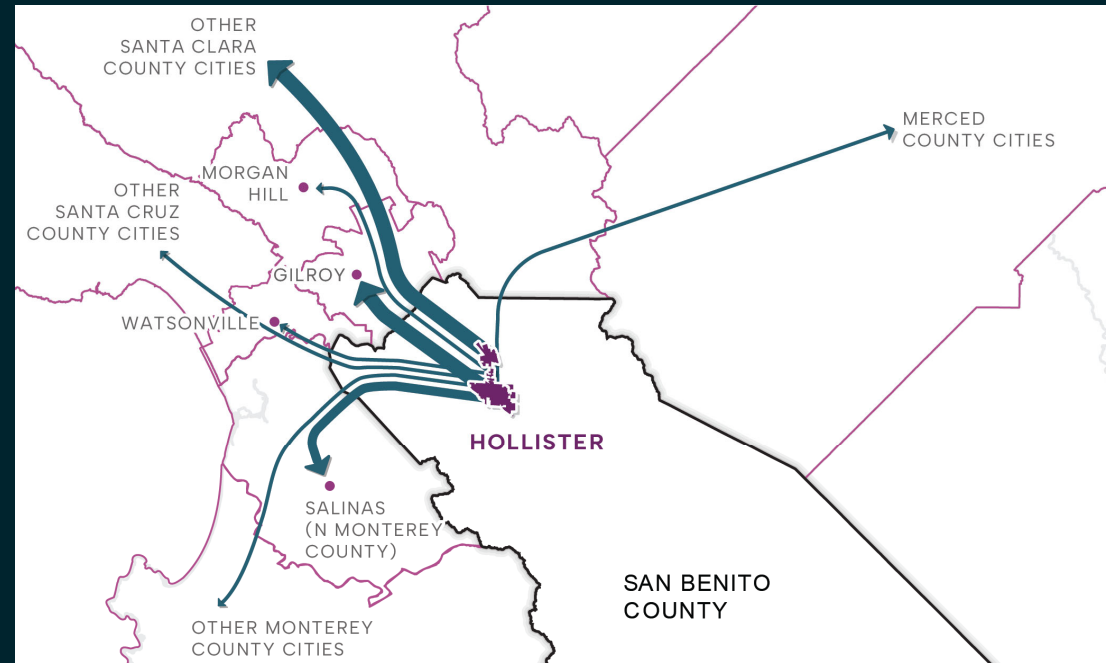


Fehr & Peers

Travel Behavior Analysis for San Benito County

Presentation for the Board of Directors



Agenda

- 01 Analysis Purpose
- 02 Demographic Profile
- 03 Data Collection
- 04 Countywide Travel Behavior
- 05 Corridor-Specific Travel Behavior
- 06 Recreation Travel Patterns
- 07 Key Findings and Next Steps

SECTION 01

Analysis Purpose

Analysis Purpose

Understanding these travel patterns is critical to prioritizing limited transportation funding and addressing regional congestion pressures.

Infrastructure and Strategic Planning

- Strengthen competitiveness in federal and state transportation grant applications.
- Inform near-term corridor planning efforts.
- Support economic development initiatives.

Mobility and Transit Access

- Identify transportation improvements that enhance mobility and guide future transit service planning.

Travel Demand Forecasting Model

- Support the development of a countywide travel demand forecasting model.

SECTION 02

Demographic Profile

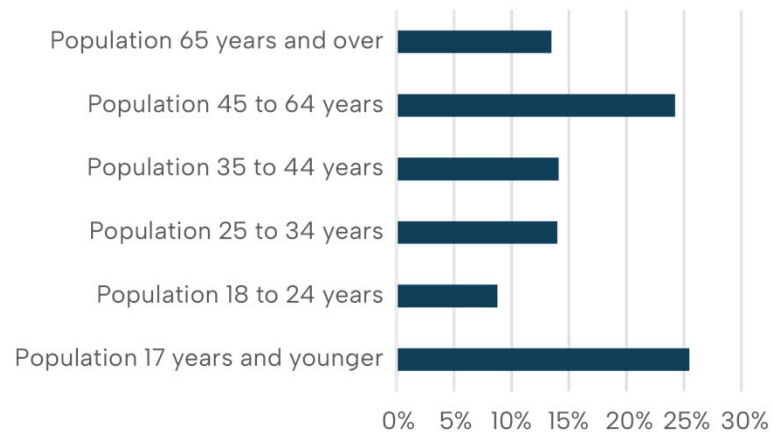
Demographic Characteristics

Population: ~ 66,100 residents

Demographics: Large share of Hispanic/Latino population.

Age groups: Highest share of youth (~26%) and adults aged 45–65 (~24%)

Percentage of Population by Age



Source: American Community Survey (ACS), 2019–2023 5-year Data.

Employment Characteristics

Employment: ~31,000 employed residents; highest share in education, health care, and social assistance.

Percentage of Employed Population by Industry



Source: American Community Survey (ACS), 2019-2023 5-year Data.

Work Travel Characteristics

Driving dominates:

75% drive alone; most households have 3+ vehicles.

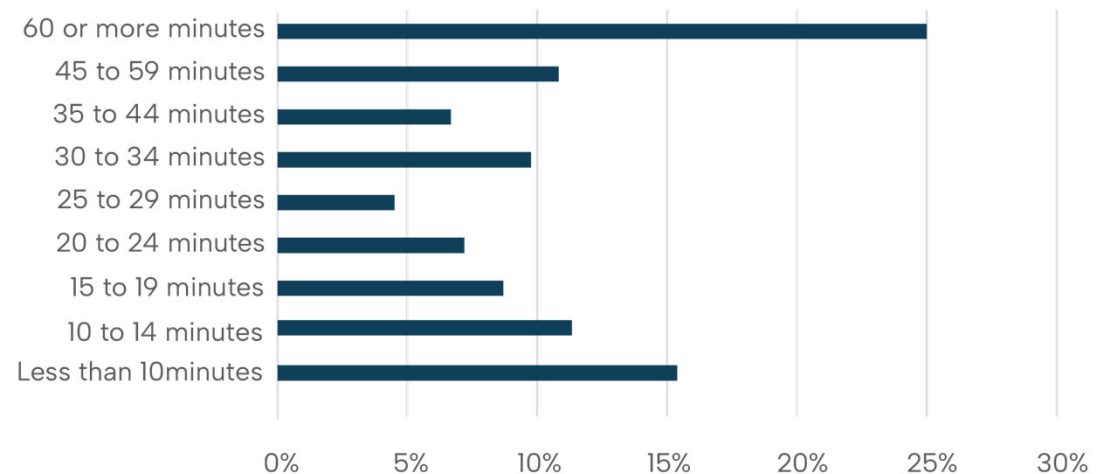
Long-distance commuting is common:

About half of workers commute out of the county, with about 25% traveling 60+ minutes to regional job centers.

Mixed commute patterns:

About 15% travel under 10 minutes, likely to local areas such as Hollister.

Percentage of Employed Population by Work Travel Time



Source: American Community Survey (ACS), 2019-2023 5-year Data.

SECTION 03

Data Collection

Big Data

Replica

- Nationwide activity-based travel demand model
- Calibrated to real-world observations (counts, ridership)
- Spring 2025 weekday (Thursday) and weekend (Saturday) data

Replica Limitations: Limited by input data availability and may not fully reflect real-world conditions.

Azira

- Smartphone-based sample of observed travel
- Used to identify origins of trips to specific destinations
- 2025 data

Azira Limitations: captures only about 5 to 15 percent of trips, and less in areas with poor cell reception.

SECTION 04

Countywide Travel Behavior

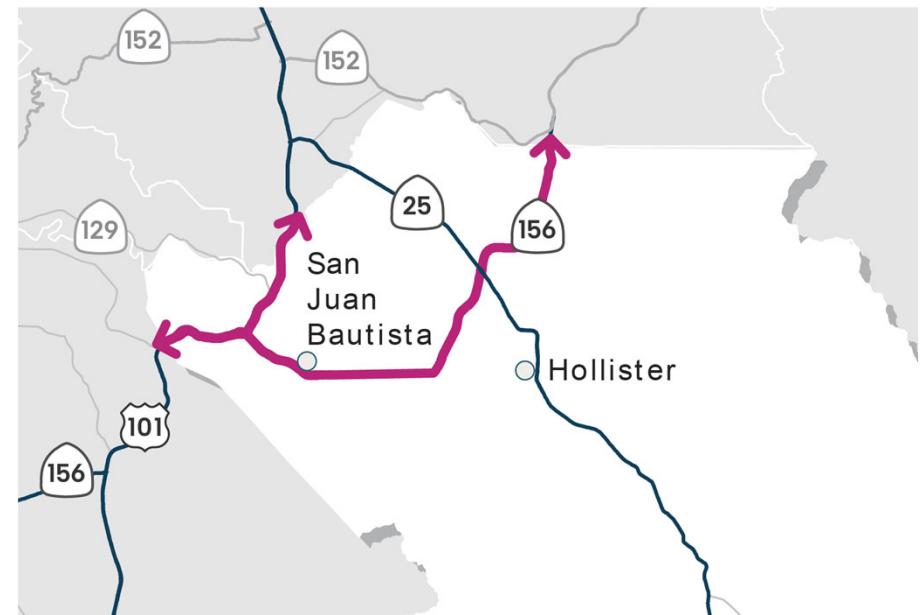
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Pass-through Trips

Regional pass-through travel accounts for a large share of roadway use but is largely outside local control.

- **42%** of trips interacting with the county are **pass-through trips**, with **US 101 and SR 156** as the primary route.
- Significantly **increases congestion and VMT**.
- **Local measures such as land use and transit strategies may improve local mobility, but likely to have limited impact on regional corridors.**

Primary Pass-Through Routes



Source: Replica, Spring 2025 Data.

Shorter/Intra-County Trips

Most county-generated trips are short and local, creating strong opportunities for local mobility investments

- **62%** of county trips occur **entirely within the county**.
- **Generally short** (average trip length – 3 to 4 miles).
- **Hollister is the primary travel hub** (86% of intra-county trips, with 55% occurring entirely within the city).
- **Investments in local access** have the potential to benefit a large share of residents' everyday trips.

Distribution of County Trips and County-Generated VMT (Excluding Pass-Through Trips)

County Vehicle Trips



County-Generate VMT



■ Intra-County ■ Inter-County

Source: Replica, Spring 2025 Data.

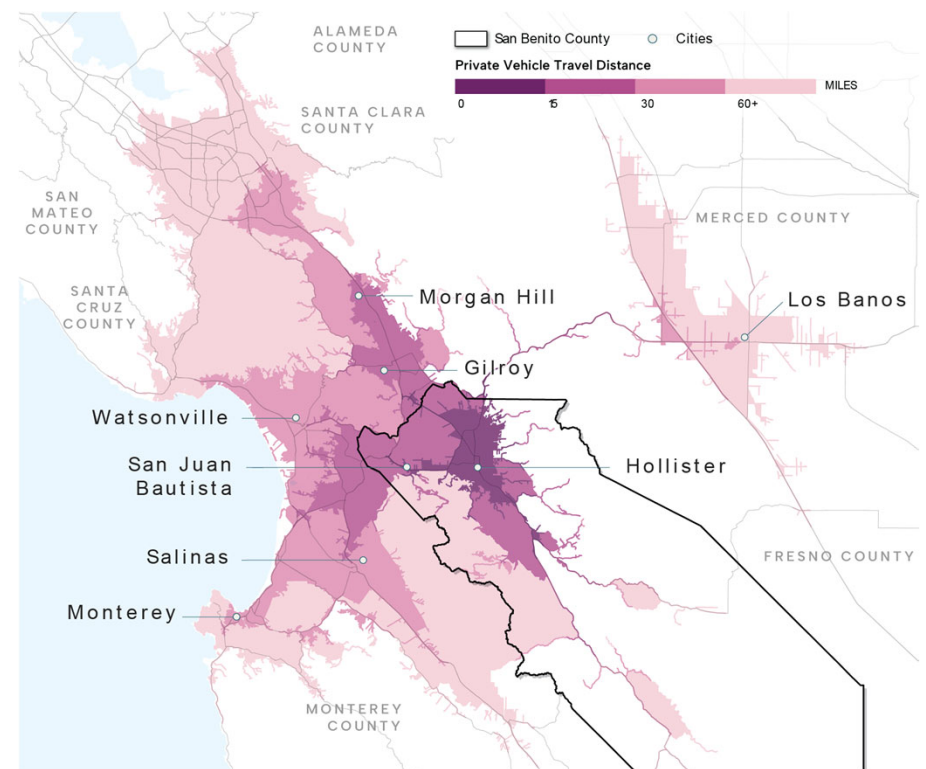
Longer/Inter-County Travel

Longer inter-county trips generate most Vehicle Miles Traveled (VMT) despite representing a smaller share of total trips

- Trips traveling to and from San Benito County account for **38% of county trips** but nearly **88% of county-generated VMT**.
- **Longer distance** (Average Trip length – 30 to 40 miles)
- Meaningful **VMT reduction** will require **strategies that address long-distance inter-county travel**, alongside local investments.

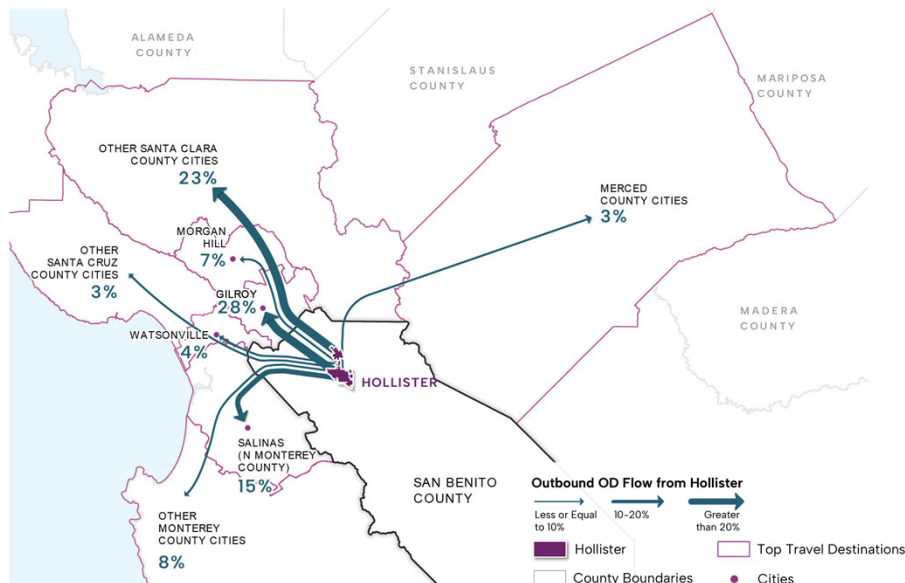
Source: Replica, Spring 2025 Data.

Private Vehicle Travel Shred from Hollister



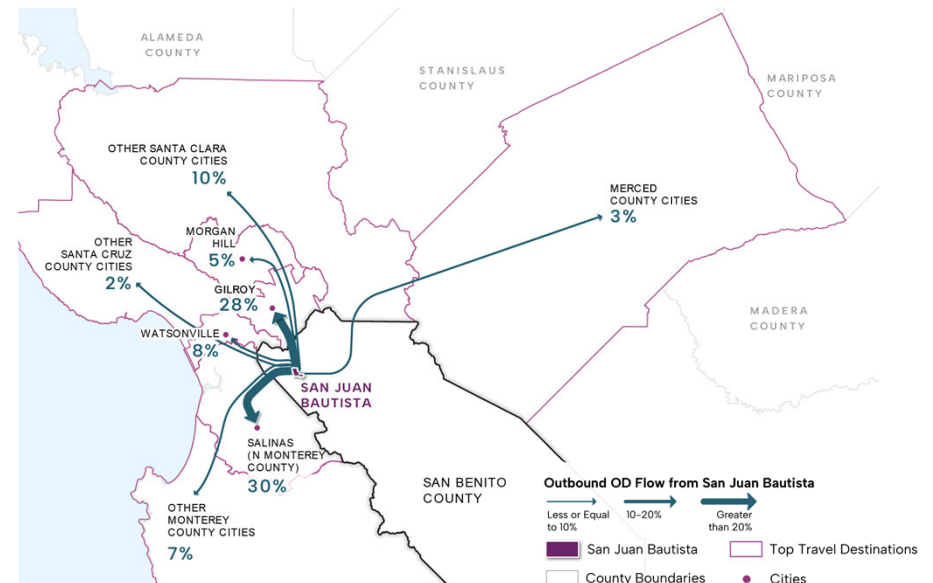
Longer/Inter-County Travel

Key inter-county destinations include Gilroy (27% of inter-county trips), Salinas and northern Monterey County cities (19%), and the rest of Santa Clara County (17%)



Distribution of Weekday Outbound Travel from Hollister

*8% of trips travel to other areas within California and less than 1% travel to other areas outside of California



Distribution of Weekday Outbound Travel from San Juan Bautista

*7% of trips travel to other areas within California and less than 1% travel to other areas outside of California

Source: Replica, Spring 2025 Data.

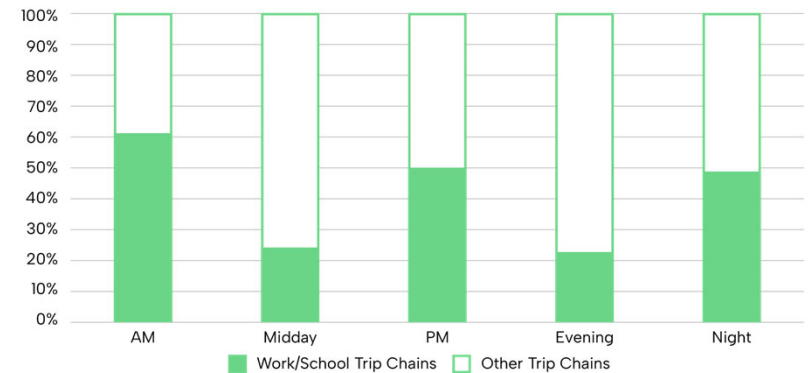
Trip Purpose Characteristics

Travel demand is not dominated by peak-hour commuting, as commercial and other trips make up a large share of overall travel

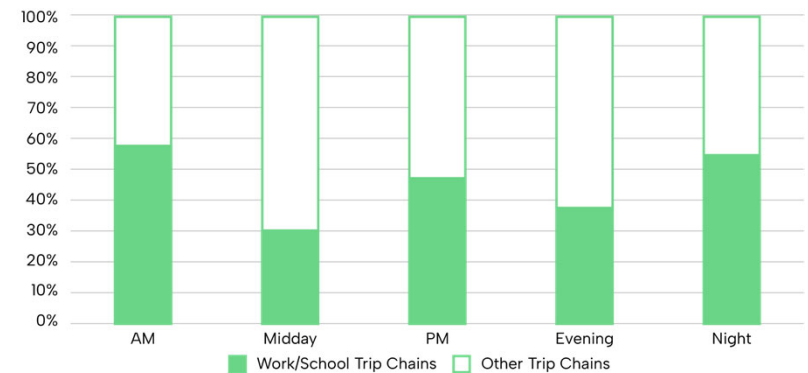
- Travel demand is distributed throughout the day.
- A substantial share of **commercial activity**, as well as **work and school trips**, occurs **outside traditional peak periods**.
- Travel for **commercial purposes** accounts for **45% of intra-county** and **42% of inter-county** trips, with a portion occurring as part of work/school travel.
- This highlights the need to **balance regional connectivity with improved local access and land use strategies**.

Source: Replica, Spring 2025 Data.

Intra-County Trip Chain Distribution by Time of Day



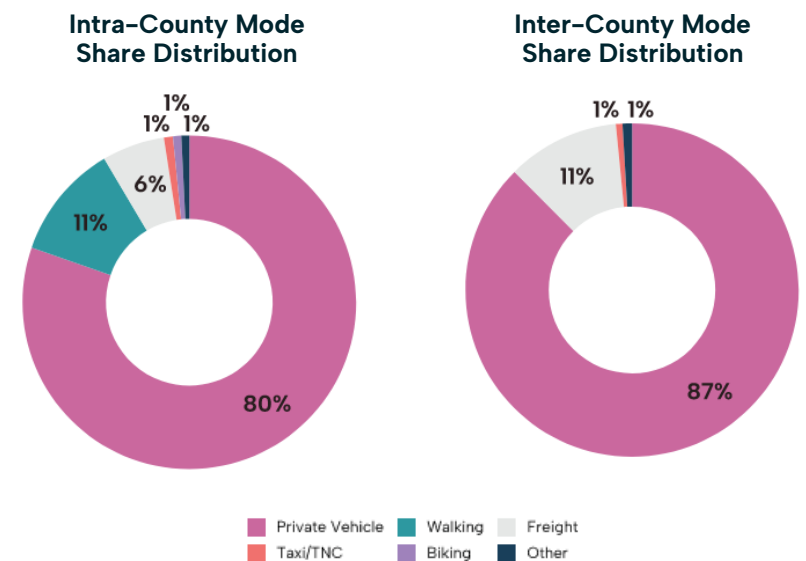
Inter-County Trip Chain Distribution by Time of Day



Mode Share Characteristics

Auto travel dominates. Current transit service aligns with only a small share of observed travel patterns

- **Private vehicles: 80% of intra-county trips and 87% of inter-county trips.**
- **Transit mode share: <1%**
- Transit services focus on peak-hour commute, but much demand is non-work and occurs outside peak periods.
- **Flexible, all-day mobility would better align with travel patterns.**

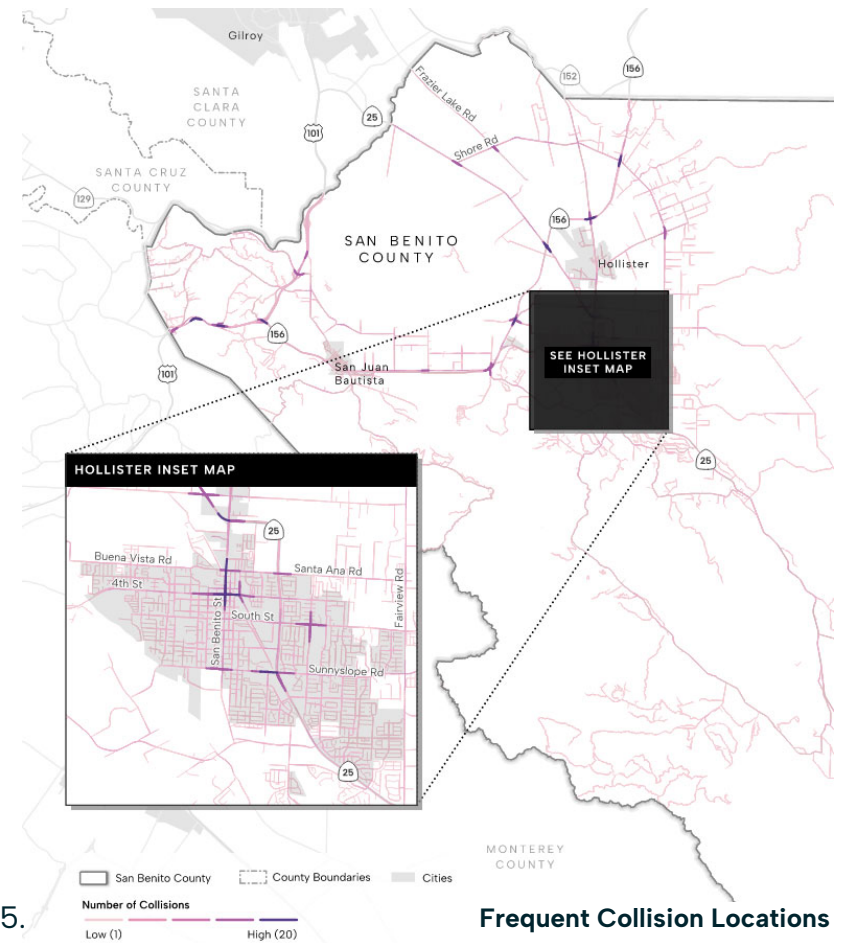


Source: Replica, Spring 2025 Data.

Collision Trends

Collisions are concentrated along the county's highway network and are generally more severe than the statewide average

- **Highways** account for over half of injury collisions and most truck-related collisions.
- **Targeted intersection improvements** could significantly improve countywide safety.



Source: UC Berkeley Transportation Injury Mapping System (TIMS), 2020–2025.

SECTION 05

Corridor-Specific Travel Behavior

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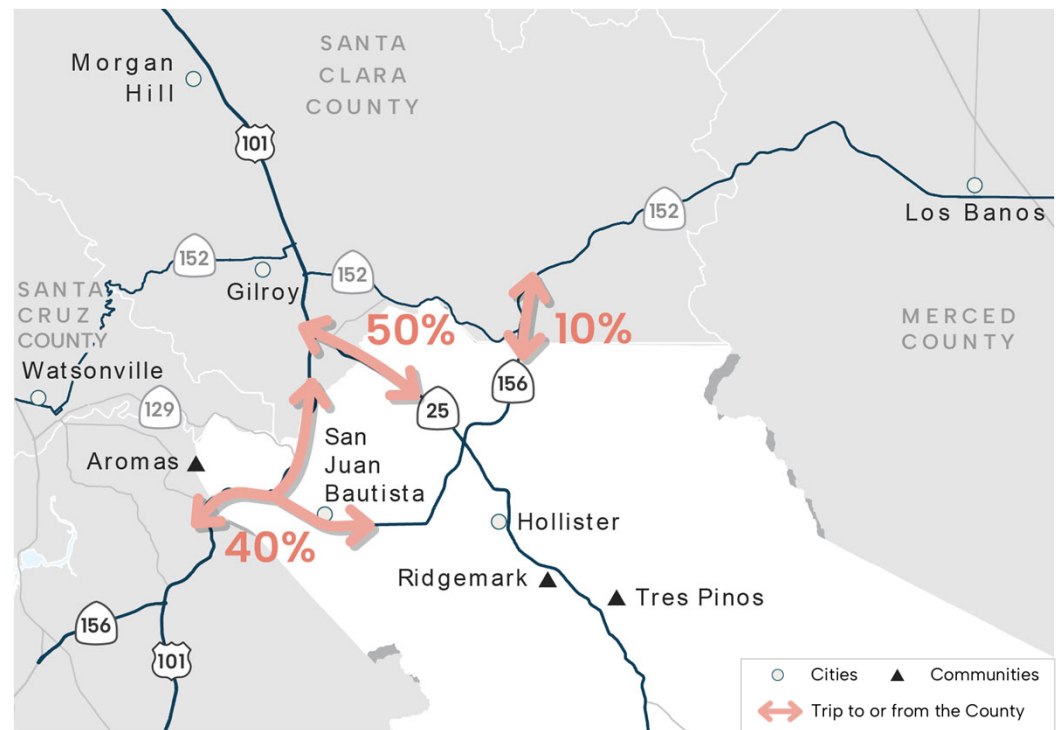
Key Highway Corridors

SR 25, SR 156, and US 101 are key highway corridors; each serves distinct functions.

- **US 101** primarily serves **pass-through travel**.
- **SR 25 and SR 156** serve the majority of **regional travel to and from the County**, but each corridor has distinct functions, serving different travel demands and destinations.
- **Strategies should be tailored to each corridor's function.**

Source: Replica, Spring 2025 Data.

Weekday Inter-County Trip Distribution via Key Highway Corridors

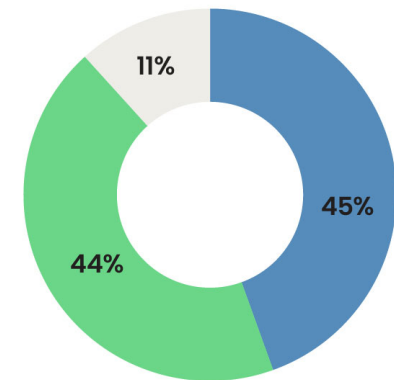


SR 25 Travel Characteristics

State Route (SR) 25 primarily serves county-generated work and school travel, along with other trip purposes such as commercial activity, with very little pass-through traffic.

- Less than 1% pass-through travel.
- SR 25 expansion could increase access and support additional travel demand, including non-work trips, which may contribute to higher county-generated VMT.
- Alternatives to expansion include strengthening inter-county transit connections and enhancing first- and last-mile connectivity.

Inter-County Weekday Trip Chain Type Distribution
(SR 25 at North County Line)



■ Non-Work/Non-School Trip Chain
■ Work/School Trip Chain
■ Freight/Other Trip Chain

Source: Replica, Spring 2025 Data.

SR 25 Work/School Destinations

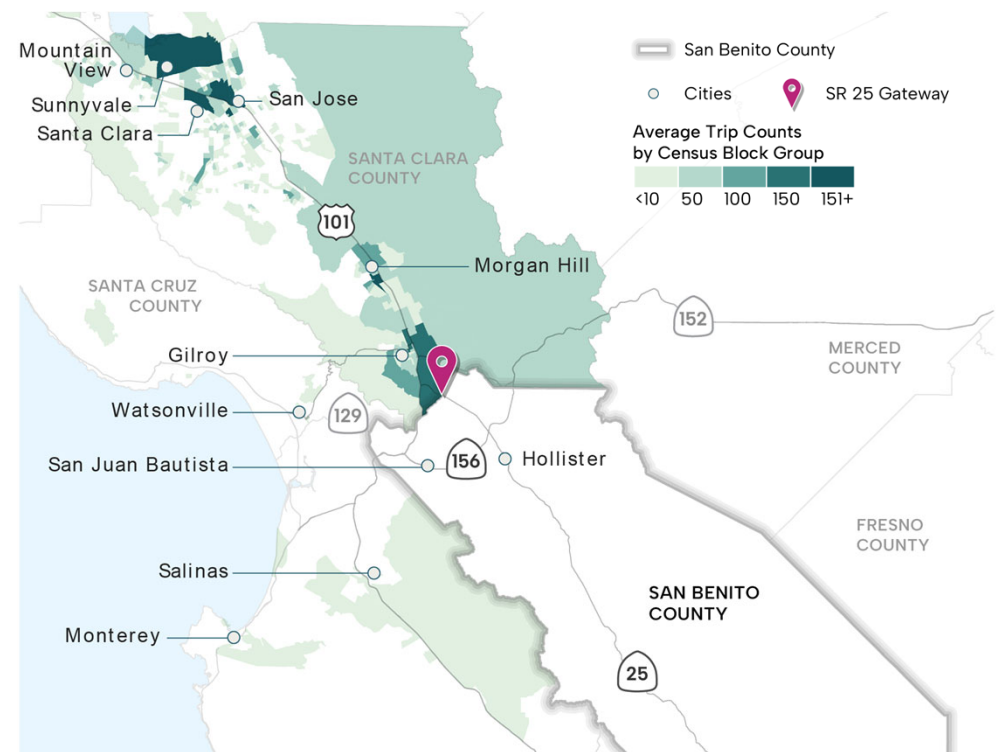
A large share of county residents travel via SR 25 (north) to Gilroy and the northern part of Santa Clara County for work or school

Popular work/school destinations may include:

- Commercial centers in Gilroy (e.g., Gilroy Premium Outlet)
- Gavilan College
- Tech campuses in North Santa Clara county
- Employment centers in San Jose (e.g., Trimble Business Area)

Source: Replica, Spring 2025 Data.

Work/School Travel Destinations for County Residents Using SR 25 (North)

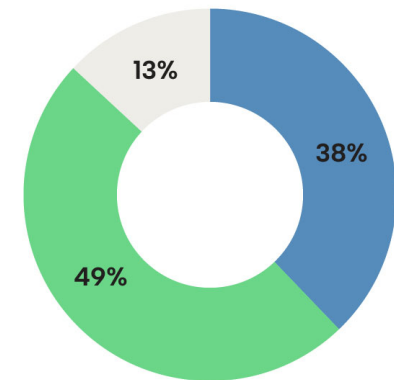


SR 156 Travel Characteristics

SR 156 carries a mixture of local, regional, and freight traffic, with important differences between gateways

- **Western end of SR 156:** Connections to the Bay Area, Salinas Valley, and coastal areas, as well as pass-through travel between coastal regions and the Central Valley.
- **Northern end of SR 156:** Dominated by regional pass-through travel and commercial trips linked to the Central Valley.
- **Essential to coordinated planning among local, regional, and state agencies.**
- **SR 156 should not be treated as a uniform corridor.**

Inter-County Weekday Trip Chain Type Distribution
(SR 156 East of US 101)



■ Non-Work/Non-School Trip Chain
■ Work/School Trip Chain
■ Freight/Other Trip Chain

Source: Replica, Spring 2025 Data.

SR 156 Key Work/School Destinations

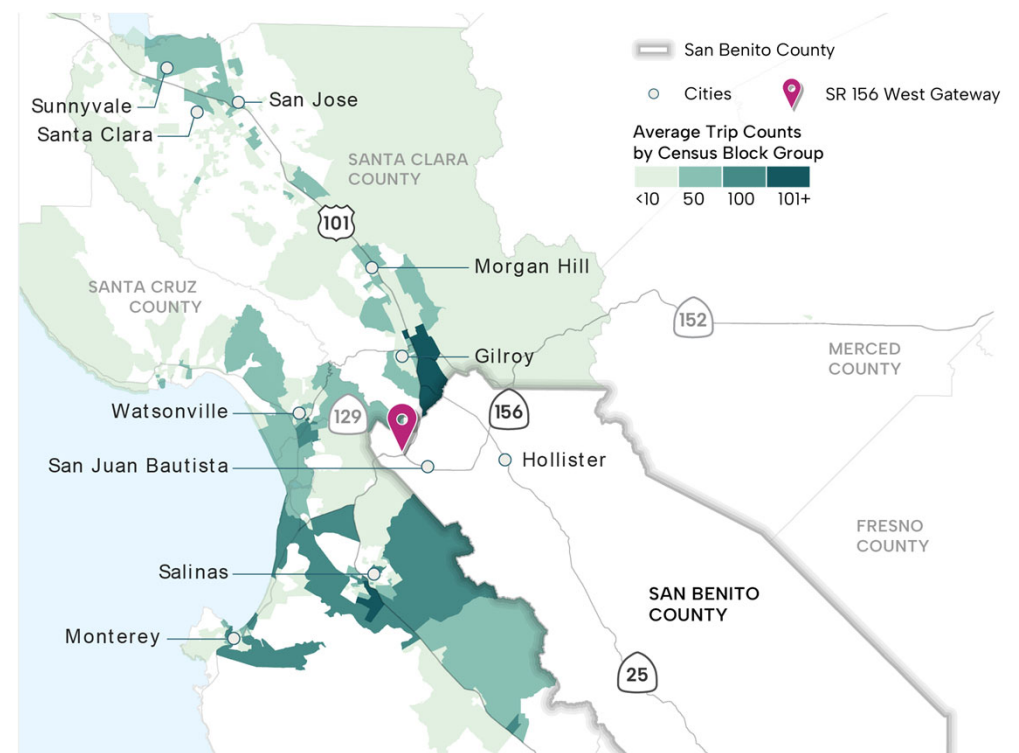
A large share of county residents travel via SR 156 (west) to Gilroy, Monterey, and Salinas for work or school

Popular work/school destinations may include:

- Commercial centers in Gilroy (e.g., Gilroy Premium Outlet)
- Gavilan College
- California State University Monterey Bay
- Employment centers near downtown Salinas and Monterey.

Source: Replica, Spring 2025 Data.

Work/School Travel Destinations for County Residents Using SR 156 (West)



SECTION 06

Recreation Travel Patterns

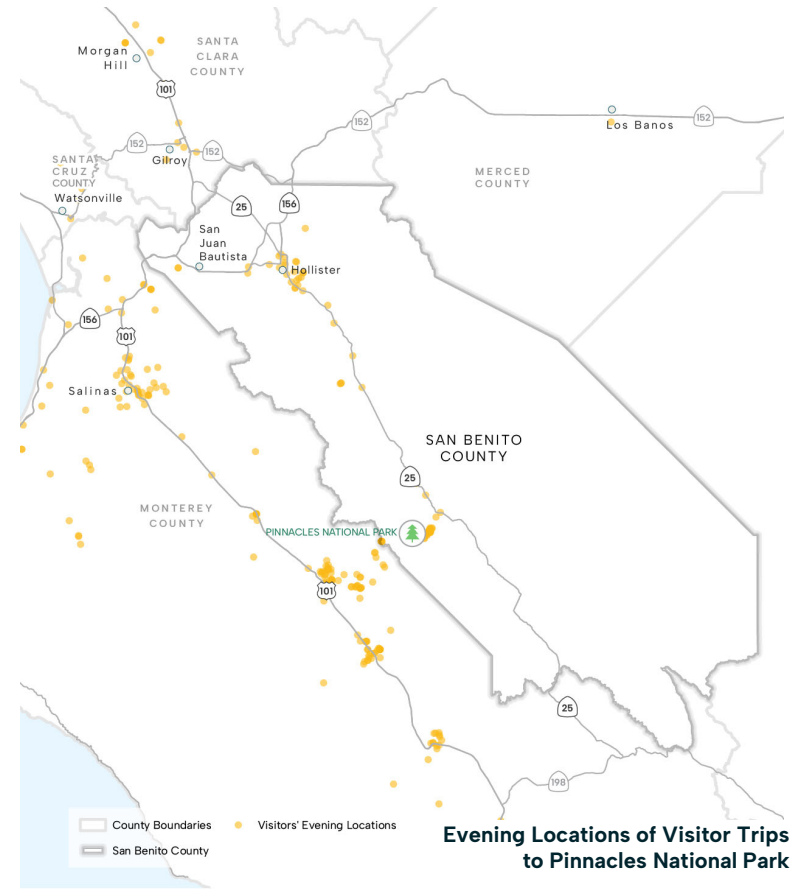
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Recreation Travel Characteristics

Recreation travel is largely local or from adjacent counties, with targeted opportunities for improvement

- Most recreation and tourism destinations attract visitors from **within the county and nearby areas**
- **Pinnacles National Park attracts visitors from a much wider area.**
- Opportunities to **improve weekend and off-peak mobility and access to key destinations.**

Source: Azira, 2025 Data.



SECTION 07

Key Takeaways & Next Steps

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Key Takeaways

- **Two travel patterns, two strategies:** short local trips versus long inter-county trips that drive most VMT
- **Regional traffic drives congestion:** much of it (especially pass-through travel) is outside local control
- **Local trips dominate:** investments in local access can benefit the greatest number of residents
- **Inter-county connections matter:** improved regional mobility options are key to reducing VMT

Applying Findings to Travel Model Update

Prioritize inter-county travel, all-day demand, and local validation

- **Improve Representation of Inter-County and Pass-Through Travel**
Refine external stations, model extent, and trip distribution to reflect observed regional travel patterns
- **Update Time-of-Day and Trip Purpose Structure**
Capture all-day demand, including non-work and commercial travel observed in the data
- **Strengthen Local Calibration Using Observed Data**
Use counts and travel behavior data to improve trip generation, distribution, and corridor performance
- **Enhance VMT Metrics and Sensitivity**
Track intra county, inter-county, and pass-through VMT to better evaluate policy and project impacts
- **Establish Robust Validation Framework**
Incorporate static and dynamic validation using counts and big data to support project-level applications
- **Implementation Approach**
 - Near-term: external trips and validation
 - Mid-term: Time-of-day and trip purpose
 - Long-term: Structural model upgrades



Any Questions?

Travel Behavior Analysis for San Benito County