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ECONOMIC CONTRIBUTIONS of San Diego Metropolitan Transit System

PREPARED FOR **San Diego Metropolitan Transit System**

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Executive Summary

MTS connects San Diego —and supports its economy

The San Diego Metropolitan Transit System (MTS) is a core part of the region's transportation and economic infrastructure. Its bus, Rapid Bus, Trolley, and paratransit services connect residents to jobs, schools, healthcare, shopping, recreation, and other destinations across the region. In FY 2025, MTS recorded 81.2 million passenger boardings, its highest annual ridership since FY 2019.

This report examines the economic role of MTS through three complementary channels:

- **Economic activity** supported by MTS operations and investment
- **Transportation costs households can avoid** because transit is available
- **Value contributions to real estate and development** from transit accessibility

81.2M
PASSENGER BOARDINGS
(FY 2025)

~4,790
JOBS
supported by MTS operations & capital investment

$940M
ECONOMIC OUTPUT
supported in San Diego County

$570M
HOUSEHOLD TRANSPORTATION SAVINGS
estimated annual savings

$3.90
PUBLIC SUBSIDY PER TRIP
the lowest among peer systems

$1.94
FOR EVERY $1 SPENT BY MTS
in total economic value added

Note: Measures describe different types of economic contributions and should not be added together.



How MTS Measures Up

To put MTS performance into context, this report compares MTS with **nine transit agency peers** across the western and midwestern United States:

- SFMTA (San Francisco)
- TriMet (Portland)
- King County Metro (Seattle)
- LA Metro
- Dallas DART
- Denver RTD
- Utah Transit Authority
- Santa Clara VTA
- Sacramento RTD

TRANSIT AGENCY PEERS

MTS Leads Peers in Rider Recovery While Running a Cost-Efficient System

MTS has experienced one of the strongest ridership recoveries among the like-sized transit systems or peers selected. By FY 2024, ridership had recovered to **93 percent** of its 2019 level and **95 percent** by FY 2025. It has done so while running a cost-efficient system. **MTS carries more riders than the typical peer systems, while operating with fewer hours of service,** and has the lowest operating cost per service hour. MTS also recovers a larger share of its costs from fares than any peer.

2024 PEER BENCHMARKING

93%
OF RIDERSHIP RECOVERED
Highest among peers
(peer median: 78%)

19%
FAREBOX RECOVERY
Highest among peers
(most at 5–9%)

$3.90
PUBLIC SUBSIDY PER TRIP
Lowest among peers

$144
OPERATING COST PER SERVICE HOUR
Lowest among peers

17%
MORE RIDERS THAN PEER SYSTEMS
While operating with ***~13% fewer*** service hours

Note: 2024 is the latest available data from the National Transit Database.



MTS Operations Support the Regional Economy

MTS directly contributed **$536.4 million** to the economy through payroll, operating expenditures, and capital investment in FY 2025. That spending supports additional economic activity as MTS suppliers purchase goods and services and as workers spend their earnings throughout the county. When combined, MTS operations supported a total of **4,790 jobs** and **$940M** in economic output.

ECONOMIC CONTRIBUTION OF MTS OPERATIONS & CAPITAL INVESTMENT

~4,790
TOTAL JOBS

$409.1M
TOTAL LABOR INCOME

$527.9M
TOTAL VALUE ADDED
Contribution to regional GDP

HOW MTS SPENDING CIRCULATES THROUGH SAN DIEGO COUNTY

MTS PAYROLL & PURCHASES

LOCAL EXPENDITURE
Local businesses and workers

SUPPLY CHAIN

LOCAL CONSUMPTION
Supplier activity and household spending

TOTAL REGIONAL ECONOMIC CONTRIBUTION **$940.4M** FY 2025

Note: The total economic contribution sums labor income, value added, and the goods and services purchased for operations. Metrics presented on this page should not be summed.

THE MONEY STAYS LOCAL

98% of MTS's nearly 3,000 employees **live in San Diego County.**

96% of payroll goes to **local workers.**

81% of operating purchases go to **San Diego County businesses** and **91%** stays **within California.**

76% of all MTS spending **stays local.**

$1.00 » $1.94 IN TOTAL ECONOMIC VALUE ADDED

Every $1 of economic value MTS generates supports nearly $2.00 in total value added in San Diego County.

Local operating spending reaches a wide range of businesses. MTS's buying power supports **construction, professional and technical services, maintenance and repair, administrative services,** and other sectors across San Diego County.



Who Relies on MTS

Many San Diegans rely on MTS to get to work and school, and for a large share of riders, it's the only practical option.

For these riders, transit isn't a convenience; it's their connection to jobs, education, and opportunity across the region, including across the international border.

MORE THAN ONE THIRD of riders live in a household with **no vehicle.**

NEARLY HALF of rail riders and **OVER HALF** of bus riders have household incomes **under $40,000.**

THE MAJORITY OF TRIPS, 60%, are taken to **work or school.**

40% of rail riders and **35%** of bus riders rely on MTS to get to **work.**

MTS connects the **international border to regional jobs.**

ABOUT 13% OF RIDERS live in **Mexico**, and **61% OF THEIR TRIPS** are between **home and work.**



Transit Reduces Household Transportation Costs

MTS allows households to drive less —and some to own fewer vehicles.

The analysis accounts for how existing transit riders may respond if MTS were unavailable. Depending on household circumstances, some riders could walk or bike, while others could use a vehicle already available in the household, purchase an additional vehicle, or carpool. Riders without a practical local alternative may make longer-term adjustments, such as changing where they live, work, or attend school. Modeling these different responses provides a more realistic estimate of how the loss of transit would affect vehicle travel and ownership.

TRANSIT CREATES ADDITIONAL HOUSEHOLD BENEFITS

Public transit provides broader community benefits by **improving mobility, reducing traffic congestion, supporting public health,** and **increasing roadway safety.** Research from other metropolitan areas highlights these benefits:

- The existing literature suggests that **15%** of transit trips would not occur without public transportation.
- Without transit, studies estimate that vehicle trips and average travel times would **INCREASE.**
- Transit riders walk an estimated **8 to 30** additional minutes daily.
- Studies find that transit corridors experience **8%** fewer collisions and up to **65%** fewer fatal or serious injury collisions.

ESTIMATED TRANSPORTATION EFFECTS BY USING MTS SERVICES

867M
AUTOMOBILE ROAD MILES SAVED
due to people using MTS services

$570M
ANNUAL HOUSEHOLD TRANSPORTATION SAVINGS
by using MTS services

Note: The analysis considers work and school trips only.

The $570 million estimate consists of approximately $305 million in avoided fuel, maintenance, and other mileage-related costs and $265 million in avoided fixed vehicle-ownership costs.

The household-savings estimate is a modeled counterfactual—not an observed reduction in driving. It estimates what current work and school travel could look like without MTS. The estimates are not generated from a calibrated regional travel demand model and should not be interpreted as forecasts of network-level travel behavior, traffic volumes, congestion, or roadway performance.

Read the full report to learn about the complete methodology and analysis.



Transit Accessibility Has Real Estate Value

Trolley accessibility is a measurable component of residential location value in San Diego, a market signal of how much San Diegans value access to transit.

Trolley access adds measurable value to San Diego neighborhoods.

Transit affects the economy not only through agency spending and household transportation costs, but also through the **value of accessibility.** National research consistently finds that proximity to high-quality transit **can increase the desirability of residential and commercial locations.**

In San Diego County, only 2.4 percent of its real estate properties are located within a quarter mile of Trolley stops, but they account for **more than 5.2 percent of the total countywide property values.** This high concentration of value is not purely a result of public transit investments; however, public transit does play a role in the creation of this value.

Public transit improves access to amenities, which increases how much households are willing to pay to live in a location. In many cases, high-density housing projects would not be financially feasible without the increase in value that transit helps generate. Developers rely on this increased desirability to build high-density housing, which allows more people to live in and enjoy the amenities of a location.

People pay more to live near transit.

One way to observe the value created by transit is to study how much rent people are willing to pay for an apartment located closer to transit stations, relative to comparable apartments farther away. **Apartments closer to MTS stations were associated with higher rents,** even after controlling for unit size, building age, building height, property amenities, and distance to the coast. This finding is based on an analysis of 2026 CoStar data on market-rate multifamily properties in San Diego.

REAL ESTATE VALUE OF TROLLEY ACCESSIBILITY

+$65/month

ONE-BEDROOM UNIT

Located 1 mile closer to Trolley

≈ 4.5% higher than median rent

+$90/month

TWO-BEDROOM UNIT

Located 1 mile closer to Trolley

≈ 5.0% higher than median rent



Note: The results represent an average statistical relationship across market-rate properties within 1.5 miles of a Trolley station, controlling for unit size, building age, height, amenities and distance to the coast, not the expected rent change for a particular building and not proof that transit alone causes the observed premium.

Transit Supports Development in Different Market Contexts

El Cajon Boulevard

Transit reinforces infill and reinvestment along an established urban corridor.

El Cajon Boulevard illustrates how high-quality transit can support neighborhood reinvestment when it occurs alongside community-led revitalization, available development capacity, and supportive land use policy. Since 2009, the study area added 2,746 housing units at a rate 30 percent higher than the rest of the city, and development has shifted toward larger multifamily buildings. Rapid 215 and the Boulevard Bus Way strengthen mobility along the corridor and serve a population with relatively low vehicle ownership; half of surveyed Rapid 215 riders reported no access to a car. The route was the third-busiest bus route in the MTS system as of May 2026.



University City

New rail access is helping to support the evolution of a major employment center into a denser, more mixed-use district.

University City was already one of San Diego's major employment, education, and commercial centers before the UC San Diego Blue Line extension opened in 2021. The Trolley extension created a direct rail connection between UC San Diego, UTC, the international border, and the broader regional network, substantially improving accessibility to an area that had historically developed around automobile travel. Since then, major redevelopment proposals and the 2024 University Community Plan Update have created capacity for nearly 30,000 additional homes around station areas. The area also added more than 8,180 jobs between 2019 and 2023, accounting for roughly 14 percent of net job growth in San Diego County.

Because the rail extension is relatively new, its full development effects are still emerging, but current trends show transit can help drive employment growth, rezoning, and private investment to support a more urban, mixed-use development pattern.



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1. Introduction

Public transit influences regional economies through multiple and overlapping channels. In addition to moving people between origins and destinations, transit supports employment and business activity through agency operations and capital investment, expands access to jobs and services, reduces household transportation costs, can lessen the external costs associated with automobile travel, and can influence land values, development patterns, and the location decisions of households and businesses. These effects operate through different mechanisms and over different time horizons, making the economic contribution of transit broader than any single measure of spending, savings, or property value.

The San Diego Metropolitan Transit System (MTS) is one of the San Diego region's core mobility institutions. MTS provides bus and rail service directly and through contracted operators, serving about 570 square miles of urbanized San Diego County as well as rural portions of East County, for a total service area of approximately 3,240 square miles and roughly 3 million residents. MTS service connects residents to jobs, schools, healthcare, commercial districts, entertainment venues, border crossings, and regional activity centers. In this sense, MTS is not only a transportation provider; it is essential regional economic infrastructure.

Given the breadth of these relationships, this report concentrates on the key pathways through which MTS contributes to the regional economy that we examine using available local data and established analytical methods. The report first reviews the broader research on the economic benefits of public transit and provides context on MTS ridership, rider characteristics, and performance relative to peer transit agencies. We then evaluate the economic contributions generated by MTS operations and capital spending, including the jobs, income, and business activity supported within San Diego County. The analysis next examines how access to MTS can reduce household transportation costs by allowing riders to drive less and, in some cases, avoid owning an additional vehicle. Finally, the report considers the relationship between transit accessibility and real estate through a review of existing research, an econometric analysis of multifamily rents near Trolley stations, and case studies of development in transit-served areas. These components provide a focused assessment of several important ways MTS interacts with and supports the San Diego regional economy.

2. Contextualizing the Benefits of MTS Operations

2.1 Review of Transit Benefits

The literature suggests that transit performance can be credibly assessed through a set of complementary indicators rather than a single summary measure. Across the reviewed materials, common direct economic impact indicators include jobs supported, labor income generated, economic output, and value added or gross regional product. The research literature also places substantial emphasis on accessibility measures, such as jobs reachable within a defined travel time by transit, access to essential destinations, and the share of residents with access to frequent service. Many studies also consider household, business, equity, and environmental indicators. Common measures include transportation cost savings for transit users and broader benefits for both users and non-users, including travel time savings, congestion effects, commercial activity near transit, employer access to labor, emissions reductions, and safety outcomes. (Citations for this section are included in Appendix A.)

2.1.1 Operations Jobs and Spending

Transit agencies generate direct economic contributions through both ongoing operations and capital investment. National estimates from the literature suggest that every billion dollars in transit spending supports roughly 13,000 to 20,000 jobs[1], depending on the mix of capital and operating expenditures, with operations-heavy spending generating more employment per dollar.[L] Capital projects, such as light-rail construction, can support substantial but temporary employment, with estimates ranging from several thousand to over 12,000 jobs per year per billion dollars spent across reviewed case studies.[F,L,P,Q,U,2]

Ongoing operations typically support fewer jobs per dollar than major construction, but those jobs are recurring and support sustained labor income and tax revenue. Regional studies estimate that transit operations support roughly 8 to 23 jobs per million dollars spent.[F,Q,U,3] The literature suggests that transit investment is competitive with other high-impact industry sectors, including defense, energy, education, and healthcare, in terms of jobs generated per operational dollar. However, many estimates rely on prospective modeling rather than post-

[1] Includes jobs associated with the operations of the transit agency (direct effect), and secondary jobs associated with vendor and supplier activity (indirect effect) and worker household spending (induced effect),

[2] Some jobs per billion dollars spent were reported directly in the case study or analysis. In other cases, jobs per billion dollars spent were derived by dividing the total employment impacts reported by the corresponding direct capital spend. These figures are calculated estimates based on published results and may reflect differences in regional economies, time periods, and modeling assumptions across studies.

[3] Jobs per million dollars spent were derived by dividing the total employment impacts reported in the original RIMS II analyses by the corresponding direct spending amounts (adjusted to annual figures where applicable). These figures are calculated estimates based on published results and may reflect differences in regional economies, time periods, and modeling assumptions across studies.

implementation measurement, so these estimates are best understood as indicative ranges rather than precise measurements.[F,M,N,O,V,EE]

2.1.2 Worker Productivity

Transit connects residents to jobs and employers to a larger labor pool. Studies find that transit access is associated with stronger employment growth, higher labor force participation, and lower unemployment. New transit systems have been estimated to increase regional employment by up to 0.4 percentage points, while faster transit travel times are associated with employment gains of 0.13 to 0.3 percent.[N,T,FF] One study also found that labor force participation was higher among residents living within 0.5 miles of transit stations compared to those living further away.[A]

These effects are especially important for workers without cars. Estimated unemployment is 0.2 to 0.8 percentage points lower in counties with transit systems than in those without it.[N,W,EE] Evidence from the NYC R train closure after Hurricane Sandy found a 1.4 percentage point increase in the probability of unemployment in affected neighborhoods, with effects nearly three times larger for people without vehicle access.

2.1.3 Agglomeration Economies

Transit can support regional economic performance by enabling denser, more accessible development patterns. These conditions help create agglomeration economies, or the productivity gains that occur when workers, firms, and activity centers are concentrated in connected locations. The literature finds that transit's direct productivity effects from travel time savings may be modest, but its indirect role in supporting density and regional competitiveness is more substantial. Some evidence further indicates that this relationship may be mutually reinforcing over time, with stronger economic performance also associated with additional transit investment.[J,M,V]

2.1.4 Access and Mobility

Transit improves access to more than just jobs. It provides residents with access to important destinations, such as schools, grocery stores, healthcare providers, and recreation. The improved access and mobility facilitated by transit can deliver substantial benefits, and that the loss of these connections carries economic and social costs.[C,O] Research confirms that higher transit service levels increase non-work trips, generating commercial activity that transit helps enable, particularly for residents with limited vehicle access.

Evidence from Chicago further suggests that without transit, 1.9 million daily activities would be disrupted in the region, affecting both drivers and transit-dependent riders. The study estimates that 12 percent of all non-work activities, particularly caregiving-related travel, would be canceled without transit.[BB,HH]

2.1.5 Household Savings

Transit can reduce household transportation costs by lowering vehicle use and, in some cases, reducing the need for car ownership. For households that give up a car, the estimates of annual savings in the reviewed literature range from roughly $9,000 to $12,000 per household, when measured against the full cost of owning a typical vehicle, including gas, maintenance, insurance and depreciation.[M,Q] Current estimates from the Bureau of Transportation show the annual average vehicle ownership costs at $11,580.[GG] However, research on actual household behavior when the household gives up a car finds more modest savings of around $3,500 per relinquished vehicle, reflecting that households often shed an older or lower-cost vehicle rather than a primary car.[Y]

Another approach to measuring savings, used in an analysis of the Washington Metropolitan Transit Authority, compares what transit riders actually spend on fares against what they would spend on taxis, tolls, and parking without transit, estimating $2,850 in savings per household per year.[O] Households would typically spend at least some of these savings locally, supporting additional economic activity in the region as the spending circulates through purchases of other goods and services (the multiplier effect). These findings suggest that transit can improve household financial stability and, through subsequent spending, support additional economic activity.[M,BB]

2.1.6 Traffic Congestion

Transit reduces congestion, delay, and travel costs across the broader transportation system, including for people who do not ride transit. This is demonstrated in the research literature through studies and scenario analyses on the effect of removing or sharply reducing transit service. A study for the Washington MTA found that the removal of transit service is associated with increases of 14 percent in passenger vehicle trips across the whole service area.[O] With more vehicles on the road, the study estimates an increase in travel times of 17 percent.[O] In some cases, corridor-level delays approximately double, with estimates ranging from an additional hour to 19 hours spent commuting by all drivers on the affected routes.[P] Another study in the Chicago region showed that the removal of transit would lead to a 35 percent increase in average travel times.[BB]

Congestion imposes broader economic costs by reducing labor income, slowing economic growth, and weakening the benefits of urban concentration.[B,S,CC,II] Transit's congestion benefits also reduce emissions and improve public health. Studies find that cities without transit, or cities experiencing transit disruptions, have higher pollution levels, with estimated increases ranging from 1.6 percent to 14 percent in particulate pollution.[G,I,X] These pollution increases have been associated with higher child hospital admissions and increased daily stroke mortality.[X]

2.1.7 Health and Safety

Transit supports public health by encouraging walking and biking to stops and stations. Riders have been shown to walk 8 to 30 additional minutes per day, and active commuting is linked to an 11 percent reduction in cardiovascular risk.[P] Physical inactivity is estimated to account for 9 percent of U.S. healthcare spending and contributes to 234,000 premature deaths annually.[G,Z,AA]

Transit is also associated with improved traffic safety. Studies find that transit corridors can reduce total collisions by 8 percent and fatal or serious injury collisions by 57 to 65 percent compared with corridors without transit.[H] Other research estimates that transit disruptions are associated with a 14 percent increase in crashes and a 20 percent increase in crash-related injuries.[G] Overall, transit is substantially safer than driving on a per-mile basis and helps avoid traffic-related fatalities, injuries, and property-damage costs.

2.2 Ridership Trends

This section provides a baseline for understanding the current scale and performance of the MTS system. Ridership shows how many passenger trips MTS supports across the region; passenger revenue shows how that use translates into fare-supported operating resources; and passengers per revenue hour shows how rider demand compares with the amount of service provided. These trends are important for interpreting MTS's broader economic role because they show not only how many people use the system, but also how use of the system has shifted across different operating conditions. Over the past decade, MTS has continued to carry a large passenger base, while experiencing changes in ridership levels, fare revenue, and productivity that reflect broader changes in travel behavior, service demand, and regional mobility patterns.

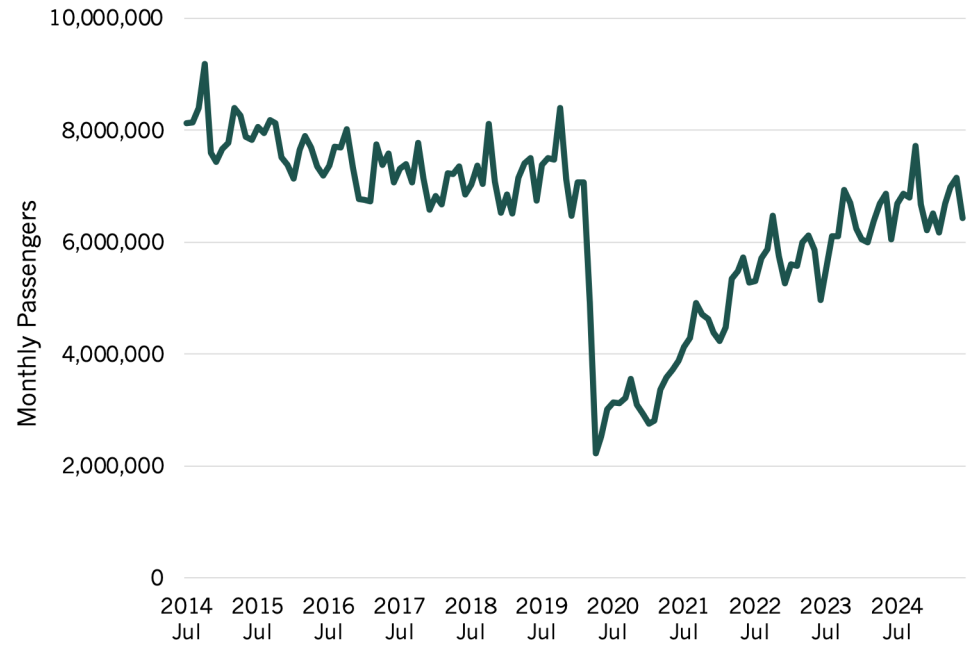
2.2.1 Historical Ridership

Transit agencies across California and the United States experienced softening ridership during the 2010s before the COVID-19 pandemic, reflecting a combination of increased auto ownership, lower driving costs, and changing relationships between where people live and work (UC Institute for Transportation Studies, 2025). MTS has retained a strong ridership base relative to national trends even as overall transit demand weakened pre-pandemic.

Ridership fell during the pandemic as public health restrictions, remote work, school closures, reduced tourism, and fewer discretionary trips dramatically reduced travel demand (see Exhibit 1). The pandemic did not simply accelerate an existing trend; it changed the composition of transit demand. Commute trips, especially office-oriented commute trips, became less consistent, while many essential trips continued because lower-wage workers and transit-dependent riders were less able to shift to remote work (U.S. Census Bureau, 2025).

Prior to the pandemic (from FY2015 through FY2019), MTS ridership declined from about 96.7 million annual passengers to 85.3 million, an average annual decrease of roughly 3.1 percent over that period (see Exhibit 1). The monthly trend shows ridership generally moving downward from roughly 8 million in FY2015 toward 7 million by FY2019. This decline was gradual rather than abrupt, suggesting that ridership was softening before the pandemic but that the system continued to carry a large and relatively stable base of riders.

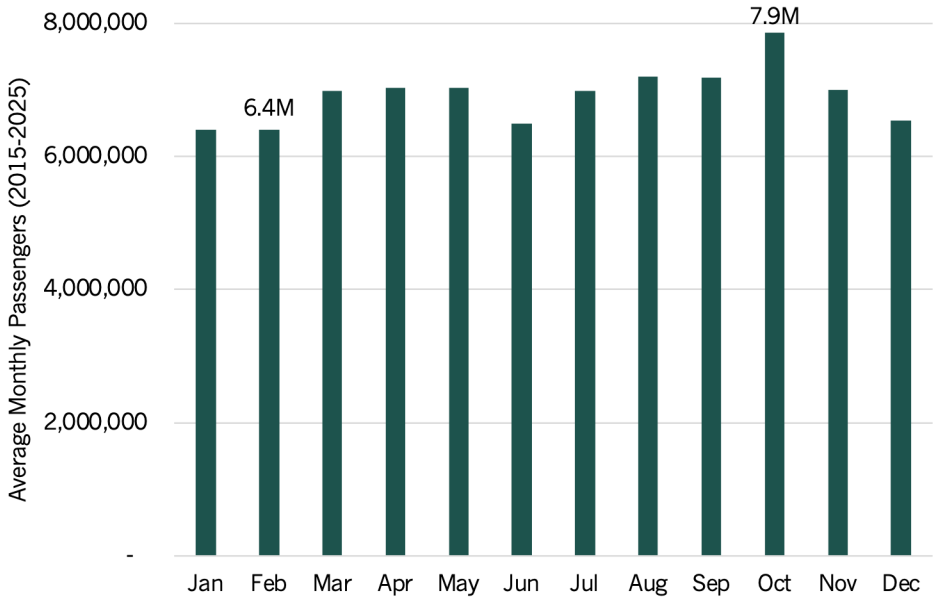
Exhibit 1. Monthly Passengers, FY2015 to FY 2025



Source: San Diego MTS (2026)

MTS ridership tends to have two peaks during a year: May and October. Ridership drops in June, likely due to both the K-12 school year end and the UC San Diego Spring Term end and begins increasing in summer (see Exhibit 2). On average throughout the FY2015 to FY2025 period, average ridership has been highest in October and lowest in February.

Exhibit 2. Average Passengers by Month, 2015-2025



Note: Chart excludes data 2020 and 2021.
Source: San Diego MTS (2026)

The onset of the COVID-19 pandemic produced a much sharper break in the trend. In April 2020, monthly passengers reached a low for the period at 2.2 million, representing a 70 percent decline compared to the previous year (April 2019). Nationally, passengers declined by 81 percent year-over-year from April 2020 (U.S. Department of Transportation, 2021). Annual passengers fell from 85.3 million in FY2019 to 71.2 million in FY2020. In the following year, annual passengers dropped to 39.2 million, representing a 45 percent decline from FY2019 levels.

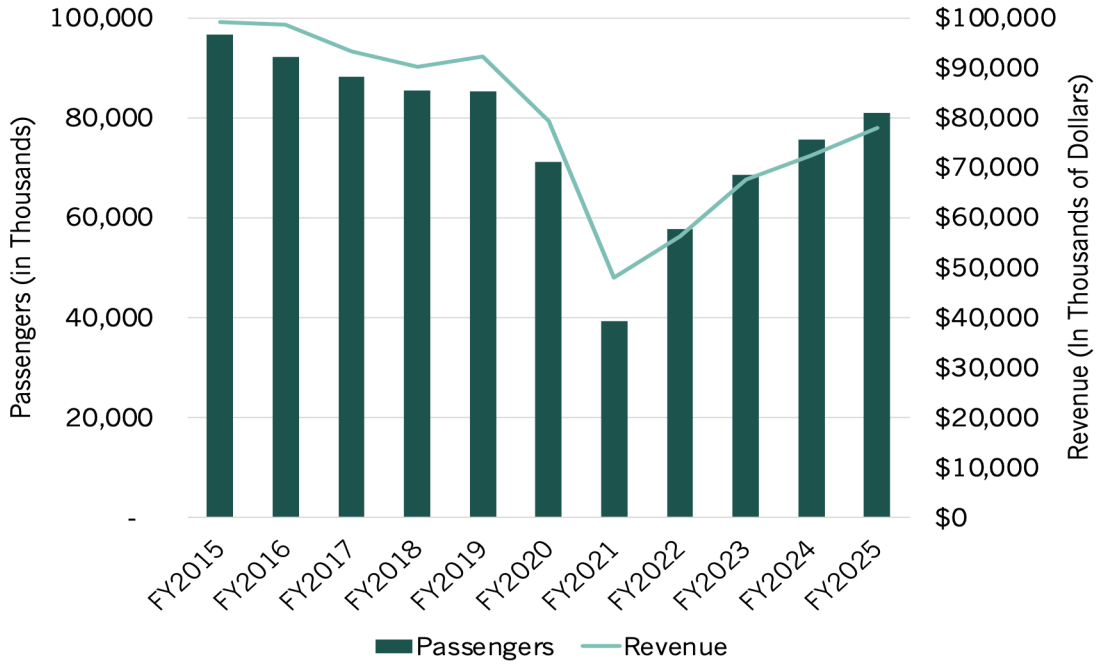
Ridership began to recover in FY 2022 consistent with broader economic recovery and return-to-work, increasing by 47 percent from the prior year, followed by continued gains in FY2023. In the most recent fiscal year, MTS has cumulatively recovered a substantial share of its pre-pandemic ridership, but total passengers remained below the FY2015 peak. FY2025 ridership was approximately 95 percent of FY2019 levels, indicating that the system has nearly returned to its immediate pre-pandemic passenger volume.

Revenue has recovered slightly slower than passenger volumes, suggesting that the composition of ridership, fare products, or fare-paying behavior may have changed since the pandemic.

Passenger revenue remains further below its pre-pandemic level than ridership. By FY2025, passenger revenue had recovered to approximately 84 percent of FY2019 levels, compared to ridership recovery of 95 percent. This gap suggests that the system is carrying nearly as many passengers as it did before the pandemic, but generating less revenue per passenger than before.

Across the full period, passenger revenue declined at an average annual rate of 2.4 percent. The post-pandemic recovery has been strong, with revenue growing at an average annual rate of 11.5 percent from FY2022 to FY2025, but this growth has not yet fully offset the pandemic-era decline.

Exhibit 3. Passengers and Revenue, FY2015 to FY2025

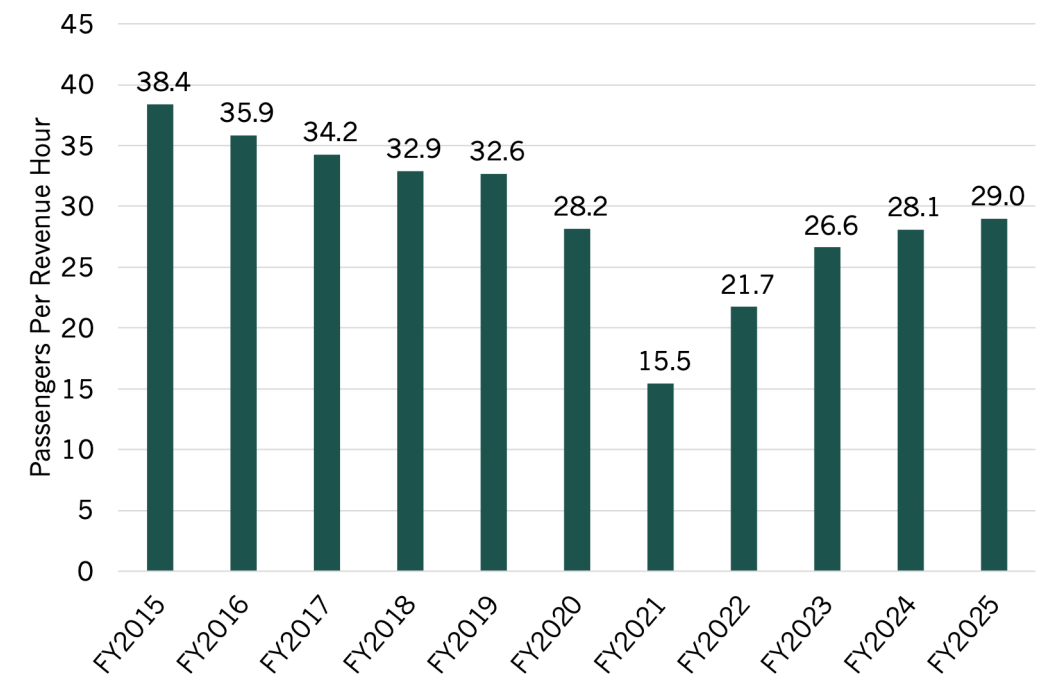


Source: San Diego MTS (2026)

Passengers per revenue hour, a measure of how many riders MTS carries for each hour of service provided, began a gradual decline before the pandemic, fell sharply during the pandemic, and has improved steadily since then. Before the pandemic, MTS carried 38 passengers per revenue hour in FY2015, declining to 33 in FY2019, a decrease of about 15 percent (see Exhibit 4). The pandemic caused a much sharper drop, with productivity falling to 28 passengers per revenue hour in FY2020 and reaching a low of 16 in FY2021, as ridership declined more quickly than service levels.

Since then, passengers per revenue hour have recovered each year. By FY2025, service productivity had recovered to about 89 percent of its FY2019 level, but remained below the FY2015 peak.

Exhibit 4. Passenger Per Revenue Hour, FY2015 to FY2025



Source: San Diego MTS (2026)

2.2.2 Rider Characteristics

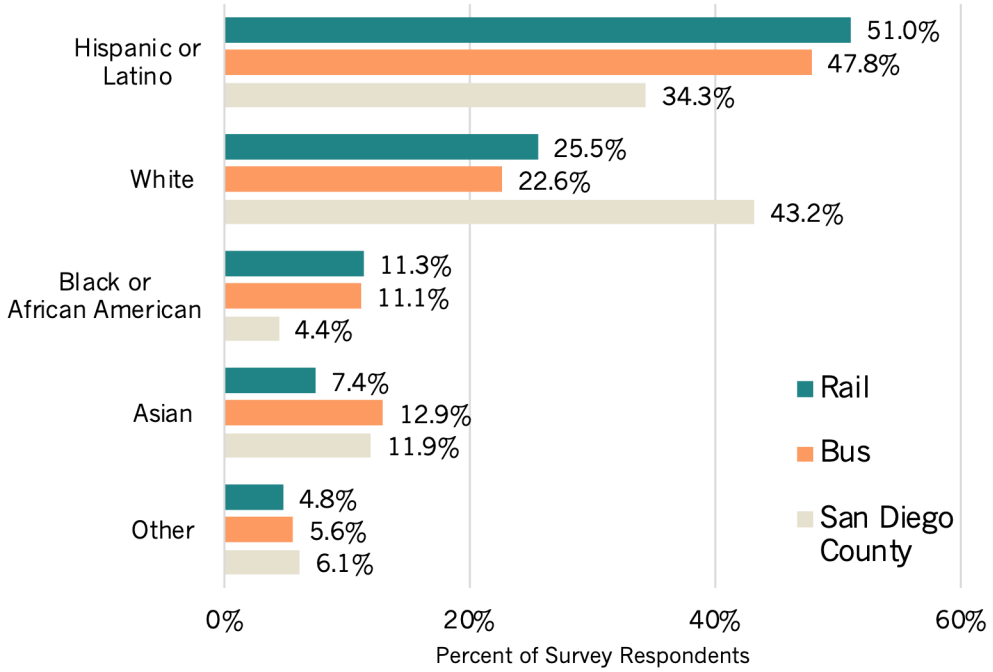
The demographic data come from the San Diego Association of Government's (SANDAG's) 2023 On-Board Transit Passenger Survey, conducted with ETC Institute (San Diego Association of Governments, 2023). The survey collected rider demographics, trip origins and destinations, travel behavior, and transit use patterns across San Diego's fixed-route services. For this report, the dashboard results are filtered to the MTS system and shown separately for MTS rail and MTS bus riders.

2.2.2.1 RIDER DEMOGRAPHICS

MTS riders are more racially and ethnically diverse than San Diego County overall. Race and ethnicity categories were determined by the survey administrator (San Diego Association of Governments, 2023). Hispanic or Latino riders account for approximately half of MTS riders, compared with 34 percent of the overall county population (see Exhibit 5). Black or African American riders are also represented at higher rates among MTS passengers than in the county population overall, making up roughly 11 percent of riders, compared with 4 percent of county residents. By contrast, White residents make up a smaller share of MTS riders than of the county population: roughly one-quarter, compared with 43 percent of county residents.

The largest difference between rail and bus riders is among Asian passengers. Asian riders represent 13 percent of bus riders, compared with 7 percent of rail riders and 12 percent of county residents. Riders identifying as other races and ethnicities make up a relatively small share of both modes, at 5 percent of rail riders and 6 percent of bus riders, close to the countywide share of 6 percent.

Exhibit 5. Rider Race and Ethnicity

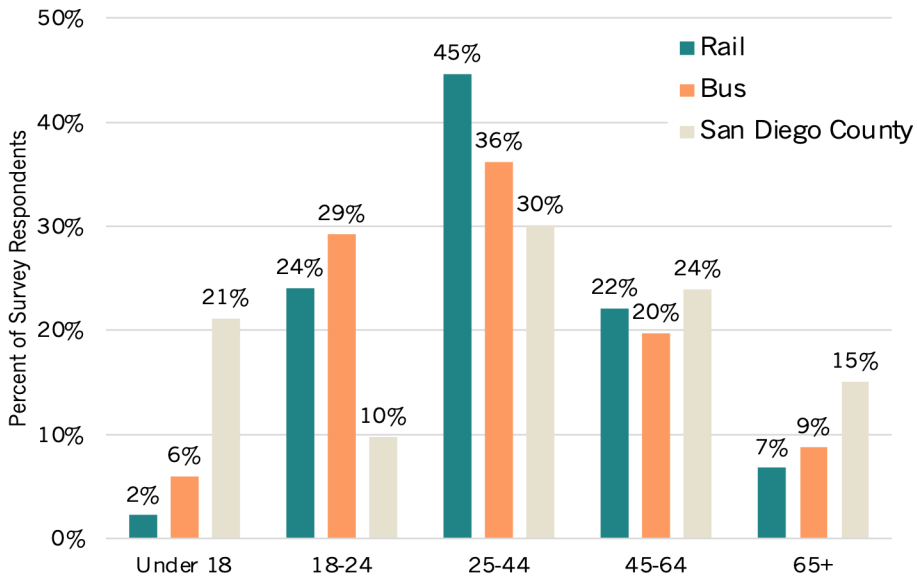


Source: San Diego Association of Governments (2023); U.S. Census Bureau, ACS, 2023 5-year estimates.

In terms of gender, MTS riders skew more male than San Diego County overall: 58.6 percent of rail riders and 54.5 percent of bus riders identify as male, while women make up 49.5 percent of the county population.

MTS riders are also substantially younger than San Diego County residents overall, with the largest concentration of riders in the 18-to-44 age range (see Exhibit 6). Young adults ages 18 to 24 make up 24 percent of rail riders and 29 percent of bus riders, compared with only 10 percent of the county population. Riders ages 25 to 44 represent the largest age group for both modes, accounting for 45 percent of rail riders and 36 percent of bus riders, compared with 30 percent of county residents. In contrast, children and older adults make up smaller shares of MTS riders than of the county population: riders under 18 account for a small share, compared with 21 percent of the county, while riders age 65 and older account for 7 percent of rail riders and 9 percent of bus riders, compared with 15 percent of the county.

Exhibit 6. Rider Age Distribution



Source: San Diego Association of Governments (2023); U.S. Census Bureau, ACS, 2023 5-year estimates.

2.2.2.2 EMPLOYMENT & INCOME

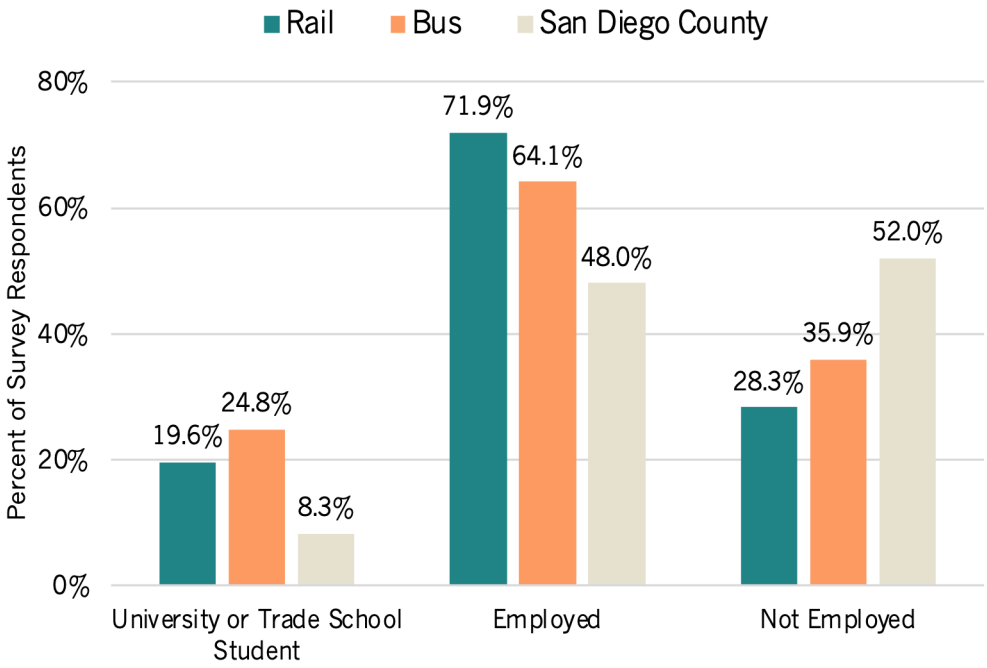
MTS riders are more likely to be employed or enrolled in school than San Diego County residents overall. Among rail riders, 71.9 percent are employed and 19.6 percent are postsecondary students (see Exhibit 7).[4] Among bus riders, 64.1 percent are employed and 24.8 percent are postsecondary students.

Both rail and bus riders are more likely to be students than the county overall, where 8.3 percent of residents are postsecondary students. Additionally, 2.7 percent of rail riders and 7.2 percent of bus riders are in 9th through 12th grades.

[4] Including undergraduate, trade or vocational, and graduate students

MTS riders are also less likely to not be employed (unemployed or no longer working) than the countywide population: 28.3 percent of rail riders and 35.9 percent of bus riders are not employed, compared with 52.0 percent of San Diego County residents. Overall, this suggests that MTS ridership is strongly tied to work and education, with rail riders somewhat more likely to be employed and bus riders somewhat more likely to be students.

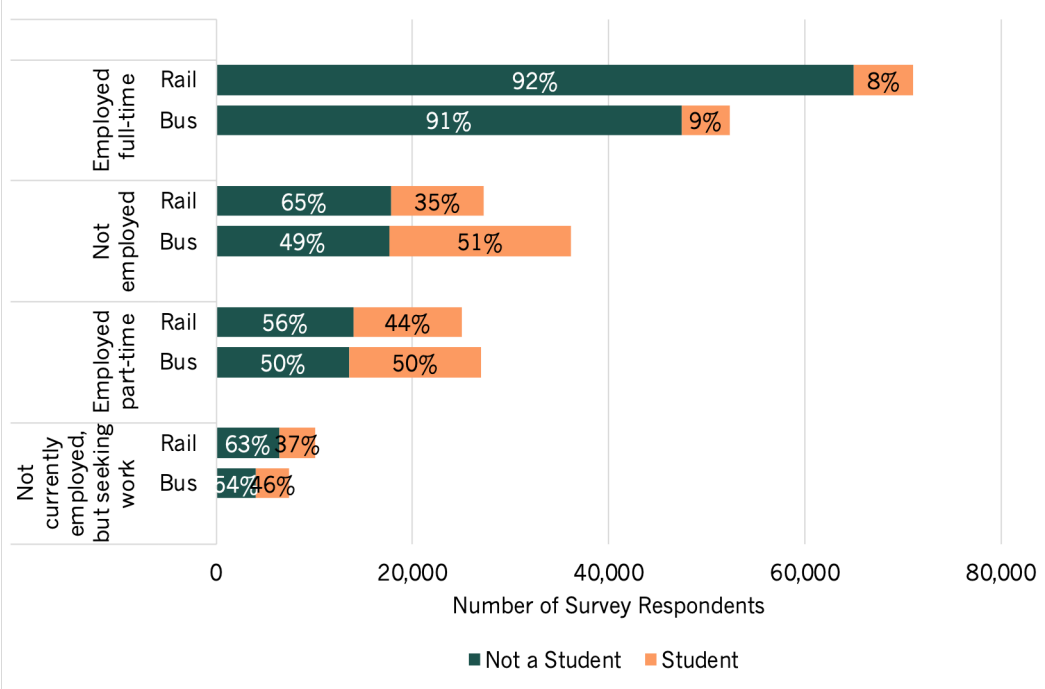
Exhibit 7. Rider Employment Status



Source: San Diego Association of Governments (2023); U.S. Census Bureau, ACS, 2023 5-year estimates.

The more detailed breakdown shows that most employed MTS riders are not students, particularly among full-time workers (see Exhibit 8). Among riders employed full-time, 92 percent of rail riders and 91 percent of bus riders are not students, while only 8 percent and 9 percent, respectively, are also students. Among part-time workers, the student share is much higher: roughly half of part-time workers are students. Students also make up a large share of riders who are not employed, particularly on bus service, where 51 percent of not-employed bus riders are students, compared with 35 percent of not-employed rail riders. Among riders who are not currently employed but seeking work, students account for 37 percent of rail riders and 46 percent of bus riders.

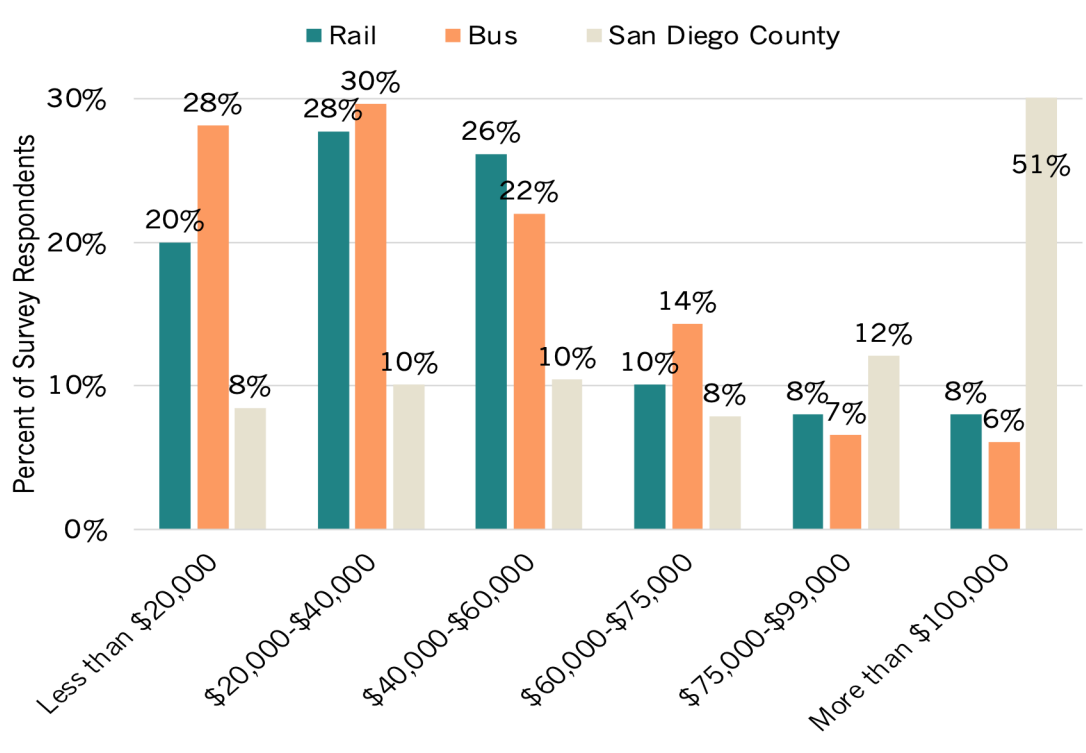
Exhibit 8. Detailed Rider Employment Status Breakdown



Source: San Diego Association of Governments (2023)
Note: Chart displays number of survey responses to show the nominal level while the percentages show the split between students and non-students within each employment status category.

MTS riders are more likely than San Diego County residents overall to have lower household incomes. Among rail riders, 20 percent report household incomes below $20,000, compared with 28 percent of bus riders and 8 percent of the overall county population (see Exhibit 9). Nearly half of rail riders and well over half of bus riders report household incomes below $40,000, compared with less than one-fifth of county residents. This may be partially explained by MTS riders being younger than the overall county population (see Exhibit 6). Households earning $40,000 to $60,000 account for 26 percent of rail riders and 22 percent of bus riders, compared with 10 percent of county residents. Riders become less represented at higher income levels. Over half of the county population earns over $100,000 compared to less than 10 percent of MTS riders.

Exhibit 9. Rider Income Levels

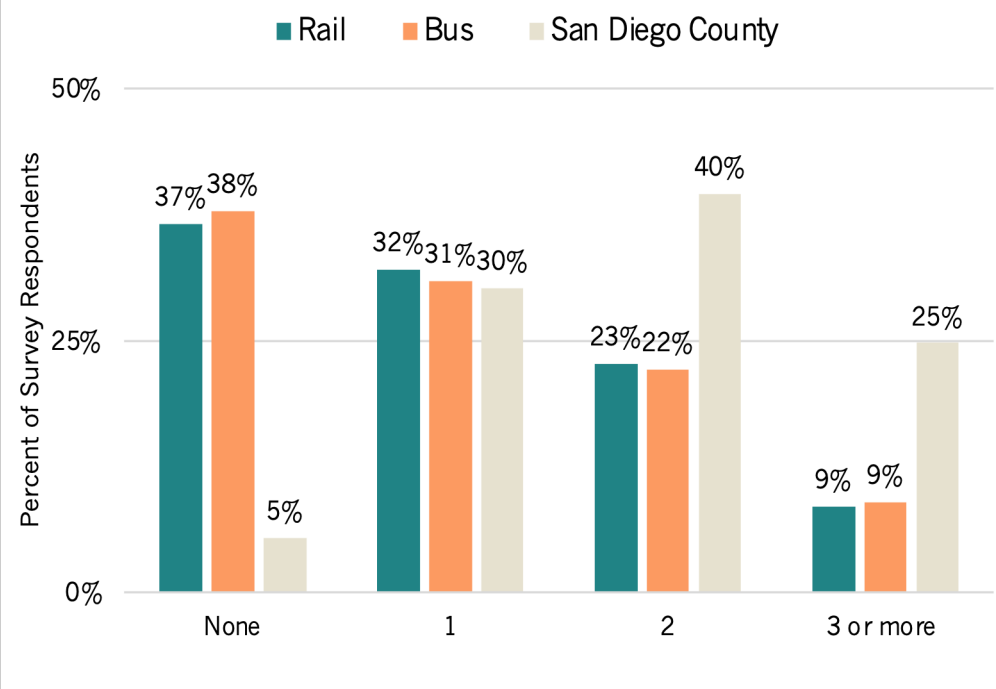


Source: San Diego Association of Governments (2023); U.S. Census Bureau, ACS, 2023 5-year estimates.

More than one-third of MTS riders report having no household vehicle, including 37 percent of rail riders and 38 percent of bus riders, compared with only 5 percent of county households (see Exhibit 10). Riders with one vehicle comprise a similar share of MTS riders and county households, roughly one-third. However, MTS riders are far less likely to live in multi-vehicle households: only about 20 percent of riders report having two vehicles, compared with 40 percent of county households.

Among riders who do have access to a household vehicle, many still chose transit for their trip: 46 percent of rail riders and 32 percent of bus riders said they could have used a vehicle but did not.

Exhibit 10. Rider Vehicle Ownership within Household



Source: San Diego Association of Governments (2023); U.S. Census Bureau, ACS, 2023 5-year estimates.

2.2.2.3 HOME RESIDENCE

Nearly all MTS riders identify as San Diego County residents, including 96.5 percent of rail riders and 96.6 percent of bus riders. A small share of riders identify as residents of Orange, Riverside, or Imperial counties, while fewer than 1 percent identify as residents of Mexico when asked the county or region where they reside.

However, when asked whether their home residence is in Mexico or the United States, a larger share report living in Mexico: 16.8 percent of Trolley riders and 8.0 percent of bus riders (see Exhibit 11). This suggests that MTS plays a meaningful role in cross-border mobility, particularly on rail service.

Exhibit 11. Rider Home Residence

	RAIL	BUS	COMBINED
San Diego Area	81.0%	90.9%	85.8%
Mexico	16.8%	8.0%	12.6%
Neither	2.2%	1.1%	1.7%

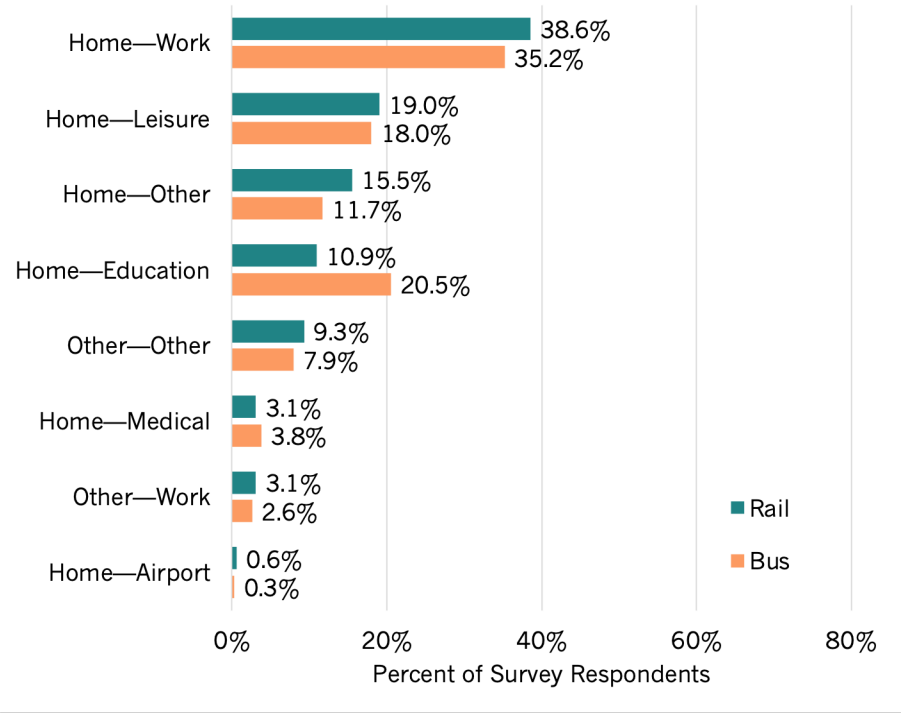
Source: San Diego Association of Governments (2023)

2.2.2.4 TRIP PURPOSE

MTS riders use transit for a broad range of trip purposes, but work trips represent the largest single category for both rail and bus riders. Trip purpose responses are presented in pairs, showing the origin and destination. For example, “Home–Work” refers to trips where one end of the trip is home and the other end is work, including both home-to-work and work-to-home travel. Home–Work trips account for the most trips, making employment-related travel the most common purpose across both modes. The importance of work trips also helps illustrate MTS’s role in cross-border mobility. Among riders whose home residence is in Mexico, 61 percent of trips are Home–Work trips, compared with 35 percent among riders whose home residence is in the San Diego area. This indicates that cross-border riders are especially likely to use MTS for commute-oriented travel. While Mexico-based riders represent a smaller share of total MTS riders than San Diego-area residents (see Exhibit 11), their trip purpose profile shows that MTS provides an important connection between the border and regional employment opportunities.

Education (both K-12 and postsecondary) trips are especially important for bus riders: Home–Education trips account for 21 percent of bus trips, nearly twice the rail share of 11 percent. This aligns with the rider demographic findings showing that bus riders are more likely than rail riders to be students. Leisure trips are the third-largest category, representing 19 percent of rail trips and 18 percent of bus trips, and includes leisure, recreation, shopping, and eating activities. Home–Other trips account for roughly 16 percent of rail trips and 12 percent of bus trips. "Other" includes personal business, accompanying someone, and all other trips.

Exhibit 12. Overall Trip Purpose



Source: San Diego Association of Governments (2023)

2.3 Peer Benchmarking

Peer benchmarking provides context for MTS's performance relative to other large and mid-sized transit agencies selected by MTS staff. These comparisons are based on the 2024 National Transit Database and focus on five core measures: ridership recovery and intensity, farebox recovery, operating cost per hour, service productivity, and subsidy per passenger. Because transit systems operate in different built environments and serve different markets, the metrics show how MTS compares with peer agencies on both the cost of providing service and the ridership generated by that service.

2.3.1 Peer Agency Selection

Nine agencies in the western and mid-western United States were selected as peers to San Diego MTS: SFMTA (San Francisco, CA), TriMet (Portland, OR), King County Metro (Seattle-Tacoma, WA), LA Metro (Los Angeles, CA), Dallas DART (Dallas, TX), Denver RTD (Denver-Aurora, CO), Utah Transit Authority (Salt Lake City, UT), Santa Clara VTA (San Jose, CA), and Sacramento RTD (Sacramento, CA). All agencies except King County Metro operate both bus and light rail services, enabling more direct and meaningful comparisons.[5] Dallas and LA Metro serve significantly larger areas than their peers, while Utah Transit Authority and Santa Clara VTA serve smaller ones. To account for these differences, the analysis standardizes metrics by population, distance, or time where possible.

Exhibit 13. Peer Group Agencies

Agency Name	Metro Area	Service Area (sq. mi.)	Population	Population per Sq. Mi.	Total Households
Dallas DART	Dallas, TX	1,747	5,732,354	3,281	2,211,917
LA Metro	Los Angeles, CA	1,637	12,237,376	7,476	4,239,780
King County Metro	Seattle-Tacoma, WA	983	3,544,011	3,607	1,479,326
San Diego MTS	San Diego, CA	675	3,070,300	4,550	1,115,510
Denver RTD	Denver-Aurora, CO	645	2,686,147	4,168	1,136,735
TriMet	Portland, OR	519	2,104,238	4,052	870,562
SFMTA Muni	San Francisco, CA	514	3,515,933	6,843	1,326,713
Sacramento RTD	Sacramento, CA	468	1,946,618	4,163	720,512
Utah TA	Salt Lake City, UT	300	1,178,533	3,923	436,196
Santa Clara VTA	San Jose, CA	285	1,837,446	6,436	644,921
Peer Group Median		**582**	**2,878,224**	**4,165**	**1,126,123**

Source: National Transit Database (NTD), 2024; U.S. Census American Community Survey (ACS), 1-year, 2024

[5] Light rail in the Seattle-Tacoma area belongs to the Sound Transit agency, although King County Metro operates and maintains parts of the light rail system. Operating data for the Light Rail system is reported to NTD through Sound Transit and is not included in this analysis.

Across similar transit services, San Diego MTS ranks just above the peer-group median for unlinked passenger trips, revenue miles, and fleet size (see Exhibit 14). Revenue hours are the exception where San Diego MTS is below the median of 3.1 million hours. LA Metro exceeds peer-group benchmarks across all measures, consistent with its scale: it serves the group's second-largest service area and largest population.

Exhibit 14. Peer Group System Metrics Across All Modes Except Ferryboat and Vanpool, NTD 2024

Agency	Unlinked Passenger Trips (in Millions)	Annual Revenue Miles (in Millions)	Annual Revenue Hours (in Millions)	Peak Vehicle Fleet
Dallas DART	54.4	50.4	3.4	1,044
LA Metro	301.0	97.7	8.3	1,924
King County Metro	86.8	43.7	4.2	1,359
San Diego MTS	**75.7**	**35.8**	**2.7**	**819**
Denver RTD	64.3	46.4	3.4	1,011
TriMet	64.7	33.7	2.8	804
SFMTA Muni	160.5	25.2	3.4	777
Sacramento RTD	16.4	14.7	1.1	387
Utah TA	39.4	33.5	2.2	606
Santa Clara VTA	27.7	22.1	1.8	520
Peer Group Median	64.5	34.8	3.1	812

Source: National Transit Database (NTD), 2024
Note: The ferryboat and vanpool service modes were excluded from the metrics as they were not offered by a majority of the peer group.

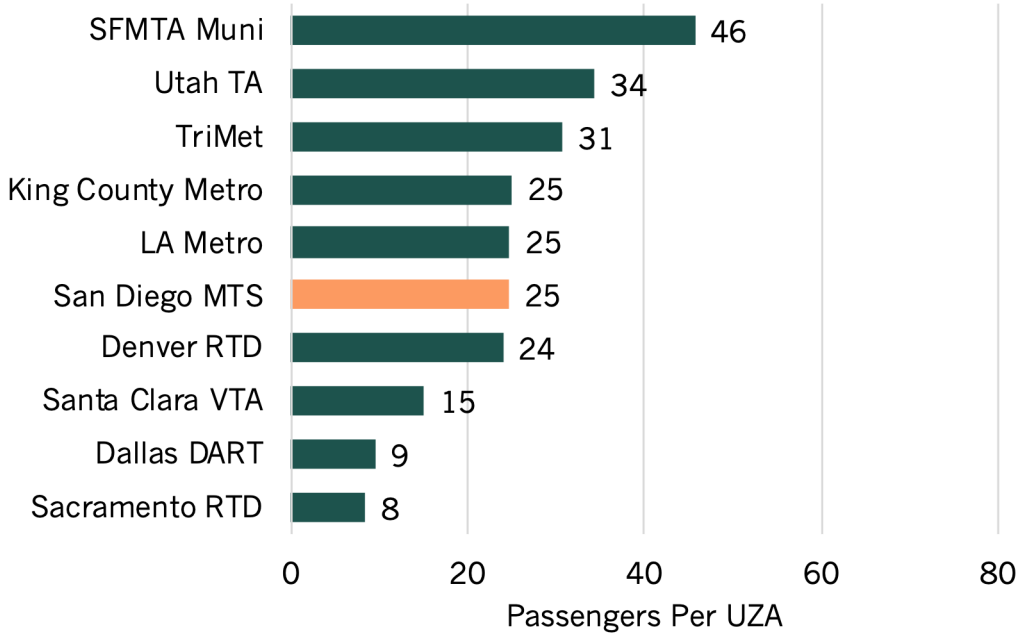
2.3.2 Peer Agency Ridership Trends

Passengers per capita measures how many annual passenger trips are taken relative to the population served (see Exhibit 15). This metric helps show how intensively transit is used within each agency's service context. San Diego MTS records 25 unlinked passenger trips per capita, placing it near the middle of the peer group and above several large western systems. SFMTA Muni leads the peer group with 46 unlinked passenger trips per capita.

These comparisons should be interpreted within each agency's operating context. Built-environment characteristics, including population density, land-use mix, and the concentration of employment, are associated with how many people live or work near transit. Service area boundaries can also affect the measure. Agencies serving extensive low-density suburban or exurban areas, such as Dallas DART and LA Metro, may report fewer trips per capita because more of their service area population lives in places that are difficult to serve effectively with transit. Similarly, SFMTA Muni's higher rate reflects San Francisco's dense urban form, constrained parking supply, and strong all-day transit market.

Overall, San Diego MTS has relatively strong ridership intensity compared with many peer systems, though it does not reach the high per-capita transit use seen in San Francisco. This metric provides useful context for the remaining measures as systems with higher ridership intensity may have an easier time spreading operating costs across more passenger trips.

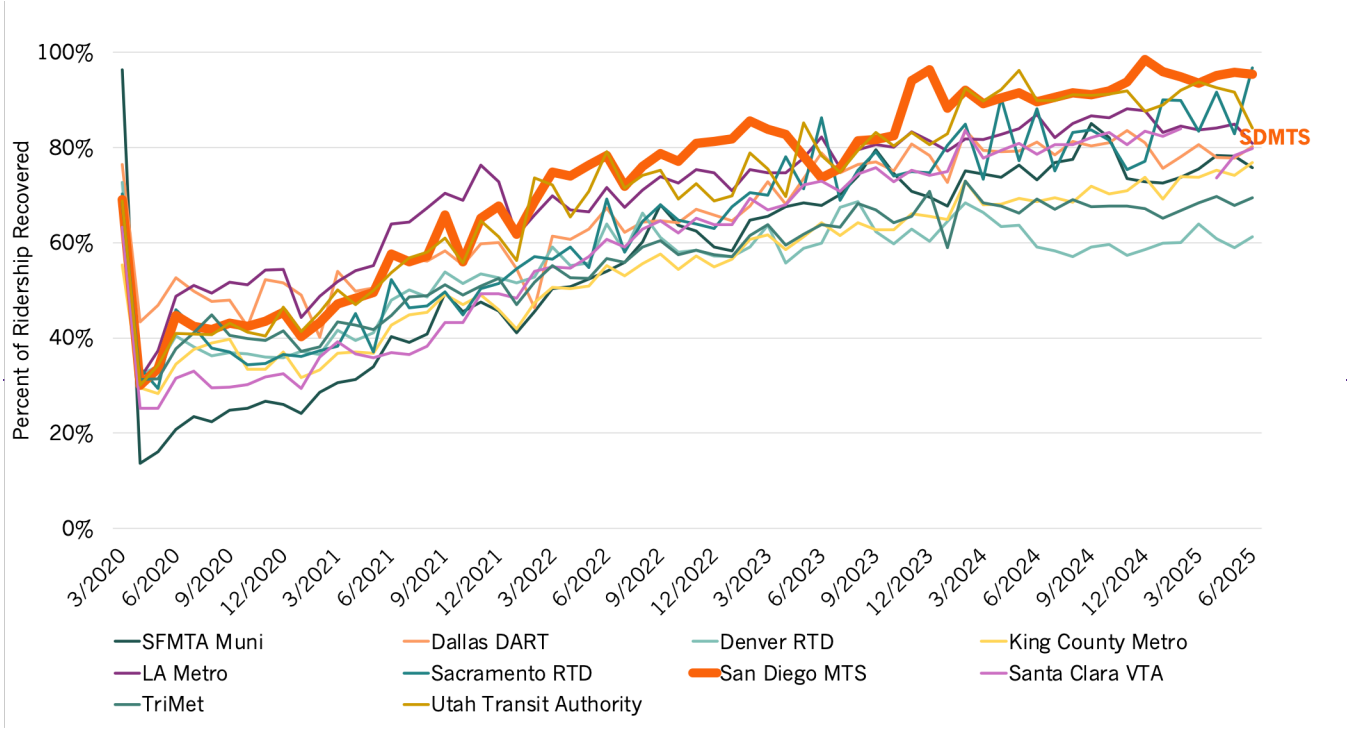
Exhibit 15. Unlinked Passenger Trips Per Capita



Source: National Transit Database, 2024

Passengers per capita indicates an agency's overall ridership intensity but does not show how ridership has changed over time. Since 2018, monthly ridership across the peer group has followed a broadly similar trajectory (see Exhibit 16). Before the pandemic, ridership varied seasonally, with more pronounced fluctuations at Dallas DART, Denver RTD, San Diego MTS, King County Metro, and Santa Clara VTA. Beginning in spring 2020, every agency experienced a sharp pandemic-related decline, followed by a gradual, multiyear recovery. This shared pattern held regardless of agency size or ridership intensity. LA Metro, the largest system in the peer group, and smaller systems like Utah Transit Authority and Santa Clara VTA all followed the same basic shape of decline and recovery on roughly the same timeline. What differs across the agencies is the extent to which ridership recovered by 2025.

Exhibit 16. Monthly Ridership Relative to January 2019 by Peer Agency from March 2020 to June 2025



Source: National Transit Database, 2020–2026

San Diego MTS illustrates this variation in recovery: although it ranks near the middle of the peer group in unlinked passenger trips per capita in 2024, it has recovered further than any other agency, reaching 96 percent of its 2019 ridership by 2026. Two agency-specific developments may have contributed to San Diego MTS' recovery.

In November 2021, the Mid-Coast Trolley Extension added nine stations and connected the UC San Diego Blue Line directly to UC San Diego and the University Towne Centre area.[6] The extension expanded the Trolley network by approximately 20 percent and provided access to new potential ridership markets.

In May 2022, SANDAG launched the Youth Opportunity Pass, providing fare-free transit to riders age 18 and younger, expanding access for students and other young riders.[7] These initiatives coincided with MTS's broader pandemic recovery and may have helped its ridership rebound more strongly than that of its peers. MTS also made a concerted effort to keep as much service as possible running during the pandemic, at much higher rates than other agencies.[8]

Exhibit 17. Annual Ridership in Millions of Riders, Across Service Modes

Agency	2019 Annual Ridership	2024 Annual Ridership	Percent of 2019 Recovered
SFMTA Muni	219.3	170.9	78%
Dallas DART	68.8	53.6	78%
Denver RTD	105.2	63.9	61%
King County Metro	124.7	92.3	74%
LA Metro	370.5	306.6	83%
Sacramento RTD	21.0	17.7	85%
San Diego MTS	**86.6**	**80.6**	**93%**
Santa Clara VTA	36.3	27.6	76%
TriMet	97.1	66.1	68%
Utah Transit Authority	43.5	39.1	90%
Average	117.3	91.9	79%
Median	91.8	65.0	78%

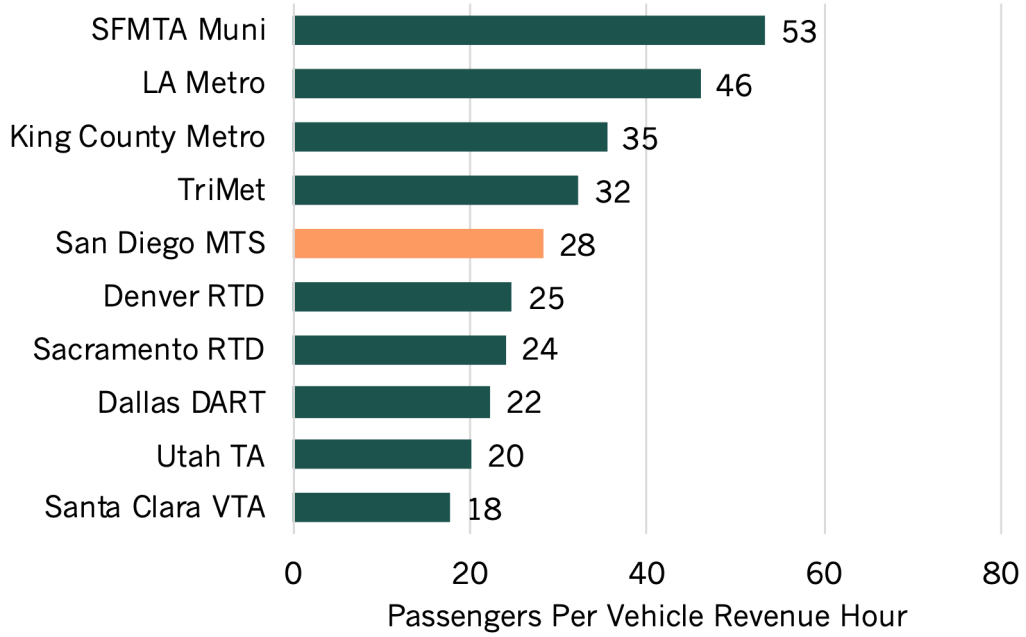
Source: National Transit Database, 2024
Note: The ferryboat and vanpool service modes were excluded from the metrics as they were not offered by a majority of the peer group.

[6] MTS website, https://www.sdmts.com/rider-info/events/grand-opening-mid-coast-extension-uc-san-diego-blue-line, accessed 2026.
[7] MTS website, https://www.sdmts.com/inside-mts/media-center/news-releases/fy22-report-mts-ridership-climbs-nearly-50, accessed 2026
[8] Sebastian Petty, *Taking Muni's Vitals* (San Francisco: SPUR, March 2026), https://www.spur.org/sites/default/files/2026-03/SPUR_Taking_Muni%E2%80%99s_Vitals.pdf

2.3.3 Peer Agency Revenue and Costs

Passengers per revenue hour measures how many passengers are carried for each hour of service provided. San Diego MTS carries 28 passengers per revenue hour, placing it in the middle of the peer group (see Exhibit 18). SFMTA Muni leads the peer group at 53 passengers per revenue hour, followed by LA Metro at 46 and King County Metro at 35, all systems serving denser, more transit-intensive urban cores. San Diego MTS carries 28 passengers per revenue hour, generating relatively strong ridership for each hour of service compared with more than half the peer group, particularly agencies serving more dispersed metropolitan areas.

Exhibit 18. Average Passengers Per Vehicle Revenue Hour Across Modes

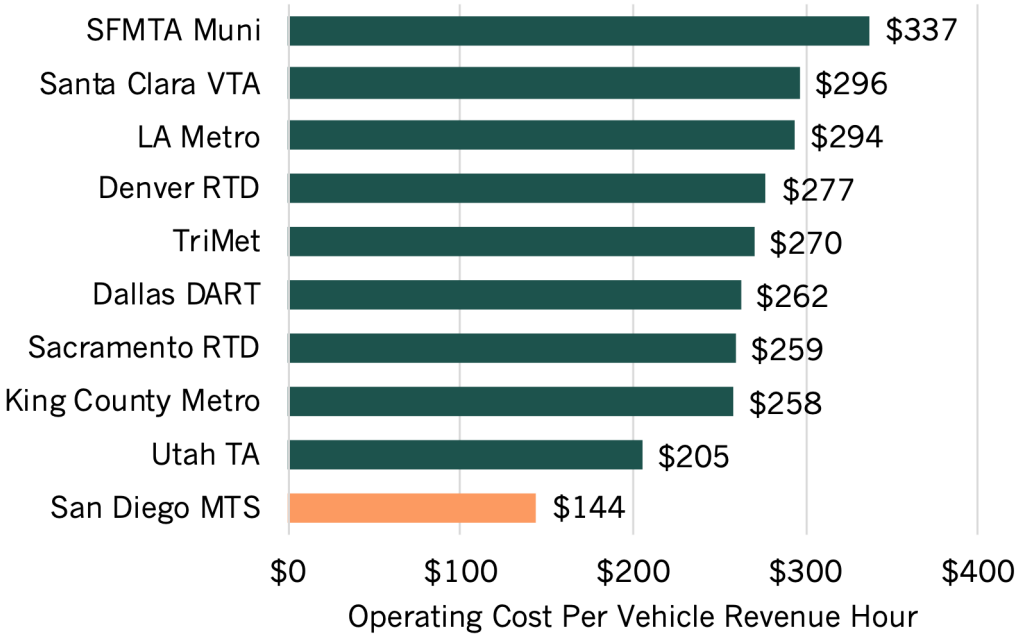


Source: National Transit Database, 2024
Note: Demand response and Vanpool modes are excluded.

Operating cost per revenue hour measures the cost to operate each hour of transit service. San Diego MTS has the lowest operating costs among the peer agencies shown, at $144 per revenue hour (see Exhibit 19).

Compared with these systems, San Diego MTS provides service at a relatively low hourly operating cost. This is important because hourly cost affects both farebox recovery and subsidy per passenger. However, cost per hour does not show how well the service is used, so it should be read alongside passengers per revenue hour.

Exhibit 19. Operating Cost Per Vehicle Revenue Hour

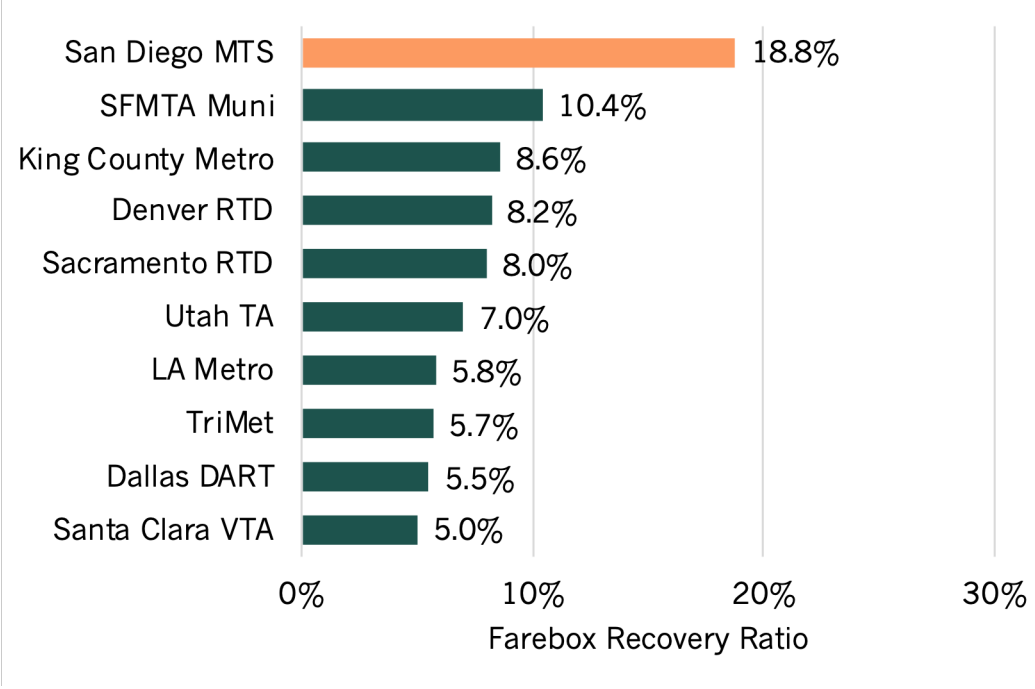


Source: National Transit Database, 2024
Note: Demand response and Vanpool modes are excluded.

Farebox recovery ratio measures the share of operating costs covered by passenger fares. San Diego MTS has the highest farebox recovery ratio among the peer agencies, at 19 percent (see Exhibit 20). This means passenger fares cover a larger share of MTS operating costs than they do for the peer agencies.

Most peer agencies fall within a narrower range between 5 percent and 8 percent. SFMTA Muni and King County Metro recover 9 percent and 10 percent, respectively, of operating costs through fares.

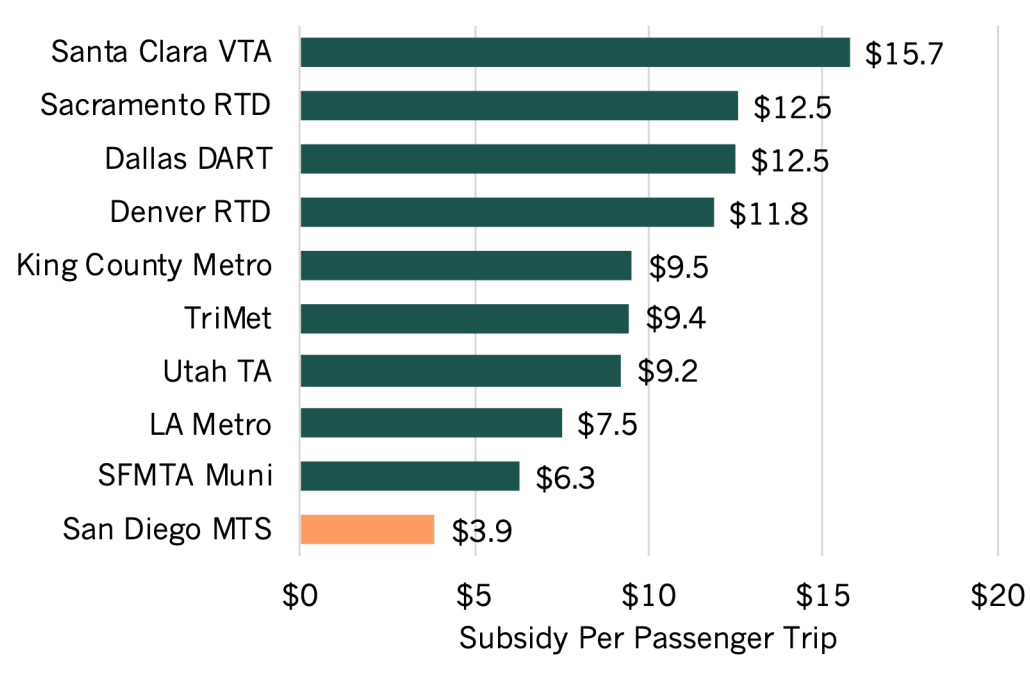
Exhibit 20. Farebox Recovery Ratio



Source: National Transit Database, 2024

Subsidy per passenger measures the amount of public funding supporting each passenger trip after accounting for fare revenue. San Diego MTS has the lowest subsidy per passenger in the peer group, at $3.90 per trip (see Exhibit 21). This is substantially below all other agencies shown. MTS's low subsidy per passenger reflects the combined effect of several metrics shown above: relatively low operating costs, comparatively strong farebox recovery, and moderate-to-strong ridership productivity. This suggests that MTS provides passenger trips with relatively low public subsidy compared with peer agencies.

Exhibit 21. Subsidy Per Unlinked Passenger Trip



Source: National Transit Database, 2024

The peer benchmarking analysis shows that MTS performs favorably on several measures of operating efficiency and financial performance, with the lowest subsidy per passenger, highest farebox recovery ratio, and one of the lowest operating costs per revenue hour among its peers. MTS has also experienced stronger post-pandemic ridership recovery than comparable agencies, although its ridership intensity and service productivity remain closer to the middle of the peer group. These differences reflect, in part, variations in population density, land use, and transit markets across regions. The findings suggest that MTS provides service at a relatively low cost while maintaining ridership levels.

3. Economic Contributions of Operations

3.1 Economic Footprint of MTS Operations

MTS supports San Diego County's economy through its workforce, purchases from local businesses, and investments in vehicles, equipment, facilities, and other capital assets. Together, these activities sustain transit service while generating income for workers and revenue for businesses throughout the region. In fiscal year 2025, MTS recorded $536.4 million in payroll, operating expenditures, and capital investments. For further operational expense details, see Appendix B.

MTS directly employed or contracted with 2,983 workers, 2,935 of those employees live in San Diego County. As a result, 98 percent of the agency's direct employment was located within the county. MTS also paid $195.4 million in wages, salaries, and benefits, with $187.3 million, or 96 percent, accruing to local workers.

MTS spent $244.8 million on operating goods and services, of which $197.8 million, or 81 percent, was purchased from businesses within San Diego County and 91 percent was purchased from California businesses ($222.7 million). Spending on capital improvements or assets totaled $96.3 million. The local share of capital spending reflects the specialized nature of many transit vehicles, equipment, and components, which are typically manufactured outside the region, but 100 percent is invested in San Diego's transportation infrastructure which has a long-lasting benefit.

These spending patterns determine the magnitude of MTS's broader economic contribution within San Diego County. Payroll and purchases retained locally circulate through the regional economy, supporting supplier purchases, household spending, and additional business activity. By contrast, expenditures made outside the county remain part of MTS's direct spending but do not generate indirect or induced economic impacts within the study area.

Exhibit 22. Operational Footprint Spending Location, FY2025

Economic Variable	San Diego County	Total California	Grand Total	Percent in San Diego County	Percent in California
Employment	2,935	2,983	2,983	98%	100%
Payroll (includes benefits)	$187,345,000	$195,389,000	$195,389,000	96%	100%
Contracted Goods & Services	$197,786,000	$222,670,000	$244,759,000	81%	91%
Capital Expenditures	$21,894,000	$51,626,000	$96,276,000	23%	54%
Total MTS Spending	**$407,025,000**	**$469,685,000**	**$536,424,000**	**76%**	**88%**

Source: San Diego MTS, 2025; ECOnorthwest analysis
Note: All monetary values rounded.

3.2 Economic Contributions of MTS Operations

MTS's FY 2025 operations and capital expenditures supported economic activity well beyond the agency's direct workforce and purchases. MTS supported secondary contributions through local supply chain and household spending (the summation of indirect and induced contributions) of another 1,855 jobs, $138.8 million in labor income, $255.9 million in value added, and $404.0 million in output (see Exhibit 23).

MTS contributed a total of 4,790 jobs, $409.1 million in labor income, and $527.9 million in value added. MTS supports a total of $940.4 million in economic activity in San Diego County.

The results also show how strongly MTS activity circulates through the County's economy. The value-added multiplier of $1.94 means that each dollar of MTS spending supports an additional $0.94 in economic activity in other sectors of the economy. Because value added measures the contribution to regional GDP, this multiplier captures the additional labor income, business income, and production-related taxes supported by MTS's direct activity.

ECONOMIC CONTRIBUTIONS FRAMEWORK: IMPLAN

IMPLAN, a regional input-output model, was used to estimate how spending on MTS operations supports jobs, labor income, and economic activity throughout the region. Total economic contributions consist of three components

- **Direct contributions:** Jobs, payroll, and economic activity associated with MTS operations, capital investments, and primary contractors.
- **Indirect contributions:** Economic activity supported by MTS and its contractors purchasing goods and services from local businesses.
- **Induced contributions:** Economic activity supported when workers spend their earnings on housing, groceries, healthcare, and other household needs.

These contributions represent MTS's total economic contribution to San Diego County, measured in jobs, labor income, value added (regional GDP), and economic output.

For further details, see Appendix B.

Exhibit 23. Economic Contributions of MTS Operations and Capital

Contribution Type	Employment	Labor Income	Value Added	Economic Output
Direct	2,935	$270,320,000	$272,040,000	$536,420,000
Indirect	603	$57,210,000	$95,220,000	$156,010,000
Induced	1,252	$81,580,000	$160,630,000	$247,950,000
Total Contribution	**4,790**	**$409,110,000**	**$527,880,000**	**$940,380,000**

Source: San Diego MTS, 2025; IMPLAN, 2024; ECOnorthwest analysis
Note: All monetary values rounded and presented in 2025 dollars.

The agency supports 4,790 jobs, equal to approximately 0.20 percent of all employment in the county (see Exhibit 24). MTS also supports $409.1 million in labor income, which represents roughly the same share of countywide labor income. Its contribution to regional

gross domestic product, measured as value added, reaches $527.9 million, or approximately 0.15 percent of the county's economy.

These shares place MTS within the broader economic structure of the region. While no single employer or institution accounts for a large portion of a diverse metropolitan economy, MTS supports activity at a scale comparable to recognizable local industries.

Exhibit 24. MTS Contribution to San Diego County Economy

Contribution Measure	MTS Total Contribution	San Diego County Economy	MTS Total Contribution as a Share of County Economy
Employment	4,790	2,360,000	**0.203%**
Labor Income	$409,110,000	$199,093,010,000	**0.205%**
Value Added	$527,880,000	$348,660,430,000	**0.151%**

Source: San Diego MTS, 2025; IMPLAN, 2024; ECOnorthwest analysis
Note: All monetary values rounded and presented in 2025 dollars.

4. Economic Contributions of Household Savings

4.1 Types of Cost Savings

Public transit can reduce household transportation costs by allowing riders to drive less or avoid purchasing a vehicle. These savings increase disposable income that households can use for housing, food, healthcare, childcare, education, and other goods and services.

Households incur two types of automobile costs:

- **Fixed costs** generally remain unchanged regardless of how much a household drives and include depreciation, financing, insurance, registration, licensing, and taxes. A household can avoid most of these costs only when transit allows it to own at least one fewer vehicle or forgo vehicle ownership altogether.
- **Variable costs** rise with each mile driven and include fuel, maintenance, repairs, and tires. A household does not need to eliminate a vehicle to realize these savings. Each trip shifted from driving to transit can reduce fuel consumption and vehicle wear that translates into cost savings.

The distinction matters because transit riders use MTS in different ways. Some riders own a vehicle but use transit for selected trips, primarily reducing variable costs. Others rely on transit as their primary means of travel and can avoid both the variable costs of driving and the fixed costs of owning an additional vehicle. Recent national transit research applies this same distinction to prevent analysts from counting the same automobile expense more than once.

4.2 Comparison of Household Savings Estimates

Estimating household transportation savings requires more than comparing the cost of transit with the cost of owning and operating a vehicle. The amount a household saves depends on the response of households if transit were unavailable. Some riders might drive a vehicle they already own, while others might purchase an additional vehicle, carpool, walk or bike, change destinations, or make fewer trips. These behavioral responses determine whether transit primarily reduces variable driving costs, such as fuel and maintenance, or also allows households to avoid fixed vehicle-ownership costs, such as depreciation, financing, insurance, registration, and taxes.

No single dataset directly identifies how many San Diego households own fewer vehicles because MTS exists.[9] Because these choices cannot be observed directly, the analysis uses a

[9] Although there are travel demand models that can be utilized to estimate scenarios related to a reduction of MTS services, these require resources beyond the scope of this analysis.

San Diego-specific travel-behavior model to estimate how current MTS riders might respond in the absence of transit. The model combines Census, survey, employment-location, and student-enrollment data to estimate likely changes in vehicle use, vehicle ownership, migration, and travel distance. This framework distinguishes savings associated with driving fewer miles from the larger fixed-cost savings that occur when transit allows a household to avoid purchasing or owning an additional vehicle.

A useful benchmark comes from the American Public Transportation Association (APTA), which estimates that a San Diego resident who substitutes transit for driving can save approximately $14,929 per year. [10] Applying that benchmark to the 25,404 workers identified by the Census as commuting by transit produces approximately $379 million in potential annual transportation savings. This would be in addition to any transportation savings for students. This represents a universe where every transit rider would act in the same way in response to the absence of transit. However, rather than assigning the full APTA benchmark to every transit commuter, the San Diego-specific travel behavior model estimates how riders are likely to respond to the loss of MTS service and calculates the additional vehicle miles traveled and vehicle purchases associated with those responses.

4.2.1 Limitations of Scaling the Travel-Behavior Model

The travel-behavior model is initially estimated using Census and other publicly available data and then scaled to MTS-provided data on unique adult passholders. This scaling is necessary because no single dataset identifies the full population of MTS riders while also providing the household, vehicle, income, and trip characteristics required by the model. The Census and MTS passholder data therefore provide two different perspectives on the size of the population affected by transit.

The Census-based estimate is likely to understate regular MTS use. Census commuting data identify workers who report public transportation as their primary means of traveling to work. This measure excludes workers who use transit regularly but combine it with another primary mode, riders who use transit primarily for school or other purposes, and workers whose commute patterns vary across the week. It also does not fully capture MTS riders who live in Mexico. The Census estimate should therefore be viewed as a conservative measure of the population that regularly relies on MTS.

By contrast, the MTS unique-passholder count is likely to overstate the number of riders who experience the full modeled level of annual savings. MTS reported 249,499 unique adult passholders in September 2024. A unique passholder, however, is not necessarily a daily or year-round commuter. This population can include occasional riders, people who use MTS only during part of the year, and riders whose transit trips supplement rather than replace automobile travel. Scaling the behavior of regular workers and students to the full passholder

[10] American Public Transportation Association, *Transit Savings Grow as Auto and Gas Prices Increase* (Washington, DC: American Public Transportation Association, September 2023). https://www.apta.com/wp-content/uploads/APTA-POLICY-BRIEF-Transit-Savings-09.27.2023.pdf.

population therefore assumes a greater degree of transit reliance than may apply to every passholder.

The Census and passholder estimates consequently bracket the likely scale of regular MTS use. The Census measure provides a conservative lower representation because it captures only primary transit commuters, while the passholder measure provides a broader upper representation because it includes riders with varying levels of transit use. The scaled travel-behavior results should therefore be interpreted as an estimate of the potential transportation effects across the broader MTS rider population rather than as a precise count of households experiencing the full annual savings.

4.3 Travel Behavior-Based Estimates

4.3.1 Avoided-Driving Analysis

For this analysis, the travel-behavior model estimates how MTS changes vehicle behavior with respect to ownership and vehicle miles traveled. This method is built on a foundational question: how would work and school trips change if MTS service were unavailable?

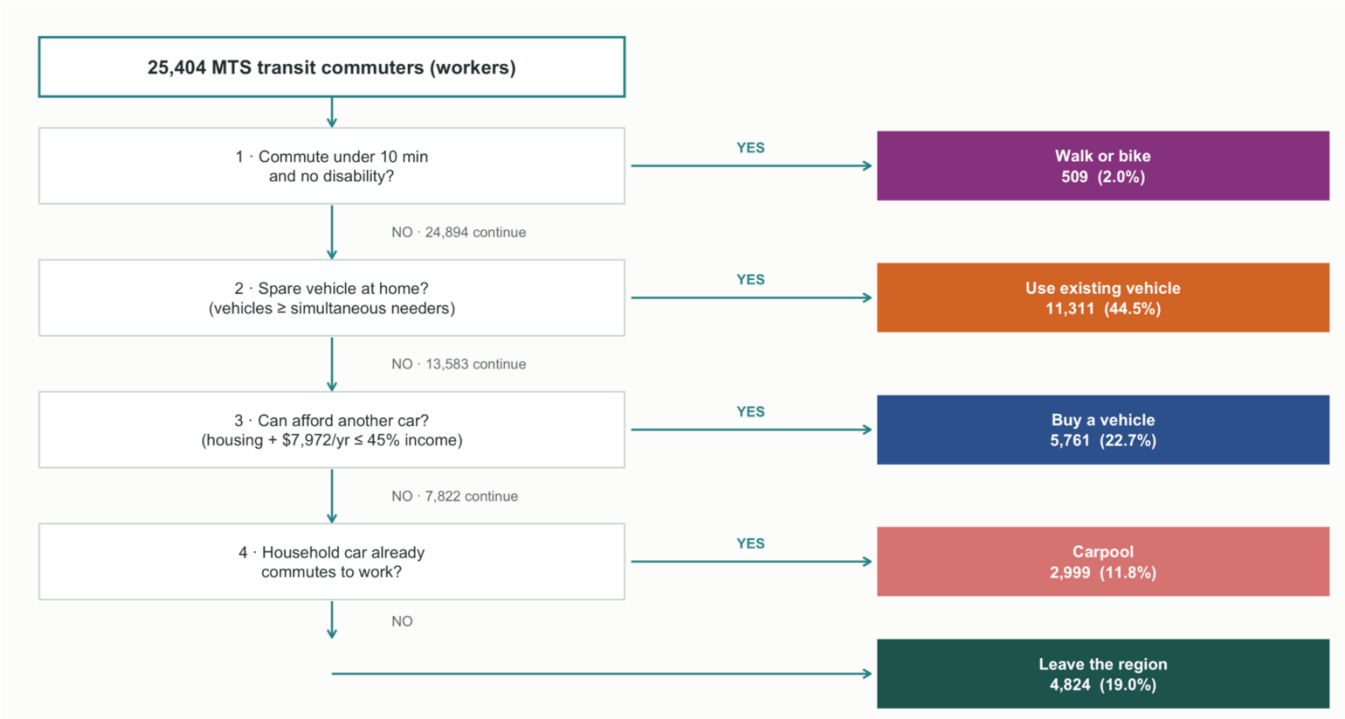
In this method we leverage a range of data sources, including:

- The 2023 SANDAG On-Board Transit Passenger Survey provides trip purposes, reports travel times, rider characteristics, and other information about regional transit use. SANDAG conducted this survey across MTS and NCTD fixed routes.
- U.S. Census Public Use Microdata Sample (PUMS) (2024) data describe transit commuters, household income, housing costs, driver status, and vehicle availability.
- U.S. Census Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics or LODES from 2023 provide detailed spatial relationships between workers' homes and workplaces. This information is used to approximate Vehicle Miles Traveled (VMT) and the likelihood of mode switch to non-vehicle uses like walking, biking, or carpooling.
- National Center for Education Statistics Integrated Postsecondary Education Data System (IPEDS) (2024) postsecondary enrollment data identify students attending campuses within the MTS service area.
- MTS and NCTD transit schedules, the street network, and reported transit travel times help estimate the driving distance associated with current transit trips.

In this model, riders are assigned to a set of possible responses if MTS were unavailable based on observed travel behavior. Depending on household circumstances, a rider may use an existing vehicle, carpool, purchase a vehicle, or possibly leave the region. This decision-tree factors in the likelihood that transit riders would not all respond in the same way to a loss of transit. Factors influencing this rubric include:

- **Pedestrian Mode Choice:** The likelihood that households would switch to another non-vehicle mode such as walking or biking. This assumption is based on households that live within 10 minutes of their place of work and do not have a disability that would limit pedestrian mode choice.
- **Utilization of Existing Vehicles:** This assumption considers the rate of households that commute more than 10 minutes that have an underutilized vehicle at home. We assume that these households would begin to utilize this vehicle for their commute.
- **Need to Purchase a Vehicle:** This assumption considers that in the absence of transit; a subset of households that preferred to stay in the region would choose to purchase a vehicle that they don't already own for their transportation needs.
- **Carpool:** This assumption considers a set of households that do not have an existing vehicle, would not choose to purchase a new vehicle, but would explore other options like carpooling or ridesharing.
- **Migration out of the Region:** Due to uncertainty in choices for the remaining households, this analysis assumes that they may leave the region or find another transportation arrangement that is not quantified in this analysis.

Exhibit 25. Predicted Commuter Behavior Under "No-Transit" Scenario



Source: ECOnorthwest, 2026

The amount of avoided driving depends on the distance between riders' homes and their destinations. For workers, the commuting-distance distribution shows that most modeled trips are concentrated in a relatively narrow range, with a worker-weighted median home-to-work distance of approximately 13.4 miles one way.[11]

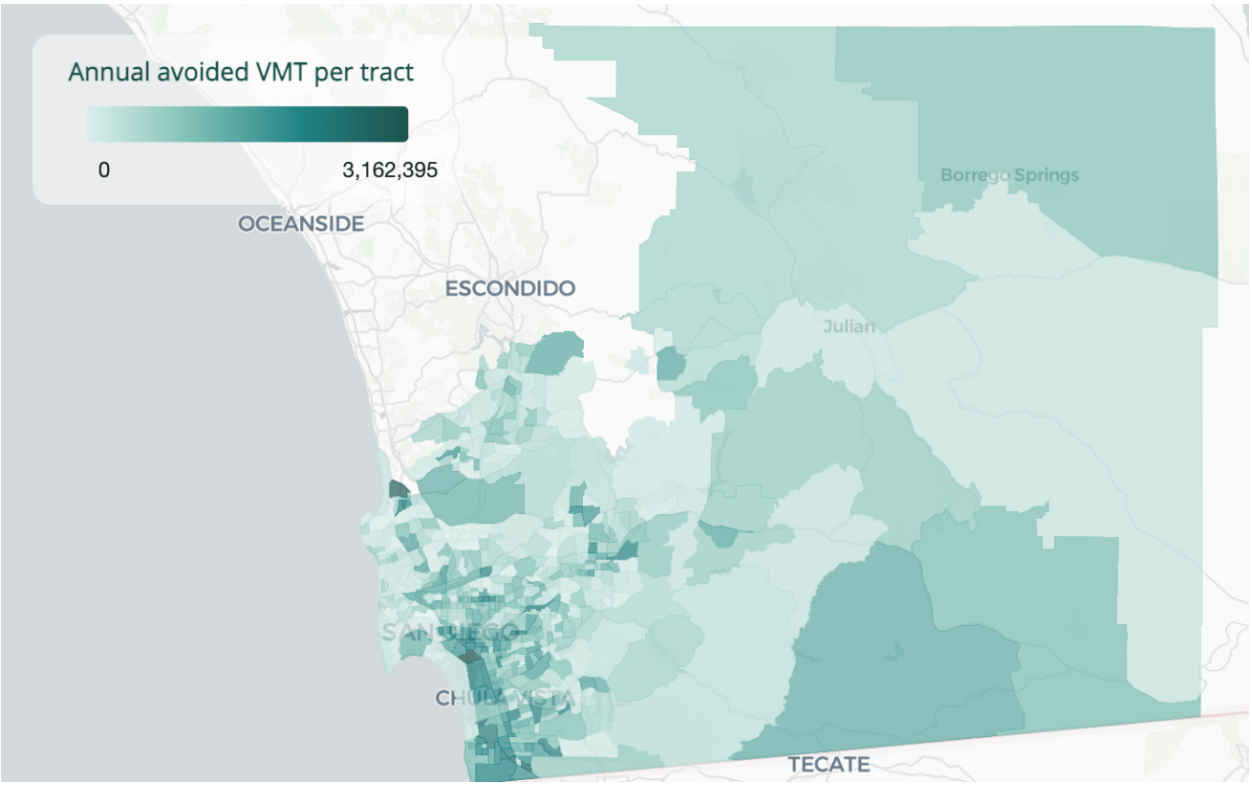
For the primary worker VMT estimate, reported transit travel times are converted to comparable direct-drive distances using a calibration based on routed LODES origin-destination pairs and the regional transit network. The calibration indicates that riders' average reported transit travel time of 47 minutes corresponds to approximately 5.2 direct-drive miles one way. This approach is intended to better represent the trips MTS riders currently make rather than applying longer commute distances observed across all workers in the region.

Student VMT is estimated separately because students do not have employer-based origin-destination records comparable to LODES. Student VMT is based on travel frequency during an academic calendar and the full-time/part-time enrollment mix, with 118 annual campus days for four-year institutions and 85 days for community colleges. This produces approximately 32.8 million avoided vehicle miles annually for student trips in the modeled sample. An additional 2,818 working students who already commute by MTS have their school trips incorporated separately, adding approximately 2.4 million avoided vehicle miles annually and student travel is incorporated as campus-based trips in the annual VMT calculation. These student trips are added to the worker commute estimate along with carpool-related travel adjustments.

Based on this methodology, MTS allows households to avoid 146 million vehicle miles traveled each year for work and school trips. This analysis estimates that transit allows households to avoid purchasing approximately 5,600 vehicles currently. Another 4,800 households are assumed to leave the region in the no-transit scenario due to the lack of affordability for owning a vehicle. These households, theoretically, would not be able to find a jobs-housing match that is cost-effective in the absence of transit and are assumed to migrate to other locations where the variable costs of car ownership are lower or transit is accessible. Because this analysis assigns no local driving or ownership savings to households that leave, this assumption reduces potential savings because we assume these households are no longer part of the local economy.

[11] U.S. Census Bureau, 2023. LEHD Origin-Destination Employment Statistics.

Exhibit 26. Estimated Annual Avoided Vehicle-Miles-Traveled by Tract



Source: U.S. Census Bureau ACS PUMS and LODES; U.S. Department of Education IPEDS; ECOnorthwest analysis

The travel-behavior model described above is estimated using publicly available sources and survey observations—referred to as the "Census Model"—and then scaled to the estimated population of MTS riders. MTS rider data is based on unique adult passholders in September 2024. The 249,499 adult passholders reported in September 2024 are filtered to 189,354 passholders who ride three or more days per week.[12] These passholders are then sorted into workers (74.4 percent) and students (23.3 percent) as well as non-commuter populations (2.3 percent) based on the SANDAG rider survey. The combined worker and student passholders comprise the estimated riders experiencing cost savings.

Applying the modeled travel behavior to the broader MTS rider population produces an estimated 867 million avoided automobile vehicle miles traveled annually. The same scaling produces an estimated 33,250 avoided automobile vehicle purchases. The estimates should be interpreted as modeled counterfactuals rather than observed changes in driving. They represent the amount of vehicle travel and vehicle ownership that would be expected if current MTS riders had to meet their work and school transportation needs without MTS service.

[12] As reported in the SANDAG On-Board Survey (2023), the combined bus and rail responses for those that are employed show that roughly 40,700 respondents reported using transit three or more days per week of 53,700 total.

Exhibit 27. Avoided Driving-Related Estimates

Metric	Census Estimate Used for Scaling	MTS Unique Passholders
Estimated MTS Riders		
Workers	22,387	140,923
Students	9,318	44,117
Total	**31,700**	**185,039**
Annual Automobile Road Miles Saved		
Workers	111,249,265	700,308,175
Students	35,228,552	166,790,911
Total	**146,477,816**	**867,099,086**
Avoided Automobile Purchases		
Workers	4,363	27,465
Students	1,222	5,786
Total	**5,585**	**33,250**

Source: SANDAG 2023 On-Board Transit Passenger Survey; U.S. Census Bureau ACS PUMS and LODES; U.S. Department of Education IPEDS; AAA; U.S. Department of Energy; Bureau of Transportation Statistics; ECOnorthwest analysis.
Note: The estimate covers work and school trips.

4.3.2 Vehicle-Cost Assumptions

Cost savings are based on the value of avoided driving using a variable cost of approximately $0.35 per mile. The estimate combines fuel costs with maintenance and repair costs:

- **Gas price** of $6.15 per gallon which represents the average price for the San Diego-Carlsbad area in the second quarter of 2026.[13]
- **Average fuel economy** of 25.6 miles per gallon, based on the U.S. Department of Energy Alternative Fuels Data Center.[14]
- **Maintenance, repairs, and tires** add $0.11 per mile reported by the Bureau of Transportation Statistics.[15]

For households that avoid purchasing a vehicle, the model applies $7,972 in annual fixed ownership costs derived from AAA's vehicle-cost analysis after excluding fuel and maintenance, which the model already captures through avoided vehicle miles.[16] This treatment principally prevents double counting. Fuel and maintenance costs are applied only

[13] U.S. Bureau of Labor Statistics, "Average Price: Gasoline, Unleaded Midgrade (Cost per Gallon/3.785 Liters) in San Diego-Carlsbad, CA (CBSA) [APUS49E74715]," FRED, Federal Reserve Bank of St. Louis,://fred.stlouisfed.org/series/APUS49E74715
[14] U.S. Department of Energy, Alternative Fuels Data Center, "Average Fuel Economy by Major Vehicle Category," 2024. https://afdc.energy.gov/data/10310.
[15] U.S. Department of Transportation, Bureau of Transportation Statistics, "Transportation Economic Trends: Transportation Spending—Per Vehicle Mile," 2024. https://data.bts.gov/stories/s/Transportation-Economic-Trends-Transportation-Spen/bzt6-t8cd/
[16] AAA. Your Driving Costs 2025: How Much Does It Really Cost to Own a New Car?" 2025. https://newsroom.aaa.com/wp-content/uploads/2025/09/UPDATE-AAA-Fact-Sheet-Your-Driving-Cost-9.2025-1.pdf

to avoided miles and depreciation, financing, insurance, registration, and related fixed costs only to avoided vehicle purchases.

Using these assumptions, the San Diego-specific model has an output of approximately $570.5 million in annual savings from avoided work and school driving and avoided vehicle ownership (see Exhibit 28).

Exhibit 28. Estimated Household Savings Calculation

Variable Cost of Driving ($0.35 Per Mile)	Fixed Cost of Ownership ($7,972 Per Year)	Estimated Annual Household Savings
$305,420,000	**$265,058,550**	**$570,480,000**

Source: SANDAG 2023 On-Board Transit Passenger Survey; U.S. Census Bureau ACS PUMS and LODES; U.S. Department of Education IPEDS; AAA; U.S. Department of Energy; Bureau of Transportation Statistics; ECOnorthwest analysis.
Note: The estimate covers work and school trips. Values rounded.

Additional Cost Savings

The household savings analysis does not monetize several additional benefits associated with reduced vehicle travel, including fewer crashes, lower congestion and emissions, and potentially lower roadway maintenance and operating costs. These effects can be economically substantial, but they are excluded from the quantified savings estimate to maintain a focused and conservative scope. As discussed in the literature review, prior research documents meaningful safety, congestion, environmental, and public-health benefits from transit service and reduced automobile travel. The household savings estimates presented here should therefore be interpreted as a partial measure of the broader benefits associated with MTS.

4.4 Economic Contributions of Household Savings

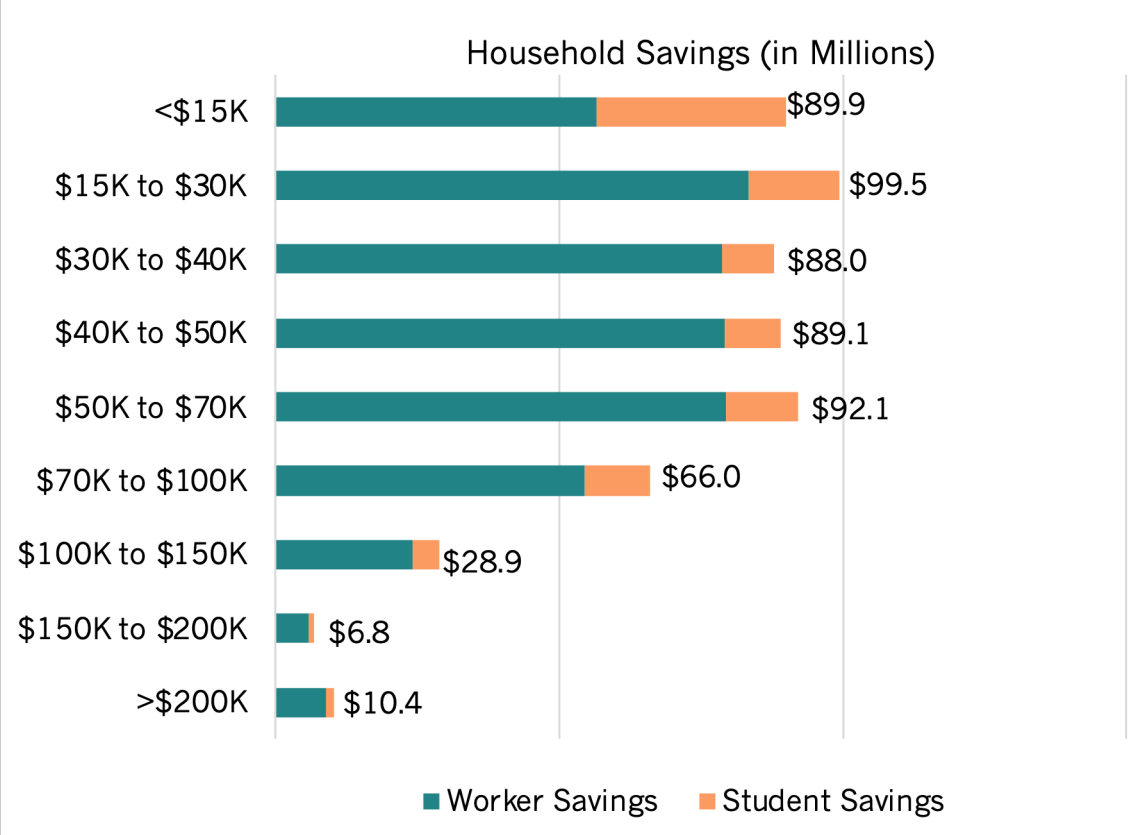
Transportation savings change how households allocate their budgets. MTS allows many riders to reduce the costs of owning and operating a vehicle, freeing household income for other uses. Across workers and students, these transportation savings are estimated at $570.5 million annually. When households redirect these savings toward housing, food, healthcare, childcare, education, and other goods and services, the spending supports businesses and employment throughout San Diego County.

The estimated annual household savings are distributed across household income categories using the income distribution of MTS riders reported in the 2023 SANDAG On-Board Transit Passenger Survey. The allocation uses the survey profile for employed riders, which can also include students who work.

This distribution indicates that transportation savings accrue primarily to lower- and moderate-income households (see Exhibit 29). Households earning less than $40,000 receive an estimated $277.3 million in annual savings, nearly half of the total. Households earning between $40,000 and $70,000 receive another $181.2 million. Combined, households earning less than $70,000 account for $458.5 million, or about 80 percent, of estimated household savings.

For context, a worker earning the City of San Diego minimum wage would have an income of $36,000 and the average annual income for San Diego households is $130,000.[17] [18] The concentration of savings among households below these benchmarks indicates that MTS provides a savings for riders who are more likely to devote additional resources to household necessities.

Exhibit 29. Estimated Households Savings by Income Bracket



Source: SDMTS Fare Data, 2024; SANDAG 2023 On-Board Transit Passenger Survey; U.S. Census Bureau ACS PUMS and LODES; U.S. Department of Education IPEDS; AAA; U.S. Department of Energy; Bureau of Transportation Statistics; ECOnorthwest analysis

To estimate how these savings circulate through the regional economy, the analysis uses IMPLAN to model household spending by income group. Savings are reallocated across household expenditure categories based on the income characteristics of transit-using households. Auto-related industries are excluded from the spending pattern because the

[17] Assuming the City of San Diego minimum wage of $17.25 per hour and 2,080 hours of work per year. City of San Diego minimum wage accessed at https://www.sandiego.gov/labor-and-wage/minimum-wage/earned-sick-leave.
[18] U.S. Census Bureau, "Quick Facts San Diego County", 2024, https://www.census.gov/quickfacts/fact/table/sandiegocountycalifornia/PST045225

savings originate from reduced vehicle ownership and use.[19] The results describe the gross economic contributions associated with spending those savings in other sectors.

Total contributions of the reallocation of household transportation savings support approximately 2,844 jobs, $182.2 million in labor income, $389.3 million in value added, and $585.8 million in economic output in San Diego County.

The direct output is not expected to equal the $570.5 million in household savings because the two figures measure different concepts. The savings estimate represents the amount households can reallocate. Direct economic output measures the value of production occurring within the modeled industries and study area after accounting for how household purchases move through the economy.[20]

Exhibit 30. Economic Contributions of Implied Household Savings Provided by MTS

Contribution Type	Employment	Labor Income	Value Added	Economic Output
Direct	1,817	$109,520,000	$260,020,000	$374,120,000
Indirect	479	$36,950,000	$58,960,000	$103,120,000
Induced	549	$35,740,000	$70,350,000	$108,610,000
Total Contribution	**2,844**	**$182,200,000**	**$389,330,000**	**$585,840,000**

Source: SDMTS Fare Data, 2024; SANDAG 2023 On-Board Transit Passenger Survey; U.S. Census Bureau ACS PUMS and LODES; U.S. Department of Education IPEDS; AAA; U.S. Department of Energy; Bureau of Transportation Statistics; IMPLAN, 2024; ECOnorthwest analysis.
Note: All monetary values are rounded and presented in 2025 dollars.

The resulting outputs represent gross economic contributions from household re-spending. They measure the jobs, labor income, value added, and output supported when households spend transportation savings elsewhere in the county economy. They do not represent net economic impacts, because the analysis does not subtract all activity that automobile dealers, fuel sellers, repair businesses, insurers, finance companies, or other vehicle-related industries might otherwise support. ***This distinction is important.*** The household savings represent a direct financial benefit to transit users. However, the IMPLAN results describe how spending those savings can support other parts of the regional economy. They should not be interpreted as evidence that every dollar no longer spent on automobiles becomes a new dollar of regional economic activity. Rather, it represents the substitution effect of a change or reallocation in spending pattern. The net effect would be how that spending-pattern shift reverberates, positively or negatively, through the county economy.

[19] Auto-related industries are removed from the household spending patterns within IMPLAN. The following commodities are removed: 3385 Retail–Motor vehicle and parts dealers; 3391 Retail–Gasoline stores; 3426 Insurance carriers, except direct life; 3494 Automotive repair and maintenance, except car washes; 3495 Car Washes.

[20] Several factors reduce the portion recorded as direct local output. Some household purchases include retail and wholesale margins rather than production occurring entirely in San Diego County. Some goods are manufactured outside the region, so only the local retail, transportation, or service margin contributes to county output. Taxes and other portions of household expenditures also do not appear as direct industry output.

5. Real Estate Impacts of MTS

Public transportation is more than a mobility investment; it is an economic development asset. By improving access to jobs, services, education, and recreation, transit increases the desirability of nearby locations for households and businesses. These accessibility benefits are reflected in the real estate market through higher property values, stronger development demand, and greater opportunities for private investment.

Transit also influences development in ways that extend beyond property values alone. Investments in high-quality transit often support land use policies that allow higher-density development, reduced parking requirements, and more efficient use of land. Together, these market and policy changes can improve the financial feasibility of development projects that might otherwise not occur.

A substantial body of national research has documented these relationships across a wide range of metropolitan areas and property types. San Diego reflects these same trends. MTS creates value that is captured not only through mobility benefits, but also through stronger real estate markets, more intensive development, and investment in transit-served neighborhoods.

5.1 How does transit influence real estate development?

Research consistently demonstrates that properties with better transit access command higher values than comparable properties farther from transit. Although the magnitude of the premium varies by market conditions, property type, neighborhood characteristics, and transit design, the overall relationship is remarkably consistent: accessibility increases value.

Over $297 billion of San Diego County's property value lies within a quarter mile of MTS stops. This accounts for 36 percent of the total countywide property values. This concentration of value becomes even more apparent around high-capacity transit. For instance, while only 2.4 percent of the county's real estate properties are within a quarter mile of Trolley stops, they account for 5.2 percent of total countywide property value. These high values are not purely a result of public transit investments; however, the remainder of this chapter will demonstrate how public transit plays a role in the creation of this value.

5.1.1 Why are property values higher near transit?

Relative Price Premium: People will pay more for faster and easier access to the destinations they care about.

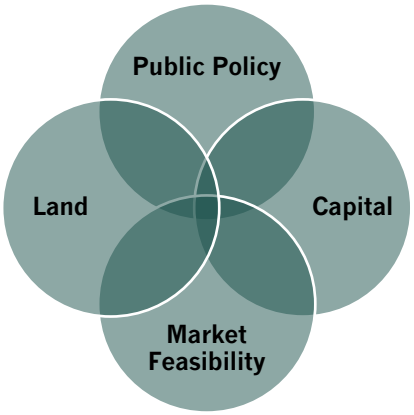
People generally prefer minimizing the time and distance they spend commuting. As such, the demand for housing in each location is driven, in part, by how many amenities one can access in a relatively short period of time. Many households are willing to pay more for transit-served locations because transit can reduce commute time, reduce time spent in

traffic, provide diversity in transportation options, and decrease the need for car ownership. Transit (along with auto) is particularly important for access to jobs, because most daily trips are associated with travel for employment.

Living near transit can also improve how many households can reach shopping centers, personal services, medical care or entertainment destinations. Residents and businesses are willing to pay higher to be within walking distance of transit to enhance access to amenities. This is reflected in the Walk Score produced by the real estate industry as a metric in marketing housing, which is documented in the literature. Employers also increasingly recognize the appeal of walkability, particularly to younger, college-educated professionals.

The research does identify negative impacts of transit in some cases. Providing new transit where there is little demand may have a modest or even negative effect on some properties. Depending on facility design, noise and nuisance effects, places immediately near transit can experience downside impacts. These effects are localized immediately next to transit stations. Overall, the positive effects of transit proximity tend to outweigh the negative effects.

5.1.2 What are the secondary impacts of transit on pricing and development feasibility?



Transit can help catalyze new forms of development. Whether a development goes from concept to construction on any given site relies on a confluence of interrelated factors, namely land values, capital availability, financial feasibility and public policy. Transit affects several of these components in unique ways.

Transit most directly impacts the financial feasibility of projects in two ways. First, developers anticipate people having a higher willingness-to-pay more to be located closer to transit. This results in higher projected revenues that impact the income side of development feasibility. Secondly, real estate development near transit often leads to changes in land use dynamics that impact the cost side of feasibility. For example, parcels may transition from surface parking or low-density commercial uses to higher-density residential or mixed-use development. Where zoning allows greater density or reduced parking requirements near transit, developers can spread land and infrastructure costs across more housing units or commercial space, improving project feasibility.

Expecting higher demand and willingness-to-pay, these developments are also likely to be more competitive for funding. This is because risk-averse investors are likely to look favorably upon the long-term financial stability of developments closer to transit.

Recognizing the significant economic and social contributions of transit, local, state and federal governments provide further incentives to develop around transit. In California specifically, jurisdictions are required by state law to implement land use policies, like zoned uses, height and bulk restrictions, density bonuses, and minimum parking requirements

around transit. These regulations complement improved financial feasibility and can alter the scale that a developer can viably build.

At the State level, California's Density Bonus Law allows for increased density (overlayed onto local zoning) for developments that include affordable units especially for those developments located near transit. Programs such as California's Affordable Housing and Sustainable Communities (AHSC) program and the Federal Low-Income Housing Tax Credit (LIHTC) also favor development closer to transit. Proximity to transit is included in the scoring rubric for both programs, making these developments more competitive for public funding through grants, loans, and tax credits.

Increased demand for land along transit can result in increased land prices. While this can act as a headwind to development on a given site, the overall tailwinds from other factors of development feasibility can result in a net increase in the quantity and variety of development around transit.

San Diego's Rich History of Transit-Oriented Development

Not only did San Diego bring the first modern light rail system to the United States, but it served as a trailblazer in implementing new ideas of urban planning and development. Transit-oriented development (TOD) is a key framework and principle of modern urban planning. It aims to reduce the environmental impact of cities by leaning into the value created by transit and encouraging people to live near transit services, reducing their dependance on cars. Peter Calthorpe codified the concept of TOD in his book "The New American Metropolis" in 1993. Prior to this publication, the City of San Diego partnered with Peter Calthorpe to create the San Diego Land Guidance System and Design Guidelines, which was approved by City Council in August 1992 (Resolution No. R-280480). MTS's Joint Development Policy was first approved by its Board of Directors in 1982 and the first TOD on MTS property was initiated in 1987. San Diego has since been at the center of academic research on urban planning and design to understand the benefits of and challenges to implementing TOD in urbanized areas across the country.

5.2 Literature Review

5.2.1 Transit accessibility has a substantial positive impact on property values that decreases with distance.

Early studies of Portland's MAX Blue Line (Oregon) showed a 10.5 percent to 10.6 percent premium for single-family homes located within a quarter mile from transit.[21, 22] In San Jose, California, the effect of a new station on home sale prices was 18.5 percent premium within an eighth-mile radius.[23] Still, in San Jose another study found a 5.7 percent premium within a quarter mile from a rail station.[24] In Buffalo (New York), a home located within a quarter-mile radius of a light rail station was found to generally earn a premium of $1,300-3,000, or 2-5 percent of the city's median home value.[25] A study in Dallas (Texas) revealed home value premiums of about $125 for every 0.1 mile the house was closer to DART transit stations.[26] Elsewhere, in Charlotte (North Carolina), researchers found a 4.0 percent increase for single-family properties and an 11.3 percent increase for condominiums sold within one mile of LRT stations around Charlotte's Original Blue Line.[27] Residential properties within one mile of Charlotte's Blue Line Extension saw prices rise by 8 percent after the line opened in 2018 and a similar effect was found for properties between 1.5–2 miles from the stations.[28] After the construction and opening of the Gold Line stations in Los Angeles, a 2022 study found a 2.6 to 7.4 percent premium on single-family homes.[29]

In San Diego County, condominiums in the downtown area within a quarter mile of LRT stations sold at a 2.2 percent premium compared to other condominiums in the county, and condominiums within a half mile of LRT lines outside of downtown sold at a 3.0 percent to 6.4 percent premium.[30] Another study showed condominiums less than a quarter mile from a rail station had a sales price premium of 16.6 percent compared to those located one mile away.[31]

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[30] Cervero, Robert, and Michael Duncan. 2022a. "Land Value Impacts of Rail Transit Services in San Diego County." Report prepared for National Association of Realtors and the Urban Land Institute.

[31] Duncan, Michael. 2008. "Comparing Rail Transit Capitalization Benefits for Single-Family and Condominium Units in San Diego, California." *Transportation Research Record* 2067

- **Residential sales prices:** Homes located near transit generally sell at a premium, with the strongest effects typically observed within 0.25 to 0.5 miles of a station and diminishing as distance increases.

5.2.2 The effect can be larger when a transit development is accompanied by major redevelopments, zoning changes, and other desirable amenities such as walkable and mixed-use neighborhoods.

When Minneapolis (Minnesota) added the Hiawatha Light Rail Line to connect the downtown area with the airport and the Mall of America, single-family homes within a 0.5-mile radius of the transit corridor sold for 30 percent higher prices than similar homes outside of the corridor.[32] Even the promise of transit and the pedestrian amenities that come with transit can have an impact on home values. Through its Beltline project, the City of Atlanta (Georgia) has replaced old train tracks with greenspace and trails and intends to add LRT in the future. Home sales prices increased 30 percent within a half mile of the Beltline.[33]

Transit accessibility is valued more in neighborhoods that prioritize walkability. Research in San Diego County found that specifically for neighborhoods that prioritize walkability, transit accessibility raises the sales price premium for condominiums at least 15 percent within a quarter mile from the rail station. On the other hand, there was an 11 percent sales price discount in neighborhoods for homes near transit in areas with poor walkability and park-and-ride stations.[34]

In Phoenix, Arizona, condominiums in walkable and mixed-use neighborhoods experienced a much greater price benefit (28.2 percent) from transit accessibility, but those in residential neighborhoods experienced a discount (-13 percent), likely due to road congestion. The price effect was greatly increased (to 53.7 percent) for mixed-use neighborhoods after TOD overlay zoning was established.[35] Similar results were observed for single-family homes in Phoenix. There was a 6 percent premium in mixed-use neighborhoods where people can walk 0.5 miles to transit, but single-family home values in residential neighborhoods were not affected by transit accessibility.

5.2.3 The effect of transit accessibility tends to increase the price of multifamily properties.

For multifamily properties, the sales premium at 0.5 miles from transit was about 1 percent to 3 percent in Los Angeles County, about 3.8 percent to 17.3 percent in San Diego County,

[32] Kent, Adam, and Joseph Parilla. 2008. "Did the Hiawatha Light Rail Line Increase Single-Family Residential Property Values?"
[33] Immergluck, Dan. 2009. "Large Redevelopment Initiatives, Housing Values and Gentrification: The Case of the Atlanta Beltline." Urban Studies 46 (8): 1725-1747.
[34] Duncan 2008.
[35] Atkinson-Palombo, Carol. 2010. "Comparing the Capitalization Benefits of Light-Rail Transit and Overlay Zoning for Single-Family Houses and Condos by Neighborhood Type in Metropolitan Phoenix, Arizona." *Urban Studies* 47 (11): 2409-2426.

and about 9.7 percent near the Hiawatha Line in Minneapolis.[36,37,38] In Salt Lake City (Utah), there was a 7.3 percent premium within 0.25 miles that regressed to 3.6 percent at 1 mile and zero beyond 1.25 miles.[39]

The most extensive studies of the impact of transit accessibility on rents come from Dr. Arthur C. Nelson at the University of Arizona. In a report prepared for the Regional Transportation Commission of Southern Nevada in 2015, Nelson found that the asking rents for multifamily units were 4.4 percent higher within 0.5 miles of transit.[40] In another study of rents, there was a 4.5 percent premium for apartments within 0.5 miles of transit and a 2.5 percent premium between 0.5 miles and 1 mile.[41]

Another comprehensive study of the impact of various transit systems across the nation by Dr. Nelson found that rent premiums are highest for multifamily properties when they are within 0.25 miles from a light rail station (see Exhibit 31).[42]

- **Residential rents:** Multifamily rents are generally higher near transit, with studies finding premiums of roughly 4 to 5 percent within 0.5 miles, declining to about 2.5 percent between 0.5 and 1 mile.

5.2.4 Commercial properties also generally see an increase in sales prices and rents with greater access to transit.

Commercial properties within 0.5 miles of LRT stations in San Diego County had land value premiums ranging from -9.2 percent to 71.9 percent, with more modest effects at -1.1 percent. This indicates that results are unclear for commercial properties. Three-quarters of the properties in the study were offices, including medical offices and office condominiums.[43] Office rents in Santa Clara County were 10 percent higher within 0.25 miles of transit and 7 percent higher between 0.25 miles and 0.5 miles.[44] In Dallas (Texas) and Denver (Colorado), as expected, the office rent premium decreased with distance. The rent premium extended to 1.85 miles in Dallas and to 3.30 miles in Denver.[45] In another study of 25 U.S. metropolitan

[36] Cervero 2002a.
[37] Goetz, Edward G., Kate Ko, Aaron Hagar, Hoang Ton, and Jeff Matson. 2010. "The Hiawatha Line: Impacts on Land Use and Residential Housing Value." Center for Transportation Studies Report 10-09.
[38] Cervero, Robert, and Michael Duncan. 2020b. "Land Value Impacts of Rail Transit Services in Los Angeles County." Report prepared for National Association of Realtors and the Urban Land Institute.
[39] Petheram, Susan J., Arthur C. Nelson, Matt Miller, and Reid Ewing. 2013. "Use of the Real Estate Market to Establish Light Rail Station Catchment Areas: Case Study of Attached Residential Property Values in Salt Lake County, Utah, by Light Rail Station Distance." *Transportation Research Record* 2357.
[40] Nelson, Arthur C. 2015. "Maryland Parkway Corridor: Transit-Related Development Assessment." Report prepared for the Regional Transportation Commission of Southern Nevada.
[41] Nelson, Arthur C. 2017. "Transit and Real Estate Rents." *Transportation Research Record* 2651.
[42] Nelson, Arthur C. and Robert Hibberd. 2019. "The Link Between Transit Station Proximity and Real Estate Rents, Jobs, People and Housing with Transit and Land Use Planning Implications." National Institute for Transportation and Communities *Research Report-1103*.
[43] Cervero 2002b
[44] Weinberger, Rachel. 2001. "Light Rail Proximity: Benefit or Detriment in the Case of Santa Clara County, California?" *Transportation Research Record* 1747.
[45] Nelson 2015.

areas, the rent premium for offices was not statistically significant within 0.5 miles, but it was 2.3 percent between 0.5 miles and 1 mile.[46]

For retail properties, the rent premium was 4.8 percent outside the downtown area and zero in downtown.[47] In another study, the rent premium for retail decreased with distance from 2.5 percent within 0.5 miles to 2.1 percent between 0.5 to 1 mile.[48]

Exhibit 31. Summary of Rent Premium by Development Type and Distance from Station Across 25 U.S. Metro Areas

PROPERTY TYPE	0.125 MILE	0.25 MILE	0.375 MILE	0.5 MILE	0.625 MILE	0.75 MILE	0.875 MILE	1 MILE	BEYOND 1 MILE
Multifamily	4.8 percent	7.2 percent	4.5 percent	5.7 percent	5.0 percent	6.1 percent	4.6 percent	5.5 percent	3.4 percent to 1.5 percent
Retail	8.3 percent	5.8 percent	3.1 percent	2.6 percent	3.6 percent	4.1 percent	4.9 percent	3.7 percent	3.1 percent
Office	1.7 percent								

Source: Nelson and Hibberd, 2019.

5.3 MTS Trolley Impacts

The previous section illustrates the rich corpus of academic literature that has already demonstrated the impact of transit on real estate across the country as well as in San Diego. Informed by related studies and existing literature, ECOnorthwest used econometric modeling to estimate the effects of transit on rent prices in San Diego today.

A hedonic model is a type of statistical analysis that estimates the value of individual features that make up a good or service. In housing studies, we use hedonic models to understand how different characteristics, such as square footage, building age, or proximity to amenities, affect rent. These models allow us to isolate the contribution of one variable (like transit proximity) while holding others constant.

We use CoStar as the source for rent data and building characteristics in this analysis. CoStar collects and maintains detailed information on multifamily rental properties across the United States. Their dataset includes rent prices, unit counts and average sizes, and building characteristics such as construction year, building height, and a rating of overall amenity value or "star rating." The star rating considers features such as gyms, pools, common space, in-unit laundry, etc., to assess the amount of amenities provided by a particular property.

While CoStar offers broad coverage of market-rate multifamily buildings, the dataset does not include single-family rentals and has more limited (or less accurate) data on smaller rental properties, such as duplexes. For this analysis, we excluded rent-restricted affordable units to focus on rental trends within the private market. This analysis may not fully capture dynamics

[46] Nelson 2017.
[47] Nelson 2015.
[48] Nelson 2017.

affecting all types of renters in San Diego. However, CoStar's consistency and scale make it well-suited for statistical modeling

Our first step was to determine how much of current rents is explained by the features of the housing itself and its proximity to non-transit amenities. We set up a hedonic model that explains differences in rents between buildings based on structural factors. We used both 1-bedroom and 2-bedroom unit rents as dependent variables to run separate 1- and 2-bedroom unit models. Similar factors (independent variables) influence both types of rents, however, modelling them separately allows for magnitude of the relationship to vary between the two models.

The model controls for year built or renovated, average unit size, building form as represented by height, property amenities, and distance to the coast. The analysis proceeds in two steps. A baseline specification first estimates the relationship between these characteristics and rent without including Trolley proximity. Distance to the nearest Trolley station is then introduced to determine whether proximity to transit has an additional statistically significant relationship with rent after the other property and location characteristics are accounted for.

5.3.1 Baseline Rent Model

The baseline results show the expected relationships between rents and property characteristics. Newer or recently renovated buildings, larger units, taller buildings, and properties with higher amenity ratings are associated with higher rents, while properties farther from the coast are associated with lower rents. These relationships are statistically significant (see Exhibit 42 in the Appendix). The model explains approximately 44 percent of the variation in one-bedroom rents and 46 percent of the variation in two-bedroom rents, indicating that the included characteristics account for a substantial share of observed differences in rent.

5.3.2 Relationship Between Trolley Proximity and Rent

The transit specification focuses on properties within 1.5 miles of an MTS Trolley station. Limiting the study area reflects the expectation that the accessibility value of transit diminishes with distance and reduces the likelihood that broader differences among distant parts of the region are attributed to transit proximity. Alternative buffer distances were tested as sensitivity checks. Within this study area, distance to the nearest Trolley station is added to the baseline specification and is negative and statistically significant for both unit types (see Exhibit 43 in the Appendix). Overall, this model shows that rents tend to be higher for otherwise similar properties located closer to Trolley service.

Holding the other modeled characteristics constant, a one-bedroom apartment located one mile closer to an MTS Trolley station is associated with approximately $65 higher monthly rent, while the corresponding estimate for a two-bedroom apartment is approximately $90 per month. Median rents within the study area are approximately $1,442 for one-bedroom

units and $1,775 for two-bedroom units, making the estimated effect equivalent to approximately 4.5 percent and 5.0 percent of median rent, respectively.

Exhibit 32. Summary of Estimated Rent Premium Associated with Trolley Proximity

UNIT TYPE	MONTHLY RENT PREMIUM FOR LOCATION ONE MILE CLOSER TO TROLLEY	MEDIAN RENT	PREMIUM AS SHARE OF MEDIAN RENT
One-bedroom	$65	$1,442	4.5%
Two-bedroom	$90	$1,775	5.0%

Source: CoStar, 2026; ECOnorthwest analysis.

The estimated coefficients describe average relationships across the properties included in the analysis and should not be interpreted as the expected rent change for a specific property. For ease of interpretation, the final specification models the relationship between distance to transit and rent as linear within the 1.5-mile study area. Additional controls, including distance to downtown and distance to highway access, were tested but did not improve model performance sufficiently for inclusion in the final specification. As with any hedonic analysis, the results identify a statistical relationship rather than establishing that Trolley service alone caused the observed rent premium; unobserved neighborhood characteristics may also influence both housing demand and transit accessibility.

5.4 MTS Case Studies

Ever since its inception, the San Diego MTS has been expanding and evolving its services to meet the needs of San Diegans across the region. Today, the network includes four light rail (Trolley) lines, approximately 100 fixed bus routes, and paratransit bus service. The case studies below represent examples of transit-served neighborhoods in San Diego. The purpose of these case studies is to illustrate the relationship between transit access and neighborhood vitality, provide context for understanding the broader economic impacts of transit investment, and demonstrate how transit can support community development, economic activity, and property value in conjunction with other local factors.

While transit is only one of several factors that influence neighborhood vitality and land value, the transit ridership data indicates that it is a significant amenity in these locations. Other contributing factors include existing infrastructure, proximity to natural amenities, demographics, community assets, access to schools and employment centers, walkability, neighborhood amenities, and other public investments. As a result, neighborhood vitality and land value cannot be attributed solely to transit. However, the ridership patterns suggest that transit plays an important role in supporting the desirability and value of these communities.

5.4.1 El Cajon Boulevard

MTS introduced three new Bus Rapid Transit (BRT), or “Rapid,” lines in 2014 serving Escondido and Rancho Bernardo, San Diego State University, and UC San Diego. Of these

lines, the Mid-City Rapid (215) connects Downtown San Diego to the I-15 Transit Plaza and San Diego State University via Park Boulevard and El Cajon Boulevard. The Boulevard is also served by the Route 1 bus from Fashion Line to La Mesa.

5.4.1.1 HISTORY & DEVELOPMENT CONTEXT

El Cajon Boulevard was formerly a national highway, Route 80, but was decommissioned in 1956 after the construction of the Interstate (I-8). The street remained a major commercial corridor for several decades; however, usability trended toward the I-8 and Mission Valley, slowly eroding street activation on El Cajon. By the 1980s "a trend of urban disinvestment and community fraying" took hold, as documented in the City of San Diego's Mid-City Atlas. This led to ongoing loss of businesses and residents.[49] By the early 2000s, El Cajon Boulevard had become a challenging place to live or work.[50]

Residents and businesses have undertaken several comprehensive community initiatives over the years to promote the revitalization of this area, and the fruits of this effort are coming to bear today. The El Cajon Boulevard Business Improvement Association (BIA) was formed in 1988 with a mission of improving the physical and economic conditions along the Boulevard and in neighboring streets.[51] Other community groups have also advocated for investment in the neighborhoods and its communities. The formal recognition of the "Little Saigon Cultural and Commercial District" by the City in 2013 is a testament to such advocacy and community engagement in the surrounding area.[52]

Exhibit 33. El Cajon Boulevard at I-805 (1970s)



Source: Bill Reid – Vintage San Diego, accessed via El Cajon Boulevard Business Improvement Association "Landmarks". https://theboulevard.org/home/landmarks-on-the-boulevard/

[49] City of San Diego. 2025. "History and Place," in Mid-City Atlas Existing Conditions Report. Accessed https://www.sandiego.gov/sites/default/files/2025-05/mid-city_ch2.hist-place.pdf
[50] Salas, Dagny. October 8, 2009. "Why El Cajon Blvd. Is a Prostitution Hotspot." Voice of San Diego.
[51] El Cajon Boulevard Business Improvement Association. 2026. "About the BIA". Accessed https://theboulevard.org/the-bid/about-bia/
[52] City of San Diego. 2025

The community members have been an outspoken advocate for transit-oriented development for several years. Speaking to the San Diego Business Journal in 2018, Beryl Forman—the BIA's marketing and mobility coordinator— said, "Density is welcome on El Cajon Boulevard because it's all tied into the overall vision of El Cajon Boulevard being a transit-oriented development."[53] In 2019, the president of the BIA—Tootie Thomas—reaffirmed this vision, "We have to get rid of the old attitudes. We don't need three lanes of cars going along the length of the boulevard. We need a safer environment for bikes and a rapid bus system."[54] Developers in the community shared similar views as reflected by David Iwashita, "You have the room and infrastructure and space to build out the mass transportation and the amenities that are needed to create plazas and to create places that really make a neighborhood special."[55]

The presence of old commercial lots and high-density zoning provide opportunities for infill development. Indeed, several projects have emerged in recent years, including BLVD North Park by H.G. Fenton with 165 units and 4,000 square feet of ground-floor retail, Broadstone by Alliance Residential delivered with 118-unit complex, and The Parkline by Malick Infill Development with 91 units and 3,300 SF.[56]

In April 2026, Wakeland Housing and Price Philanthropies Foundation delivered the Teralta—a 72-unit affordable housing development—with rents ranging from approximately $844 to $2,698. The $71 million project leveraged the City's Bridge to Home Program as well as the California Department of Housing and Community Development's Infill Infrastructure Grant.[57]

[53] Huard, Ray. December 18, 2018. "El Cajon Boulevard Takes New Direction." San Diego Business Journal. Accessed https://sdbj.com/real-estate/el-cajon-boulevard-takes-new-direction/
[54] Biberman, Thor K. January 7, 2019. "El Cajon Boulevard undergoing transformation." The Daily Transcript
[55] *Ibid.*
[56] Malick Infill Development. 2026. "The Parkline." Accessed https://www.malickinfill.com/projects/elcajon-blvd
[57] San Diego Housing Commission. April 16, 2026. "Historic City Heights Furniture Store Site Converted to 72 Affordable Rental Apartments for Families with Low Income." Accessed https://sdhc.org/news-release/the-teralta-grand-opening/

Exhibit 34. The Teralta, a 72-unit Affordable Housing Development



Source: DAHLIN Architecture

MTS, along with public partners, has continued investing in improved bus rapid transit lines in the area. In January 2020, a dedicated bus lane, branded the Boulevard Bus Way, opened on three miles along El Cajon Boulevard to improve transit speed.[58] Today, the route has service about every 10 minutes during peak hours on weekdays and is the third busiest bus route in the MTS network, transporting an average of 4,798 people every day as of May 2026. The Route 1 bus further improves accessibility in the area and is the 11th busiest bus route in the MTS network, transporting 4,078 people every day as of May 2026. Improved transit accessibility in these neighborhoods is an amenity, which has likely contributed to neighborhood vitality.[59]

[58] Monet, Ebone. January 8, 2020. "Mayor Faulconer Marks Completion Of Dedicated Bus Lane Along El Cajon Boulevard." City New Service via KPBS. https://www.kpbs.org/news/quality-of-life/2020/01/08/mayor-marks-completion-of-3-mile-dedicated-bus

[59] SANDAG. 2026. *Transit Ridership Dashboard*. Accessed July 27, 2026, on https://geo.sandag.org/portal/apps/experiencebuilder/experience/?id=dab9cfb654004710b4c84fabda8f70f6

Exhibit 35. Rapid 215 on El Cajon Boulevard



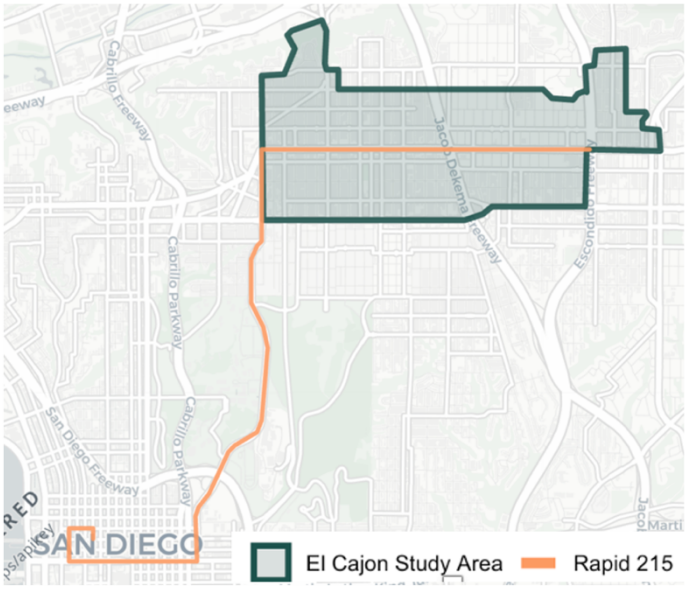
Source: El Cajon Boulevard Business Improvement Association

Demonstrating the influence of transit on household choices, a 2023 survey of transit riders on this line revealed that 50 percent of respondents did not have access to a car. Additionally, 27 percent of respondents said they were using transit on their way between home and work, and another 22 percent said they were using transit from home to an educational institution. Others were traveling for a variety of purposes, including recreation, shopping, eating, and medical visits. Demographically, nearly 50 percent of respondents were between 18 and 34 years old.[60]

5.4.1.2 IMPACT ON NEIGHBORHOOD VITALITY

Housing Stock

- **2,746** housing units were added between 2009 and 2024, a 30 percent **higher rate of housing production** relative to the rest of the city.[61]
- The majority of the new housing units produced in the neighborhood are **middle housing**[62] **or multi-unit homes**.[63]



[60] SANDAG. 2026. *Transit On-Board Survey.* Accessed July 27, 2026, on https://etcinstitute.com/transit/transit-dashboards/ca_sandag/#1
[61] U. S. Census Bureau. 2024. American Community Survey 5-Year Estimates. U.S. Department of Commerce.
[62] Middle housing refers to single home-scale buildings that contain more than one home such as: townhomes, rowhomes, triplexes, fourplexes, and small-scale multiple-home buildings that are built to the same scale as surrounding traditional single homes.
[63] *Ibid.*

- **A new development pattern**: Prior to 2015, the multifamily housing stock was predominantly 2–3 story developments. Since 2015, 54 percent of developments have been four stories or higher with 11 buildings that are six stories or higher.[64]

Demographics

- **2,367 more households** were added between 2009 and 2024, a 12 percent higher growth rate in households relative to the city-wide rate.[65] Households represent those who reside within the same housing unit. Households describe families, couples, or individuals.
- The vehicle to household ratio for the neighborhood is **1.39 vehicles for each household**, a rate considerably lower than the city-wide average of 1.77 vehicles per household.[66]

Economics

- The neighborhood **doubled employment in Food Service and Accommodations** between 2009 and 2023, from 868 to 1,927 jobs. This is double the employment growth rate in the sector relative to the county.[67]
- The neighborhood also **added nearly 1,000 jobs** in Health Care and Education services between 2009 and 2023, a nearly 4x increase.[68]

5.4.2 UTC Transit Center and University City

MTS extended the UC San Diego Blue Line 11 miles north from Old Town to the UTC Transit Center in November 2021, adding nine new stations through Old Town, Mission Bay, and the UC San Diego campus. The extension gives riders a one-seat trip from the U.S.–Mexico border all the way to University City, connecting residents to jobs, healthcare, and education along the way.

5.4.2.1 HISTORY & DEVELOPMENT CONTEXT

The history of University City is inextricably linked to the history of UC San Diego. University City began as a large-scale, master-planned community originally envisioned as a place where UC San Diego faculty and staff could live near campus. Housing tracts filled in around Governor Drive through the 1960s and 1970s, and developer Ernest Hahn opened University Towne Centre—the open-air mall now known as Westfield UTC—in 1977 as the community's commercial anchor.[69] By the late 1980s, UC San Diego's research strength was spinning off a wave of biotech and technology firms along Executive Drive and in Sorrento Mesa, and the

[64] CoStar. 2026. *CoStar Market Analytics*. Accessed https://www.costar.com
[65] U. S. Census Bureau. 2024.
[66] *Ibid.*
[67] U. S. Census Bureau 2023. Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics. U.S. Department of Commerce.
[68] *Ibid.*
[69] Corder, Sarah and Nicole Frank. 2022. "University Community Plan Area Historic Context Statement." Dudek. Prepared for City of San Diego, Planning Department. Accessed https://www.sandiego.gov/sites/default/files/2024-05/university-hcs_final.pdf

surrounding freeway triangle formed by I-5, I-805, and SR-52 earned its local nickname: the Golden Triangle.[70]

That growth created a familiar tension. The Golden Triangle grew in importance as an employment and retail center; however, the area had been built almost entirely around the car, with access governed by freeway capacity rather than transit. Regional planners saw the mismatch early: SANDAG's 1986 regional transportation plan already called for extending the Trolley north into University City.[71] The Orange and Green lines were constructed first, but the Mid-Coast Trolley Extension would finalize its environmental review and funding in 2014. Seven years later, the extension opened in November 2021, connecting Old Town to a new terminus at Westfield UTC.[72]

University and transit officials described the extension as transformative. "A lot of our students think it's a total game-changer," said Jeff Graham, UC San Diego's executive director of real estate, noting that trips once took 90 minutes by bus could now be made in 25 minutes by Trolley. The line's new stations, including UC San Diego Central Campus at Pepper Canyon, opened directly alongside university development already underway, such as the Design and Innovation Building.[73]

The extension's opening also crystallized a redevelopment opportunity next door. Costa Verde Center, an aging strip mall adjacent to the new UTC Transit Center, had been targeted for a life-science and mixed-use "urban village" even before Trolley service began. Developer Alexandria Real Estate Equities purchased the site for $124 million in 2022, citing its walk-to-transit location as central to the site's appeal.[74] In July 2024, San Diego City Council approved the University Community Plan Update, which would change zoning regulations to allow for nearly 30,000 additional residential units in the area surrounding the stations. The Irvine Company was one of many to identify this opportunity and announced plans to demolish two office buildings and replace them with the Plaza—a two-apartment-building development with 552 units.[75] Such announcements mark the shift of the Golden Triangle from a primarily commercial district toward a more mixed-use, transit-connected one.

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[70] HelloNation. 2026. “University City: Unraveling the Rich History and Vibrant Heritage of San Diego’s ‘Golden Triangle’” Accessed https://universitycitysandiegoneighborhood.org/university-city-unraveling-the-rich-history-and-vibrant-heritage-of-san-diego-s-golden-triangle/

[71] SANDAG. 1987. “Proposition A: San Diego Transportation Improvement Plan.” https://www.sandag.org/-/media/27437212F5D64251872D3798FA28EC44.ashx

[72] Nyren, Ron. 2022. “2022 ULI Spring Meeting Tour: New Campus Connections at the University of California, San Diego.” *Urban Land*. https://urbanland.uli.org/planning-design/2022-uli-spring-meeting-tour-new-campus-connections-at-the-university-of-california-san-diego

[73] *Ibid.*

[74] Van Grove, Jessica. 2024a. “Developer retooling plan for Costa Verde Center near UTC.” San Diego Daily Tribune. https://www.sandiegouniontribune.com/2024/08/23/developer-retooling-plan-for-costa-verde-center-near-utc/

[75] Van Grove, Jessica. 2025. “Irvine Company adding hundreds of apartments to University City office campus.” San Diego Daily Tribune. https://www.sandiegouniontribune.com/2025/08/15/irvine-company-adding-hundreds-of-apartments-to-university-city-office-campus/

Exhibit 36. Trolley in University City



Source: San Diego MTS

The Extension's final station, UTC Transit Center, is another example of improved accessibility to amenities leading to real estate investment and neighborhood vitality. While UTC has seen several renovations and upgrades since its construction in 1977, the increase in transit connectivity has helped connect the mall to even more customers. In 2017, Unibail-Rodamco-Westfield (URW) announced renovations and additions to the UTC mall which would add nearly 390,000 square feet of new retail space. Two years later, the Palisade apartment towers luxury condos complex was announced.[76]

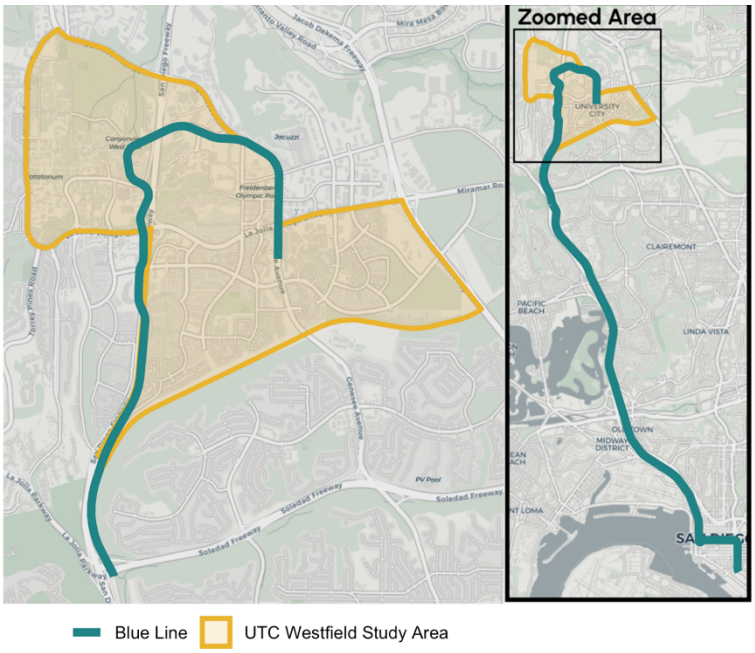
One year into operation, the Mid-Coast segment already accounted for roughly 19 percent of all UC San Diego Blue Line ridership and about 12 percent of all Trolley trips systemwide.[77] Improved transit accessibility in these neighborhoods is an amenity that has contributed to neighborhood vitality. The UC San Diego Blue Line is the most used MTS route with 85,391 boardings on an average weekday and 2.34 million monthly boardings as of May 2026, which accounted for 33 percent of systemwide boardings. [78]

[76] Van Grove, Jessica. 2024b. "Westfield UTC is expanding with a new wing of luxury shops and destination restaurants." San Diego Daily Tribune. https://www.sandiegouniontribune.com/2024/04/18/westfield-utc-is-expanding-with-a-new-wing-of-luxury-shops-and-destination-restaurants/

[77] San Diego Metropolitan Transit System. 2022. "UC San Diego Blue Line Trolley Extension" https://www.sdmts.com/inside-mts/current-projects/uc-san-diego-blue-line-trolley-extension

[78] SANDAG. 2023. *Transit Ridership Dashboard*. Accessed July 2026, on https://geo.sandag.org/portal/apps/experiencebuilder/experience/?id=dab9cfb654004710b4c84fabda8f70f6

Per a 2023 survey, only 42 percent of surveyed transit riders on this line were commuting to and from work. Other riders were using it to access shopping and eating destinations (10.6 percent), to access education (9.8 percent), and to visit other recreation sites (7.7 percent). This is a demonstration of the wide range of benefits transit riders utilize the network for. Further, one in every three riders surveyed came from a household without a car and nearly 85 percent of respondents had a household income lower than $75,000. The median household income across San Diego County was $102,285 in 2023, suggesting that a majority of transit riders were from below median-income households. [79]



As a relative new transit route, the tranformative power of transit is only beginning to reveal itself in University City. It is likely that the area will see significant development and delivery of mixed uses in the coming decade.

5.4.2.2 IMPACT ON NEIGHBORHOOD VITALITY

Demographics

- Despite the City of San Diego losing residents (on net) between 2019 and 2024, the University City neighborhood saw an increase of about 7,169 residents, a 16 percent increase compared to 2019.
- The vehicle to household ratio for the neighborhood is **1.4 vehicles for each household**, significantly lower than the city-wide average of 1.77 vehicles per household. The share of households with no cars has increased from 8.2 percent in 2019 to nearly 10.9 percent in 2024.

Economics

- Over **8,180 jobs** were added (on net) in this area between 2019 and 2024, an increase of 32 percent. This accounts for roughly **14 percent of the net job growth** experienced across San Diego County.
- The Education sector remains the largest employer in the area, accounting for 44 percent of employment. Between 2019 and 2024, the employment for this sector grew by 4,544 jobs, a 25 percent increase.

[79] SANDAG. 2023. *Transit On-Board Survey.* Accessed July 2026, on https://etcinstitute.com/transit/transit-dashboards/ca_sandag/#1

- The Professional Services sector and Health Care and Social Assistance sector also saw significant increases in **employment** compared to 2019, adding 3,256 jobs on net. A 17 percent increase in employment relative to 2017.

Appendix A: Review of Transit Benefits References

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Appendix B: Economic Contributions

MTS Operational Expenditures

Exhibit 37. MTS Operational Expenditure Details, FY2025

Operational Expense Category	FY2025 Spend
Outside Services	$160,430,000
Energy	$45,020,000
Materials and Supplies	$10,730,000
General and Administration	$2,390,000
Risk Management	$1,880,000
Vehicle/Facility Lease	$1,630,000
Other	$320,000
Total	**$222,400,000**

Source: San Diego MTS, 2025

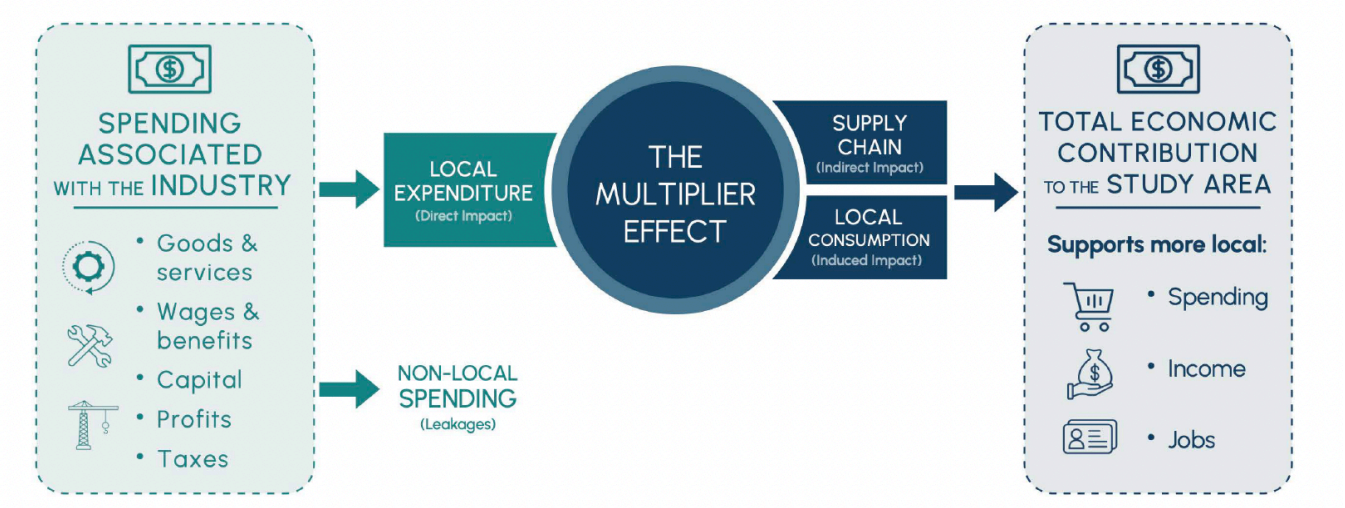
Economic Contributions Framework

ECOnorthwest used IMPLAN, a regional input-output model, to estimate the economic activity associated with MTS operations and capital expenditures. IMPLAN is widely used to evaluate the economic contributions of institutional operations, infrastructure investments, policy changes, and other forms of economic activity. The model divides the economy into hundreds of sectors and traces how spending in one sector supports demand in others.

IMPLAN draws on national and county-level data from the U.S. Bureau of Economic Analysis, the U.S. Census Bureau, and other federal sources to represent purchasing relationships among industries, households, and government. These relationships describe how businesses obtain labor, materials, equipment, and services, and how workers spend the income they earn.

The model illustrates how an initial expenditure can circulate through the regional economy. MTS purchases goods and services from suppliers, which in turn purchase inputs and employ workers. As employees earn their incomes, they spend a portion of these earnings on housing, groceries, healthcare, recreation, and other household needs. These successive rounds of activity support additional employment, income, and business production.

Exhibit 38. Economic Contributions Framework



Source: ECOnorthwest, 2024

For this analysis, ECOnorthwest customized the IMPLAN framework using detailed expenditure and employment information provided by MTS as inputs. This approach better reflects MTS's actual purchasing pattern than a generic transit-industry profile. The sum of the direct, indirect, and induced effects represents MTS's total economic contribution to San Diego County. The framework diagram in Exhibit 38 illustrates this progression from direct spending to local supplier and household effects.

Contribution Types

Economic multipliers in the model are used to estimate total economic contributions. The total contribution consists of three components:

- **Direct contributions** represent MTS employment, payroll, operating expenditures, and capital expenditures. Direct contributions include activity associated with MTS and the primary contractors included in the analysis.
- **Indirect contributions** represent activity supported when MTS and its contractors purchase goods and services from businesses in San Diego County. These effects are often referred to as supply-chain contributions because they capture transactions among businesses.
- **Induced contributions** represent activity supported when workers employed directly or indirectly by MTS spend their earnings on household goods and services. These effects are also referred to as consumption-driven contributions.

Direct spending that occurs outside San Diego County is included in MTS's broader economic footprint but does not generate indirect or induced contributions within the county.

Contribution Measures

Economic contributions are presented using the following measures reported by IMPLAN:

- **Jobs** represent the average annual number of employees engaged in full- or part-time work. IMPLAN employment is a job count rather than a full-time-equivalent measure, so one person holding multiple jobs may be represented more than once.
- **Labor income** consists of employee compensation and proprietor income.
    - Employee compensation includes wages and salaries as well as employer-paid benefits such as health insurance, retirement contributions, disability insurance, and other forms of compensation.
    - Proprietor income represents income received by self-employed workers and owners of unincorporated businesses.
- **Value added** represents the contribution to regional gross domestic product (GDP). It includes labor income, business income, and taxes on production, less subsidies.
- **Output** is the total value of production associated with an industry. It includes labor income, taxes, profits, and the value of intermediate goods and services used in production. Output is the broadest measure of economic activity and should not be interpreted as equivalent to value added or regional GDP.

LIMITATIONS OF INPUT-OUTPUT MODELS

IMPLAN is an input-output model that represents the structure of the regional economy at a specific point in time. It estimates how spending flows among businesses, households, and government based on observed economic relationships. In this study, the model measures the economic activity associated with MTS's fiscal year 2025 operations using the structure of the San Diego County economy reflected in the 2024 IMPLAN dataset.

This approach is well suited to estimating the economic contribution of MTS's ongoing operations because it captures how spending circulates through the regional economy under existing economic conditions. The model does not estimate broader economic adjustments, such as changes in wages, prices, labor supply, migration, or business location decisions that could occur in response to major structural changes. As a result, the findings should be interpreted as estimates of MTS's **gross economic contribution** to the current San Diego County economy, rather than the net economic effects of expanding or reducing transit service.

Detailed Results

Exhibit 39. Economic Contributions of MTS Operations Only

Contribution Type	Employment	Labor Income	Value Added	Economic Output
Direct	1,673	$187,350,000	$189,060,000	$440,120,000
Indirect	482	$47,260,000	$80,400,000	$130,210,000
Induced	907	$59,090,000	$116,340,000	$179,590,000
Total Contribution	**3,061**	**$293,690,000**	**$385,810,000**	**$749,930,000**

Source: San Diego MTS, 2025; IMPLAN, 2024; ECOnorthwest analysis
Note: All monetary values rounded and presented in 2025 dollars.

Exhibit 40. Economic Contributions of MTS Capital Expenditures Only

Contribution Type	Employment	Labor Income	Value Added	Economic Output
Direct	-	-	-	$96,300,000
Indirect	38	$3,600,000	$5,100,000	$8,400,000
Induced	14	$900,000	$1,700,000	$2,700,000
Total Contribution	**51**	**$4,500,000**	**$6,800,000**	**$107,400,000**

Source: San Diego MTS, 2025; IMPLAN, 2024; ECOnorthwest analysis
Note: All monetary values rounded and presented in 2025 dollars.

Exhibit 41. Estimated Household Savings, Income Bracket, Detailed

Income Bracket	Transit Rider Income Distribution	Worker Savings	Student Savings	Total Household Savings
<$15K	17.1%	$56,740,000	$33,140,000	$89,890,000
$15K to $30K	17.3%	$83,510,000	$15,950,000	$99,460,000
$30K to $40K	14.9%	$78,770,000	$9,180,000	$87,950,000
$40K to $50K	15.2%	$79,160,000	$9,890,000	$89,050,000
$50K to $70K	15.9%	$79,460,000	$12,650,000	$92,110,000
$70K to $100K	11.6%	$54,510,000	$11,460,000	$65,970,000
$100K to $150	5.0%	$24,310,000	$4,550,000	$28,870,000
$150K to $200	1.2%	$5,850,000	$970,000	$6,810,000
>$200K	1.8%	$8,900,000	$1,470,000	$10,370,000
Total	**100%**	**$471,220,000**	**$99,260,000**	**$570,480,000**

Source: SANDAG 2023 On-Board Transit Passenger Survey; U.S. Census Bureau ACS PUMS and LODES; U.S. Department of Education IPEDS; AAA; U.S. Department of Energy; Bureau of Transportation Statistics; ECOnorthwest analysis

Appendix C: Real Estate Analysis

Hedonic Model Design

Housing prices and rents reflect a combination of property characteristics, neighborhood conditions, accessibility, and broader market forces. A hedonic model provides a way to estimate how individual characteristics are associated with housing costs while accounting for other observable factors that also influence price. This approach is useful for evaluating whether a particular feature of a property or its location is associated with higher or lower rents after controlling for differences among properties.

Components

A hedonic model is a statistical analysis that estimates the value associated with individual characteristics of a good or service. In housing studies, hedonic models are commonly used to evaluate how characteristics such as unit size, building age, property amenities, and location relate to rent or property value. By including these characteristics in the same model, the analysis can estimate the relationship associated with one variable while holding the other modeled factors constant.

- **Dependent variables** are the outcomes the model is designed to explain or predict. In a housing analysis, the dependent variable may be current rent, property value, or the change in rent or value over time.
- **Independent variables** are the characteristics that may help explain differences in the dependent variable. These can include characteristics of the housing unit or building, such as size, age, and amenities, as well as location and neighborhood characteristics such as accessibility or proximity to transportation and other services. The model estimates the relationship between each independent variable and the outcome while accounting for the other variables included in the analysis.
- **Statistical significance** indicates the degree of confidence that an estimated relationship is different from zero rather than the result of random variation in the sample. A statistically significant result provides stronger evidence of an association between a variable and the outcome being modeled, but it does not by itself establish causation.
- **Model fit**, often summarized using the R-squared value, describes how much of the variation in the dependent variable is explained by the variables included in the model. R-squared ranges from 0 to 1, with higher values indicating that the model explains a greater share of observed differences across properties. For example, an R-squared of 0.50 means that the model explains approximately half of the observed variation in the dependent variable. Model fit is one measure used to evaluate how well the model represents patterns in the underlying data.

Exhibit 42. Baseline Rent Model Results

INDEPENDENT VARIABLE	ONE-BEDROOM ESTIMATE	TWO-BEDROOM ESTIMATE
Year built/renovated	4.657*** (0.443)	5.917*** (0.597)
Star rating	415.851*** (20.212)	461.835*** (24.416)
Average unit size (sq. ft.)	0.824*** (0.075)	1.242*** (0.076)
4–5 stories	217.901*** (48.530)	346.298*** (64.506)
6+ stories	291.022*** (63.485)	547.032*** (83.126)
Log distance to coast	-102.686*** (8.635)	-170.251*** (10.870)
Constant	-8,000.761*** (851.361)	-10,104.100*** (1,144.892)
Observations	*2,800*	*3,052*
R^2	*0.435*	*0.461*
Adjusted R^2	*0.434*	*0.460*
Residual Std. Error	*493.149*	*630.119*
F Statistic	*358.543****	*434.369****

Source: CoStar, 2026; U.S. Census Bureau; ECOnorthwest analysis
Notes: Standard errors are shown in parentheses. *** indicates statistical significance at the 1 percent level.

Exhibit 43. Hedonic Model Including Distance to Nearest MTS Trolley Station

INDEPENDENT VARIABLE	ONE-BEDROOM ESTIMATE	TWO-BEDROOM ESTIMATE
Year built/renovated	4.155*** (0.534)	5.762*** (0.719)
Star rating	383.322*** (26.49)	455.110*** (31.56)
Average unit size (sq. ft.)	0.929*** (0.11)	1.246*** (0.09)
4–5 stories	180.792*** (58.71)	194.891** (77.31)
6+ stories	311.466*** (71.20)	527.634*** (89.57)
Log distance to coast	-78.420*** (20.79)	-123.411*** (23.63)
Distance to nearest Trolley station (miles)	-65.421** (31.76)	-89.682** (38.10)
Constant	-7,197.471*** (1,035)	-10,191.070*** (1,399)
Observations	*1,560*	*1,616*
R^2	*0.471*	*0.526*
Adjusted R^2	*0.468*	*0.524*
Residual Std. Error	*480.227*	*593.887*

F Statistic	*197.265***	*254.673****

Source: CoStar, 2026; U.S. Census Bureau; ECOnorthwest analysis
Notes: Standard errors are shown in parentheses.
** indicates statistical significant at the 0.01 level or 99% confidence.
*** indicates statistical significance at the 0.001 level or 99.9% confidence.