

Transportation

Section Highlights

Percentage of commuters that carpool	10%
Percentage of residents that work from home	5.4%
1-year growth in alternative fueled cars	↑ 44%
1-year change in traffic collision victims	↑ 10%
Measure I funds invested in 2018/19	\$168 million

Success Story

In 2004, with voter approval, San Bernardino County embarked on an ambitious and virtually unprecedented program to tackle traffic congestion by improving 38 crucial interchanges, where some of the most significant congestion in the county occurs. In 2017, the transformation at the I-10 and Pepper Avenue interchange was completed. This represents the 8th interchange improved in eight years – essentially one a year – with the program on target to complete 12 more projects by 2023. Besides its sheer scale, what makes the program even more unique is the partnership of cities that have fronted funds to expedite interchange projects, as well as contributions from the private sector.

Commute Times Stay Steady

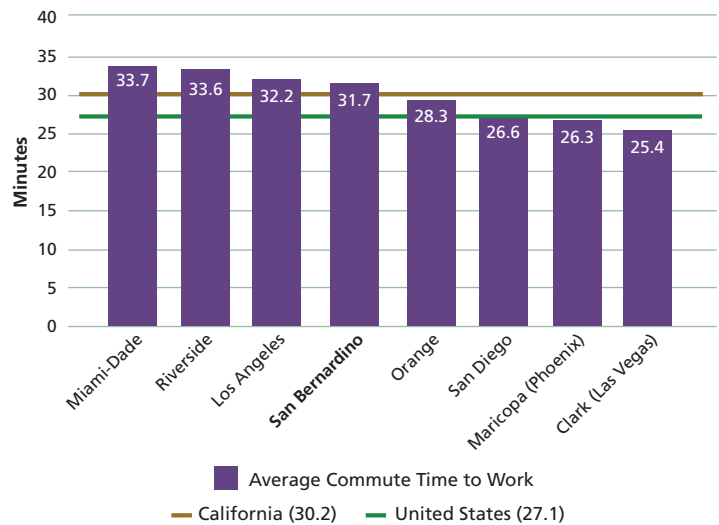
Tracking commuter trends and transportation system demand helps gauge the ease with which residents, workers, and goods can move within the county. Traffic congestion adversely affects the efficient movement of goods, contributes to the expense of operating a car, and increases air pollution. Transit use is likely significantly impacted by the sheer size of the county, the distances between destinations within the county, and low-density land use, which may result in lengthy transit trips. Residents may choose to trade off longer commute times for housing affordability or other quality of life factors. This indicator tracks average commute times, residents' primary mode of travel to work, and commuting patterns into and out of the county.

How is San Bernardino County Doing?

San Bernardino County commute times stayed essentially the same:

- In 2018, the average commute time to work for San Bernardino County residents was 31.7 minutes, compared with 31.8 minutes in 2017.
- San Bernardino County's average commute time is longer than both California (30.2 minutes) and the U.S. (27.1 minutes) and is in the middle among regions compared.
- At 80.2% most of San Bernardino County commuters drove alone in 2018.
- Carpooling was the second most common means of commuting (10.1%), followed by people working at home, at 5.4%. Working at home is steadily increasing.
- Only 1.3% of residents take public transportation and another 1.7% walk to work.

Average Commute Time to Work in Minutes
County Comparison, 2018



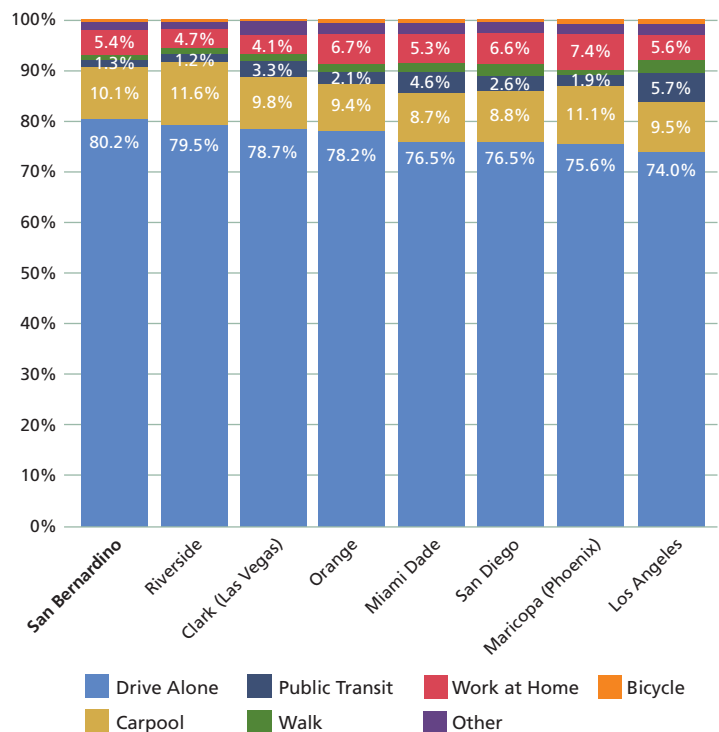
Source: U.S. Census Bureau, 2018 American Community Survey 1-Year Estimates

Arterial Pavement Condition Slips into the "At Risk" Category

The California Local Streets and Roads Needs Assessment, which has been conducted biennially since 2008, rates pavement condition on a scale of zero (failed) to 100 (excellent). The 2018 assessment included a total of 22,161 lane miles of pavement in San Bernardino County, which are maintained by local jurisdictions. In 2018, San Bernardino County's average pavement condition index (PCI) was 70, which is one point below the "good to excellent" range, but higher than the statewide average PCI of 65. Ratings between 71 and 100 are considered good to excellent, while ratings of 50 to 70 are considered at risk. San Bernardino County has maintained a PCI rating between 70 and 72 since tracking began. As of 2018, only 54.7% of California's local streets and roads are in good condition.

Source: California Statewide Local Streets and Roads Needs Assessment, 2018 (www.savecaliforniastreet.org/)

Primary Mode of Travel to Work
County Comparison, 2018



Source: U.S. Census Bureau, 2018 American Community Survey 1-Year Estimates

More people commute to jobs outside of San Bernardino County, than commute into the county:

- Nearly 366,000 residents work outside of San Bernardino County.
- Most of these residents work in Los Angeles County (161,749), followed by Riverside (74,774) and Orange (68,614) counties.
- In contrast, about 288,500 people commute into San Bernardino County to work.
- Of these, approximately the same number of people live in Riverside (99,617) and Los Angeles (99,307) counties, while 35,096 people live in Orange County and commute into San Bernardino County to work.
- About 280,000 people both live and work in San Bernardino County.

Intercounty Commuting Patterns (2017)



Source: U.S. Census Bureau On the Map Application

Alternative Fuel Vehicles on the Rise

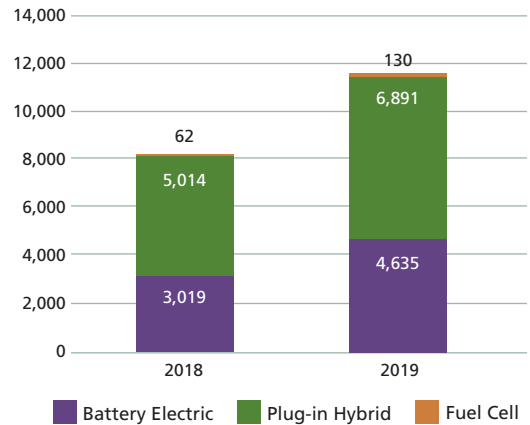
Tracking vehicle registrations can help a community understand its reliance on cars, and the potential for increased traffic congestion and air quality impacts. Tracking the growth in alternatively fueled cars helps illustrate the region’s contribution to statewide goals for reducing pollution and greenhouse gas emissions and reveals infrastructure that may be needed to support the growth of alternatively fueled cars, such as electric vehicle charging stations or hydrogen fuel stations. This indicator measures selected vehicle registrations including alternative fuel vehicles.

How is San Bernardino County Doing?

The number of vehicles registered annually in San Bernardino County continues to grow:

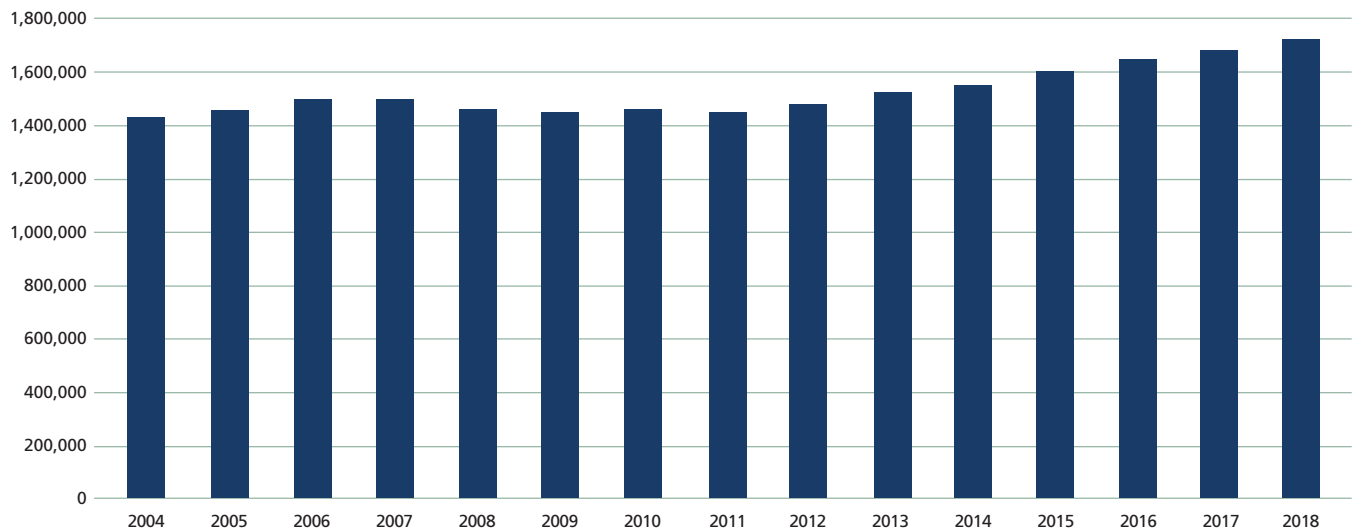
- In 2018, there were more than 1.7 million vehicles registered (1,711,043) including autos, trucks, and motorcycles.
- This is an increase of approximately 21,700 vehicles, or 1.3%, since 2017.
- The number of registered vehicles dipped slightly during the recession but increased consistently each year since 2011, growing a total of 18% between 2011 and 2018, outpacing the statewide increase of 14% during the same period.
- Among all vehicles registered in San Bernardino County in 2018, less than one percent (0.7% or 11,656 cars) were plug-in hybrid, battery electric, or fuel cell vehicles. The remainder of registered vehicles used gasoline, diesel or another form of fuel.
- While still a small proportion of all vehicles, the number of alternative fuel vehicles is rapidly increasing. The number of battery electric vehicles grew by 54% between 2017 and 2018, and plug-in hybrid cars grew by 37%. At the same time, fuel cell vehicles more than doubled (from 62 to 130 cars).

Alternative Fuel Vehicles by Type
San Bernardino County, 2017 and 2018



Vehicle Registrations

San Bernardino County, 2004-2018



Source: California Department of Motor Vehicles

Alternative Fuel Vehicle Definitions

Plug-in hybrid: A plug-in hybrid electric vehicle has both an electric motor and internal combustion engine, and therefore uses battery-powered electricity and gasoline in tandem for power. Unlike conventional hybrids, the batteries can be charged by plugging into an outlet.

Battery electric: These vehicles run exclusively on electricity via on-board batteries that are charged by plugging into an outlet or charging station. They do not have a gasoline engine and therefore do not produce tailpipe emissions (although there are emissions associated with charging these vehicles), and they have longer electric driving ranges compared to plug-in hybrids.

Fuel Cell: A fuel cell electric vehicle uses an electric-only motor like a battery electric vehicle, but stores energy differently. Instead of recharging a battery, fuel cell electric vehicles store hydrogen gas in a tank. The fuel cell combines hydrogen with oxygen from the air to produce electricity. The electricity from the fuel cell then powers an electric motor, which powers the vehicle. The only byproduct of fuel cell electric vehicles is water.

Source: Goldman, Josh. "Comparing Electric Vehicles: Hybrid vs. BEV vs. PHEV vs. FCEV." *Union of Concerned Scientists*, 26 Feb. 2015, blog.ucsusa.org/josh-goldman/comparing-electric-vehicles-hybrid-vs-bev-vs-phev-vs-fcev-411.

Number of Traffic Collision Victims Up 10% in One Year

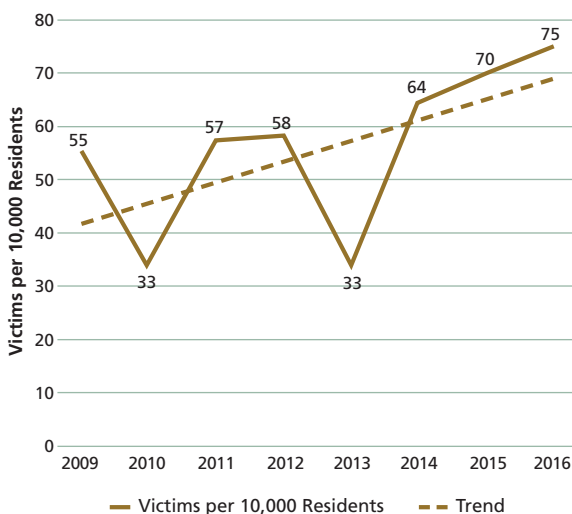
Traffic safety is an important element of a livable community that supports convenient and safe transportation choices including driving, transit, bicycling, and walking. Yet, there are thousands of victims of traffic collisions each year, and many of those injuries or fatalities were potentially preventable. According to the National Highway Traffic Safety Administration, there were 36,750 traffic fatalities in the United States in 2018. Factors that influence traffic safety include road design, posted traffic speed, and road and sidewalk quality, as well as driver behaviors like speeding and driving under the influence of drugs and/or alcohol. Distracted driving, biking or walking may also contribute. By assessing traffic safety data, communities can identify opportunities to improve roadway, bicycle and pedestrian safety.

How is San Bernardino County Doing?

Injuries or fatalities from vehicle collisions continue a steady climb upward:

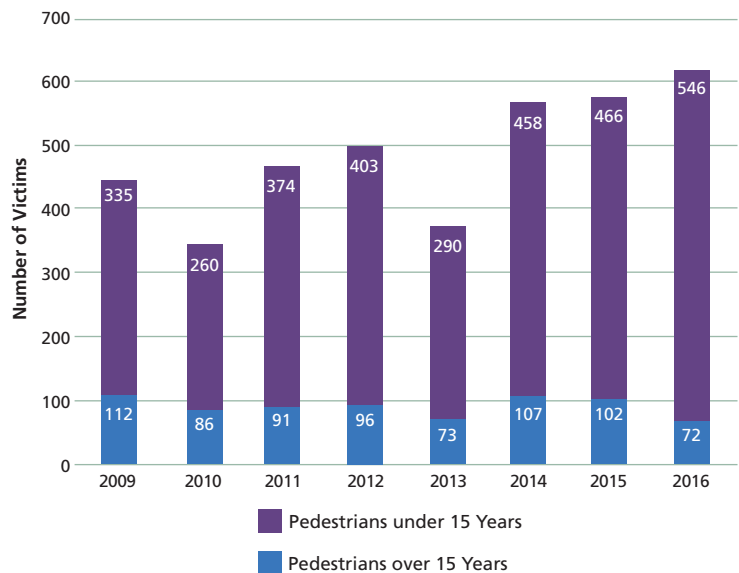
- There were 16,263 people injured or killed in vehicle collisions in San Bernardino County in 2016, a 10% increase from the previous year, and up a total of 45% since 2009.
- Bicyclists and pedestrians made up 6% of all traffic collision victims in 2016.
- Pedestrian injuries and fatalities were the highest reported since 2009, at 618 victims.
- This represents a one-year increase in pedestrian injuries and fatalities of 9%, and a 38% increase between 2009 and 2016.
- In contrast, bicyclist injuries and fatalities decreased for the second consecutive year, falling to 337 victims in 2016, a drop of 19% since the high in 2014.
- However, these 337 victims still represent a 34% increase in cyclist injuries and fatalities since 2009.

Victims Injured or Killed in Vehicle Collisions San Bernardino County, 2009-2016



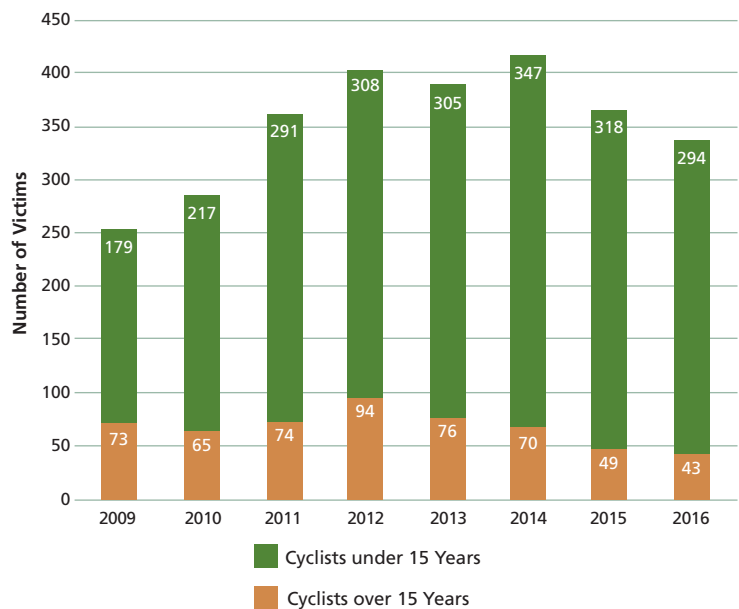
Source: California Office of Traffic Safety, data compiled by San Bernardino County Transportation Authority

Pedestrians Injured or Killed in Vehicle Collisions by Age San Bernardino County, 2009-2016



Source: California Office of Traffic Safety, data compiled by San Bernardino County Transportation Authority

Bicyclists Injured or Killed in Vehicle Collisions by Age San Bernardino County, 2009-2016



Source: California Office of Traffic Safety, data compiled by San Bernardino County Transportation Authority

Bus Ridership is Falling; Rail Ridership Holds Steady

The ability of residents and workers to move efficiently within San Bernardino County contributes to a higher quality of life and a more prosperous business climate. An effective public transit system is essential for individuals who cannot afford, are unable, or choose not to drive a car. Having both rail and bus service is important for meeting diverse transit needs, with rail serving mostly longer-distance commuters and buses serving mostly local commuters and other trips. This indicator measures ridership on the commuter rail system, as well as ridership and operating costs for San Bernardino County's five bus systems, which offer bus service coverage to over 90% of the county's population.

How is San Bernardino County Doing?

Overall rail ridership increased slightly in 2018/19:

- In 2018/19, ridership on all Metrolink lines having at least one station serving San Bernardino County totaled 6.11 million riders, a 2.2% increase from the previous year.
- This increase was driven by a substantial increase of more than 200,000 riders on the San Bernardino Line.
- Ridership on the 91 Line experienced a slight one-year increase (+0.6%) while ridership on both the Riverside and Inland Empire/Orange County lines decreased (-4.7% and -3.9%, respectively).
- Over the last 10 years, ridership on the Riverside and San Bernardino lines dropped by 22% and 7%, respectively. In contrast, ridership on the Inland Empire/Orange County and 91 lines increased by 26% and 28%, respectively.
- Consequently, since 2010, overall rail ridership has trended downward by less than 1%.

Bus ridership in San Bernardino County declined for the sixth consecutive year:

- In 2018/19, there were 13,599,783 bus passenger boardings, a one-year decrease of 3% on top of a 4% decrease the prior year. Bus ridership has dropped 22% overall since 2010/11.
- Bus boardings for Omnitrans were 7.5 per capita in 2017, compared with 10.5 in 2013, a drop of 29% over five years. The cost per boarding increased to \$5.92 per trip in 2017, up from \$4.83 in 2016, a 23% increase in one year.
- Victor Valley Transit boardings per capita decreased 26% to 3.9 per capita in 2016 compared with 5.3 in 2013. Cost per trip increased 24% in one year, rising to \$7.55 per trip in 2017, up from \$6.07 the previous year.
- Per capita ridership decreased for all regions compared, except Las Vegas and Phoenix, while cost per trip increased in 2017 for all regions compared except Phoenix.

Bus System Boardings per Capita and Operating Costs Regional Comparison, 2016

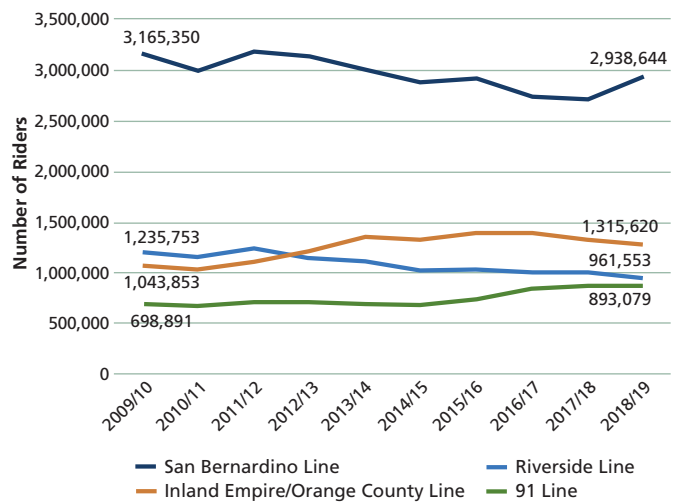
2017	Boardings per Capita	Cost per Trip
Los Angeles County Metropolitan Transportation Authority	34.7	\$4.20
Regional Transportation Commission of Southern Nevada (Las Vegas)	31.3	\$2.40
Miami-Dade Transit	23.2	\$6.26
San Diego Metropolitan Transit System	20.2	\$3.31
Valley Metro (Phoenix)	19.7	\$4.09
Orange County Transportation Authority	13.9	\$4.76
Sunline Transit Agency (Coachella Valley)	9.6	\$6.51
Omnitrans	7.5	\$5.92
Riverside Transit Agency	4.0	\$6.72
Victor Valley Transit Authority	3.9	\$7.55

Note: Boardings per capita are calculated using the service area population for transit providers, and bus boardings not including demand responsive service.

Source: National Transit Database (www.transit.dot.gov/ntd/transit-profiles-summary-reports)

Commuter Rail Ridership

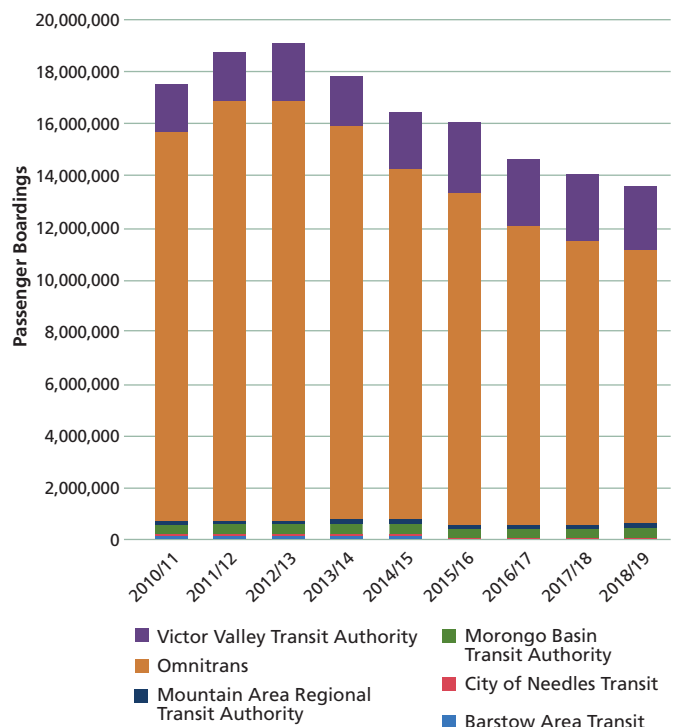
San Bernardino Line, Riverside Line, Inland Empire/Orange County Line, and 91 Line, 2010-2019



Source: San Bernardino County Transportation Authority

Bus Ridership

San Bernardino County, 2011-2019



Note: Beginning 2015/16, the City of Barstow and portions of the county joined the Victor Valley Transit Authority expanding its service area.

Source: San Bernardino County Transportation Authority

6-Year Planned Transportation Investment: \$4 Billion

A comprehensive, well-maintained, and effective road and transit network is important for commuters to get to and from their jobs, for goods movement and freight to flow efficiently through the region, and for visitors and tourists to access the natural and recreational opportunities available throughout the county. Consistent and adequate investment in the county's transportation system reflects a commitment to supporting the economic vitality and quality of life of the region. This indicator measures planned investment in the county's transportation system, including investments in state highways, local highways and transit (bus and rail), as reported in the biennial Federal Transportation Improvement Program.¹ It also tracks investment through the local sales tax for transportation known as Measure I.

How is San Bernardino County Doing?

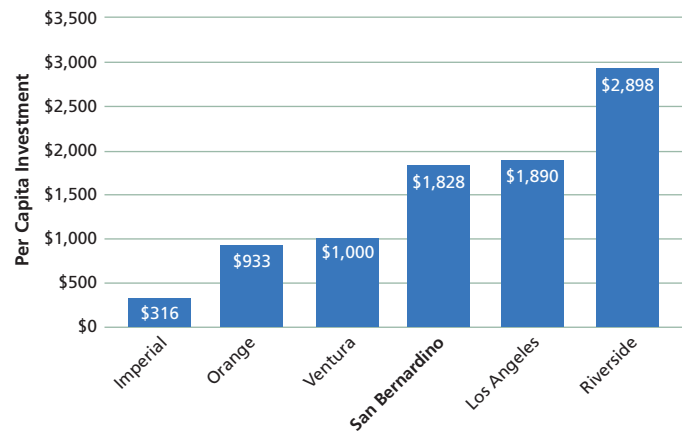
Funding for transportation improvements is expected to be 11% lower over the six-year planning period between 2019 and 2024, compared with the previous six-year cycle:

- Investment in the transportation system in San Bernardino County is planned at \$1,828 per capita for 2019 to 2024.
- This is lower than the previous funding cycle (2017 to 2022) at \$2,062 per capita.
- The investment of \$1,828 per capita equates to a total of approximately \$4 billion invested in San Bernardino County over the six-year period.
- For the 2019 to 2024 funding cycle, San Bernardino County is on the high end of per capita transportation investment compared to neighboring counties.

Local funding of transportation infrastructure through Measure I has increased:

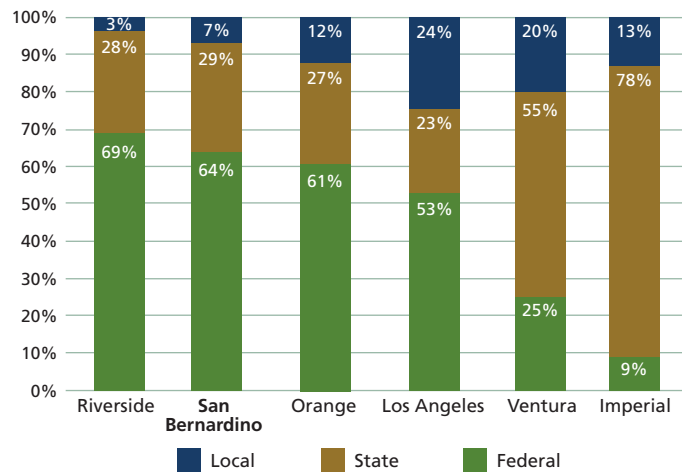
- In 2018/19, Measure I funds available for investment in transportation projects totaled \$168 million.
- Measure I is projected to generate gradually increasing annual transportation revenue through 2024/25, when annual revenue is expected to reach \$208 million.
- From 2010 to 2040, it is estimated that Measure I will generate \$7.6 billion for local transportation projects.
- Through the mid 1990's, state and federal funding accounted for nearly 75% of total transportation funding in San Bernardino County. Currently, state and federal funding account for 36% of transportation funding with local funds making up the remaining 64%.

Planned Per Capita Transportation Investment County Comparison, 2019-2024



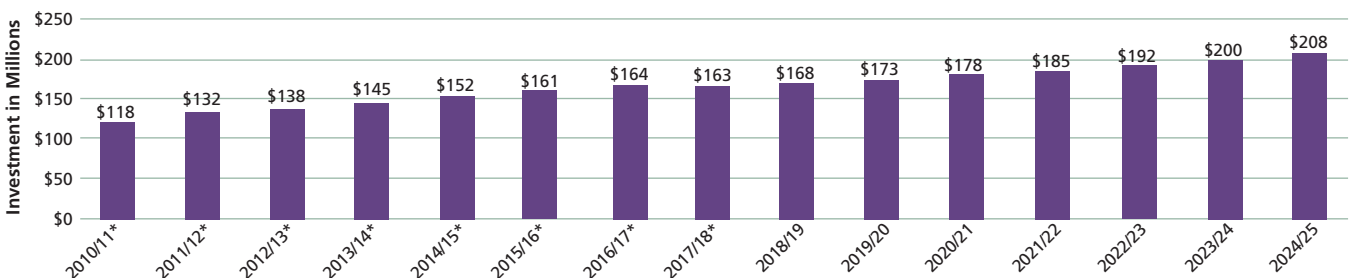
Source: Southern California Association of Governments

Proportion of Local, State, and Federal Transportation Investment County Comparison, 2019-2024 Funding Cycle



Source: Southern California Association of Governments

Actual and Planned Measure I Revenue in Millions San Bernardino County, 2010/11 – 2024/25



*Actuals Source: San Bernardino County Transportation Authority

¹ The Federal Transportation Improvement Program (FTIP) is a list of transportation projects to be implemented over a six-year period, including local, state and federally-funded projects. The FTIP is updated every odd-numbered year.