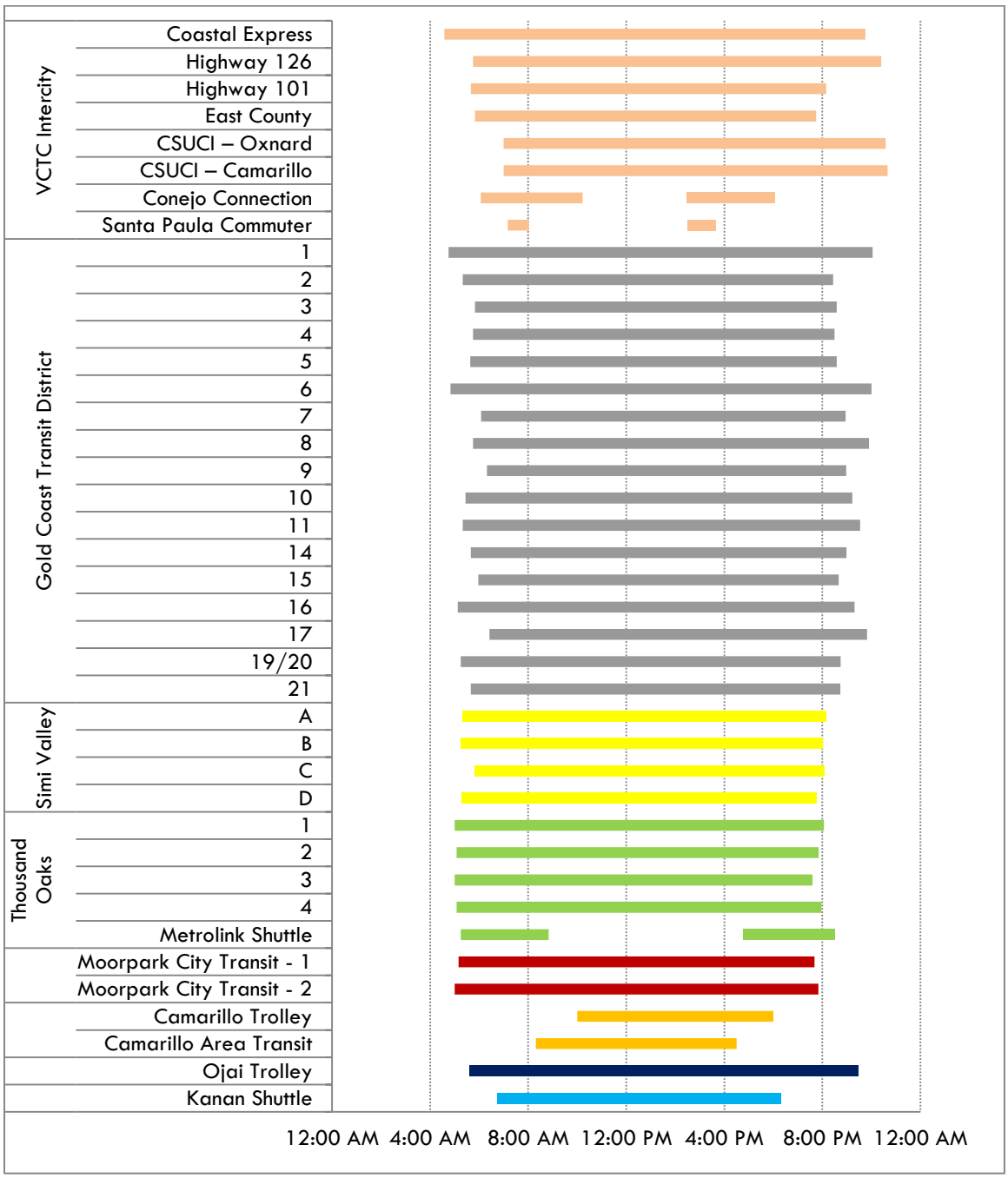


**Figure 13 Saturday Service Span by Route (FY 2013-2014)**

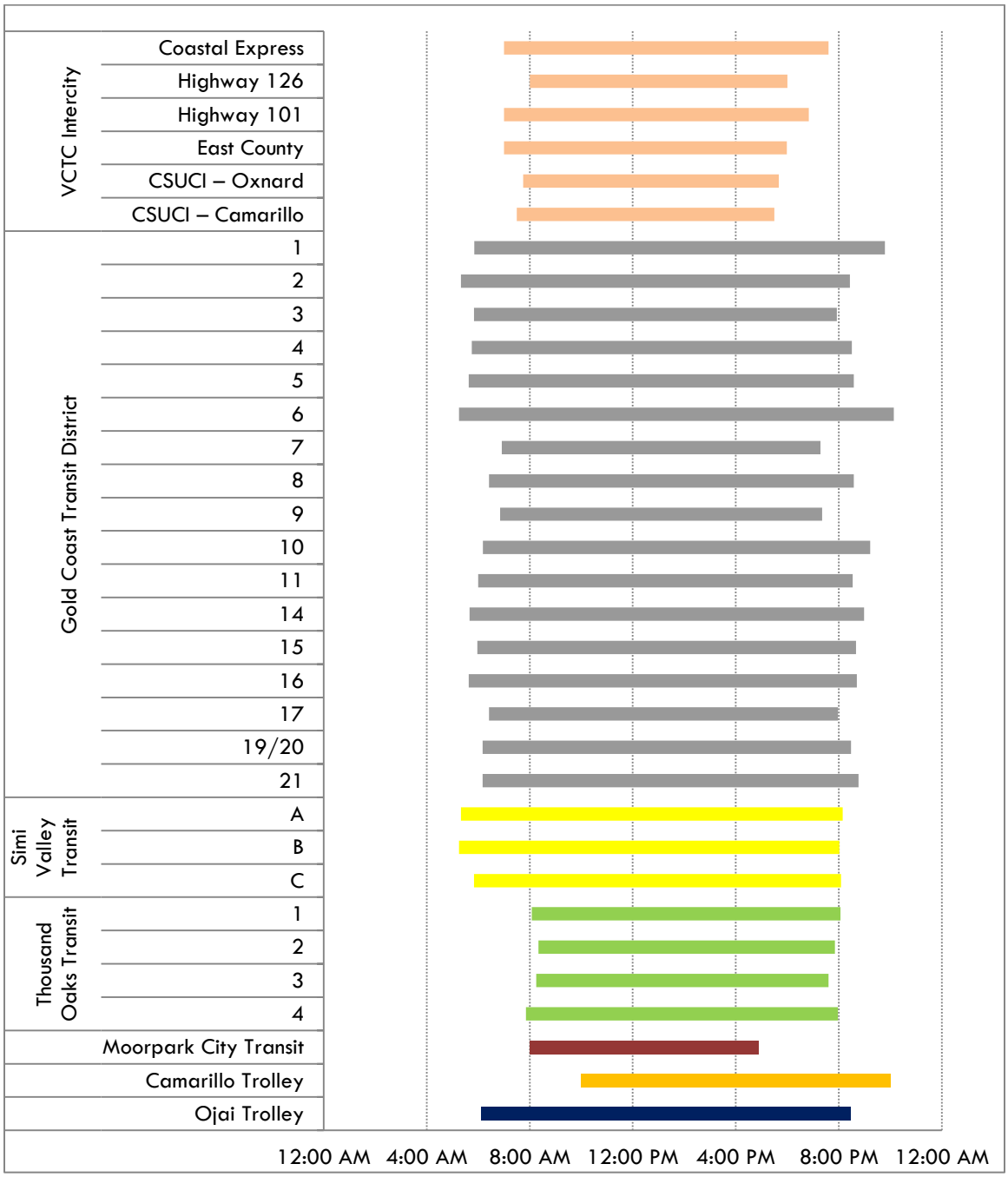


**Figure 14 Sunday Service Span by Route (FY 2013-2014)**

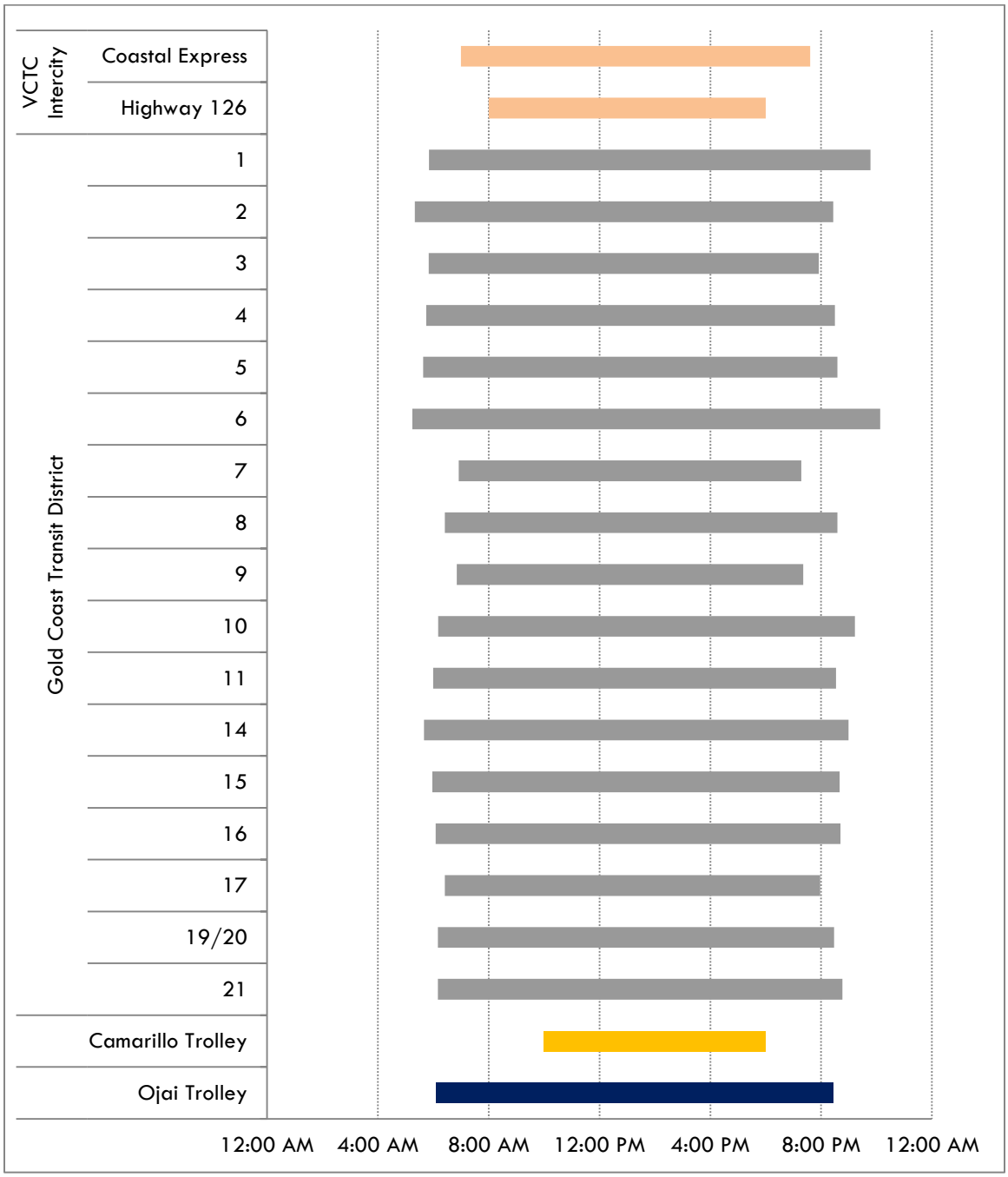


Figure 15 compares individual route headways, grouped by service level and agency. Peak headways among agency routes vary widely, from every 15 minutes to every 90 minutes. Only six weekday routes operate under 30 minute frequencies during peak hours.

**Figure 15 Headways by Route and Service Level (FY 2013-2014)**

| Agency | Route | Monday - Friday | | | Saturday | | Sunday | |
|---|---|---|---|---|---|---|---|---|
| | | Peak | Off-peak | Night | Peak | Night | Peak | Night |
| VCTC Intercity | Coastal Express | 15 | 60 | 60 | 70 | 95 | 70 | 95 |
| | CSUCI Camarillo | 30 | 30 | 70 | 30 | --- | --- | --- |
| | CSUCI Oxnard | 60 | 60 | 75 | 60 | --- | --- | --- |
| | East County | 40 | 65 | 140 | 60 | 130 | --- | --- |
| | Highway 101 | 25 | 55 | 120 | 75 | 110 | --- | --- |
| | Highway 126 | 30 | 60 | 80 | 60 | --- | 60 | --- |
| | Conejo Connection | 8 Trips | --- | --- | --- | --- | --- | --- |
| Gold Coast Transit District | 1 | 16 | 22 | 31 | 16 | 60 | 16 | 60 |
| | 2 | 40 | 50 | 50 | 40 | 50 | 40 | 50 |
| | 3 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | 4 | 45 | 55 | 55 | 45 | 55 | 45 | 55 |
| | 5 | 45 | 50 | 50 | 45 | 50 | 45 | 50 |
| | 6 | 20 | 25 | 45 | 25 | 40 | 25 | 40 |
| | 7 | 50 | 55 | 50 | 50 | --- | 50 | --- |
| | 8 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| | 9 | 50 | 50 | 60 | 50 | --- | 50 | --- |
| | 10 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| | 11 | 20 | 45 | 45 | 40 | --- | 40 | --- |
| | 14 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | 15 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | 16 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| | 17 | 45 | 55 | 60 | 95 | 115 | 95 | 115 |
| | 19/20 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| | 21 | 30 | 60 | 30 | 60 | --- | 60 | --- |
| Simi Valley Transit | A | 45 | 45 | 45 | 45 | 45 | --- | --- |
| | B | 45 | 45 | 45 | 45 | 45 | --- | --- |
| | C | 70 | 70 | 70 | 70 | 70 | --- | --- |
| | D | 70 | 90 | 90 | 70 | 90 | --- | --- |
| Thousand Oaks Transit | 1 | 60 | 70 | 75 | 60 | 75 | --- | --- |
| | 2 | 90 | 115 | 115 | 90 | 115 | --- | --- |
| | 3 | 80 | 80 | 90 | 80 | 90 | --- | --- |
| | 4 | 70 | 70 | 80 | 70 | 80 | --- | --- |
| | Metrolink Shuttle | 6 Trips | --- | --- | --- | --- | --- | --- |
| Moorpark City Transit | 1 | 53 | 70 | 80 | --- | --- | --- | --- |
| | 2 | 60 | 65 | 70 | --- | --- | --- | --- |
| | Saturday | --- | --- | --- | 80 | --- | --- | --- |
| Camarillo Area Transit | Fixed Route | 50 | 70 | --- | --- | --- | --- | --- |
| | Trolley | 30 | 30 | 30* | 30 | 30 | 30 | --- |
| Ojai Trolley | Shuttle | 30 | 30 | 60 | 60 | 60 | 60 | 60 |
| Kanan Shuttle | Shuttle | 10 | 20 | --- | --- | --- | --- | --- |

*Camarillo Trolley night service on Fridays and Saturdays only.

## VCTC Intercity

The Ventura County Transportation Commission operates VCTC Intercity, an inter-city bus network that operates primarily within Ventura County, with service also extending into Santa Barbara and Los Angeles Counties. VCTC Intercity offers eight fixed routes that provide inter-city service between Los Angeles, Thousand Oaks, Simi Valley, Moorpark, Camarillo, Oxnard, California State University Channel Islands (CSUCI), Piru, Fillmore, Santa Paula, Ventura, Carpinteria, Santa Barbara, and Goleta. Average wait times between transferring routes are depicted in Figure 16 and Figure 17. Average wait time between two routes is calculated by dividing the headway of each route by two (i.e. for a 10-minute route, passengers wait for an average of 5 minutes) and then averaging the two average wait times.

### Major Transfer Points

- **Oxnard Transit Center.** Located in downtown Oxnard, with connections to 12 Gold Coast routes; VCTC Intercity routes 101 and Conejo Connection; Harbor & Beaches Dial-A-Ride; Amtrak; and Greyhound.
- **Ventura Transfer Center.** Located in the Pacific View Mall parking lot, with connections to five Gold Coast routes and VCTC Intercity routes 101, 126, Coastal Express.
- **"C" Street Transfer Center.** Located next to the Centerpoint Mall in south Oxnard, with connections to six Gold Coast routes and VCTC Intercity route CSUCI Oxnard.
- **Ventura County Government Center.** Bounded by Highway 126, Hill Road, Telephone Road, and Victoria Avenue, with connections to three Gold Coast routes and VCTC Intercity routes 101, 126, and Coastal Express.
- **Camarillo Metrolink Station.** Served by VCTC Intercity routes 101, Conejo Connection, and CSUCI Camarillo, with connections to Metrolink and Camarillo Dial-A-Ride services.
- **CSUCI.** Located between Camarillo and Oxnard, served by VCTC Intercity routes CSUCI Oxnard and CSUCI Camarillo.
- **Thousand Oaks Transit Center.** Located just south of the Moorpark Freeway/Ventura Freeway junction, with connections to three Thousand Oaks routes; the Metrolink Commuter Shuttle; VCTC Intercity routes 101, Conejo Connection, and East County; LADOT routes 422 and 423 (with service to Downtown L.A., and MTA Route 161 (with service to the Warner Center Transit Hub).
- **Oaks Mall.** Located in The Oaks Shopping Center parking lot, with connections to all four Thousand Oaks routes, the Metrolink Commuter Shuttle, and VCTC Intercity routes 101, Conejo Connection, and East County.
- **Moorpark Station.** Served by Moorpark City Transit, Metrolink, Amtrak, VCTC Intercity East County route, and the Metrolink Commuter Shuttle (providing service between Moorpark and Thousand Oaks).

### Major Destinations

Along with the transfer centers mentioned above, other destinations served include the University of Santa Barbara, Cottage Hospital (Santa Barbara), Conejo Industrial Park, Ventura College, Ventura County Medical Center, Warner Center, and Oxnard College.

**Figure 16 VCTC Intercity – Average Peak Hour Wait Time (FY 2013-2014)**

| Route | Coastal Express | CSUCI Camarillo | CSUCI Oxnard | East County | Highway 101 | Highway 126 |
|---|---|---|---|---|---|---|
| Coastal Express | - | - | - | - | 10 | 11 |
| CSUCI Camarillo | - | - | 23 | - | 14 | - |
| CSUCI Oxnard | - | 23 | - | - | 21 | - |
| East County | - | - | - | - | 16 | - |
| Highway 101 | 10 | 14 | 21 | 16 | - | 14 |
| Highway 126 | 11 | - | - | - | 14 | - |

**Figure 17 VCTC Intercity – Average Off-Peak Wait Time (FY 2013-2014)**

| Route | Coastal Express | CSUCI Camarillo | CSUCI Oxnard | East County | Highway 101 | Highway 126 |
|---|---|---|---|---|---|---|
| Coastal Express | - | - | - | - | 29 | 30 |
| CSUCI Camarillo | - | - | 23 | - | 21 | - |
| CSUCI Oxnard | - | 23 | - | - | 29 | - |
| East County | - | - | - | - | 30 | - |
| Highway 101 | 29 | 21 | 29 | 30 | - | 29 |
| Highway 126 | 30 | - | - | - | 29 | - |

# Gold Coast Transit District

Gold Coast operates 20 fixed-route lines in Ojai, Oxnard, Port Hueneme, Ventura, and unincorporated areas between these cities. Average wait times between transferring routes are depicted in Figure 18 and Figure 19.

## Major Transfer Points

- **Oxnard Transit Center.** Located in downtown Oxnard, with connections to 12 Gold Coast routes; VCTC Intercity routes 101 and Conejo Connection; Harbor & Beaches Dial-A-Ride; Amtrak; and Greyhound.
- **Ventura Transfer Center.** Located north of Pacific View Mall, with connections to five Gold Coast routes and VCTC Intercity routes 101, 126, Coastal Express.
- **Esplanade.** Located south of US 101 in Oxnard with connections to four Gold Coast routes and VCTC Intercity routes 101, Conejo Connections, and Coastal Express.
- **"C" Street Transfer Center.** Located next to the Centerpoint Mall in south Oxnard, with connections to six Gold Coast routes and VCTC Intercity route CSUCI Oxnard.
- **St. John's.** Located at St. John's Regional Medical Center in east Oxnard with connections to seven Gold Coast routes.
- **Ventura County Government Center.** Bounded by Highway 126, Hill Road, Telephone Road, and Victoria Avenue, with connections to three Gold Coast routes and VCTC Intercity routes 101, 126, and Coastal Express.
- **Wells Center.** Located in Saticoy, with connections to three Gold Coast routes (10, 11 and future 22) and VCTC Intercity Highway 126.

**Figure 18 Gold Coast Transit – Average Peak Hour Wait Time (FY 2013-2014)**

| Route | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 14 | 15 | 16 | 17 | 19/20 | 21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | 14 | 17 | 15 | 15 | 9 | 17 | 15 | 17 | - | - | - | - | - | - | 19 | 12 |
| 2 | 14 | - | 23 | 21 | 21 | 15 | - | 21 | - | - | - | - | - | - | 21 | 25 | - |
| 3 | 17 | 23 | - | 24 | 24 | 18 | 25 | 24 | 25 | - | - | - | - | - | - | 28 | 20 |
| 4 | 15 | 21 | 24 | - | 23 | 16 | - | 23 | - | - | - | 24 | 24 | - | 23 | 26 | - |
| 5 | 15 | 21 | 24 | 23 | - | 16 | - | 23 | - | - | - | - | - | - | - | 26 | 19 |
| 6 | 9 | 15 | 18 | 16 | 16 | - | - | 16 | - | 20 | 10 | 18 | 18 | 20 | 16 | 20 | 13 |
| 7 | 17 | - | 25 | - | - | - | - | 24 | 25 | - | - | - | - | - | 24 | - | 20 |
| 8 | 15 | 21 | 24 | 23 | 23 | 16 | 24 | - | 24 | - | - | - | - | - | 23 | 26 | 19 |
| 9 | 17 | - | 25 | - | - | - | 25 | 24 | - | - | - | - | - | - | 24 | - | 20 |
| 10 | - | - | - | - | - | 20 | - | - | - | - | 20 | 28 | 28 | 30 | 26 | - | 23 |
| 11 | - | - | - | - | - | 10 | - | - | - | 20 | - | 18 | 18 | 20 | 16 | - | 13 |
| 14 | - | - | - | 24 | - | 18 | - | - | - | 28 | 18 | - | 25 | 28 | 24 | 28 | 20 |
| 15 | - | - | - | 24 | - | 18 | - | - | - | 28 | 18 | 25 | - | 28 | 24 | 28 | 20 |
| 16 | - | - | - | - | - | 20 | - | - | - | 30 | 20 | 28 | 28 | - | 26 | - | 23 |
| 17 | - | 21 | - | 23 | - | 16 | 24 | 23 | 24 | 26 | 16 | 24 | 24 | 26 | - | 26 | 19 |
| 19/20 | 19 | 25 | 28 | 26 | 26 | 20 | - | 26 | - | - | - | 28 | 28 | - | 26 | - | 23 |
| 21 | 12 | - | 20 | - | 19 | 13 | 20 | 19 | 20 | 23 | 13 | 20 | 20 | 23 | 19 | 23 | - |

**Figure 19 Gold Coast Transit – Average Off-Peak Wait Time (FY 2013-2014)**

| Route | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 14 | 15 | 16 | 17 | 19/20 | 21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | 18 | 18 | 19 | 18 | 12 | 19 | 17 | 18 | - | - | - | - | - | - | 21 | 21 |
| 2 | 18 | - | 25 | 26 | 25 | 19 | - | 24 | - | - | - | - | - | - | 26 | 28 | - |
| 3 | 18 | 25 | - | 26 | 25 | 19 | 26 | 24 | 25 | - | - | - | - | - | - | 28 | 28 |
| 4 | 19 | 26 | 26 | - | 26 | 20 | - | 25 | - | - | - | 26 | 26 | - | 28 | 29 | - |
| 5 | 18 | 25 | 25 | 26 | - | 19 | - | 24 | - | - | - | - | - | - | - | 28 | 28 |
| 6 | 12 | 19 | 19 | 20 | 19 | - | - | 18 | - | 21 | 18 | 19 | 19 | 21 | 20 | 21 | 21 |
| 7 | 19 | - | 26 | - | - | - | - | 25 | 26 | - | - | - | - | - | 28 | - | 29 |
| 8 | 17 | 24 | 24 | 25 | 24 | 18 | 25 | - | 24 | - | - | - | - | - | 25 | 26 | 26 |
| 9 | 18 | - | 25 | - | - | - | 26 | 24 | - | - | - | - | - | - | 26 | - | 28 |
| 10 | - | - | - | - | - | 21 | - | - | - | - | 26 | 28 | 28 | 30 | 29 | - | 30 |
| 11 | - | - | - | - | - | 18 | - | - | - | 26 | - | 24 | 24 | 26 | 25 | - | 26 |
| 14 | - | - | - | 26 | - | 19 | - | - | - | 28 | 24 | - | 25 | 28 | 26 | 28 | 28 |
| 15 | - | - | - | 26 | - | 19 | - | - | - | 28 | 24 | 25 | - | 28 | 26 | 28 | 28 |
| 16 | - | - | - | - | - | 21 | - | - | - | 30 | 26 | 28 | 28 | - | 29 | - | 30 |
| 17 | - | 26 | - | 28 | - | 20 | 28 | 25 | 26 | 29 | 25 | 26 | 26 | 29 | - | 29 | 29 |
| 19/20 | 21 | 28 | 28 | 29 | 28 | 21 | - | 26 | - | - | - | 28 | 28 | - | 29 | - | 30 |
| 21 | 21 | - | 28 | - | 28 | 21 | 29 | 26 | 28 | 30 | 26 | 28 | 28 | 30 | 29 | 30 | - |

## Thousand Oaks Transit

Thousand Oaks Transit operates four fixed routes Monday through Saturday from 5:00 a.m. to 8:00 p.m.; with recently-added Saturday service from 8 a.m. to 8 p.m. Service primarily operates within the City of Thousand Oaks with an extension to the City of Moorpark via the Metrolink Commuter Shuttle (Monday through Friday, 5:15 a.m. to 8:30 p.m.).

### Major Transfer Points

- **Thousand Oaks Transit Center.** Located just south of the Moorpark Freeway/Ventura Freeway junction, with connections to three Thousand Oaks routes; the Metrolink Commuter Shuttle; VCTC Intercity routes 101, Conejo Connection, and East County; LADOT Routes 422 and 423 (with service to Downtown L.A., and MTA Route 161 (with service to the Warner Center Transit Hub).
- **Oaks Mall.** Located in The Oaks Shopping Center parking lot, with connections to all four Thousand Oaks routes, the Metrolink Commuter Shuttle, LADOT Route 423, and VCTC Intercity routes 101, Conejo Connection, and East County.

## Simi Valley Transit

Simi Valley Transit operates four fixed routes Monday through Saturday from 5 a.m. to 8 p.m. Service runs primarily within the City of Simi Valley. Simi Valley Transit also operates a commuter route to the San Fernando Valley community of Chatsworth. Connections are provided to LA Metro at the Simi Valley and Chatsworth Metrolink Stations. Riders can also connect to the VCTC Intercity East County route at the Simi Valley Town Center Mall. Along with these transfer centers, other destinations served include the Simi Valley Senior Citizens center and the Ronald Reagan Presidential Library.

## Moorpark City Transit

Moorpark City Transit operates two fixed routes Monday through Friday from 5 a.m. to 8 p.m., with one route on Saturday operating between 8 a.m. and 5 p.m. Weekday service runs approximately every hour. Saturday service operates with headways between one and two hours. The service area is within the City of Moorpark. At the Moorpark Metrolink Station, riders can connect to Metrolink, Amtrak, VCTC Intercity East County route, and the Metrolink Commuter Shuttle (providing service between Moorpark and Thousand Oaks). Other destinations served include Moorpark College (with connections to VCTC Intercity East County route), City Hall, Moorpark Town Center, Moorpark Marketplace, Moorpark Plaza, Moorpark Village Center, and Mission Bell Plaza.

## Camarillo Area Transit

Camarillo Area Transit (CAT) operates one fixed route and one trolley within the City of Camarillo. The fixed route runs Monday through Friday, with hourly service from 8 a.m. to 4:30 p.m. The trolley runs seven days a week from 10 a.m. to 6 p.m., with extended Friday and Saturday service until 10 p.m. At the Camarillo Metrolink station, riders can connect to Metrolink, along with VCTC Intercity routes 101, Conejo Connection, and CSUCI Camarillo. Other destinations served include Pleasant Valley Hospital, the Community Center, Ponderosa Plaza, Village Square, Mission Oaks Plaza, and Santa Rosa Plaza.

## Ojai Trolley

The City of Ojai offers two fixed-route trolley lines that operate Monday through Friday from 5:30 a.m. to 9:30 p.m., with 30 minute frequencies. Only one line operates on the weekends, from 6 a.m. to 8:30 p.m. on Saturday, and from 7 a.m. to 8:30 p.m. on Sunday, both days with one hour frequencies. Destinations served include Vons Shopping Center and the Ojai Park-and-Ride (both with connections to Gold Coast Route 16).

## Valley Express

Valley Express consists of two community circulators, each operating exclusively within the cities of Santa Paula and Fillmore, as well as a shuttle service connecting the community of Piru with the city of Fillmore. During the school year, Valley Express also operates additional tripper service . The Valley Express fixed route service was implemented in March 2015, reducing the level of Dial-A-Ride service by providing improved coverage and regular 30-minute service on weekdays and weekends. Each route is scheduled to make timed connections with VCTC Intercity Route 126.

## Kanan Shuttle

The Kanan Shuttle is a fixed-route service that operates primarily along Kanan Road in Oak Park; Monday through Friday from 6:40 a.m. to 6:30 p.m. Destinations served include Oak Park High School, Medea Creek Middle School, and Thousand Oaks Boulevard & Kanan Road (with connections to MTA route 161).

## LA Metro

LA Metro also operates Route 161, with service seven days a week between Thousand Oaks Transit Center and the Warner Center Transit Hub (providing connections to the Metro Orange Line).

## LA Commuter Express

LA Commuter Express is an LADOT service, with two routes that are accessible to Ventura County riders. Route 422 connects the Thousand Oaks Mall and Transit Center to Downtown Los Angeles. Route 423 connects the Thousand Oaks Transit Center to Downtown Los Angeles.

# DIAL-A-RIDE SERVICE

## Valley Express DAR

Valley Express Dial-A-Ride (DAR) is a demand-response service within Santa Paula, Fillmore, Piru, and unincorporated areas of Ventura County. Valley Express Dial-A-Ride replaces the former VCTC Dial-A-Ride service. Trip requests will only be honored if the trip begins and/or ends more than one quarter (1/4) mile away from any Valley Express bus stop. While service is available on a first come, first served basis, ADA-certified passengers may request a subscription service.

## Gold Coast Access

Gold Coast Access is a DAR service within the cities of Ojai, Oxnard, Port Hueneme, Ventura, and unincorporated areas between these cities. Service is available to disabled and elderly members of the population, requiring reservations one day in advance. Service times vary by location.

## Simi Valley Transit

Simi Valley Transit provides DAR service Monday through Saturday from 5 a.m. to 8 p.m. within its city limits. Simi Valley Transit does not offer ADA service on Route C, which connects to Chatsworth, as the Federal Transit Administration does not require public entities to provide complementary paratransit with respect to commuter bus service. Passengers in need of ADA services to other areas can connect to Thousand Oaks or Moorpark City Transit's ADA service in Wood Ranch or the Simi Valley Town Center Mall. Connections to L.A. County's ADA service are available at the Chatsworth Metrolink Station.

## Thousand Oaks Transit

Thousand Oaks Transit offers DAR service within Thousand Oaks, Westlake Village, and unincorporated areas of Newbury Park, Ventu Park, Lynn Ranch, Rolling Oaks, Hidden Valley, and Lake Sherwood. Service is available to seniors and ADA certified individuals on weekdays from 5 a.m. to 8 p.m. and on weekends from 8 a.m. to 8 p.m. Thousand Oaks Transit also provides Intercity ADA Paratransit service Monday through Friday 6:00 am to 6:00 pm to the cities of Simi Valley, Moorpark, Camarillo, as well as, unincorporated areas within the Thousand Oaks Transit service boundaries. Intercity ADA service in the East County will continue to be expanded in the future as a result of the coordination efforts of ECTA.

## Moorpark City Transit

Moorpark City Transit provides Intracity Senior DAR and ADA Paratransit service Monday through Friday, 5:00 am to 8:00 pm and 8:00 am to 5:00 pm Saturday and Sunday. The City also provides Intercity ADA Paratransit service Monday through Friday 6:00 am to 6:00 pm to the cities of Simi Valley, Thousand Oaks, Camarillo, Oak Park and Westlake Village, with transfers to LA Access and Gold Coast Access. Intercity ADA Paratransit service is provided on Saturday and Sunday to the cities of Thousand Oaks, Oak Park and Westlake Village. The City of Moorpark contracts with Thousand Oaks to provide DAR services.

## Oak Park DAR

The Oak Park DAR is general public between Oak Park and Agoura Hills and operates from 7:00 a.m. to 7:00 p.m. Monday through Friday. Service is available to seniors and ADA certified individuals weekdays from 5:00 a.m. to 8:00 p.m. and weekends from 8:00 a.m. to 8:00 p.m.

## Camarillo Area Transit

Camarillo Area Transit offers DAR service on weekdays from 6 a.m. to 9 p.m., on Saturdays from 8 a.m. to 9 p.m., and on Sundays from 8 a.m. to 5 p.m. Service is available to all members of the public, but does not include school trips.

### Harbors & Beaches DAR

Harbors and Beaches DAR is a general public service to beaches, Channel Islands Harbor, Oxnard Airport, and Oxnard Transportation Center. Operations run Monday through Friday from 7 a.m. to 5:30 p.m. and on Saturdays from 9 a.m. to 4:30 p.m.

## COMMUTER RAIL SERVICE

### Metrolink

Metrolink operates seven lines of commuter rail service in the Los Angeles region. The Ventura Line includes five stations in Ventura County (East Ventura, Oxnard, Camarillo, Moorpark, and Simi Valley) and seven stations in Los Angeles County (Chatsworth, Northridge, Van Nuys, Burbank-Bob Hope Airport, Downtown Burbank, Glendale, and Los Angeles Union Station). Service operates Monday-Friday from 5:04 a.m. to 8:37 a.m. There are eight weekday southbound trains to Los Angeles and eight weekday northbound trains from Los Angeles.

### Amtrak

Amtrak operates commuter rail between San Luis Obispo, Los Angeles, and San Diego on its Pacific Surfliner line, which serves Ventura, Oxnard, Camarillo, Moorpark and Simi Valley Stations in Ventura County. Six northbound trains and six southbound trains operate daily.

Whenever possible, bus transit service providers should make efforts to coordinate bus schedules to accommodate transfers with the commuter rail services

# 4 TRANSIT MARKET ANALYSIS

This section focuses on demographic and economic characteristics that affect transit usage in Ventura County The evaluation includes the following densities:

- Population
- Employment
- Zero-Vehicle Households
- Low Income Households
- Senior Citizen Population
- College Age Population
- Rental Households

## DEMOGRAPHIC AND SOCIOECONOMIC EVALUATION

### Population Density

The distribution and density of population is among the most important factors influencing the viability of transit service because nearly all transit trips require walking to/from the bus on at least one end of the trip. Higher density communities have more people within walking distance of common corridors that might support transit. Together with employment density, population density will determine the success of transit more than any other factor. Data from the 2010 U.S. Census has been mapped at the block level to illustrate the distribution of population throughout Ventura County (Figure 20). Key population density findings include:

- Areas of high population density within Ventura County include South Oxnard, Central Oxnard, Northeast Oxnard, Westside Ventura, and Santa Paula.
- Areas of moderate population density include East Ventura, Fillmore, West Camarillo, Simi Valley, Central Moorpark, and along the Thousand Oaks Blvd corridor.

### Employment Density

Employment is especially important in travel markets because traveling to and from work often accounts for the singular most frequent type of trip. Therefore, understanding the distribution and density of employment is critical to transit service design. Transit that serves areas of high employment density provides key connections to job opportunities. Figure 21 depicts employment density, which can be summarized as follows:

- Employment densities are relatively low throughout much of Ventura County. Transit supportive employment densities are present in Downtown Ventura, South Ventura, Northeast Oxnard, Thousand Oaks, Newbury Park, East Camarillo and Simi Valley.
- Major employment centers include Government Center in Ventura and Amgen in Newbury Park.

## Zero Vehicle Households

For self-evident reasons, individuals without access to a vehicle represent a particularly strong market for transit. Identifying households without access to a vehicle helps in identifying areas that are likely to have a significant number of transit-dependent riders.

Data from the U.S. Census' American Community Survey 5-Year Estimates 2008-2012 was used to identify households who do not have regular access to a vehicle. The geographic unit of analysis for this data is the census block group. The following findings are apparent in Figure 22:

- Locations with the highest concentrations of households that do not have access to an automobile include South Oxnard, Central Oxnard, Santa Paula, West Camarillo, and West Simi Valley.

## Poverty Status

Poverty status data the U.S. 2010 Census was used to define and identify low income individuals. Because disposable income is largely a factor of household size and household income, the U.S. Census considers household income and the number of members in the household in classifying a household's poverty status. The distribution of individuals with low incomes (those living in a household considered in poverty by the Census), is shown in Figure 23.

The data is from the U.S. Census' American Community Survey 5-Year Estimates 2008-2012 at the census block group unit of analysis. A number of findings are apparent:

- Areas with high concentrations of households living below poverty levels include Central Oxnard, South Oxnard, Westside Ventura, and Santa Paula.
- Additional areas with a moderate number of low income households include El Rio, Central Camarillo, Central Moorpark, and several neighborhoods in Simi Valley.

## Senior Citizen Population Density

Older adults (those 65 years and older) are more likely to use transit than the general population because they are more likely to have chosen to stop driving or can no longer drive. Data from the U.S. 2010 Census was used to map individuals aged 65+ by census block. Figure 24 shows the geographic distribution of these older adults throughout Ventura County. A number of findings are apparent:

- Leisure Village in East Camarillo, Channel Islands Beach, Via Marina, and Marina West have the highest concentrations of senior citizens within Ventura County.
- High concentrations exist in neighborhoods elsewhere in the county but are less contiguous.

## Young Adult Population Density

The young adult population (students and non-students) are a growing transit market as attitudes towards taking transit change and fewer young adults own a vehicle. Data from the U.S. 2010 Census was used to map individuals aged 10 to 17 (youths) by census block. Figure 25 shows the geographic distribution of these older adults throughout Ventura County. A number of findings are apparent:

- High concentrations of college age residents can be found throughout Oxnard as well as near college and university campuses, including California Lutheran University in Thousand Oaks, Ventura College, and Oxnard College.
- While California State University-Channel Islands is a growing campus, most students are commuters due to its remote location and limited on-campus housing.

### Rental Status

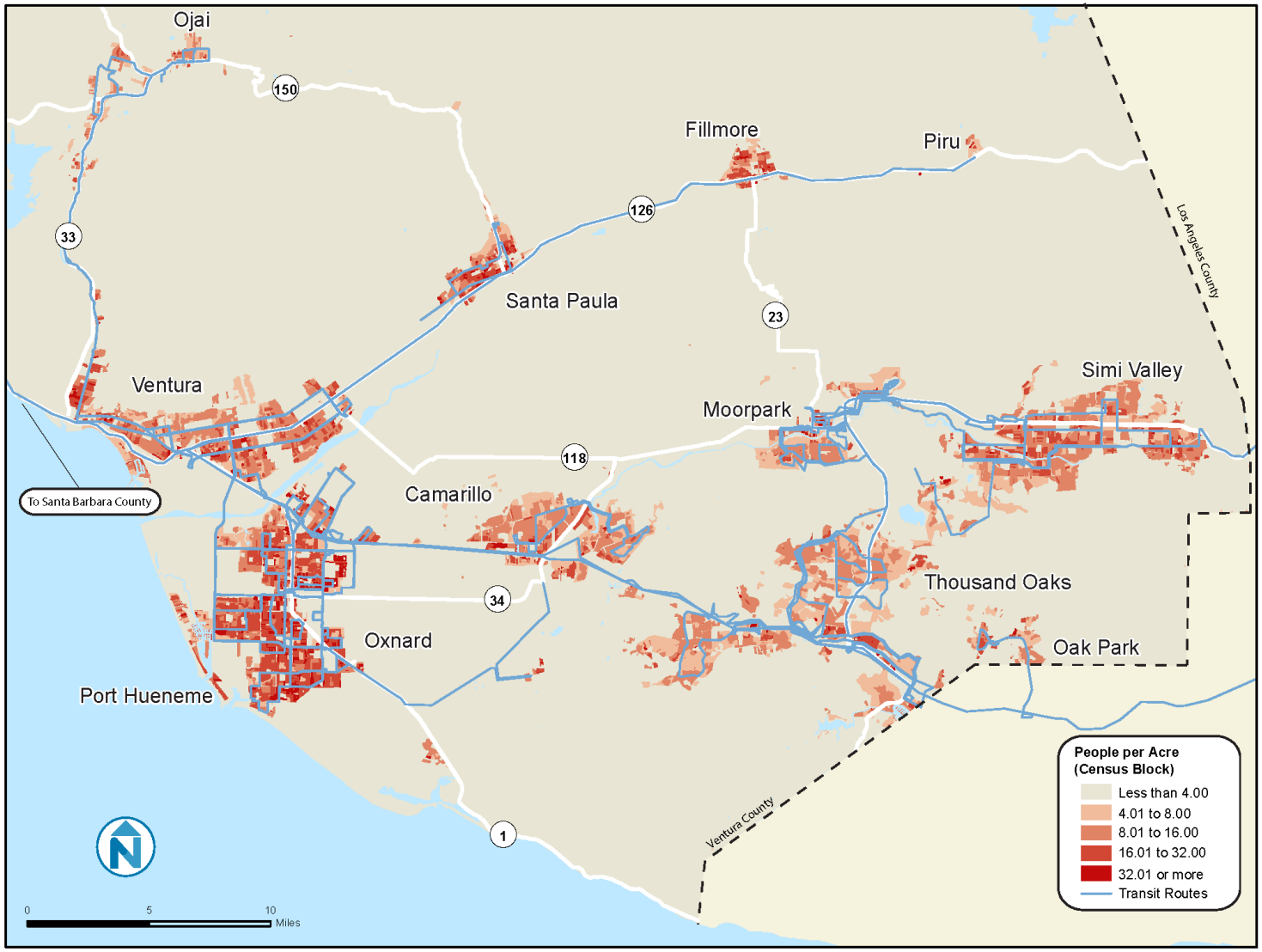
Areas with a high concentration of rental households typically have greater transit demand than areas with a high concentration of owner-occupied households. Figure 26 shows the geographic distribution of households that occupy rental housing throughout Ventura County. The following findings are apparent:

- Westside Ventura, South Oxnard, Santa Paula, Fillmore, and areas north of Thousand Oaks Blvd have the highest concentration of rental households.

## TRANSIT PROPENSITY

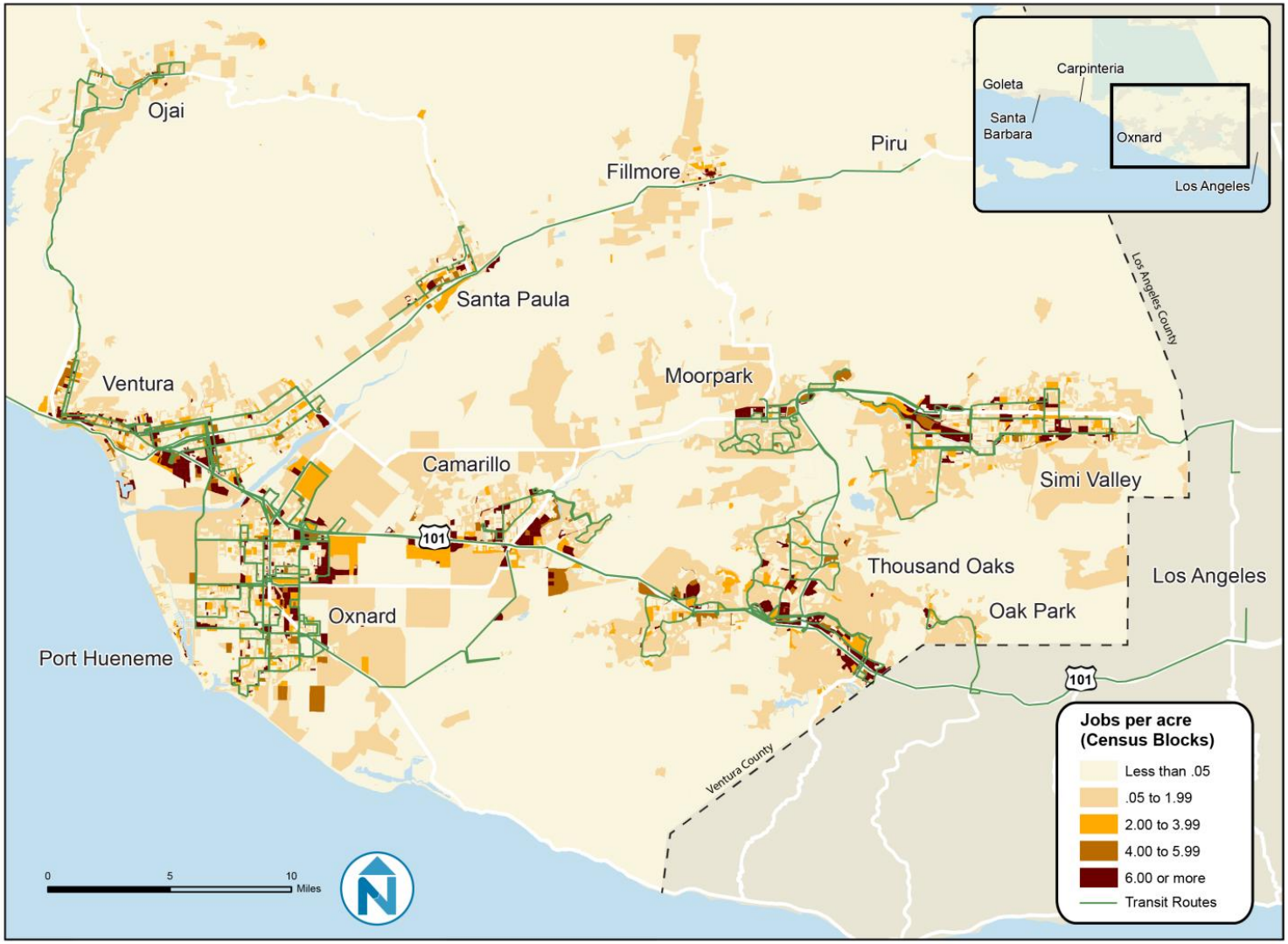
A transit propensity index map, depicted in Figure 27, was created by combining densities of young adults, seniors, low-income population, renters, and households without vehicles. This index provides a strong indication of the relative demand for transit throughout Ventura County. Ultimately, the effectiveness of transit service depends on a number of factors including destinations served, service levels, the physical environment, and the time and costs for competing alternatives.

**Figure 20 Population Density**




Source: US Census, Ventura County, & ESRI

**Figure 21 Employment Density**




Data Sources: U.S. Census, ESRI

**Figure 22 Zero Vehicle Household Density**

**Figure 23 Low Income Households**

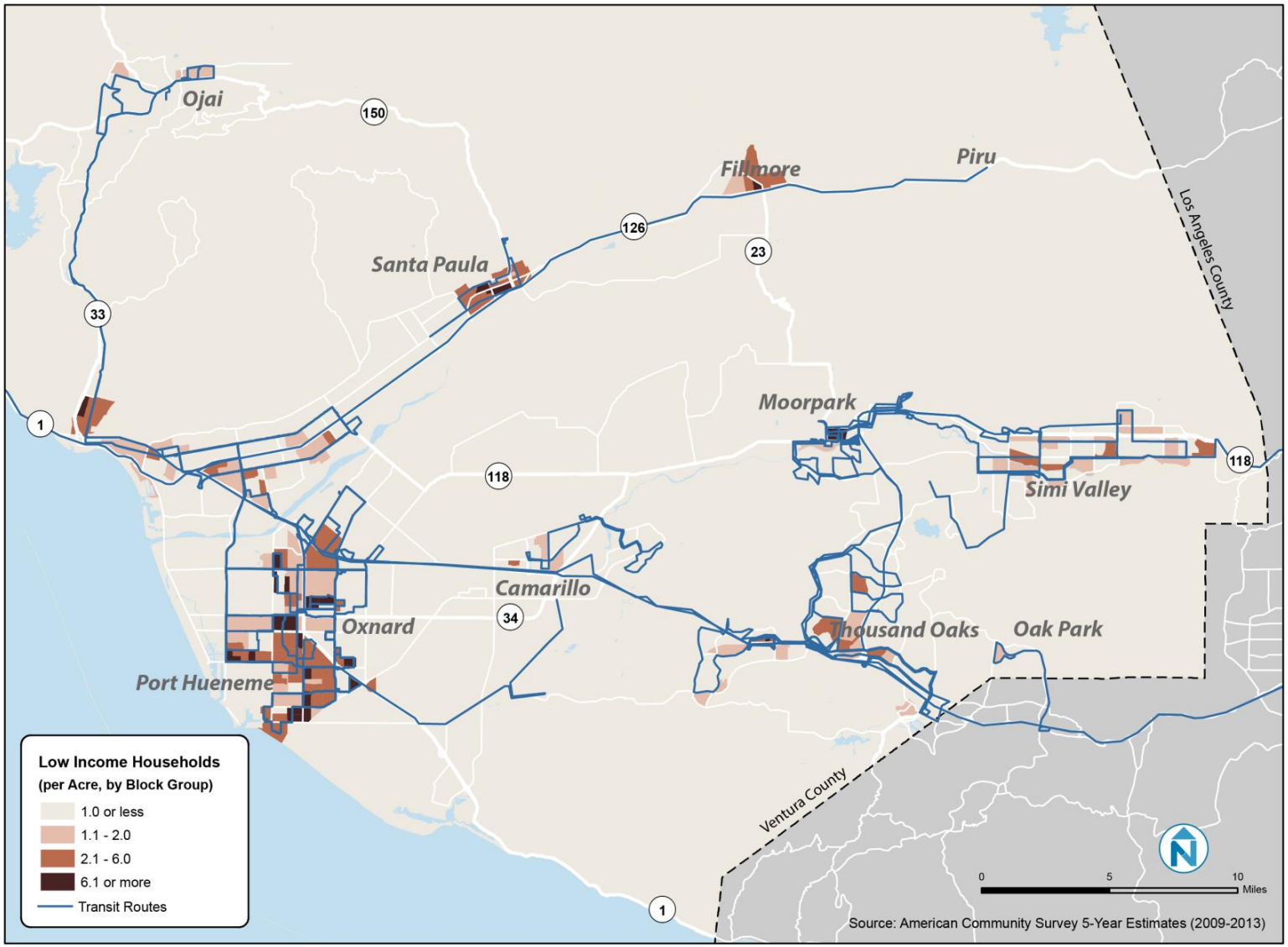


**Figure 24 Senior Population Density**

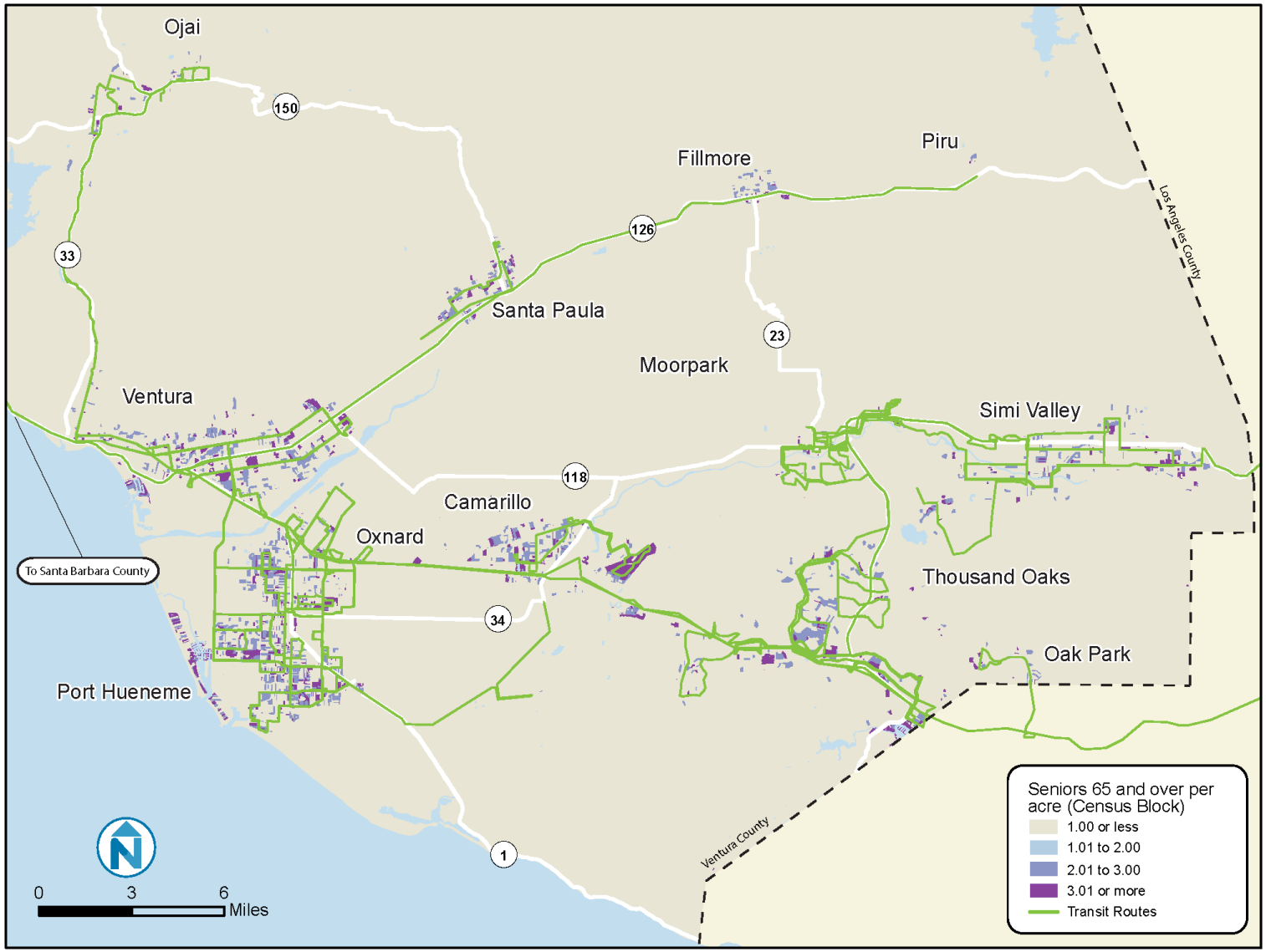


**Figure 25 Young Adult Population**

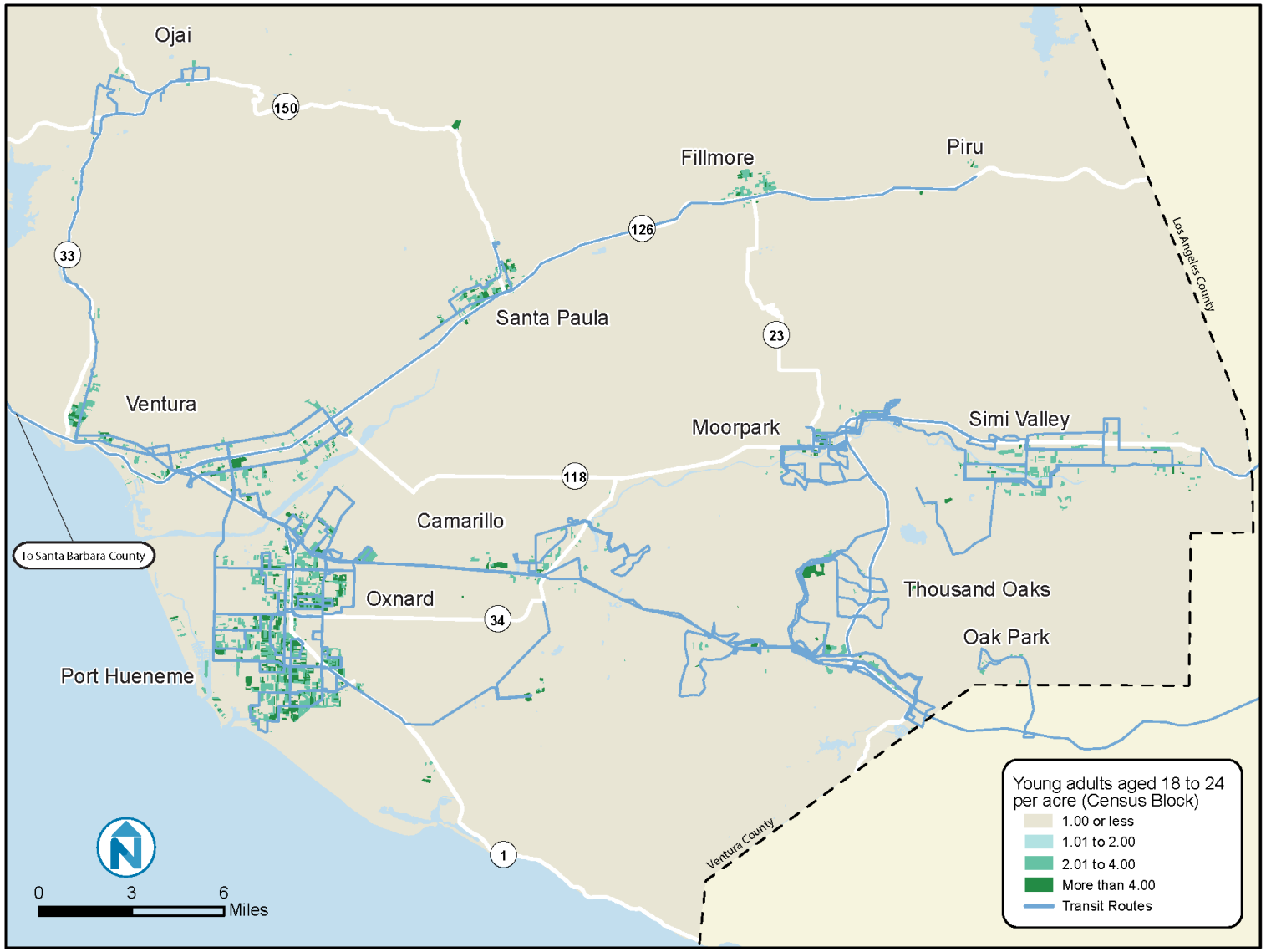


**Figure 26 Rental Household Population**

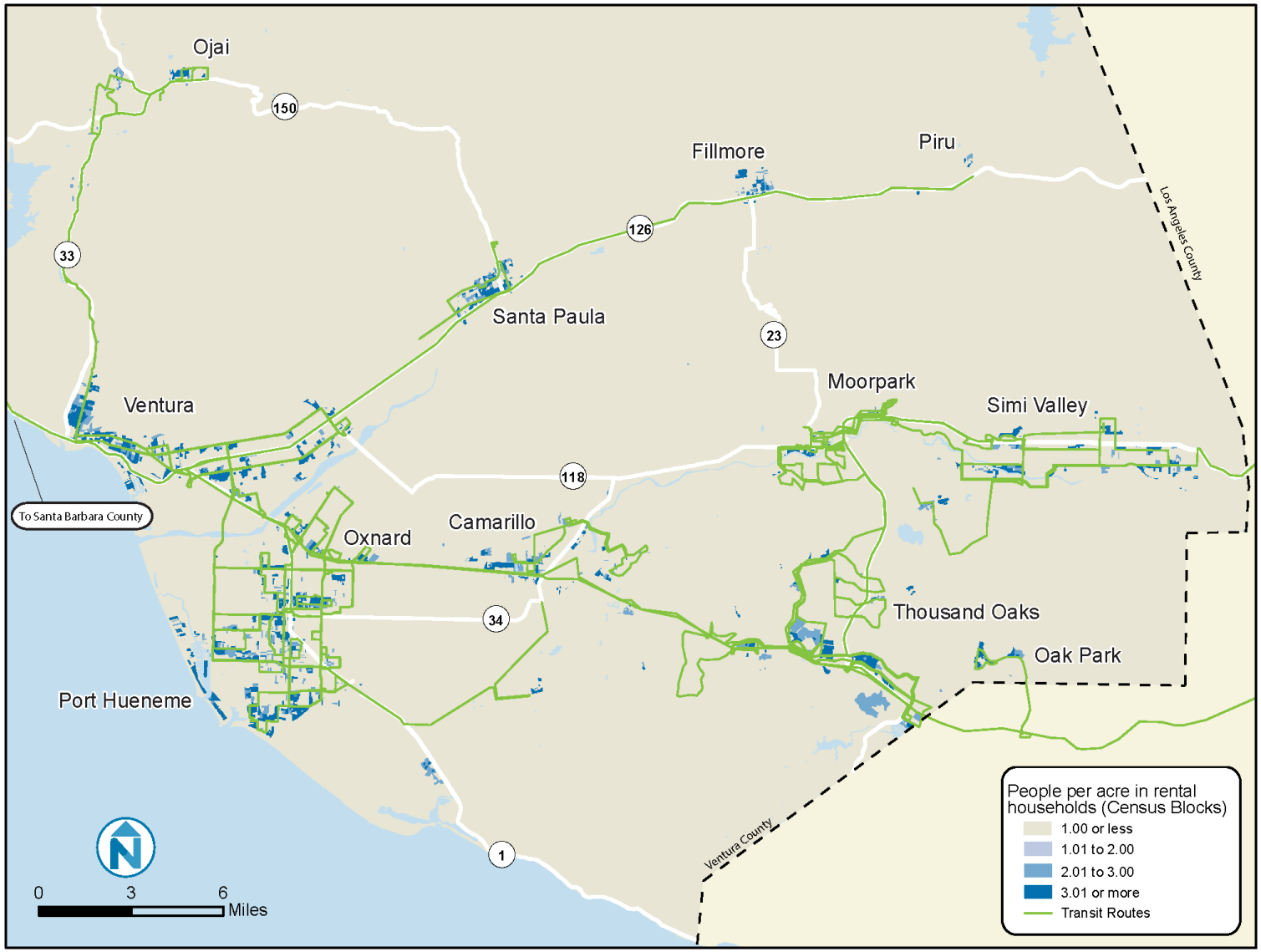
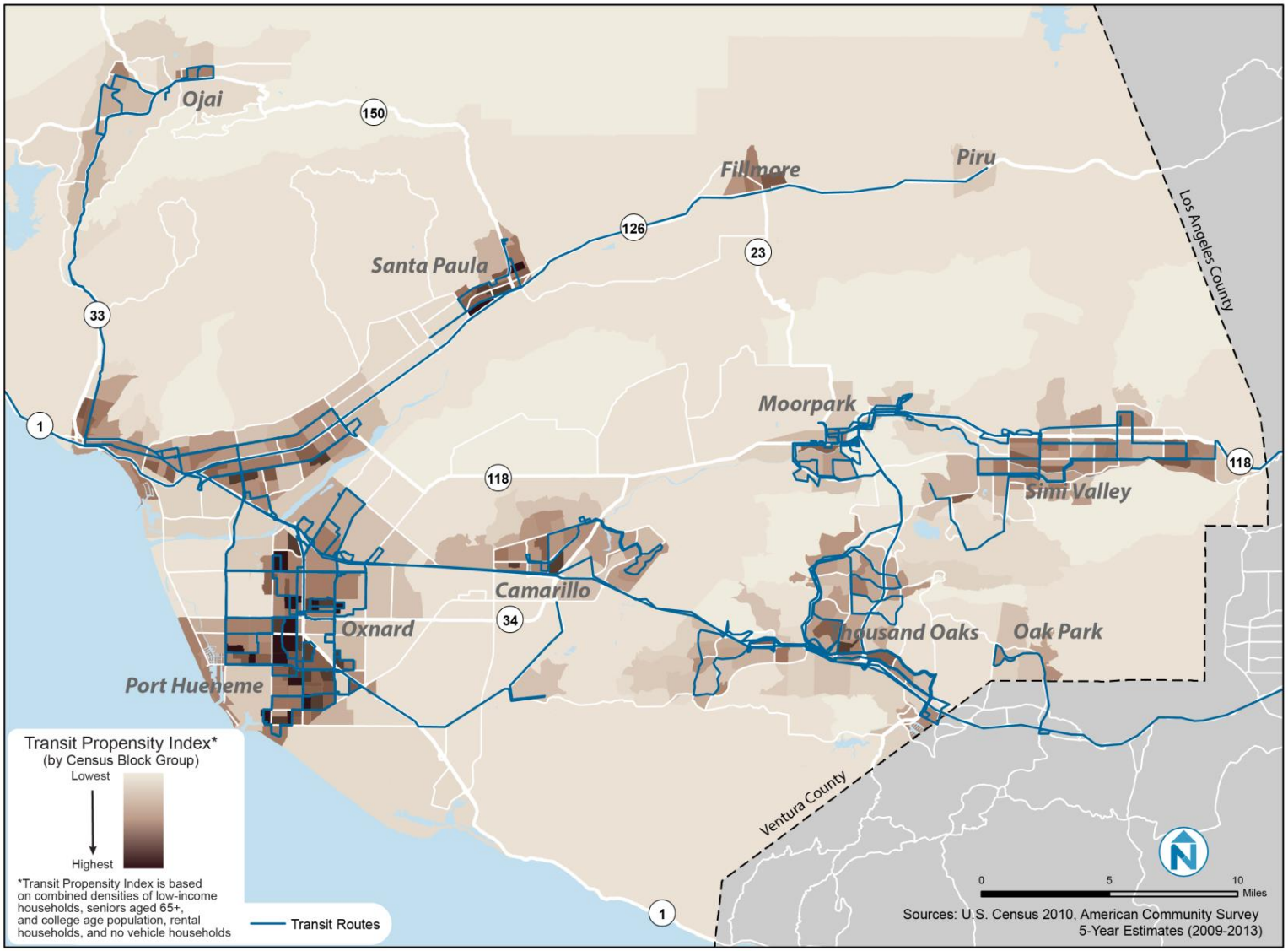


**Figure 27 Transit Propensity Index**



# EMPLOYEE WORKPLACE ANALYSIS

Census LEHD data was used to identify employee workplace locations for the following seven zones that represent contiguous areas of development with similar land use patterns:

## Intercity Employment Patterns

More than half of all residence-workplace travel patterns within Ventura County are within the same zones (e.g. Oxnard/Port Hueneme to Oxnard/Port Hueneme). The next most common travel patterns are from Oxnard/Port Hueneme to Ventura, Oxnard/Port Hueneme to Camarillo, and Ventura to Oxnard/Port Hueneme.

The table below depicts residence-workplace travel patterns for each of the seven zones analyzed. Travel patterns with over 4,000 daily trips are highlighted in bold.

**Figure 28 Intercity Employment Patterns**

| | | Employment Locations | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Simi Valley Moorpark | Thousand Oaks Newbury Park | Camarillo | Oxnard Port Hueneme | Ventura | Santa Paula Fillmore | Ojai | Total |
| Resident Locations of Employees | Simi Valley Moorpark | 14,296 | 7,027 | 1,502 | 1,242 | 1,511 | 176 | 17 | **25,771** |
| | Thousand Oaks Newbury Park | 2,649 | 14,178 | 1,832 | 1,086 | 1,213 | 128 | 14 | **21,100** |
| | Camarillo | 1,007 | 2,757 | 4,666 | 2,669 | 2,652 | 204 | 31 | **13,986** |
| | Oxnard Port Hueneme | 1,085 | 2,320 | 5,408 | 21,033 | 9,412 | 678 | 120 | **40,056** |
| | Ventura | 553 | 1,374 | 2,091 | 4,214 | 13,614 | 686 | 353 | **22,885** |
| | Santa Paula Fillmore | 578 | 536 | 694 | 1,409 | 2,409 | 2,990 | 86 | **8,702** |
| | Ojai | 35 | 51 | 64 | 110 | 430 | 24 | 601 | **1,315** |
| | **Total** | **20,203** | **28,243** | **16,257** | **31,763** | **31,241** | **4,886** | **1,222** | **133,815** |

## Employment Locations by Subarea

LEHD zones were created for areas of contiguous development with similar land use patterns. As a result, Ventura County was divided into the following seven zones:

- Simi Valley/Moorpark
- Thousand Oaks/Newbury Park
- Camarillo
- Oxnard/Port Hueneme
- Ventura
- Santa Paula/Fillmore
- Ojai

### Employment Locations of Ventura Residents

Approximately 13,614 (59%) of Ventura residents employed in Ventura County work within the same zone. Other major employment destinations within Ventura County include Northeast Oxnard, Camarillo, and Newbury Park.

### Employment Locations of Oxnard-Port Hueneme Residents

Approximately 53% Oxnard and Port Hueneme residents employed in Ventura County work within the same zone.

Major employment destinations for residents of Oxnard and Port Hueneme include Government Center in Ventura, Camarillo, and Newbury Park.

### Employment Locations of Santa Paula and Fillmore Residents

Approximately 34% of Santa Paula and Fillmore residents employed in Ventura County work within the same zone.

Major employment destinations of employees from Santa Paula or Fillmore outside of the Heritage Valley include Government Center in Ventura, Northeast Oxnard.

### Employment Locations of Simi Valley and Moorpark Residents

Approximately 55% of Simi Valley or Moorpark residents employed in Ventura County work within the same zone.

Other employment destinations within Ventura County include Amgen in Newbury Park, Government Center in Ventura, Thousand Oaks, and Agoura Hills. A moderate number of Simi Valley and Moorpark residents also work in nearby Chatsworth and Warner Center (Los Angeles).

### Employment Locations of Thousand Oaks and Newbury Park Residents

Approximately 67% of Thousand Oaks or Newbury Park residents employed in Ventura County work within the same zone. Amgen, Baxter, and California Lutheran University are major employers within Thousand Oaks and Newbury Park.

Other major employment destinations within Ventura County include Government Center in Ventura, Agoura Hills, Camarillo, and Simi Valley.

## Employment Locations of Camarillo Residents

Major employment destinations for residents of Camarillo include Government Center in Ventura, Amgen in Newbury Park, Northeast Oxnard, Central Oxnard, and Thousand Oaks.

Approximately 33% of Camarillo residents employed in Ventura County work within the same zone.

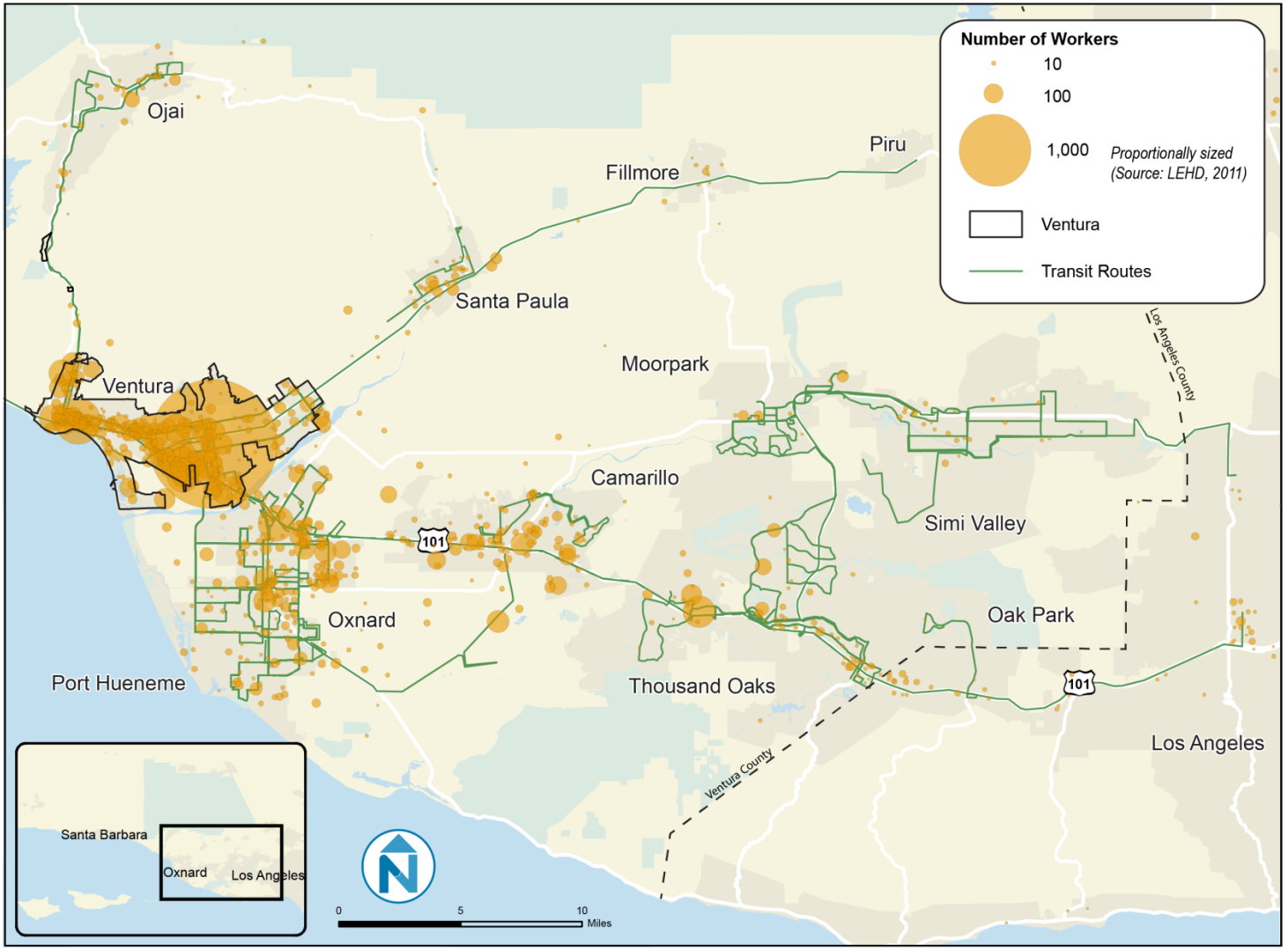
## Employment Locations of Ojai Residents

Approximately 46% of Ojai employees work within Ojai. An additional 33% of Ojai employees working in Ventura County commute to Ventura.

**Figure 29 Employee Workplace Analysis Zones**

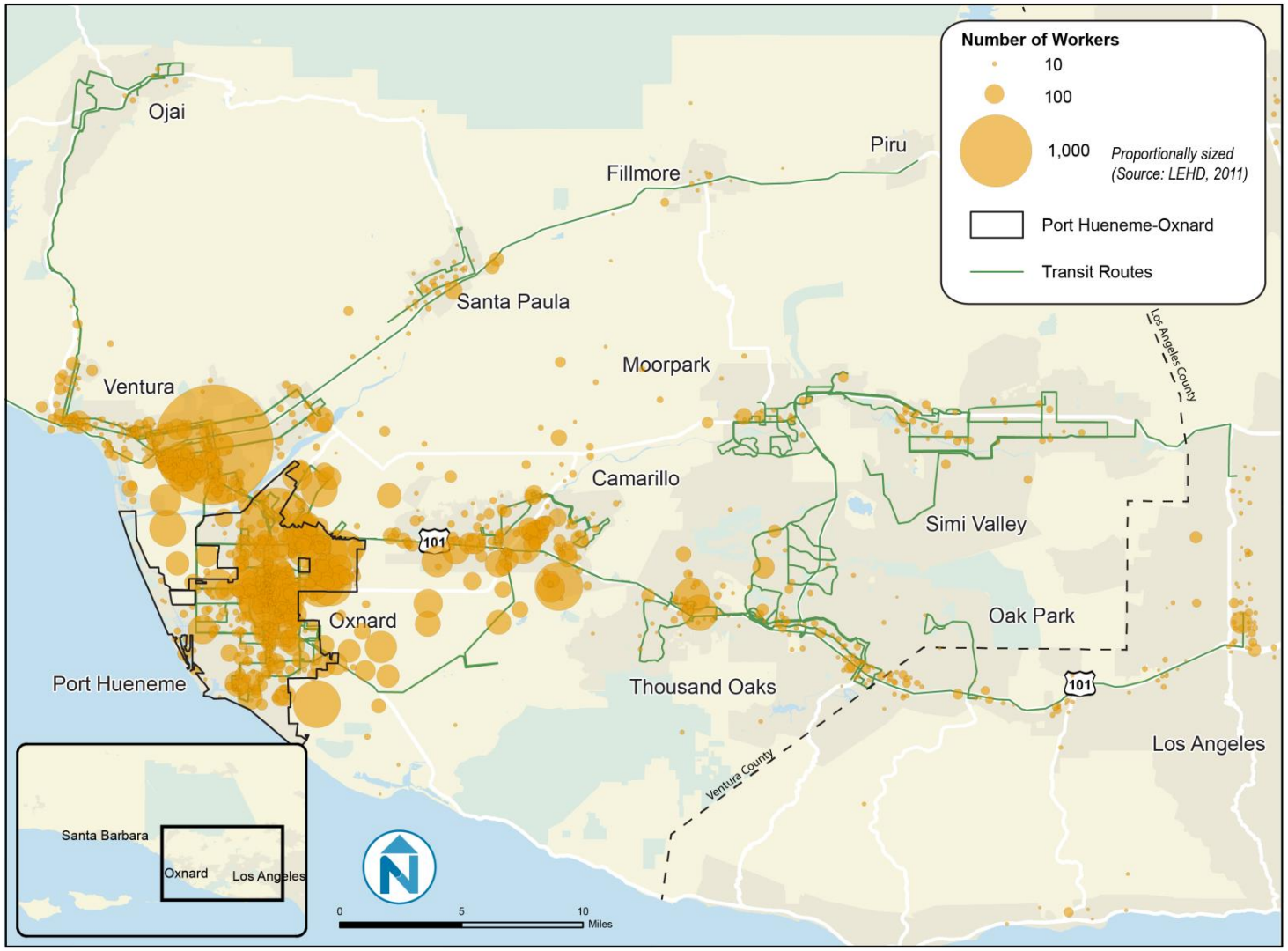

Data Sources: U.S. Census, ESRI

**Figure 30 Employment Locations of Workers Residing in Ventura**



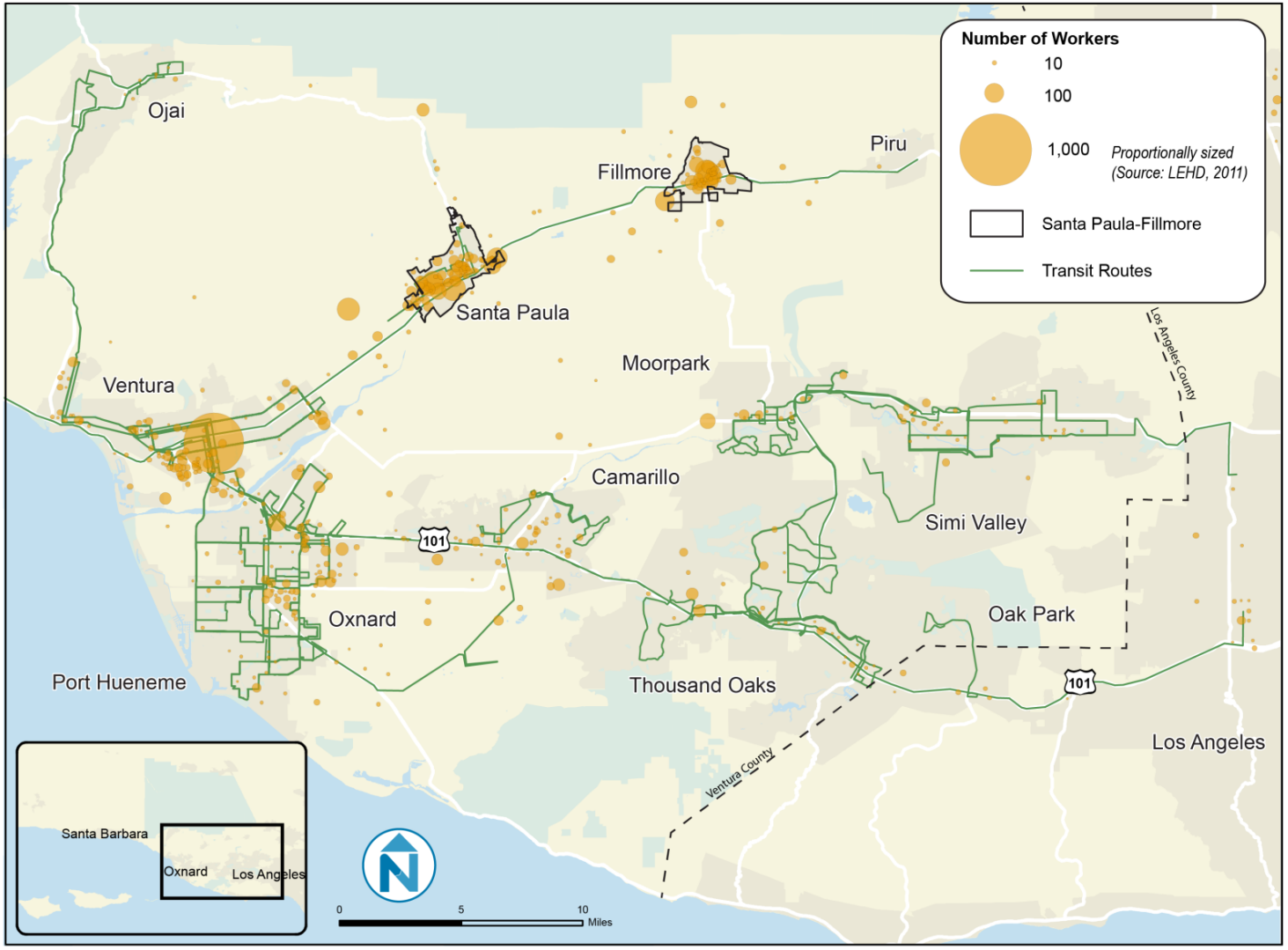

Data Sources: U.S. Census, ESRI

**Figure 31 Employment Locations of Workers Residing in Oxnard-Port Hueneme**



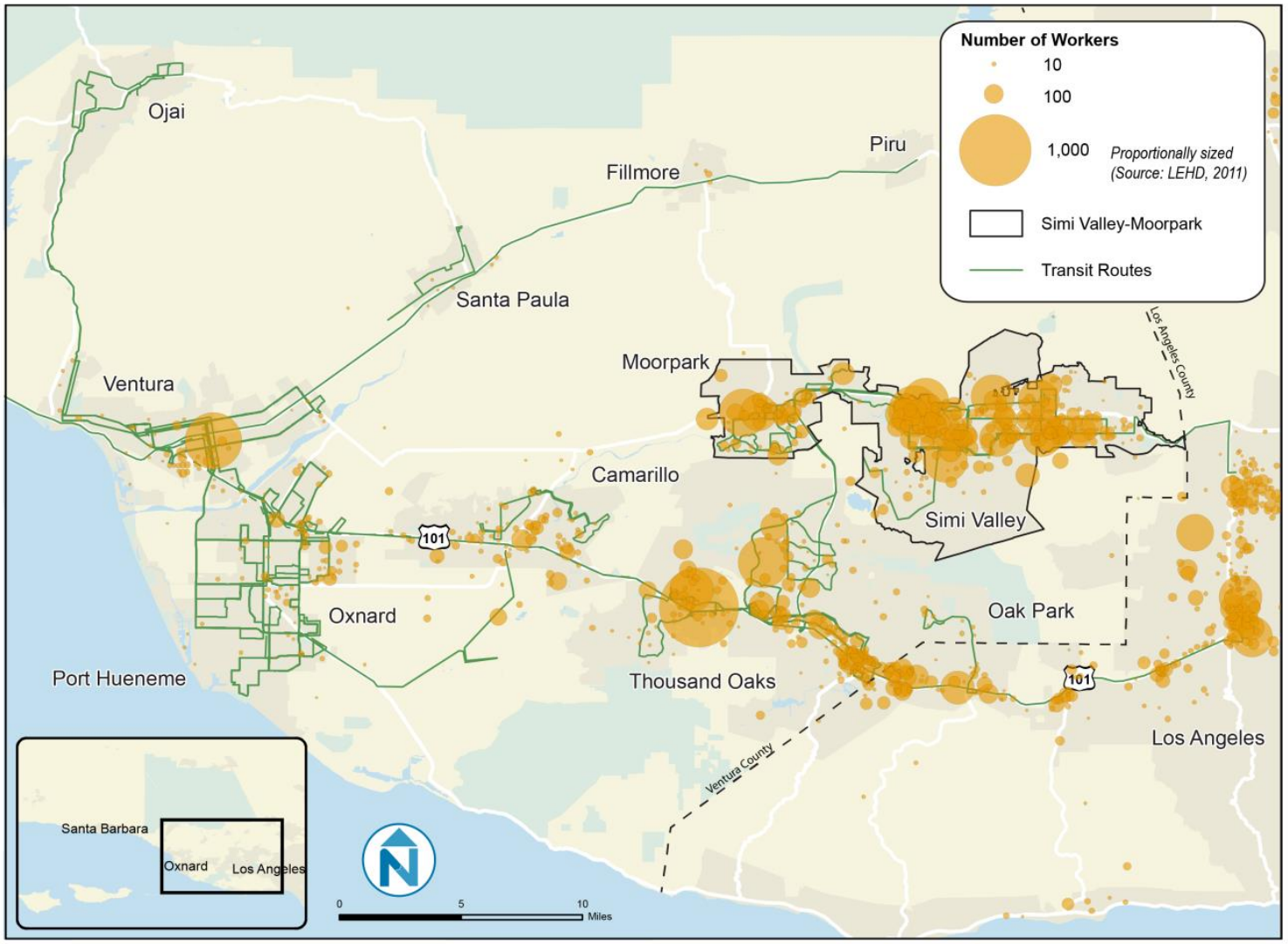

Data Sources: U.S. Census, ESRI

**Figure 32 Employment Locations of Workers Residing in Santa Paula-Fillmore**



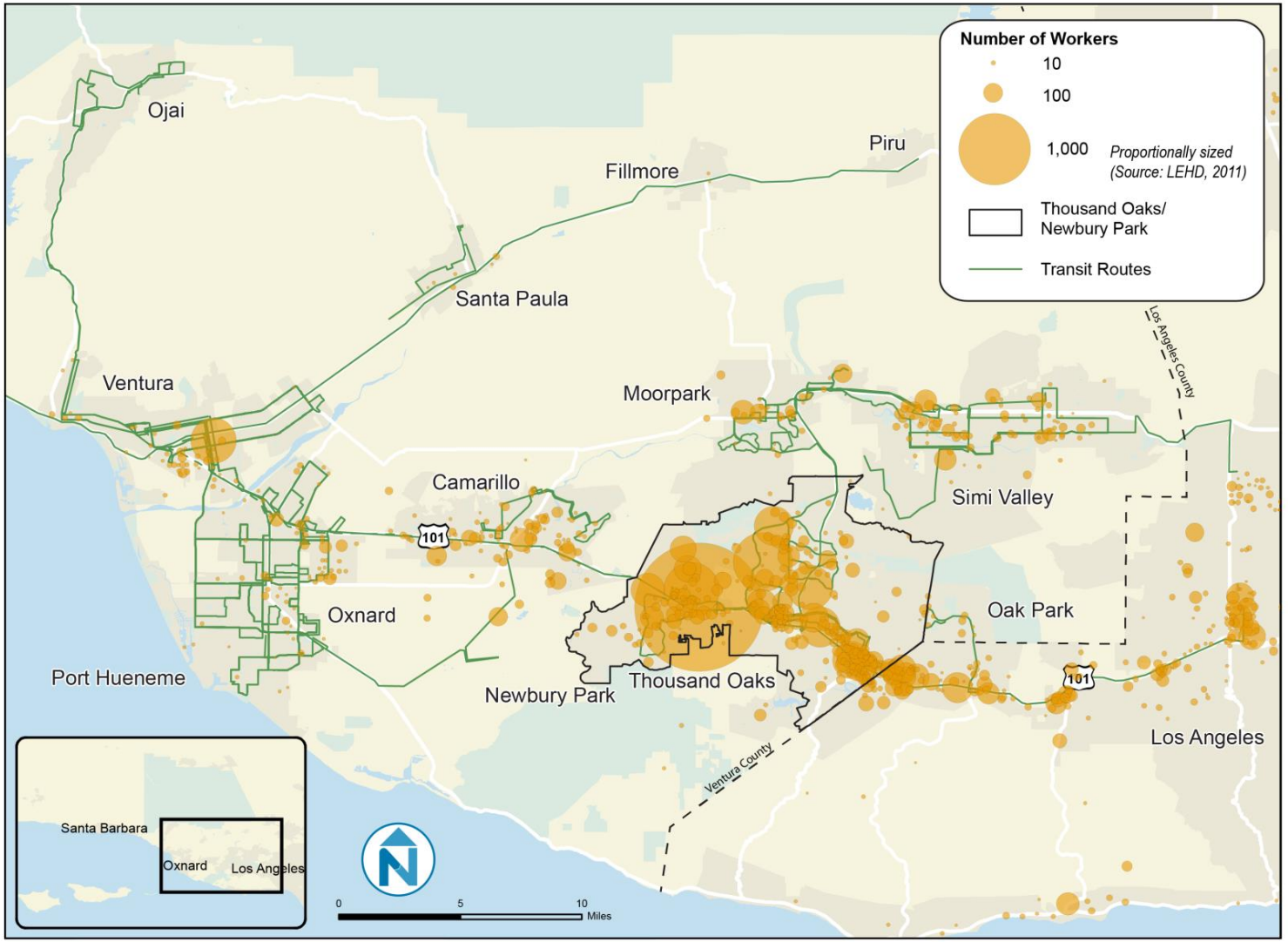

Data Sources: U.S. Census, ESRI

**Figure 33 Employment Locations of Workers Residing in Simi Valley-Moorpark**



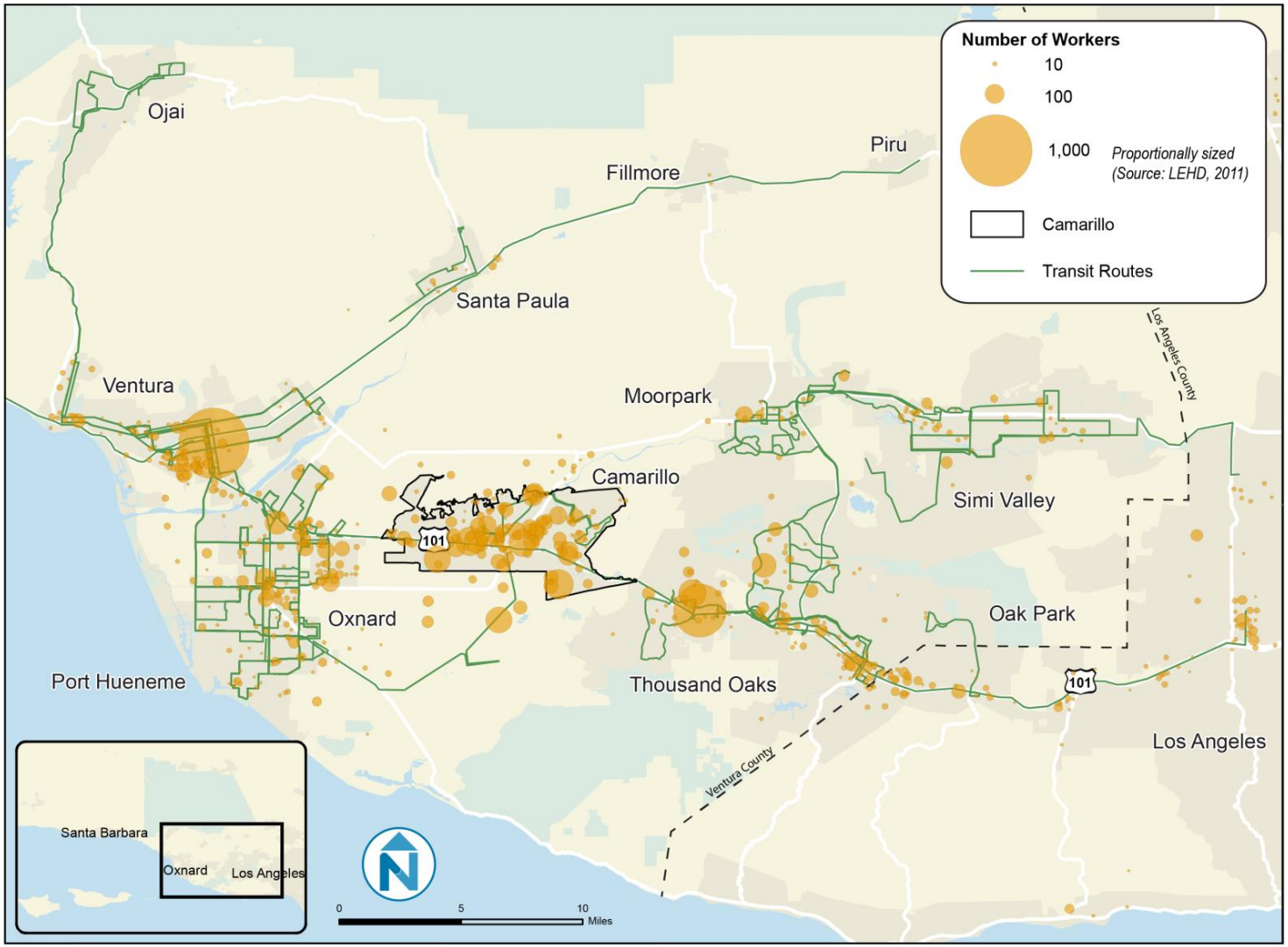

Data Sources: U.S. Census, ESRI

**Figure 34 Employment Locations of Workers Residing in Thousand Oaks**



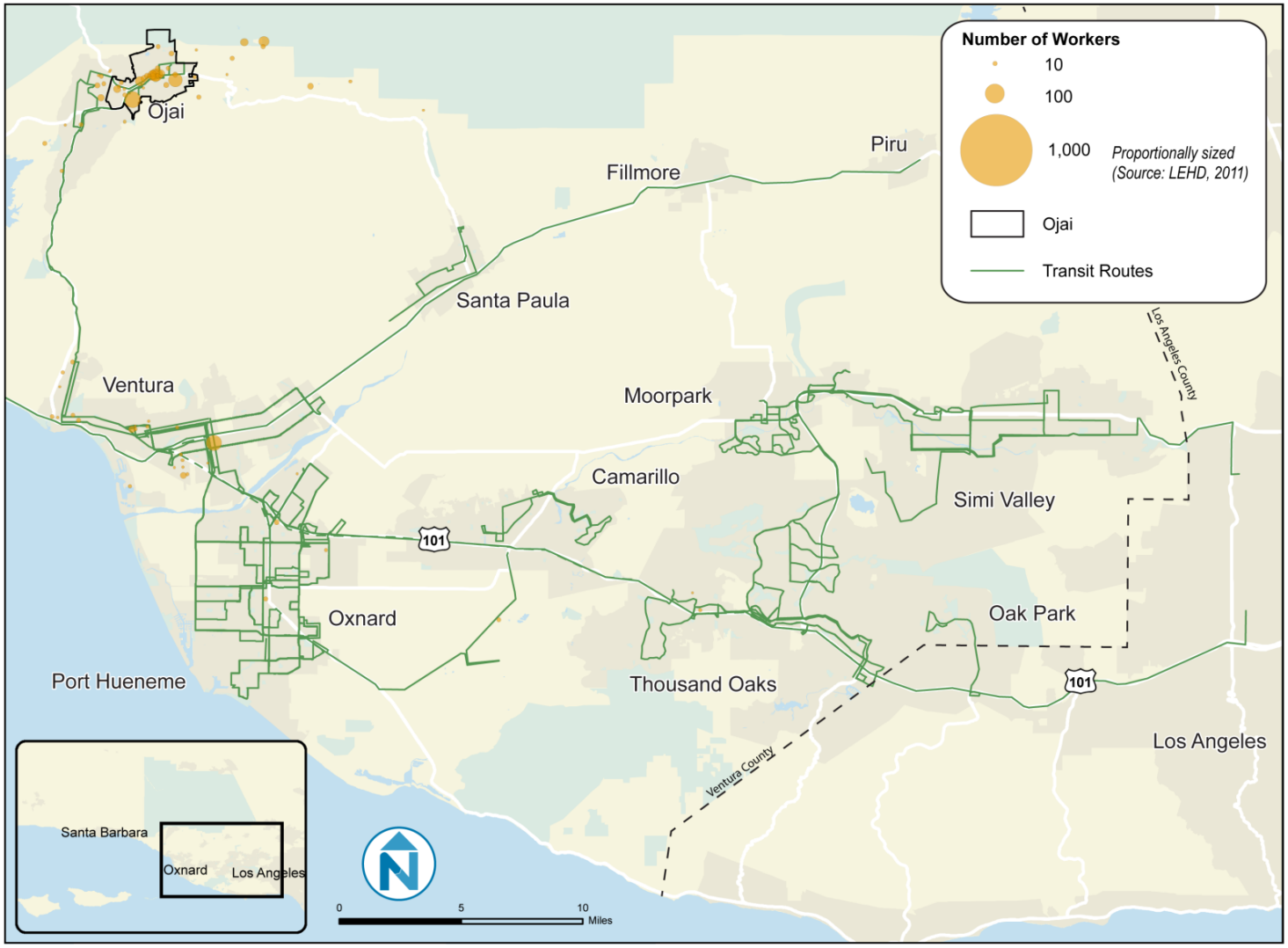

Data Sources: U.S. Census, ESRI

**Figure 35 Employment Locations of Workers Residing in Camarillo**




Data Sources: U.S. Census, ESRI

**Figure 36 Employment Locations of Workers Residing in Ojai**




Data Sources: U.S. Census, ESRI

## Regional Employment Locations

LEHD patterns were also analyzed at the regional scale to examine employee travel patterns to Santa Barbara County, Santa Clarita, and Los Angeles. Based on the employee travel pattern findings of the zone analysis, Ventura County was divided into two sectors: West Ventura County and East Ventura County. Employee work locations were then mapped for each sector.

The workplace locations of Ventura County residents were also identified at the regional scale (Santa Barbara/Goleta to Los Angeles) by dividing the county into the following two sectors:

- West County
  - Oxnard
  - Ventura
  - Camarillo
  - Port Hueneme
- East County
  - Simi Valley
  - Thousand Oaks
  - Moorpark
  - Newbury Park

East Ventura County includes the cities of Simi Valley, Thousand Oaks, Moorpark, and unincorporated Newbury Park.

West Ventura County includes the cities of Oxnard, Ventura, Camarillo, and Port Hueneme. Camarillo was included in the West County sector due its proximity west of the Conejo Mountains. Santa Paula, Fillmore, and Ojai were not included in the regional LEHD analysis due to their employee workplace locations and proximity to US Highway 101.

### Work Locations of East Ventura County Workers

While a high number of East Ventura County employees works in Newbury Park or their resident city, several thousand employees also commute a relatively long distance. In addition to Government Center in Ventura, other major employment destinations include Warner Center, Chatsworth, Northridge, Downtown Los Angeles, Burbank, and Century City.

### Work Locations of West Ventura County Workers

In addition to Oxnard, Ventura and Camarillo, employees of West Ventura County work in Newbury Park, Thousand Oaks, Santa Barbara, and Goleta (UCSB). There are far fewer workers in West Ventura County employed in Downtown Los Angeles, Chatsworth, Northridge, and Warner Center than in East Ventura County.

**Figure 37 Employment Locations of Workers Residing in East County**

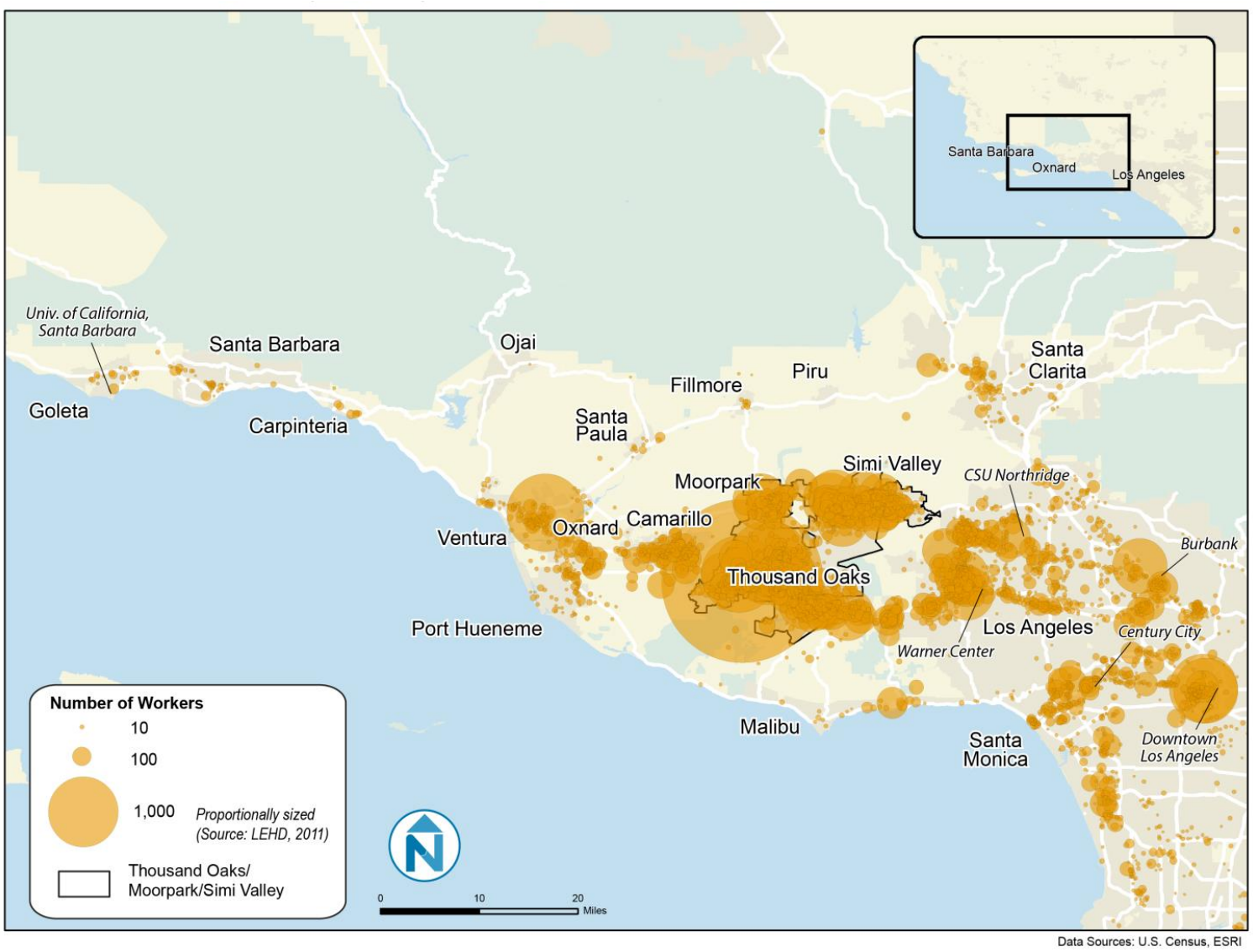


**Figure 38 Employment Locations of Workers Residing in West County**

# COMMUTER ORIGIN AND DESTINATIONS

The Ventura County Air Pollution Control District (VCADCD) requires major employers to conduct surveys of their employees' commuting once every two years. Results from the 2013 survey were summarized by origin and destination for cities/communities with over 1,000 survey results as depicted in Figure 39.

**Figure 39 VCADCD Commuter Origin and Destination Cities**

| To / From | Ventura | Oxnard | Camarillo | Thousand Oaks | Newbury Park | Moorpark | Simi Valley | Total |
|---|---|---|---|---|---|---|---|---|
| Ventura | 2,297 | 708 | 465 | 144 | 140 | 46 | 39 | **3,839** |
| Oxnard | 1,741 | 2,259 | 1,113 | 236 | 328 | 90 | 77 | **5,844** |
| Camarillo | 461 | 506 | 944 | 321 | 271 | 83 | 100 | **2,686** |
| Thousand Oaks | 112 | 96 | 172 | 797 | 312 | 68 | 152 | **1,709** |
| Newbury Park | 89 | 85 | 134 | 313 | 271 | 22 | 63 | **977** |
| Moorpark | 83 | 59 | 109 | 264 | 116 | 178 | 214 | **1,023** |
| Simi Valley | 123 | 90 | 190 | 510 | 237 | 220 | 1,443 | **2,813** |
| **Total** | **4,906** | **3,803** | **3,127** | **2,585** | **1,675** | **707** | **2,088** | **-** |

While not all destination cities/communities are included in this summary, the travel pattern data reveals that over 80% of Moorpark employees commute to locations elsewhere in the county. Ventura has the highest rate of employees working within the same city at 60%.

In terms of total commuters Oxnard to Ventura and Oxnard to Camarillo were identified as the only intercity commuting patterns with over 1,000 employees. Intercity commuting patterns with the next highest totals include Ventura to Oxnard, Simi Valley to Thousand Oaks, Camarillo to Oxnard, Ventura to Camarillo, and Camarillo to Ventura.

# TRAVEL DEMAND ANALYSIS

## Overview

VCTC provides intercity bus service within Ventura County and express bus service to Santa Barbara and Los Angeles Counties. Seven additional fixed-route transit operators in Ventura County provide urban and suburban local service along with a few commuter routes. One of the goals of the Ventura County SRTP is to better understand service gaps in the area and identify markets that are currently underserved or not served. Data from the Southern California Association of Governments (SCAG) travel demand model was used to provide insight into travel markets within Ventura County and key destinations in Los Angeles County. Santa Barbara County was not included in this analysis.

## Methodology

Ventura County was divided into twenty-five catchment zones representing unique geographical zones such as smaller cities, quadrants of larger cities, unincorporated populated zones, and major employment zones. Initially, all trip types were mapped together to see overall travel patterns. Next, home-based work trips and home-based school trips were mapped separately.

In addition to trips within the Ventura County, trips to Downtown Los Angeles, Westwood/Century City, Warner Center, and Santa Clarita were mapped to gain an understanding of longer-distance travel. The analysis of travel patterns is summarized below, followed by maps.

In viewing the maps, it is important to consider a few points:

- Data are from the SCAG travel demand model, which is calibrated using actual travel counts but does not account for all nuances of real-life travel.
- Origin-destination connections show travel in both directions for the entire day.
- Trips are not segregated by time of travel (i.e., peak vs. off-peak). In general, home-based work travel is heaviest in the traditional morning and evening peak periods. All other trips are spread more evenly throughout the day.
- Trips internal to analysis zones are not illustrated. For example, trips that stay within the South Oxnard zone are not illustrated. This point-to-point analysis does not illustrate how trips are assigned to available streets or transit routes. In viewing the data, it is helpful to think about how various point-to-point travel markets aggregate in actual travel corridors.

## Results

### All Trips Ventura County

- Connections with at least 3,000 daily trips are considered in the analysis.
- The strongest connections are between Oxnard and Ventura, which have the highest contiguous concentrations of moderate to high residential densities, major commercial corridors, employment activity centers such as Government Center and the Esplanade, and two community colleges. These areas are well served by Gold Coast.
- Strong connections also exist between Camarillo and Newbury Park, as well as Thousand Oaks and Newbury Park. The Rancho Conejo Industrial Park in Newbury Park (Thousand Oaks) is a major employment generator anchored by Amgen and Blue Cross Blue Shield. VCTC Intercity Route Highway 101 serves as the primary link between these areas.

- Moderate connections also exist between Moorpark and West Simi Valley, as well as East and West Simi Valley. VCTC Intercity Route East County serves as the only link between these areas.
- Weaker connections exist between the Heritage Valley (Santa Paula, Fillmore, and Piru) and zones to the southwest (Ventura, Oxnard) and northeast (Santa Clarita). Interestingly, VCTC Intercity Route Highway 126 is more productive than peer services. This suggests that despite the relatively low overall travel patterns, transit dependency is significant in the Heritage Valley.

### Home-Based Work Trips in Ventura County

- Connections with at least 1,000 daily trips are considered in the analysis.
- The home-based work travel patterns are similar to those of all trip types in terms of relative demand.
- Employment destinations exist throughout Ventura County. Several areas stand out as generating significant numbers of home-based work trips, including South Oxnard, South Ventura (including Government Center), Newbury Park, and West Simi Valley. While South Ventura and Newbury Park are well served by VCTC Intercity, South Oxnard is only served by the short CSUCI-Oxnard route.
- East and West Simi Valley exhibit the strongest connections with selected employment centers (Downtown Los Angeles, Westwood/Century City, and Warner Center) in Los Angeles County. Simi Valley Transit operates a commuter route to the Chatsworth Metrolink Station but does not reach Warner Center.

### Home-Based School/College Trips in Ventura County

- Connections with at least 1,000 daily trips are considered in the analysis.
- The strongest connections are between South Oxnard (Oxnard College) and both Northeast and Northwest Oxnard, all over which are served by Gold Coast.
- Strong connections also exist between Midtown Ventura (Ventura College) and adjacent zones (Westside Ventura, South Ventura, and East Ventura/Saticoy). Gold Coast provides good connectivity to these areas.
- Strong connections also exist between Moorpark (Moorpark College) and both North Thousand Oaks and West Simi Valley. VCTC Intercity Route East County links these areas.
- California State University-Channel Islands (CSUCI) connections were minuscule and do not appear to accurately reflect current trip volumes as the SCAG data is from 2009 and may not account for rapidly growing enrollment figures. As a result, a separate home-based school trip analysis was conducted for CSUCI.

### Home-Based Work Trips to and from West Los Angeles County

- Connections with at least 1,000 daily trips are considered in the analysis.
- The strongest home-based work connections between zones in Ventura County and major employment centers in West Los Angeles are limited to East and West Simi Valley.
- The strongest connections associated with Simi Valley include Warner Center and West Santa Clarita.

**Figure 40 All Trips in Ventura County**

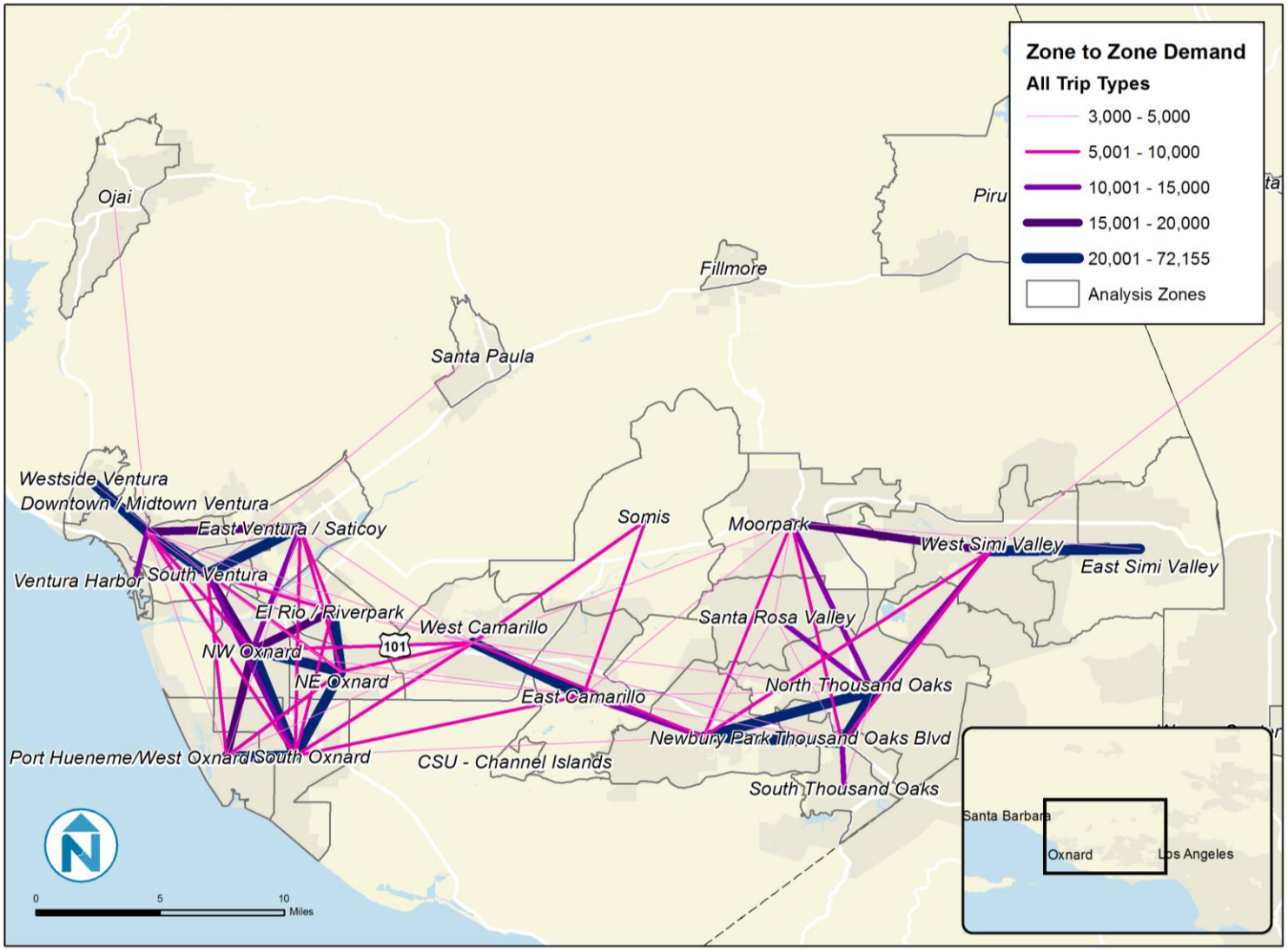
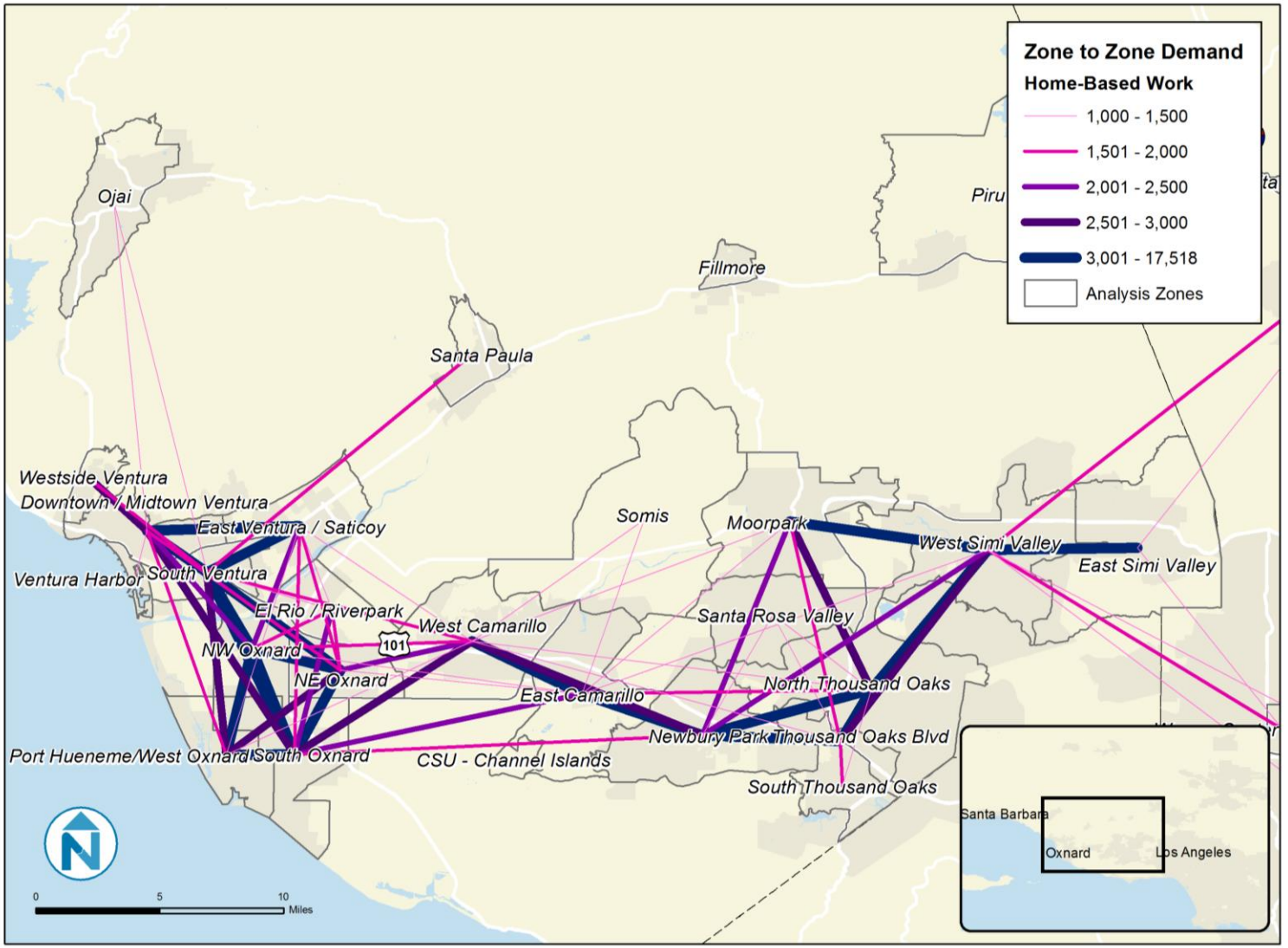


**Figure 41 Home-Based Work Trips in Ventura County**




Data Sources: U.S. Census, ESRI

**Figure 42 Home-Based School/College Trips in Ventura County**

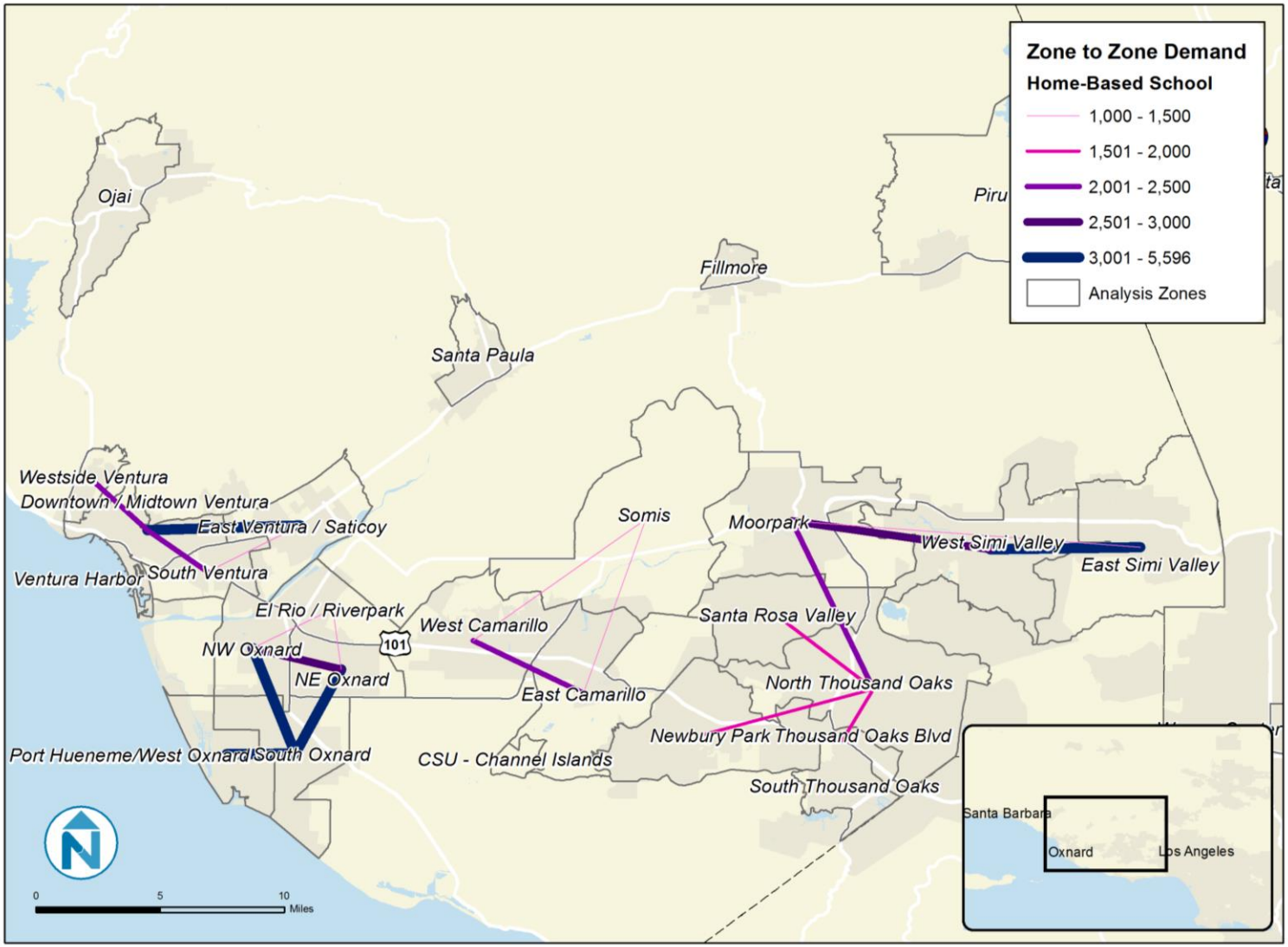
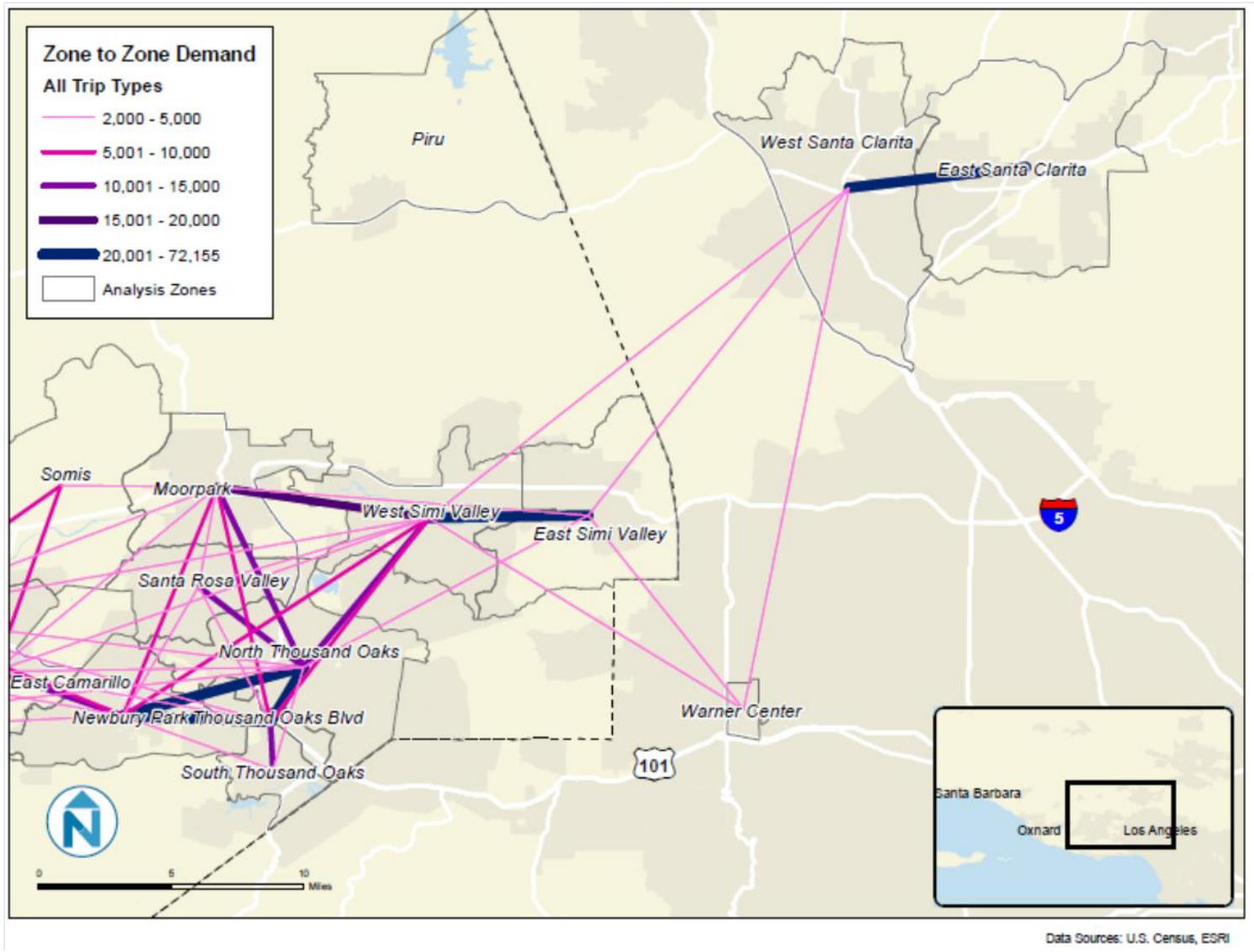


**Figure 43 Home-Based Work Trips to and from Los Angeles County**



## COLLEGE STUDENT RESIDENTIAL DENSITIES

College and university states comprise a significant percentage of VCTC Intercity ridership. Residential densities of public universities and colleges within Ventura County were mapped to identify potential opportunities for improved direct access to the following institutions:

- California State University-Channel Islands
- Moorpark College
- Oxnard College
- Ventura College

CSUCI's student distribution is shown in Figure 44. The most significant student concentrations are found in Oxnard and West Camarillo. Ventura and the western half of Thousand Oaks are home to a moderate concentration of students. VCTC Intercity CSCUI-Oxnard serves South Oxnard with the CSUCI Oxnard route. Students residing in West Camarillo must access the CSUCI-Camarillo route at Camarillo Metrolink Station in East Camarillo.

Ventura College's student distribution is shown in Figure 45. The largest concentrations are located in Ventura and in Oxnard. Gold Coast Transit District serves Ventura College with three local routes which traverse Oxnard and Ventura.

Moorpark College's student distribution is shown in Figure 46. The largest student concentrations are located in Simi Valley and in Thousand Oaks. Moorpark College is served by Moorpark City Transit and the VCTC Intercity East County route, which provides connections to Simi Valley and Thousand Oaks.

Oxnard College's student distribution is shown in Figure 47. The majority of students reside within the City of Oxnard. Gold Coast Transit District provides service to Oxnard College with three local routes. Oxnard College students residing west of Oxnard Blvd must connect at C Street Transfer Center or along Rose Avenue to reach the campus. VCTC also serves Oxnard College with its CSUCI Oxnard route, which connects to C Street Transfer Center

**Figure 44 California State University-Channel Islands Student Density**

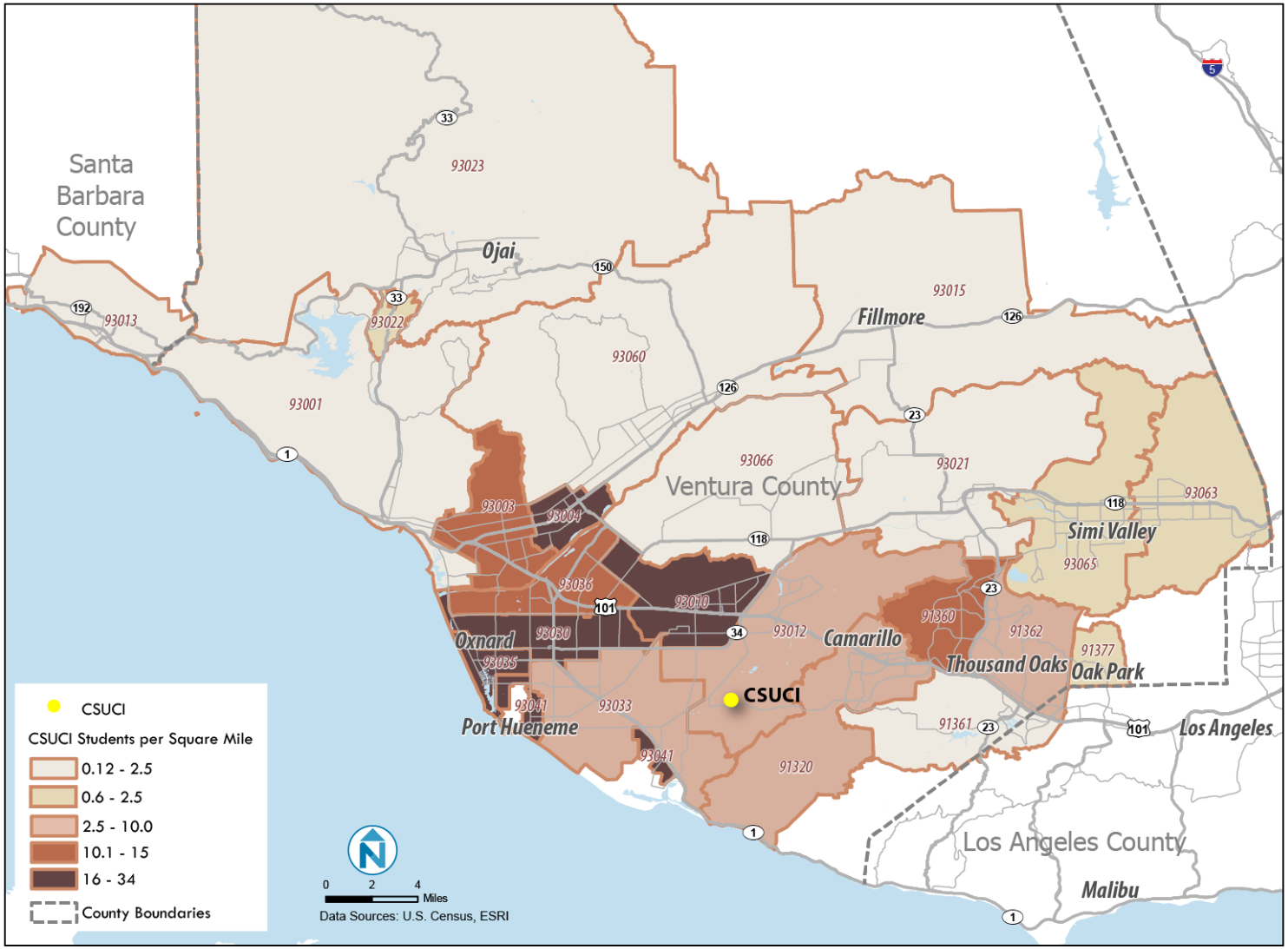


**Figure 45 Ventura College Student Density**

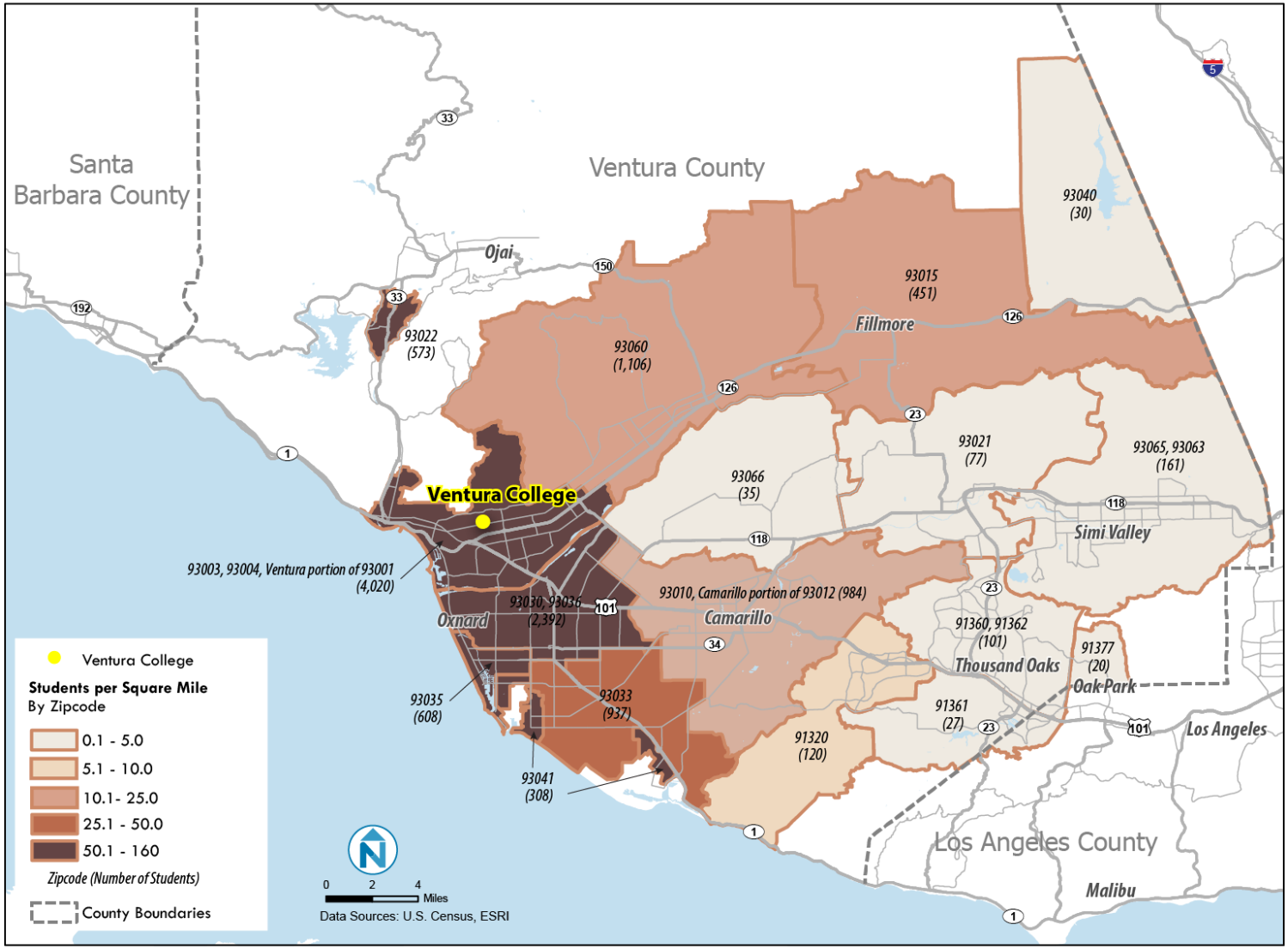


**Figure 46 Moorpark College Student Density**

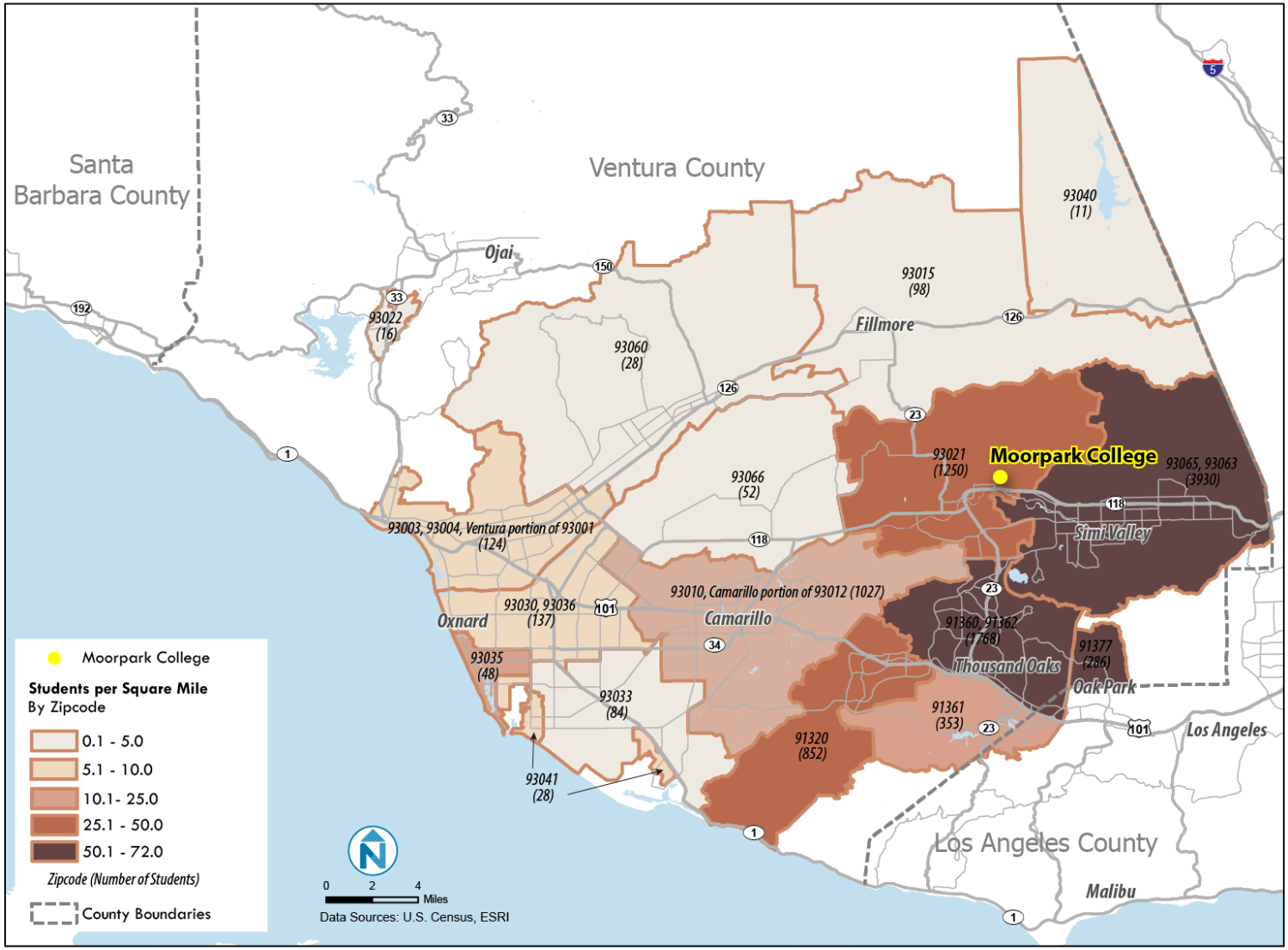
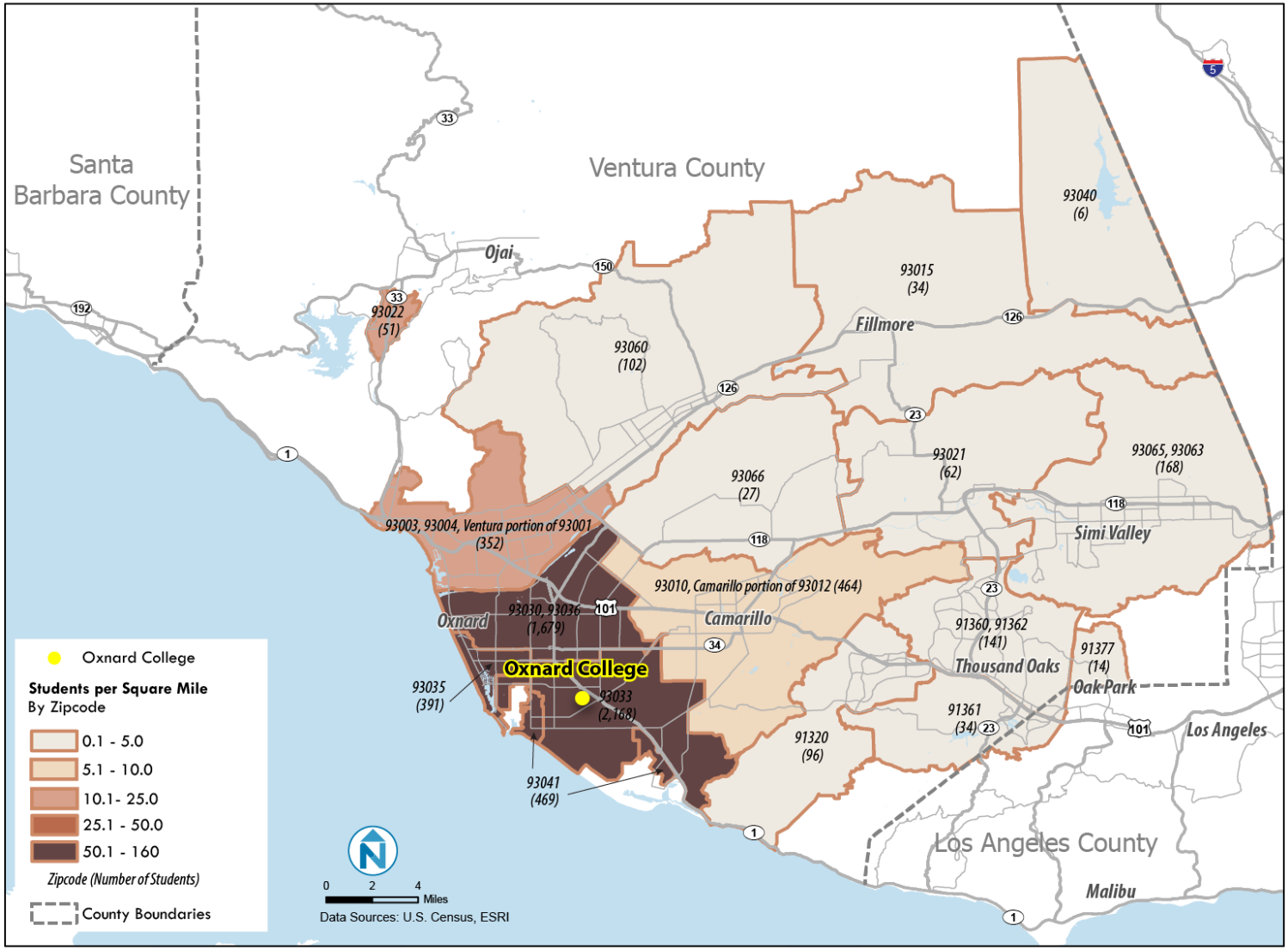


**Figure 47 Oxnard College Student Density**



# 5 SERVICE GAP ANALYSIS

The transit service evaluation and market analysis serve as a basis for identifying service gaps within Ventura County and the adjacent counties. Service gaps are categorized as deficiencies in coverage, connectivity, and schedule coordination.

## SERVICE COVERAGE

Several socioeconomic characteristics were combined to evaluate transit propensity (Figure 27) across Ventura County. All areas identified exhibiting a moderate to high propensity for transit service are currently served by local or intercity service.

Despite this finding, there have been requests from customers and community stakeholders to extend VCTC Intercity service to Santa Clarita. Customer requests for transit service between Fillmore and Santa Clarita have been provided during recent Unmet Needs process and online surveys. However, Census LEHD and regional travel demand data do not indicate a strong pattern between Heritage Valley cities and Santa Clarita (Figure 43). It is important to note that potential employment and educational opportunities could be sought in the Santa Clarita area should transit become available. Future transit service between Fillmore and Santa Clarita would require a partnership with Santa Clarita Transit.

The unincorporated areas of Somis and Santa Rosa Valley are not currently served by fixed-route transit service. A proposed East West Connector route would provide a direct one-seat ride connecting East Ventura County to West Ventura County, using the Highway 118 and Highway 34 corridor. The proposed service will allow East County residents to arrive to the Ventura County Government Center by 8:00am for court or jury summons. In addition, the proposed route will improve access to employment, medical, and school or college. Specific benefits of the proposed route include:

- A one-seat trip between Ventura College and Moorpark College
- Direct service between the Cities of Ventura, Oxnard and Camarillo to Moorpark College
- Improved transit access from Simi Valley and Moorpark to the CSUCI campus
- Connections with the CSUCI route at the Camarillo Metrolink station
- Introduction of transit service to Somis

**Service to Naval Base Ventura County (NBVC) -** The NBVC employs 11,000 people, including both military personnel and civilian employees. While the perimeter of the base is currently served by Gold Coast Transit's Route 1, 3 and 21, service onto the base has been highly requested in the past. The draft Gold Coast Transit Short Range Transit Plan addresses a potential solution, dependent on funding/agreements, in the form of an express service that would provide service onto the base in Port Hueneme. It is recommended that VCTC support Gold Coast Transit District (GCTD) efforts to finding a possible solution for serving the NBVC.

# SERVICE CONNECTIVITY

Employment travel patterns and student densities reveal the need to improve connectivity within the following origins and destinations.

## Moorpark and Simi Valley

Despite the short distance between Moorpark and Simi Valley, the only transit links are the VCTC Intercity East County route and Metrolink. The East County route operates fairly infrequently and only reaches the edge of Simi Valley. While a high number of Moorpark College students reside in Simi Valley (Figure 46), bus access from residential areas to the campus are limited.

In the opposite direction, Simi Valley offers a number of shopping destinations and medical services not available in Moorpark. Extending the VCTC East County route to Simi Valley Civic Center and extending a Simi Valley Transit line to Moorpark College throughout the day on weekdays would improve connectivity between origins and destinations in each city.

## South Oxnard to Camarillo

Census LEHD data (Figure 31) revealed a high number of Oxnard residents employed in Camarillo. While VCTC Intercity Route 101 provides an all-day linkage between North Oxnard and Camarillo, VCTC Intercity Conejo Connection connects South Oxnard with Camarillo during peak hours only. As a result, midday travel between the two cities requires multiple transfers.

In April 2015, VCTC approved funding for a route that will connect Oxnard Transit Center, the Camarillo Outlet Malls, and the Camarillo Metrolink Station. This service is scheduled to be implemented in 2016 and will significantly reduce the midday travel time. Additional details regarding this proposed service are included in the VCTC Intercity Five-Year Plan.

## Moorpark and Simi Valley to Thousand Oaks

Ventura County Air Pollution Control District (Figure 39) survey results show that more Moorpark residents are employed in Thousand Oaks than any other city, including Moorpark. Similarly, LEHD employment data (Figure 33) reveal that a significant number Moorpark and Simi Valley residents are employed in Thousand Oaks and nearby Newbury Park. In an effort to improve regional coordination, circulator routes in Simi Valley, Moorpark, and Thousand Oaks should ideally operate at clockface headways and potentially design schedules that are timed with intercity routes.

## California State University-Channel Island (CSUCI)

As one of the fastest growing universities in Southern California, CSUCI attracts students from across Ventura County and beyond. While the two CSCUI shuttle routes provide regular connections to South Oxnard and Camarillo, students commuting from Ventura, North Oxnard, and Thousand Oaks must transfer to reach the university. CSUCI students residing in Fillmore, Santa Paula, Moorpark, and Simi Valley must transfer twice.

Timed transfers and/or interlining between the Hwy 126, Hwy 101, and East County routes would significantly reduce travel time between CSUCI and both Heritage Valley and East County. The

creation of a new intercity route connecting Simi Valley and Moorpark with Camarillo would improve access to CSUCI by potentially enabling students to make the trip with only one transfer.

## SCHEDULING COORDINATION

Currently, only 25% of countywide routes operate at headways of 30 minutes or better. Several routes operate and unfamiliar headways of 45, 50, or 70 minutes. Clockface headways of 15, 20, 30, and 60 minutes make it easier to memorize trip times and not rely on a schedule, thereby increasing customer satisfaction. Clockface headways also allow for timed connections when implemented at a system or countywide level.

Existing VCTC routes are not clock-faced headways, so connections between local and regional services are random and often very time-consuming. The average wait time between VCTC Intercity routes is 15 minutes during peak hours and 28 minutes during off-peak hours. Designing route schedules with common headways and departure times at major transfer points such as Ventura Transfer Center route schedules at common endpoints would allow for timed connections and potentially interlined bus service. Gold Coast and Thousand Oaks have established bus hubs, however, their route schedules do not allow for timed connections throughout the day.

VCTC Intercity Route Highway 101 serves as the backbone for regional trips and should therefore have timed connections with Highway 126 at Ventura Transit Center and East County at Thousand Oaks Transit Center.

# 6 TRANSIT INVESTMENT PLAN

Capital facilities have a significant impact on customer satisfaction and community perception of transit. A comprehensive evaluation of transit centers, park-and-rides, and operations facilities was conducted to determine opportunities for capital investments that would enhance service and/or operations.

## TRANSIT CENTERS

Transit centers are important transfer nodes and may range in terms of ridership, transfer activity, capacity, and customer amenities. A summary of transit centers is included in Figure 48, followed by detailed descriptions

**Figure 48 List of Major Transit Centers**

| Facility | Type | Transit Providers Served |
|---|---|---|
| Ventura Transfer Center | Bus transit center | Gold Coast Transit District, VCTC Intercity |
| Ventura County Government Center | Park-and-Ride | VCTC Intercity, Santa Barbara MTD |
| Oxnard Transit Center | Multimodal station | Gold Coast Transit District, VCTC Intercity, Metrolink, Amtrak, Greyhound, Harbor & Beaches Dial-a-Ride |
| C Street Transfer Center | On-street transfer | Gold Coast Transit District, VCTC Intercity |
| Camarillo Station | Multimodal station | VCTC Intercity, Camarillo Area Transit, Metrolink, Amtrak |
| Thousand Oaks Transit Center | Bus transit center and park-and-ride | Thousand Oaks Transit, VCTC Intercity, LA DOT, LA Metro |
| Oaks Mall | Off-street transfer | Thousand Oaks Transit, VCTC Intercity, LA DOT |

## Ventura Transfer Center


Ventura Transfer Center is situated adjacent to a shopping mall and within close proximity to Ventura College and Ventura County Medical Center. The facility serves as an important transfer point for several Gold Coast and VCTC Intercity routes. Despite its high level of customer activity and bus volumes, passenger amenities are severely lacking. The center island and saw tooth bus bays provide efficient bus circulation and patron transfers.

The center island serves as the customer waiting area and has limited shade and seating. The facility also has poor pedestrian circulation due to narrow walkways and physical obstructions.

| Facility Characteristics | |
|---|---|
| Facility Type | Bus transit center |
| Year Built | 2002 |
| Transit Services | Gold Coast Transit District – Routes 6, 10, 11, 16, and 21<br>VCTC Intercity – Hwy 101, Hwy 126, Coastal Express |
| Bus Capacity | 7 sawtooth bus bays |
| Parking | Adjacent mall parking |
| Customer Amenities | Unconventional covered shelters; seating |

## Ventura County Government Center

Ventura County Government Center serves as the primary park-and-ride facility for West Ventura County. While various transit routes stop at the Government Center, connections can be difficult as the bus stops are located on opposite sides of the Government Center. Ample parking is available at the eastern edge of the complex

- Hill Road and Thille: Approximately 250 daily riders utilize the Coastal Express and Coastal Express Limited regional express routes to access destinations in Santa Barbara County. Customer amenities at the Hill Road and Thille Street stop are limited, with two benches, a litter container, and bike racks.
- Victoria and Telephone: Limited amenities include one sheltered bench.
- Victoria at Circle: Amenities include bench, litter container and a solar-powered Nextbus display.

Potential improvements include a sidewalk linking customer parking and the Hill Road and Thille bus stop, additional seating, shelters, increased lighting, and the relocation of amenities behind the sidewalk to improve accessibility.

| Facility Characteristics | |
|---|---|
| Facility Type | Park-and-Ride; On-street bus stops |
| Transit Services | VCTC Intercity – Hwy 101, Hwy 126, Coastal Express<br>Santa Barbara MTD – Coastal Express Limited<br>Gold Coast Transit Routes 6, 11, 21 |
| Parking | Adjacent shared parking (300+ spaces) |
| Customer Amenities | Seating |

## Oxnard Transit Center


Oxnard Transit Center serves as a major multimodal transfer facility near downtown Oxnard. The facility includes saw-tooth bus bays, a covered waiting area, ample seating, nearby parking, and direct access to Metrolink.

Oxnard Transit Center serves as an endpoint for several Gold Coast routes, which in some cases, discourages the establishment of longer and more direct local routes.

| Facility Characteristics | |
|---|---|
| Facility Type | Multimodal station |
| Year Built | 1986 |
| Transit Services | Gold Coast Transit District – Routes<br>VCTC Intercity – Conejo Connection<br>Metrolink – Ventura Line<br>Amtrak (Rail and Bus)<br>Greyhound<br>Harbor & Beaches Dial-a-Ride |
| Bus Capacity | 10 sawtooth bus bays and 5 diagonal bus stalls |
| Parking | Adjacent free parking |
| Customer Amenities | Customer service center, covered center island, seating |

## C Street Transfer Center


C Street Transfer Center is a secondary transfer point in Oxnard. Unlike Oxnard Transit Center, C Street Station is directly adjacent to all-day retail destinations at Centerpoint Mall. C Street Station is equipped with passenger amenities and a pedestrian-activated crosswalk. However, the limited right-of-way results in a narrow waiting area for customers. Operationally, C Street Station allows convenient connections between bus routes. Centerpoint Mall management no longer allows transit users to use the adjacent parking spaces in a "hide-and-ride" manner. As a result, the VCTC Intercity CSUCI-Oxnard route should be realigned to anchor at Oxnard Station or College Park.

| Facility Characteristics | |
|---|---|
| Facility Type | On-street transfer |
| Transit Services | VCTC Intercity – CSUCI-Oxnard<br>Gold Coast – Routes 1, 3, 7, 8, 9, 21 |
| Parking | No longer available |
| Customer Amenities | Shelters, seating |

## Camarillo Station


Photo Credit: Jeremiah Cox/SubwayNut.com

Camarillo Station is an important multimodal at the convergence of Highway 101, Lewis Rd and SH 34. Bus access to the facility is constrained due to the limited curb length and shared lane usage by motorists utilizing the adjacent park and ride or dropping off customers. Customer parking is available on both sides of the railroad tracks, however, the accessing the bus stop and train platform from the east lot requires a 0.3 mile walk across a pedestrian bridge elevated over the tracks.

Based on visual inspection, the western lot of Camarillo Park-and-Ride appears to be approaching capacity during the midday period while the eastern lot has excess capacity.

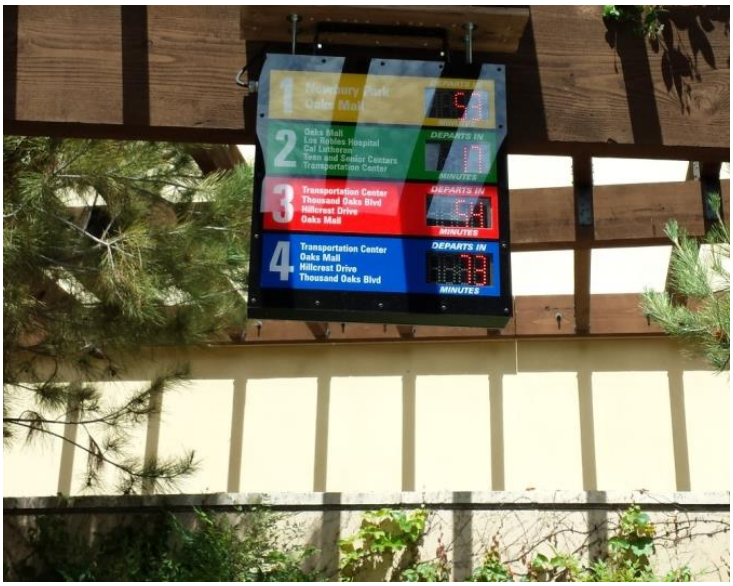
| Facility Characteristics | |
|---|---|
| Facility Type | Multimodal station |
| Year Built | 1994; Expanded in 2006 |
| Transit Services | VCTC Intercity – CSUCI-Camarillo, , Hwy 101<br>Camarillo Area Transit and Camarillo Trolley<br>Metrolink – Ventura Line<br>Amtrak |
| Parking Capacity | 400 spaces |
| Customer Amenities | Covered waiting area |

## Thousand Oaks Transit Center


Thousand Oaks Transit Center is a focal transfer point for local and regional bus service, with connections to Los Angeles. The station serves as a model facility for customer comfort and convenience, by including an indoor waiting area, real-time arrival information, and spacious outdoor amenities. While Thousand Oaks Transit Center is convenient for park-and-ride users and regional transit commuters, the location is out of direction for many local bus riders.

| Facility Characteristics | |
|---|---|
| Facility Type | Bus Transit Center |
| Year Built | 2008; expanded in 2013 |
| Routes Served | Thousand Oaks Transit – Routes 2, 3, 4, and Metrolink Shuttle<br>VCTC Intercity – East County, Hwy 101, Conejo Connection<br>LA DOT – Routes 422 and 423<br>LA Metro – Route 161 |
| Bus Capacity | 3 sawtooth bays, van parking, additional layover space |
| Parking Capacity | 290 spaces |
| Customer Amenities | Customer service center, indoor waiting area, covered shelters, seating, real-time arrival display; restrooms, free wifi, bicycle storage lockers, electric vehicle charging stations |

## Oaks Mall





Oaks Mall serves as a transfer point for all four Thousand Oaks Transit local routes. While accessing the bus stop at the southern edge of the mall requires a significant route deviation, many Thousand Oaks Transit customers connect at Oaks Mall rather than Thousand Oaks Transit Center. Oaks Malls is a major regional destination and attracts more riders than Thousand Oaks Transit Center on weekends. Oaks Mall also serves as a connection point for LA DOT and VCTC Intercity routes.

| Facility Characteristics | |
|---|---|
| Facility Type | Off-street transfer |
| Routes Served | Thousand Oaks Transit – Routes 1, 2, 3, 4, and Metrolink Shuttle<br>VCTC Intercity – East County, Hwy 101, Conejo Connection |
| Parking | Adjacent mall parking |
| Customer Amenities | Covered shelter, seating, real-time arrival display |

# PARK AND RIDES

Park and ride and Metrolink Station lots in Ventura County are primarily situated along US 101, SH 23, and SH 118 as depicted in Figure 49. A complete list of each park and ride facilities is included in Figure 50.

**Figure 49 Park and Ride Locations**

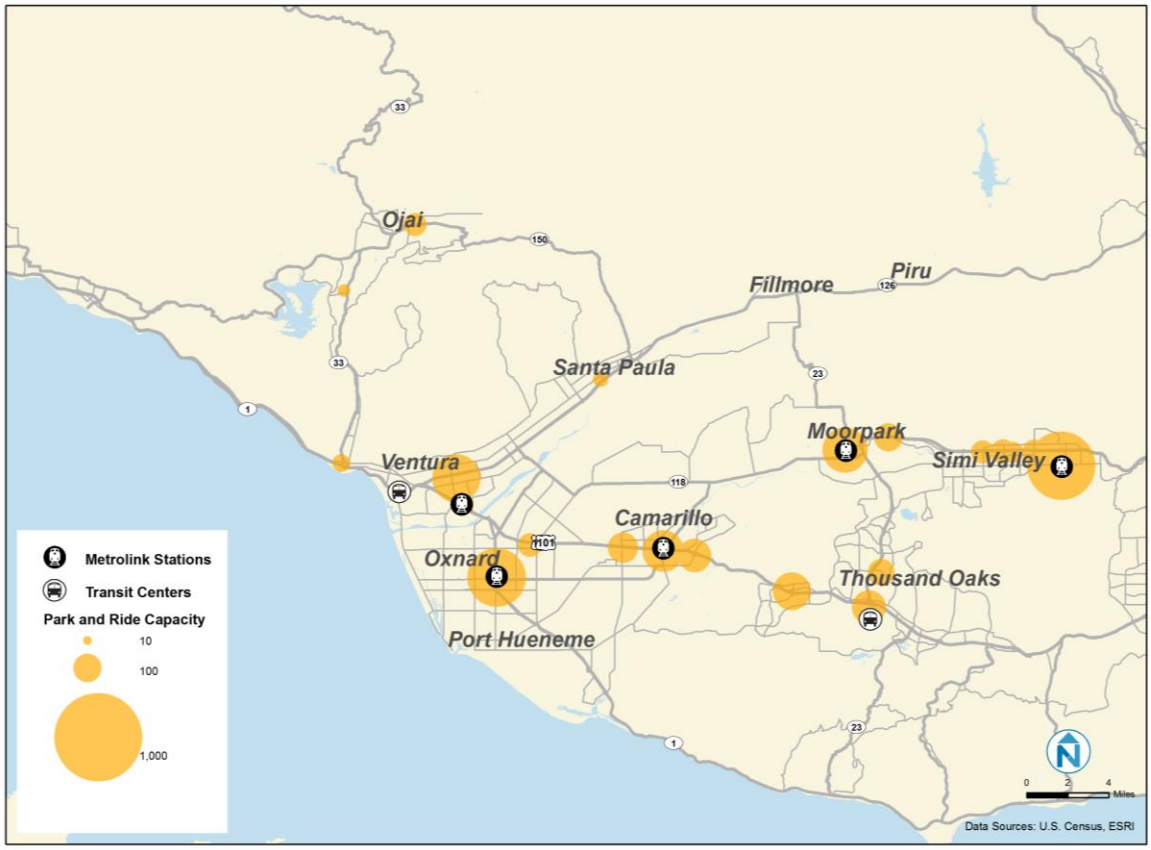


**Figure 50 Listing of Park and Rides**

| Name | City | Operator | # of Stalls |
|---|---|---|---|
| Simi Valley Metrolink | Simi Valley | City | 603 |
| Oxnard Metrolink | Oxnard | City | 450 |
| Camarillo Metrolink | Camarillo | City | 400 |
| Ventura County Government Center | Ventura | County | 300 |
| Moorpark Metrolink | Moorpark | City | 270 |
| Rancho Conejo | Thousand Oaks | Caltrans | 183 |
| Rancho Road | Thousand Oaks | City | 290 |
| Pleasant Valley | Camarillo | Caltrans | 141 |
| Las Posas Rd | Camarillo | Caltrans | 122 |
| Moorpark College | Moorpark | Caltrans | 102 |
| Janss (near teen center) | Thousand Oaks | City | 94 |
| Sycamore Dr. | Simi Valley | Caltrans | 75 |
| Tapo Canyon | Simi Valley | Caltrans | 74 |
| The Palms | Oxnard | City | 72 |
| Erringer | Simi Valley | Caltrans | 69 |
| Ojai | Ojai | City | 68 |
| Montalvo Metrolink (East Ventura) | Montalvo (Ventura) | City | 60 |
| Stearns | Simi Valley | Caltrans | 52 |
| Peking St | Ventura | City | 50 |
| Swanks Chevron | Simi Valley | Chevron | 33 |
| KMART | Santa Paula | KMART | 32 |
| Oakview Community Center | Oakview | County | 20 |

## OPERATIONS FACILITIES

Gold Coast Transit has plans to construct a new administration and operations facility in late 2015 that will provide capacity to grow their fleet over the next several decades. Simi Valley, Thousand Oaks, and Ojai each own maintenance facilities, while Moorpark and Oak Park contract services with Thousand Oaks.

VCTC Intercity contracts with a private operator that utilizes a facility immediately south of Camarillo Station. VCTC has plans to continue transitioning its fleet from leased vehicles to owned vehicles. If the opportunity arises, VCTC should consider constructing its own facility to support a growing system while maintaining a centrally-located base. Potential sites include industrial-zoned land in the Rio Mesa area of Oxnard or near Camarillo Airport.

## PRIORITY PROJECTS

Several capital facility projects are crucial in improving customer service and operational safety. The following priority projects are not sorted by importance or feasibility:

- VCTC and Gold Coast Transit should work with the City of Ventura to study the feasibility of transit center in downtown Ventura or in the vicinity of major destinations such as Ventura College of Government Center
- Upgrade facilities, lighting and pedestrian access at the Hill Road and Thille Street stop at Government Center
- Establish a centrally located transit hub in Simi Valley that serves local and intercity services
- Evaluate the feasibility of increasing right-of-way at C Street Station or de-emphasize transfer activity at the location by modifying/streamlining route alignments

# 7 VEHICLE ACQUISITION PLAN

This section summarizes fixed-route and paratransit vehicle acquisition needs for all transit providers within Ventura County. This countywide vehicle acquisition schedule will help allocate funding and assist in asset management.

## Data Collection

Nelson\Nygaard staff interviewed planning, operations, or finance staff for each transit provider in Ventura County in April 2014. Each provider subsequently provided detailed vehicle inventory data, including:

- Manufacturer and Model
- Year and In-Service Date
- Fuel Type
- Capacity (Seating, Bike, and Wheelchair)
- Current Mileage

## Vehicle Useful Life Assumptions

The useful life of vehicles is based on Federal Transit Administration *Circular 5010.1D – Useful Life Policy*. The following table summarizes the useful life of vehicles based on years of service and mileage accumulated.

**Figure 51 Vehicle Useful Life Guidelines**

| Category | Length | Years | Miles |
|---|---|---|---|
| Large, heavy-duty transit buses including over the road buses | 35-45' | 12 | 500,000 |
| Small size, heavy-duty transit buses | 30' | 10 | 350,000 |
| Trolley-replica buses | 30' | 10 | 350,000 |
| Medium-size, medium-duty transit buses | 25-35' | 7 | 200,000 |
| Medium-size, light-duty transit buses | 25-35' | 5 | 150,000 |
| Other light-duty vehicles such as vans and sedans | N/A | 4 | 100,000 |

The Federal Transit Administration *Useful Life of Transit Buses and Vans* Report was utilized to provide guidance on diesel buses with considerably lower than average annual mileage. The Ventura County Transportation Commission will examine both vehicle year and mileage prior to allocate acquisition funding.

## Vehicle Ownership

The following table describes the vehicle ownership status for each service provider.

**Figure 52 Vehicle Ownership Status for Fixed-Route Service Providers**

| Service Provider | Vehicle | Status |
|---|---|---|
| Gold Coast Transit District | 35', 40' | Owns vehicles |
| VCTC Intercity | 45' | Owns and leases vehicles |
| Simi Valley Transit | 35', 40' | Owns vehicles |
| Thousand Oaks Transit | Cutaway, 30', 35' | Owns vehicles |
| Valley Express | Cutaway | Owns vehicles |
| Ojai Trolley | Trolley Bus | Owns vehicles |
| Moorpark City Transit | 28', 32' | Owns vehicles |
| Kanan Shuttle | Cutaway | Leases vehicles |
| Camarillo Area Transit | Cutaway | Owns vehicle |
| Camarillo Area Transit | Trolley Bus | Leases vehicle |

**Figure 53 Vehicle Ownership Status for Demand Response Service Providers**

| Service Provider | Vehicle | Status |
|---|---|---|
| Gold Coast Access | Cutaways, Vans | Owns vehicles |
| Valley Express DAR | Cutaway | Owns vehicles |
| Simi Valley Transit | Cutaway, Sedan | Owns vehicles |
| Thousand Oaks Transit | Cutaway | Owns vehicles |
| Thousand Oaks Transit | Minivan | Leases vehicles |
| Camarillo Area Transit | Cutaway, Minivan | Owns vehicles |
| Oak Park DAR | Cutaway | Leases vehicles |
| Harbor & Beaches DAR | Cutaway | Owns vehicles |

## Vehicle Acquisition Schedules

Acquisition schedules were developed for each transit provider, projecting the annual number of vehicles required by type. The fixed route vehicle acquisition schedule extends to FY 2027/2028, while the paratransit vehicle acquisition schedule extends to FY 2019/2020.

Recently approved vehicle purchases are included for Gold Coast Transit District, VCTC Intercity, Simi Valley Transit and Paratransit, Valley Express fixed route and DAR, Thousand Oaks DAR, and Camarillo Area Paratransit. The VCTC Intercity vehicle acquisition schedule includes expansion vehicles based initial 5-year plan concepts.

**Figure 54 Gold Coast Transit District - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | FY20-21 | FY21-22 | FY22-23 | FY23-24 | FY24-25 | FY25-26 | FY26-27 | FY27-28 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Expansion 40' Buses | | 2 | 5 | 4 | 4 | | 4 | | 4 | 4 | | | | | 27 |
| Expansion 35' Buses | | | | | | | | | | | | | | | |
| Replacement 40' Buses | 8 | 3 | | 9 | 9 | 8 | | | | | | | 8 | 8 | 45 |
| Replacement 35' Buses | | | | | | | 9 | 8 | | | | | | | 17 |
| Returning 40' Buses | 29 | 34 | 39 | 35 | 39 | 44 | 52 | 56 | 56 | 60 | 64 | 64 | 56 | 56 | |
| Returning 35' Buses | 17 | 17 | 17 | 17 | 17 | 17 | 8 | 9 | 17 | 17 | 17 | 17 | 17 | 17 | |
| **Total 40' Buses** | **37** | **39** | **44** | **48** | **52** | **52** | **56** | **56** | **60** | **64** | **64** | **64** | **64** | **64** | **72** |
| **Total 35' Buses** | **17** | **17** | **17** | **17** | **17** | **17** | **17** | **17** | **17** | **17** | **17** | **17** | **17** | **17** | **17** |
| **Total Fleet** | **54** | **56** | **61** | **65** | **69** | **69** | **73** | **73** | **77** | **81** | **81** | **81** | **81** | **81** | |

**Figure 55 VCTC Intercity - Vehicle Acquisition**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | FY20-21 | FY21-22 | FY22-23 | FY23-24 | FY24-25 | FY25-26 | FY26-27 | FY27-28 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Purchased Expansion 45' Buses | | 1 | 1 | 1 | 1 | | | | | | | | | | 4 |
| Purchased Replcement 45' Buses | 14 | | | | | 2 | 3 | | | | 11 | | 14 | 1 | 31 |
| Purchased Returning 45' Buses | | 14 | 15 | 16 | 17 | 18 | 20 | 23 | 23 | 23 | 23 | 34 | 20 | 33 | |
| Leased Returning 45' Buses | 16 | 16 | 16 | 16 | 16 | 14 | 11 | 11 | 11 | 11 | | | | | |
| **Total 45' Buses** | **30** | **31** | **32** | **33** | **34** | **34** | **34** | **34** | **34** | **34** | **34** | **34** | **34** | **34** | **35** |

**Figure 56 Simi Valley Transit - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | FY20-21 | FY21-22 | FY22-23 | FY23-24 | FY24-25 | FY25-26 | FY26-27 | FY27-28 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Expansion 40' Buses | | | | | | | | | | | | | | | |
| Expansion 35' Buses | | | | | | | | | | | | | | | |
| Replacement 40' Buses | 3 | | 2 | | | | | | 3 | | | | 3 | | 8 |
| Replacement 35' Buses | 3 | | | | | | | | | | | | 3 | | 3 |
| Returning 40' Buses | 5 | 8 | 6 | 8 | 8 | 8 | 8 | 8 | 5 | 8 | 8 | 8 | 5 | 8 | |
| Returning 35' Buses | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | 3 | |
| **Total 40' Buses** | **8** | **8** | **8** | **8** | **8** | **8** | **8** | **8** | **8** | **8** | **8** | **8** | **8** | **8** | **8** |
| **Total 35' Buses** | **3** | **3** | **3** | **3** | **3** | **3** | **3** | **3** | **3** | **3** | **3** | **3** | **3** | **3** | **3** |
| **Total Fleet** | **11** | **11** | **11** | **11** | **11** | **11** | **11** | **11** | **11** | **11** | **11** | **11** | **11** | **11** | |

**Figure 57 Thousand Oaks Transit - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | FY20-21 | FY21-22 | FY22-23 | FY23-24 | FY24-25 | FY25-26 | FY26-27 | FY27-28 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Expansion 30'/35' Buses | | 2 | | 2 | | | | | | | | | | | 4 |
| Expansion Cutaways | | | | | | | | | | | | | | | |
| Replacement 30'/35' Buses | | | 2 | | | 4 | | | | | | 2 | 2 | 2 | 12 |
| Replacement Cutaways | | | 1 | | | | | 1 | | | | | 1 | | 3 |
| Returning 30'/35' Buses | 8 | 8 | 8 | 10 | 12 | 8 | 12 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | |
| Returning Cutaways | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | |
| **Total 30'/35' Buses** | **8** | **10** | **10** | **12** | **12** | **12** | **12** | **12** | **12** | **12** | **12** | **12** | **12** | **12** | **16** |
| **Total Cutaways** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **3** |
| **Total Fleet** | **9** | **11** | **11** | **13** | **13** | **13** | **13** | **13** | **13** | **13** | **13** | **13** | **13** | **13** | |

**Figure 58 Valley Express - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | FY20-21 | FY21-22 | FY22-23 | FY23-24 | FY24-25 | FY25-26 | FY26-27 | FY27-28 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Expansion 26' Cutaways | 5 | | | 2 | | | | | | | | | | | 2 |
| Replacement 26' Cutaways | | | | | | 5 | | | 2 | | 5 | | | 2 | 14 |
| Returning 26' Cutaways | | 5 | 5 | 5 | 7 | 2 | 7 | 7 | 5 | 7 | 2 | 7 | 7 | 5 | |
| **Total Cutaways** | **5** | **5** | **5** | **7** | **7** | **7** | **7** | **7** | **7** | **7** | **7** | **7** | **7** | **7** | **16** |

**Figure 59 Ojai Trolley - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | FY20-21 | FY21-22 | FY22-23 | FY23-24 | FY24-25 | FY25-26 | FY26-27 | FY27-28 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Expansion Trolleys | | | | | | | | | | | | | | | |
| Replacement Trolleys | | | 1 | | 1 | | | 1 | | | 1 | | | | 4 |
| Returning Trolleys | 5 | 5 | 4 | 5 | 4 | 5 | 5 | 4 | 5 | 5 | 4 | 5 | 5 | 5 | |
| **Total Trolleys** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **4** |

**Figure 60 Moorpark City Transit - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | FY20-21 | FY21-22 | FY22-23 | FY23-24 | FY24-25 | FY25-26 | FY26-27 | FY27-28 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Expansion 32' Buses | | | | | | | | | | | | | | | |
| Expansion 28' Buses | | | | | | | | | | | | | | | |
| Replacement 32' Buses | | 2 | | | | | | | 3 | | | | | 2 | 7 |
| Replacement 28' Buses | | | | | | | | | | | | | | | |
| Returning 32' Buses | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 2 | 5 | 5 | 5 | 5 | 3 | |
| Returning 28' Buses | 2 | | | | | | | | | | | | | | |
| **Total 32' Buses** | **3** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **7** |
| **Total 28' Buses** | **2** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **Total Fleet** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | |

**Figure 61 Kanan Shuttle - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | FY20-21 | FY21-22 | FY22-23 | FY23-24 | FY24-25 | FY25-26 | FY26-27 | FY27-28 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Expansion Cutaways (Leased) | | 1 | | | | | | | | | | | | | 1 |
| Replacement Cutaways (Leased) | | | | | 3 | 1 | | | 3 | 1 | | | 3 | | 11 |
| Returning Cutaways (Leased) | 3 | 3 | 4 | 4 | 1 | 3 | 4 | 4 | 1 | 3 | 4 | 4 | 1 | 4 | |
| **Total Cutaways** | **3** | **4** | **4** | **4** | **4** | **4** | **4** | **4** | **4** | **4** | **4** | **4** | **4** | **4** | **12** |

**Figure 62 Camarillo Area Transit - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | FY20-21 | FY21-22 | FY22-23 | FY23-24 | FY24-25 | FY25-26 | FY26-27 | FY27-28 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Expansion Cutaway | | | | | | | | | | | | | | | |
| Replacement Cutaway | | 1 | | | | | 1 | | | | | 1 | | | 3 |
| Returning Cutaway | 1 | | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | 1 | |
| Leased Trolley Bus | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| **Total Cutaways** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **3** |
| **Total Trolley Buses** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **6** |
| **Total Fleet** | **2** | **2** | **2** | **2** | **2** | **2** | **2** | **2** | **2** | **2** | **2** | **2** | **2** | **2** | |

**Figure 63 Gold Coast Access - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|
| Expansion Cutaways | | | | | | | |
| Expansion Vans | | | 1 | | | | 1 |
| Replacement Cutaways | | 5 | | | | 5 | 10 |
| Replacement Vans | 8 | 11 | | | 8 | 11 | 30 |
| Returning Cutaways | 16 | | 5 | 5 | 5 | | |
| Returning Vans | | 8 | 19 | 20 | 12 | 9 | |
| **Total Cutaways** | **16** | **5** | **5** | **5** | **5** | **5** | **10** |
| **Total Vans** | **8** | **19** | **20** | **20** | **20** | **20** | **31** |
| **Total Fleet** | **24** | **24** | **25** | **25** | **25** | **25** | |

**Figure 64 Valley Express Dial-a-ride - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|
| Expansion 23' Cutaways | 5 | | | | | | |
| Expansion 25' Cutaways | 5 | | | | | | |
| Replacement 23' Cutaways | | | | | 5 | | 5 |
| Replacement 25' Cutaways | | | | | 5 | | 5 |
| Returning 23' Cutaways | | 5 | 5 | 5 | | 5 | |
| Returning 25' Cutaways | | 5 | 5 | 5 | | 5 | |
| **Total Cutaways** | **5** | **5** | **5** | **5** | **5** | **5** | **5** |
| **Total Vans** | **5** | **5** | **5** | **5** | **5** | **5** | **5** |
| **Total Fleet** | **10** | **10** | **10** | **10** | **10** | **10** | **10** |

**Figure 65 Simi Valley Paratransit - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|
| Expansion Cutaways | | | | | | | |
| Expansion Sedans | | | | | | | |
| Replacement Cutaways | 6 | 5 | | | | | 5 |
| Replacement Sedans | 1 | | | | | | |
| Returning Cutaways | 5 | 6 | 11 | 11 | 11 | 11 | |
| Returning Sedans | | 1 | 1 | 1 | 1 | 1 | |
| **Total Cutaways** | **11** | **11** | **11** | **11** | **11** | **11** | **5** |
| **Total Sedans** | **1** | **1** | **1** | **1** | **1** | **1** | **0** |
| **Total Fleet** | **12** | **12** | **12** | **12** | **12** | **12** | |

**Figure 66 Thousand Oaks Paratransit - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|
| Expansion Cutaways | 4 | | | | | | |
| Expansion Minivans (Leased) | | | | | | | |
| Replacement Cutaways | | | | | 8 | 4 | 12 |
| Replacement Minivans (Leased) | | | | 13 | | | 13 |
| Returning Cutaways | 8 | 12 | 12 | 12 | 4 | 8 | |
| Returning Minivans (Leased) | 13 | 13 | 13 | | 13 | 13 | |
| **Total Cutaways** | **12** | **12** | **12** | **12** | **12** | **12** | **12** |
| **Total Minivans** | **13** | **13** | **13** | **13** | **13** | **13** | **13** |
| **Total Fleet** | **25** | **25** | **25** | **25** | **25** | **25** | |

**Figure 67 Camarillo Area Paratransit - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|
| Expansion Cutaways | | | 1 | | 1 | | 2 |
| Expansion Minivans | 1 | | 1 | | 1 | | 2 |
| Replacement Cutaways | 1 | 2 | 2 | | | 1 | 5 |
| Replacement Minivans | | 2 | | 2 | | 2 | 6 |
| Returning Cutaways | 5 | 4 | 4 | 7 | 7 | 7 | |
| Returning Minivans | 4 | 3 | 5 | 4 | 6 | 5 | |
| **Total 35' Buses** | **6** | **6** | **7** | **7** | **8** | **8** | **7** |
| **Total Cutaways** | **5** | **5** | **6** | **6** | **7** | **7** | **8** |
| **Total Fleet** | **11** | **11** | **13** | **13** | **15** | **15** | |

**Figure 68 Oak Park Dial-a-ride - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|
| Expansion Cutaways (Leased) | | | | | | | |
| Replacement Cutaways (Leased) | | | 2 | | | | 2 |
| Returning Cutaways (Leased) | 2 | 2 | | 2 | 2 | 2 | |
| **Total Vans** | **2** | **2** | **2** | **2** | **2** | **2** | **2** |

**Figure 69 Harbor & Beaches Dial-a-ride - Vehicle Acquisition Schedule**

| Provider | Current | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | Total Vehicles Required |
|---|---|---|---|---|---|---|---|
| Expansion Cutaways | | | | | | | |
| Replacement Cutaways | | | 2 | | | | 2 |
| Returning Cutaways | 2 | 2 | | 2 | 2 | 2 | |
| **Total Cutaways** | **2** | **2** | **2** | **2** | **2** | **2** | **2** |

## Figure 70 Countywide Fixed-Route Transit Vehicle Acquisition Needs

| Provider | Vehicle | Current Fleet | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | FY20-21 | FY21-22 | FY22-23 | FY23-24 | FY24-25 | FY25-26 | FY26-27 | FY27-28 | Total Vehicles Required | Expansion Vehicles |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gold Coast Transit | 40' Bus | 37 | 5 | 5 | 13 | 13 | 8 | 4 | 0 | 4 | 4 | 0 | 0 | 8 | 8 | 72 | 27 |
| Gold Coast Transit | 35' Bus | 17 | 0 | 0 | 0 | 0 | 0 | 9 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 |
| VCTC Intercity Transit | 45' Bus | 30 | 1 | 1 | 1 | 1 | 2 | 3 | 0 | 0 | 0 | 11 | 0 | 14 | 1 | 35 | 4 |
| Simi Valley Transit | 40' Bus | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 8 | 0 |
| Simi Valley Transit | 35' Bus | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 |
| Thousand Oaks Transit | 30-35' Bus | 8 | 2 | 2 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 16 | 4 |
| Thousand Oaks Transit | Large Cutaway (LF) | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 |
| Valley Express | Large Cutaway (LF) | 5 | 0 | 0 | 2 | 0 | 5 | 0 | 0 | 2 | 0 | 5 | 0 | 0 | 2 | 16 | 2 |
| Ojai Trolley | Trolley Bus | 5 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 |
| Moorpark City Transit | 32' Bus | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 2 | 7 | 0 |
| Kanan Shuttle | Small Cutaway | 3 | Leased | | | | | | | | | | | | | - | 1 |
| Camarillo Area Transit | Large Cutaway (LF) | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 |
| **Total** | | **130** | **10** | **13** | **18** | **15** | **19** | **16** | **11** | **12** | **4** | **17** | **2** | **32** | **15** | **184** | **38** |

## Figure 71 Countywide Paratransit/Dial-a-Ride Vehicle Acquisition Needs

| Provider | Vehicle | Current Fleet | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | Total Vehicles Required | Expansion Vehicles |
|---|---|---|---|---|---|---|---|---|---|
| Gold Coast Access | Small Cutaway | 16 | 5 | 0 | 0 | 0 | 5 | 10 | 0 |
| Gold Coast Access | Van | 8 | 11 | 1 | 0 | 8 | 11 | 31 | 1 |
| Valley Express DAR | Small Cutaway | 5 | 0 | 0 | 0 | 5 | 0 | 5 | 0 |
| Valley Express DAR | Large Cutaway | 5 | 0 | 0 | 0 | 5 | 0 | 5 | 0 |
| Simi Valley Paratransit | Small Cutaway | 11 | 5 | 0 | 0 | 0 | 0 | 5 | 0 |
| Simi Valley Paratransit | Sedan | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Thousand Oaks Paratransit | Small Cutaway | 12 | 4 | 0 | 0 | 0 | 8 | 12 | 0 |
| Thousand Oaks Paratransit | Minivan | Leased | | | | | | - | 0 |
| Camarillo Paratransit | Large Cutaway | 6 | 2 | 3 | 0 | 1 | 1 | 7 | 2 |
| Camarillo Paratransit | Minivan | 5 | 2 | 1 | 2 | 1 | 2 | 8 | 2 |
| Oak Park DAR | Small Cutaway | Leased | | | | | | - | 0 |
| Harbor & Beaches DAR | Small Cutaway | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 0 |
| **Total** | | **71** | **29** | **7** | **2** | **20** | **27** | **85** | **5** |

**Figure 72 Countywide Fixed-Route Transit Vehicle Acquisition Costs**

| Provider | Vehicle | Cost | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 | FY20-21 | FY21-22 | FY22-23 | FY23-24 | FY24-25 | FY25-26 | FY26-27 | FY27-28 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gold Coast Transit | 40' Bus | $575,000 | $2,875,000 | $2,875,000 | $7,475,000 | $7,475,000 | $4,600,000 | $2,300,000 | $0 | $2,300,000 | $2,300,000 | $0 | $0 | $4,600,000 | $4,600,000 |
| Gold Coast Transit | 35' Bus | $550,000 | $0 | $0 | $0 | $0 | $0 | $4,950,000 | $4,400,000 | $0 | $0 | $0 | $0 | $0 | $0 |
| VCTC Intercity Transit | 45' Bus | $625,000 | $625,000 | $625,000 | $625,000 | $625,000 | $1,250,000 | $1,875,000 | $0 | $0 | $0 | $6,875,000 | $0 | $8,750,000 | $625,000 |
| Simi Valley Transit | 40' Bus | $575,000 | $0 | $1,150,000 | $0 | $0 | $0 | $0 | $0 | $1,725,000 | $0 | $0 | $0 | $1,725,000 | $0 |
| Simi Valley Transit | 35' Bus | $550,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $1,650,000 | $0 |
| Thousand Oaks Transit | 30-35' Bus | $550,000 | $1,100,000 | $1,100,000 | $1,100,000 | $0 | $2,200,000 | $0 | $0 | $0 | $0 | $0 | $1,100,000 | $1,100,000 | $1,100,000 |
| Thousand Oaks Transit | Large Cutaway (LF) | $150,000 | $0 | $150,000 | $0 | $0 | $0 | $0 | $150,000 | $0 | $0 | $0 | $0 | $150,000 | $0 |
| Valley Express | Large Cutaway (LF) | $150,000 | $0 | $0 | $300,000 | $0 | $750,000 | $0 | $0 | $300,000 | $0 | $750,000 | $0 | $0 | $300,000 |
| Ojai Trolley | Trolley Bus | $175,000 | $0 | $175,000 | $0 | $175,000 | $0 | $0 | $175,000 | $0 | $0 | $175,000 | $0 | $0 | $0 |
| Moorpark City Transit | 32' Bus | $550,000 | $1,100,000 | $0 | $0 | $0 | $0 | $0 | $0 | $1,650,000 | $0 | $0 | $0 | $0 | $1,100,000 |
| Kanan Shuttle | Small Cutaway | - | Leased | | | | | | | | | | | | |
| Camarillo Area Transit | Large Cutaway (LF) | $150,000 | $0 | $150,000 | $0 | $0 | $0 | $0 | $150,000 | $0 | $0 | $0 | $0 | $150,000 | $0 |
| **Total** | | | **$5,700,000** | **$6,225,000** | **$9,500,000** | **$8,275,000** | **$8,800,000** | **$9,125,000** | **$4,875,000** | **$5,975,000** | **$2,300,000** | **$7,800,000** | **$1,100,000** | **$18,125,000** | **$7,725,000** |

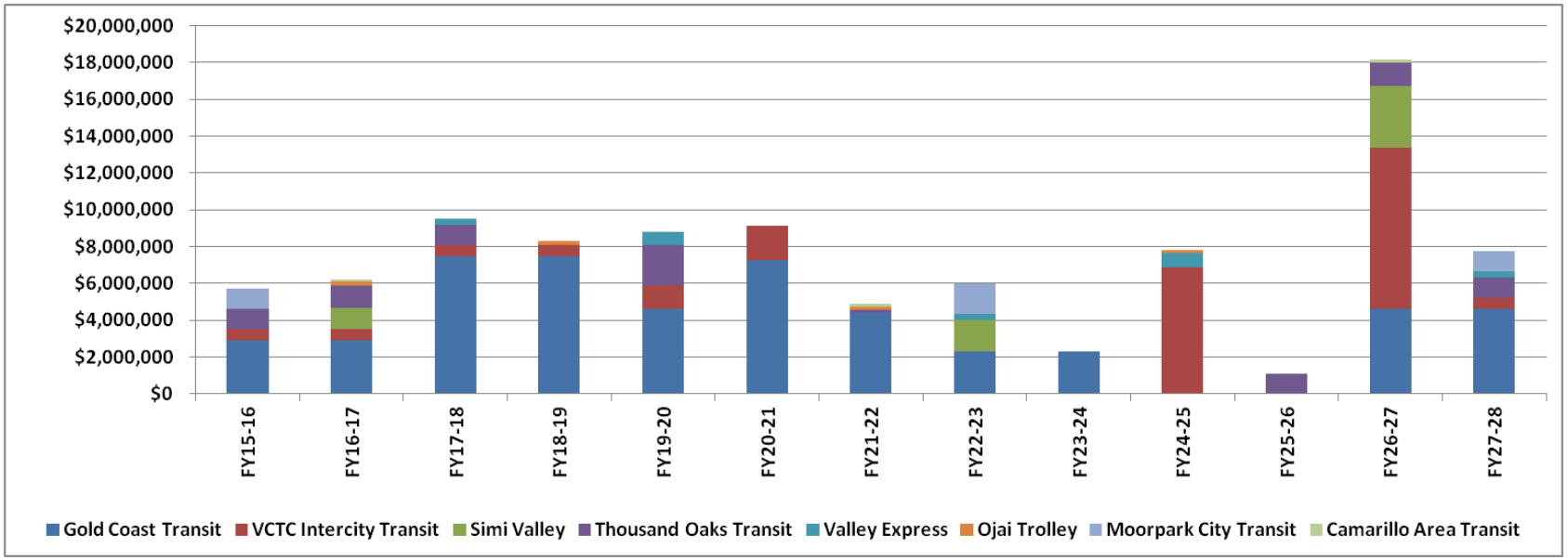


**Figure 73 Countywide Paratransit/Dial-a-Ride Vehicle Acquisition Costs**

| Provider | Vehicle | Cost | FY15-16 | FY16-17 | FY17-18 | FY18-19 | FY19-20 |
|---|---|---|---|---|---|---|---|
| Gold Coast Access | Small Cutaway | $85,000 | $425,000 | $0 | $0 | $0 | $425,000 |
| Gold Coast Access | Van | $60,000 | $660,000 | $60,000 | $0 | $480,000 | $660,000 |
| Valley Express DAR | Small Cutaway | $85,000 | $0 | $0 | $0 | $425,000 | $0 |
| Valley Express DAR | Large Cutaway | $105,000 | $0 | $0 | $0 | $525,000 | $0 |
| Simi Valley Paratransit | Small Cutaway | $85,000 | $425,000 | $0 | $0 | $0 | $0 |
| Simi Valley Paratransit | Sedan | $30,000 | $0 | $0 | $0 | $0 | $0 |
| Thousand Oaks Paratransit | Small Cutaway | $85,000 | $340,000 | $0 | $0 | $0 | $680,000 |
| Thousand Oaks Paratransit | Minivan | - | Leased | | | | |
| Camarillo Paratransit | Large Cutaway | $105,000 | $210,000 | $315,000 | $0 | $105,000 | $105,000 |
| Camarillo Paratransit | Minivan | $45,000 | $90,000 | $45,000 | $90,000 | $45,000 | $90,000 |
| Oak Park DAR | Small Cutaway | - | Leased | | | | |
| Harbor & Beaches DAR | Small Cutaway | $85,000 | $0 | $170,000 | $0 | $0 | $0 |
| **Total** | | | **$2,150,000** | **$590,000** | **$90,000** | **$1,580,000** | **$1,960,000** |

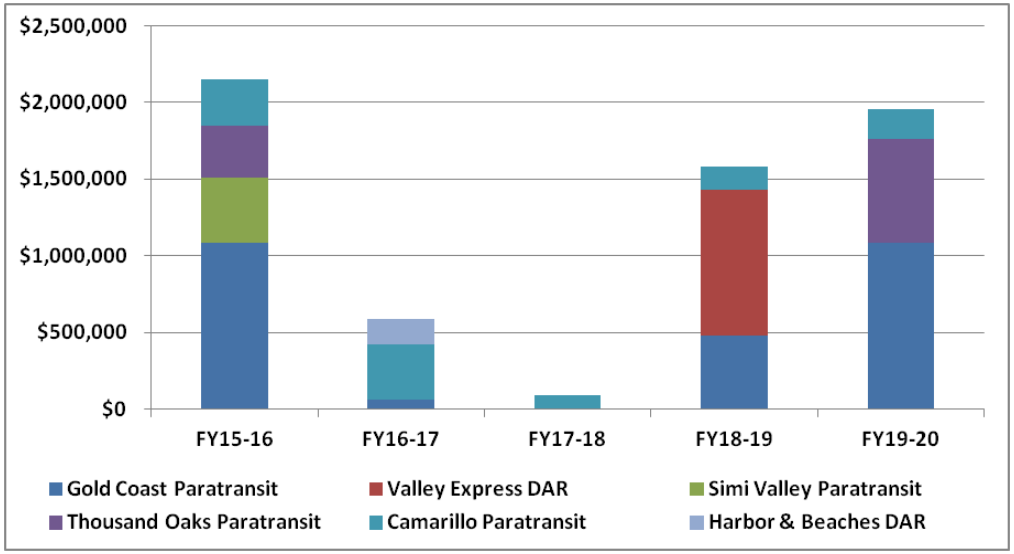


**Figure 74 Vehicle Cost Assumptions**

| Vehicle | Fuel | Price |
|---|---|---|
| Sedan | Gasoline | $30,000 |
| Minivan | Gasoline | $45,000 |
| Van | Gasoline | $60,000 |
| Small Cutaway | CNG | $85,000 |
| Small Cutaway (Low-Floor) | CNG | $120,000 |
| Large Cutaway | CNG | $105,000 |
| Large Cutaway (Low-Floor) | CNG | $150,000 |
| Trolley | Diesel | $175,000 |
| 30' Bus | CNG | $500,000 |
| 35' Bus | CNG | $550,000 |
| 40' Bus | CNG | $575,000 |
| 45' Coach | Diesel | $625,000 |

Note: Pricing assumptions based on recent vehicle acquisitions by transit operators in Ventura County and California Association for Coordinated Transportation 2014 Purchasing Schedule

## FLEET IMPROVEMENTS

Right-sizing of vehicles is important from an operational and fiscal standpoint. Transit operators must have an accurate understanding of ridership loads and average passenger trip lengths to determine the appropriate vehicle type for each service. In addition, it is fiscally responsible to procure vehicles that exceed customer expectations without being excessive in terms of procurement and maintenance costs.

Several transit providers in Ventura County have displayed a strong commitment to reducing emissions by shifting to Compressed Natural Gas (CNG) vehicles. The procurement of low-floor vehicles has also increased across the county as transit providers strive to improve customer satisfaction.

The formation of a transparent countywide vehicle acquisition schedule should serve as an opportunity to increase the coordinated purchase of new vehicles by multiple service providers.

# 8 PERFORMANCE METRICS

## Introduction

The Ventura County Transportation Commission (VCTC) is committed to improving the quality and viability of transit in Ventura County. As the regional transportation planning agency, VCTC is responsible for establishing policies, prioritizing investments, and ensuring coordination between transit operators, cities and the County. In addition, VCTC has the responsibility to plan, construct, and operate a regional multimodal transportation system, to set policy, and to administer regional transportation programs per its enabling legislation under the State of California's Public Utilities Code (PUC).

Ventura County has a diverse geography of urban, suburban, and rural development bounded by mountains, valleys, protected open space, agriculture, and coastline. The spatial distribution of cities and destinations emphasize the need for consistent, well-connected, and coordinated transit services. As a result of its unique geography, Ventura County is comprised of several transit operators with varying levels of service and ridership. Most transit operators do not share boundaries, resulting in physical separation of transit services. Each system is also unique in its service design and delivery due to distinct customer markets and land uses served.

Countywide Performance Metrics and Service Guidelines are a key element of the 2014 Ventura County Short-Range Transit Plan. In accordance with PUC Section 130303, VCTC must provide objective analysis of various options relative to plans and proposed projects of regional and local transportation agencies and then translate those options into a short-range transportation improvement program, pursuant to subdivision (b) of Section 130303. It is responsible for determination, on an annual basis, of the total amount of funds that could be available for transportation planning and development. It is also responsible for the development and approval of a short-range three- to five-year transportation improvement program with an annual updated element reflecting all transportation capital and service priorities to be developed with all appropriate coordination and cooperation between state and local transportation agencies and operators.

In addition to short range plans of three to five years, under PUC Section 130303.1, VCTC is also responsible for developing long range expenditure plans for transportation programs included in voter approved transaction and use tax measures that are consistent with the regional transportation plan and regional transportation improvement program.

## Purpose

The primary purpose of this document is to establish a methodology by which to evaluate the performance of fixed-route bus service in Ventura County. This requires the development of a route classification system with corresponding performance metrics. Countywide performance metrics will maximize the effective use of limited resources by creating a rational and transparent evaluation process. This process will assist VCTC in determining priorities when allocating funds and programming future transit investments.

Applying such practices will enable VCTC to meet California Senate Bill 716 requirements of monitoring transit productivity within Ventura County. Consistent metrics also allow for improved reporting of performance across all transit programs, which will be useful for ongoing planning and service coordination efforts. The performance metrics described here are consistent with and build upon performance indicators required through the Triennial Transportation Development Act (TDA) Performance Audit process. They may also supplement existing FTA Title VI service standard requirements.

The secondary purpose of this document is to provide transit operators with a series of service guidelines to improve the effectiveness and attractiveness of fixed-route bus service. Service guidelines also create an opportunity to improve the consistency of transit services across Ventura County.

**Figure 75 Fixed-Route Transit Operators in Ventura County**

| Transit Operator | Cities/Communities Served | Annual Revenue Hours[1] |
|---|---|---|
| Gold Coast Transit District | Oxnard, Ventura, Ojai, Port Hueneme, and unincorporated areas of Ventura County | 196,596 |
| VCTC Intercity | Oxnard, Ventura, Camarillo, Thousand Oaks, Moorpark, Simi Valley, Santa Paula, Fillmore, Piru, Santa Barbara, Goleta, Carpinteria, Woodland Hills, unincorporated areas of Ventura County | 57,895 |
| Simi Valley Transit | Simi Valley, Chatsworth (Los Angeles) | 26,136 |
| Thousand Oaks Transit | Thousand Oaks, Moorpark, unincorporated areas of eastern Ventura County | 19,800 |
| Valley Express | Santa Paula, Fillmore, unincorporated areas of western Ventura County | 14,000[2] |
| Ojai Trolley | Ojai | 8,160 |
| Moorpark City Transit | Moorpark | 7,900 |
| County of Ventura (Kanan Shuttle) | Oak Park | 3,923 |
| Camarillo Area Transit | Camarillo | 2,062 |

[1] Annual revenue hours based on Fall 2014 fixed-route schedules

[2] Projected revenue hours for January 2015

## Report Organization

This chapter consists of four additional sections, which are summarized below.

- **Recommended route classification system** which should be utilized to categorize each fixed-route in the Ventura County.
- **Recommended countywide route-level performance metrics** that should be calculated and reported on a consistent basis.
- **Recommended service design and allocation guidelines** based on the route classification system.
- **Recommended service-related practices and policies** to improve consistency, customer understanding, and ease of use.

# ROUTE CLASSIFICATION SYSTEM

A route classification system has been developed to reflect the array of travel markets and customer needs within Ventura County. Route types are designed to permit a consistent means of evaluating service. This approach avoids the difficulty of comparing routes with fundamentally different designs, purposes, and operating characteristics.

Recommended fixed-route types are summarized in the table below. Complementary paratransit services must be designed in accordance with specific Federal Transit Administration (FTA) regulations and are not addressed in this document.

**Figure 76 Route Classification Categories**

| Route Type | Description |
|---|---|
| Frequent Local | Frequent local bus service operating primarily along major arterial streets in high-density areas with a diverse mix of land uses. |
| Local | Moderately frequent local bus service operating along arterials and/or collector streets in moderate-density areas with multiple land uses. |
| Circulator | Less frequent local bus service operating along arterials and/or collector streets in primarily residential areas. |
| Intercity | Limited stop service operating along arterials and highways and connecting communities within Ventura County. |
| Regional Express | Limited stop service operating mostly along highways and connecting to major destinations and transit hubs in Los Angeles and Santa Barbara counties. |

This classification system is intended to encompass the full range of current and future fixed route bus services that will operate in Ventura County. Service changes such as significant route alignment modifications or major schedule adjustments may require routes to be reclassified. It is also recommended that VCTC review specific route classifications every five years. The following descriptions expand upon the characteristics that define each of the five route classes.

# Route Type Descriptions

## Frequent Local

Frequent local provide frequent local bus service on direct and intuitive route alignments. Frequent local routes operate along primary streets with higher transit demand than other pedestrian-accessible corridors. Frequent local routes should only operate on corridors with relatively high concentrations of population and employment or other major ridership generators.

Frequent local routes should operate every 20 minutes during peak periods and every 30 minutes during off peak periods on weekdays. Frequent local routes should operate every 30-60 minutes on weekends. Frequent bus service facilitates convenient transfers to/from other routes and allows customers to ride without depending upon a timetable. Frequent local routes also typically have a greater service span than regular local routes. As a result, frequent local routes are also expected to perform higher than other local routes on most, if not all performance metrics.

## Local

Local routes make local stops and operate all day and operate bi-directionally on arterial corridors with contiguous development or along collector streets of neighborhoods with a high demand for transit. Local routes typically feed into transit centers or major transfer points.

Local routes should operate every 30-60 minutes on weekdays and at least every 60 minutes on weekends. Local routes with a low demand for weekend service due to dramatically decreased activity along their alignment may operate on weekdays only. Local routes within the same system should have similar service spans to facilitate transfers.

## Circulator

Routes operating within suburban or predominantly residential areas should be classified as circulators. These services are designed to adapt to the unique characteristics of the cities or neighborhoods that they serve. Circulators may be designed with a focus on coverage or access rather than frequency, however, bi-directional service is recommended whenever possible. Important origins include residential areas in which a relatively high percentage of senior citizens or households that do not have access to an automobile. Major destinations may include grocery stores, medical facilities, educational facilities, community centers, and transit centers.

Circulators should operate from early morning until late evening to facilitate a range of transportation needs. Weekday headways of 30-60 minutes are recommended to provide timed transfers with other routes at transit centers. This suggests very careful attention to the length of the route to ensure there is a reasonable match between the schedule cycle time and the route length. Transit operators may offer Saturday service yet no Sunday service as a means of managing cost while still providing access to employment and shopping.

## Intercity

Intercity routes provide connectivity between two or more neighboring communities. Intercity routes typically traverse rural or undeveloped areas and may therefore operate on a combination of highways and arterial streets with few stops between destinations.

Intercity routes may have local stop service within cities situated at each end of the route and limited or non-stop service in between cities. As a result, stop spacing may vary from one route to

another. Intercity routes should operate at simple, clockface headways of 20, 30, or 60 minutes and have a service span that takes into consideration potential early morning and late night commute patterns. The primary customer markets for most intercity routes are employees and college/university students. Intercity routes with a significant percentage of school-related ridership should have service levels that coincide with school calendars.

## Regional Express

Regional express routes provide connectivity to regional destinations outside of Ventura County. Service should be fast and comparable to automobile and train speeds with limited stops that link common origins and destinations. Regional express routes are generally 20 or more miles in length and can offer schedules that range from peak-hour trips to all-day bi-directional service.

Most regional express routes have three distinct zones:

- Pick-up zones such as a park & ride or transit center where the majority of passengers originate their trip
- Express zones where the bus makes limited or no stops while in a closed door mode
- Drop-off zones where passengers complete their commute or connect to other routes

**Figure 77 Recommended Route Classification**

| Route Type | Provider | Route |
|---|---|---|
| Frequent Local | Gold Coast Transit District | 1 Port Hueneme |
| | Gold Coast Transit District | 6 Oxnard - Ventura - Main Street |
| Local | Gold Coast Transit District | 4 North Oxnard |
| | Gold Coast Transit District | 7 Oxnard College - Centerpoint Mall |
| | Gold Coast Transit District | 8 OTC - Oxnard College - Centerpoint Mall |
| | Gold Coast Transit District | 10 Pacific View Mall - Telegraph - Saticoy |
| | Gold Coast Transit District | 11 Pacific View Mall - Telephone - Wells Ctr |
| | Gold Coast Transit District | 17 Esplanade - Oxnard College |
| | Gold Coast Transit District | 19/20 OTC - 5th - Gonzales Rd |
| | Gold Coast Transit District | 21 Pacific View Mall - Victoria - C St Transfer Ctr |
| | Simi Valley Transit | Route A |
| | Simi Valley Transit | Route B |
| | Thousand Oaks Transit | Route 3 (Red) |
| | Thousand Oaks Transit | Route 4 (Blue) |
| Circulator | Gold Coast Transit District | 2 Colonia - Downtown Oxnard |
| | Gold Coast Transit District | 3 J St - Centerpoint Mall - Naval Base |
| | Gold Coast Transit District | 5 Hemlock - Seabridge - Wooley |
| | Gold Coast Transit District | 9 Lemonwood - Channel Islands Blvd |
| | Gold Coast Transit District | 14 Esplanade - St. John's - Nyeland Acres |
| | Gold Coast Transit District | 15 Esplanade - El Rio - St. John's |
| | Valley Express | Santa Paula Circulator |
| | Valley Express | Fillmore Circulator |
| | Simi Valley Transit | Route D |
| | Thousand Oaks Transit | Route 1 (Gold) |
| | Thousand Oaks Transit | Route 2 (Green) |
| | Ojai Trolley | Trolley A/B |
| | Moorpark City Transit | Route 1 |
| | Moorpark City Transit | Route 2 |
| | County of Ventura | Kanan Shuttle |
| | Camarillo Area Transit | Camarillo Circulator |
| | Camarillo Area Transit | Camarillo Trolley |

| Route Type | Provider | Route |
|---|---|---|
| Intercity | Gold Coast Transit District | 16 Downtown Ojai - Pacific View Mall |
| | VCTC Intercity | Highway 101 |
| | VCTC Intercity | Highway 126 |
| | VCTC Intercity | East County |
| | VCTC Intercity | CSUCI - Oxnard |
| | VCTC Intercity | CSUCI - Camarillo |
| | Thousand Oaks Transit | Metrolink Commuter Shuttle |
| | Simi Valley Transit | Route C |
| Regional Express | VCTC Intercity | Coastal Express |
| | VCTC Intercity | Conejo Connection |

## Potential Future Route Types

As cities and transit systems grow in Ventura County, it may be necessary to design and implement new types of fixed-route transit. The following are several potential route types that could replace or supplement existing routes.

### Bus Rapid Transit (BRT) Routes

Bus rapid transit (BRT) is a premium form of limited stop service that includes characteristics that are more attractive than those of typical local bus. BRT routes operate on primary streets in urban areas to provide a faster alternative to frequent local routes. BRT routes may overlay a local stop route to provide supplemental service that focuses on high ridership stops only. In some cases, BRT service may replace local bus service depending upon the spatial distribution of ridership activity.

### Flex Routes

Flex routes are a hybrid service that combines the reliability of a fixed route with the flexibility of dial-a-ride or paratransit service. Flex routes provide the ability to deviate up to ¾ mile off their primary alignment to pick up or drop off passengers. Schedules are also flexible in that they have additional time recovery to absorb potential route deviations. This route type is most commonly implemented in areas of low fixed-route ridership as a means of reducing the paratransit costs.

# PERFORMANCE METRICS

Countywide performance metrics will maximize the effective use of limited resources by creating a rational and transparent evaluation process. This process will assist VCTC in determining priorities when allocating funds and programming future transit investments. Performance metrics describe the methodology by which services are evaluated. Five metrics are proposed to measure each fixed-route in Ventura County. Transit operators are encouraged to evaluate route performance quarterly. Recommended performance metrics are detailed below.

## Ridership Productivity

Ridership productivity measures route performance based on a unit of service. Frequent local, local, circulator, and intercity routes are evaluated based on passengers per revenue hour, which is calculated by dividing the total number of boardings by the total number of vehicle revenue hours. Regional express routes are unique in that passengers typically ride for a longer period of time or a high percentage of the one-way route length. Ridership productivity for these services is based on passengers per revenue trip.

Frequent Local/Local/Circulator/Intercity Routes: Average Daily Boardings ÷ Daily Revenue Hours
Regional Express Stop Routes: Average Daily Boardings ÷ Daily Revenue Trips

## Passenger Loads

While passengers per revenue hour and passengers per trip are the important measures of overall route performance, they do not provide insight into conditions along specific segments of the route. Managing passenger loads is crucial in maintaining customer satisfaction, schedule reliability, and safe operations.

Automated passenger counting systems (APC's) provide the capability to record the size of the maximum load on each trip in the system. When APC's are not present, driver logs can provide this information. Passenger load data can highlight where capacity issues are creating routine standing loads or pass-by situations, and where seating capacity is going unused. Depending upon individual circumstances, service level modifications or vehicle assignment modifications may be appropriate when the peak loads approach or exceed seating capacity. Similarly, routes or trips with minimal passenger loads may warrant a closer examination of the route alignment and/or schedule.

Load factors reflect the ratio of passengers to total seated capacity. Load factors vary by route type and time of day. Average peak load factor is the average of all peak loads divided by the average seated capacity of buses employed on a route. For example, if the average peak load of all trips is 30 and the average vehicle capacity is 40, the average peak load factor is 75%.

Average Peak Load ÷ Seating Capacity

Overcrowding on buses often indicates the need for improved headways or increased capacity. Appropriate load factors vary by time of day. During peak periods it is generally acceptable for some passengers to be expected to stand for part of the trip. Thus, during peak periods, routes operating primarily on local arterials may operate with load factors exceeding 100%. Regional express routes that operate on highways should be designed to provide a seat for all customers.

## Cost-Effectiveness

Cost-effectiveness is typically expressed in terms of operating cost per passenger or subsidy per passenger. Operating cost per passenger is calculated by dividing all operating and administrative costs by total boardings. Subsidy per passenger is a further refinement of this measure and is calculated by subtracting revenue generated by fares from gross operating and administrative costs, and dividing by total passengers. Each transit agency should determine the appropriate cost effectiveness standard for their service.

Daily Administrative and Operating Costs ÷ Total Daily Boardings

## Schedule Reliability

Schedule reliability is a measure of how well a particular route adheres to its schedule. It suggests whether a customer can count on a bus being there when the schedule says it will be. For most systems, buses are considered on-time if they depart a designated timepoint between zero and 5 minutes later than the scheduled departure time. Buses should never depart a timepoint ahead of schedule unless operators are given explicit permission to do so.

Each transit operator may have unique on-time performance standards due to their specific traffic conditions, operations policies, and goals. Potential impacts on on-time performance include inadequate running times, traffic conditions, or constructions. A high number of boardings on a particular trip or at a specific stop may also affect schedule reliability if recovery time is insufficient to absorb the added time.

Trips Departing Between Zero and Five Minutes of Scheduled Time ÷ Total Daily Trips

## Schedule Efficiency

Schedule efficiency can sometimes be improved by reducing layover at the end of a route or deadhead (time spent traveling to/from the garage or another route), thereby allowing a larger percentage of total service hours to be devoted to revenue time.

Schedule efficiency is measured by calculating the ratio of revenue hours to total platform hours (deadhead, layover, and revenue hours). Schedule efficiency ratios that are higher than those of peer services may point to operating issues such as schedules that cannot be cost-effectively broken into vehicle assignments or routes with distant or inefficient terminal points. Typical schedule efficiency ratio targets for non-regional express service are within 80-90%.

While schedule efficiency does not consider actual ridership, it is suggested because it so often points to major inefficiencies in current scheduling practices. Schedules with a high percentage of non-service time are expensive. If that ratio can be improved, cost savings can be achieved, often with minimal impact on riders.

Total Revenue Hours ÷ Total Platform Hours

## Recommended Performance Standards

While each respective transit operator is responsible for defining standards for each metric, recommended performance standards are detailed in the table below. Standards are based on recent ridership performance trends and best practices for similar services. Performance standards should be re-evaluated biennially.

**Figure 78 Recommended Performance Standards**

| Route Type | Ridership Productivity | Maximum Passenger Load | Schedule Reliability | Schedule Efficiency |
|---|---|---|---|---|
| Frequent Local | 30 (M-F)<br>20 (Sat/Sun) | 125% | 85% | 85% |
| Local | 20 (M-F)<br>15 (Sat/Sun) | 125% | 90% | 85% |
| Circulator | 15 (M-F)<br>10 (Sat/Sun) | 125% | 95% | 90% |
| Intercity | 15 (M-F)<br>10 (Sat/Sun) | 100% | 90% | 75% |
| Regional Express[3] | 25 (M-F)*<br>20 (Sat/Sun) | 100% | 85% | 60% |

[3] Regional Express routes measured in boardings per revenue trip; all other route types measured in boardings per revenue hour

# SERVICE DESIGN GUIDELINES

Service design guidelines are planning tools that are used to expand service to new areas or modify existing routes. Transit operators in Ventura County strive to serve as many local area residents, students, workers, and visitors as they can with their available resources. Service features that attract one type of rider to transit can deter other riders, and transit operators must balance these types of competing demands. However, there are certain service design principles that will improve service for nearly all riders. This section describes practices that will attract the most riders and balance competing demands.

## Service Planning Principles

For people to use transit, service should be designed so that it is easy to understand. In this way, current and potential riders can grasp and use the transportation options available to take them where and when they want to go with ease. Most of the guidelines in this section are aimed at making service intuitive, logical, and easy to understand. Most transit networks are very complicated, and simplification is a key value in creating networks that people can navigate easily to make many kinds of trips.

### Route Directness

Routes should be designed to operate as directly as possible to maximize average speed for the bus and minimize travel time for passengers while maintaining access to service. Fast and direct routes tend to be useful to more people than circuitous routes. Even if a trip requires transferring between two routes, it is likely to be faster than a trip using a circuitous route. Community circulators may require slower and less direct service to adequately serve its respective market.

Travel times and directness of service can be affected by a series of factors that are a function of the environment in which service operates. Some of these factors include:

- Traffic congestion
- Street geometry and turning movements
- Presence and operations of traffic signals
- Accessibility of streets from adjacent areas
- Stops with high ridership or mobility-impaired customers

### Route Alignment

Non-circulator routes should operate along the same alignment in both directions to make it easy for riders to know how to return to their trip origin location. Exceptions can be made in cases where such operation is not possible due to one-way streets, turn restrictions, or near the end of a route where the bus must turn around. In those cases, routes should be designed so that the opposite directions parallel each other as closely as possible.

While routes that include large loops or several deviations maximize transit coverage, they also result in out-of-direction travel that is not intuitive or attractive to potential customers.

## Route Deviations

Routes should not deviate from the most direct alignment unless there is a compelling reason. Potential destinations to deviate service include major shopping centers, employment sites, schools, etc.

In these cases, the benefits of operating the route off of the main route must be weighed against the inconvenience caused to passengers already on board. Additional considerations include the impact on overall route productivity, the increase time added as a result of the deviation, and the schedule coordination with connecting services. In most cases, where route deviations are provided, they should be provided on an all day basis. Exceptions include early morning or late night trips to schools or employment centers with limited hours.

## Arterial Streets

All frequent local and local routes should operate on major roadways. The operation of bus service along arterials makes transit service faster and easier for riders to understand and use. Current and potential riders typically have a general knowledge of an area's arterial road system and use that knowledge for geographic points of reference.

## Route Length

Routes should be the appropriate length to maximize ridership potential and minimize operational issues. Two routes serving different parts of the service area with a shared terminus, such as a transit center or major destination may be combined as one route or interlined in order to operate more cost-effectively. However, excessively long local routes (cycle times greater than 180 minutes) should be avoided to minimize potential schedule adherence issues.

## Schedule Simplicity

A consistent pattern to the schedule is strongly recommended. While headways may vary during the day according to demand, it should not vary with apparent randomness from one trip to the next. Whenever possible, routes should also have clockface headways that divide evenly into an hour, such as every 15, 20, 30, or 60 minutes.

Clockface headways are easier for passengers to remember and can help facilitate better transfer connections between routes. Whenever possible, headways should be set at regular clock-face intervals. However, there are two key exceptions:

- Where individual trips must be adjusted away from clock-face intervals to meet shift times, work times, transfer connections, or other special circumstances
- Where the desired headway of service causes round trip recovery time to exceed 20% of the total round trip vehicle time, leading to inefficient service

Clockface headways also offer greater ease in scheduling timed connections between routes that occur consistently in each hour.

## Service Allocation

Service allocation guidelines are used to determine appropriate service levels for fixed-route service and are tailored to each specific route type. Transit operators should strive to meet the minimum service span and headways guidelines. Additional service guidelines are based on transit best practices.

### Service Span

The number of hours per day that a route operates plays a role in determining the effectiveness of transit service for potential users. Transit service must be available near the time a trip needs to be made in order for transit to be a viable travel option. Weekday routes should permit workers and students to make their morning start times, and should end late enough to provide return trips home for second shift workers in urban areas. Service oriented to non-work travel can start later and end sooner.

### Headways

Service headways are one of the most important determinants of ridership. More frequent service attracts more passengers assuming a market is present. At the same time, headways have a significant impact on operating costs, and service requirements increase significantly with improvements in headways.

Because of the expense of frequent service, headways are normally scheduled based upon existing or potential demand. This may translate into variations in headways throughout the day, with higher headways in peak periods, and less frequent service outside of the peak.

For frequent local routes, provision of service that operates every 15 minutes is an important psychological breakpoint. At headways of 15 minutes or better, many riders will not need to refer to the schedule, because wait time is minimal.

Circulator routes often have consistent headways throughout the day to minimize the need for additional peak vehicles. However, passenger loads should be monitored to determine if there is a need to provide improved headways during peak or midday time periods.

### Stop Spacing

The distance between stops is a key element in balancing transit access and service efficiency. More closely spaced stops provide customers with more convenient access as they are likely to experience a shorter walk to the nearest bus stop.

However, transit stops are also the major reason that transit service is slower than automobile trips, since each additional stop with activity requires the bus to decelerate, come a complete stop, load and unload riders, and then accelerate and re-merge into traffic. Since most riders want service that balances convenience and speed, the number and location of stops is a key component of determining that balance.

### Stop Placement

Bus stop placement involves a balance of customer safety, accessibility, and operations. All stops should be fully accessible with a concrete landing and access to sidewalk or pathway. Bus stops

should be compatible with adjacent land use and minimize adverse impacts on the built and natural environment.

Near-side and far-side stops allow passengers to board and alight closer to intersection crosswalks and are generally preferred over mid-block stops. Far-side stops allow bus operators to use intersection as a deceleration lane and are preferred at intersections in which buses make left turns and intersections with a high volume of right turning vehicles. Mid-block stops should only be considered if pedestrian crosswalks are present. Mid-block stops may be the only option at major intersections with dedicated turn lanes.

Specific ridership generators may determine the placement of a bus stop. Infrastructure consideration for bus stop placement includes lighting, topography, and roadside constraints such as driveways, trees, poles, fire hydrants, etc.

## Operating Speed

Operating speeds is a function of posted speed limits, turning movements, stop spacing, and ridership activity. As a result, unique route types often have varying average operating speeds. Regional express routes are expected to be designed and operate at speeds comparable with personal automobiles. At the opposite end of the spectrum, community circulators are afforded more time for navigating through neighborhoods and therefore, slower operating speeds. Transit priority should be pursued on busy, frequent local routes as a means of maintaining a desirable operating speed. The following table details the minimum design and operating guidelines applicable to each fixed route type.

**Figure 79 Recommended Fixed Route Design Guidelines**

| Route Type | Service Span | Minimum Headways (Peak/Off-Peak) | Stop Spacing[4] | Target Operating Speed |
|---|---|---|---|---|
| Frequent Local | 5:00a-10:00p (M-F)<br>6:00a-9:00p (Sat/Sun) | 20/30 (M-F)<br>30/60 (Sat/Sun) | > ¼ mile | >12 mph |
| Local | 6:00a-9:00p (M-F)<br>7:00a-8:00p (Sat/Sun) | 30/60 (M-F)<br>30/60 (Sat/Sun) | > ¼ mile | >12 mph |
| Circulator | 6:00a-8:00p (M-F)<br>8:00a-6:00p (Sat/Sun ) | 60 (M-F)<br>60 (Sat/Sun) | > ¼ mile | >10 mph |
| Intercity | 6:00a-8:00p (M-F)<br>8:00a-6:00p (Sat/Sun) | 30/60 (M-F)<br>60 (Sat/Sun) | > 1 mile | > 20 mph |
| Regional Express | Peak hours or all-day<br>Sat/Sun if warranted | 30/60 (M-F)<br>60 (Sat/Sun) | > 2 miles | > 30 mph |

[4] Intercity and Regional Express may have frequent stops in high-density areas

# SERVICE CONSISTENCY

The Ventura County Transportation Commission Transit Operators Advisory Committee (Transcom) promotes coordination and collaboration of all transit operators in Ventura County. Similarly, the East County Transit Alliance promotes enhanced connectivity and coordination in the communities of Camarillo, Thousand Oaks, Moorpark, Simi Valley, and unincorporated areas of East Ventura County. The following recommendations aim to further improve the consistency and coordination of transit services across to simplify service for customers.

## Holiday Schedule

Ventura County transit operators do not operate on the following holidays:

- New Year's Day
- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving Day
- Christmas Day

Transit operators may consider operating at a reduced or weekend service level on Memorial Day, Independence Day, and Labor Day to improve job access and first/last mile connectivity, while requiring a relatively minor increase in cost.

## Weekend Service

It is recommended that all routes maintain similar route alignments on weekdays and weekends. Potential exceptions include deviations serving destinations that are closed on the weekends and short-turns due to reduced service demand. It is also recommended that all transit providers provide Saturday service on all frequent local, local, and circulator routes. Regional express and intercity routes may operate on weekends should sufficient demand exist to generate at least 50% of weekday ridership productivity. While service spans may vary slightly, Saturday and Sunday should have identical schedules during the majority of the day.

## Service Changes

Establishing specific service change dates for each upcoming fiscal year would be an additional consistency improvement for countywide transit operations. Consistent service change dates when minimize potential impacts on customers who ride multiple systems. Implementing major route or schedule adjustments in July is recommended to coincide with school calendars. Similarly, January is an ideal time to implement minor service changes.

## Route and Schedule Information

Development of an interactive countywide transit map is recommended to provide existing and potential customers with a visual representation of the complete transit network in Ventura County. The interactive map should be hosted on the VCTC website, which currently provides website and contact information for each service provider in the county, and at a minimum, include route alignments color-coded by service provider and an address search function.

Service providers should also strive to publish route and schedule information to Google Transit to enable trip planning across the multiple transit system. Accomplishing this goal requires the development of a Google Transit Feed Specification (GTFS), which includes detailed route, trip, stop, schedule, calendar, and fare information. VCTC should take the lead in working with all transit providers to develop GTFS data.