

2025 Tourism Impact Report



Waymo's Tourism Impact

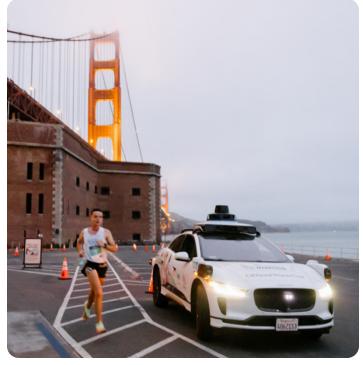
In Phoenix, San Francisco, and Los Angeles, Waymo is already providing safe, electric and accessible everyday transportation to tens of thousands of residents each week through our fully autonomous Waymo One ride-hailing service. At the same time, Waymo One has also caught the attention of tourists.

In the cities where Waymo operates, our Waymo One ride-hailing service has joined the list of "must-see" tourist attractions alongside iconic sights like Alcatraz and the Golden Gate Bridge in San Francisco, the Hollywood Walk of Fame in Los Angeles, and the Tempe Marketplace and Scottsdale Fashion Mall in our Phoenix service area. Tourists are eager to integrate this new and exciting mode of transportation into their travel itineraries, using it to visit local hotspots and sharing their autonomous journeys on social media.¹ This Waymo-facilitated tourism translates directly into positive economic impact for the cities where Waymo operates. That is particularly true in Phoenix, where riders interested in using Waymo One can directly access Phoenix Sky Harbor International Airport, one of the largest in the United States.



66 In the cities where Waymo operates, its ride-hailing service has joined the list of "must-see" tourist attractions.





Waymo contributes to tourism in two key ways: (1) by facilitating visitor trips to additional destinations such as restaurants or entertainment venues, and (2) by attracting visitors to travel to the Bay Area, the Greater Los Angeles Area and Phoenix Metro area to experience Waymo's unique and memorable service. The increase in tourist spending directly affiliated with Waymo trips injects additional revenue into local economies.

Waymo also elevates cultural events, conferences, and conventions. As the Official Autonomous Technology Partner of the Arizona Super Bowl Host Committee, Waymo provided a transportation option for locals, out-of-town football fans and committee volunteers that showcased the city's innovation. Waymo also serves as a powerful draw for conferences, conventions, and hotels offering event organizers a compelling differentiator that enhances the attendee experience while solidifying the host city's reputation as a hub for innovation. As California's major metro areas gear up for future events like the 2026 World Cup and 2028 Summer Olympics in Los Angeles and their downtowns continue to recover from COVID, Waymo can help enhance the tourist experience and attract more visitors.

To study the current and future impacts of Waymo's technology on tourism, Waymo partnered with AECOM, a global, multi-disciplinary consulting firm with specific expertise in transportation innovation, economic development, and urban policy to analyze the current economic benefits of Waymo-facilitated tourism. This report focuses on the Bay Area, with findings applied to Waymo's emerging Los Angeles service territory to project future visitor spending impacts as operations expand.

Tourism (*) study area

This analysis uses Waymo 2024 proprietary trip data and visitor spend data from Visit California for the nine-county San Francisco Bay Area.² The analysis uses Waymo deidentified customers' billing zip codes to delineate local and non-local riders. The blue area highlighted in **Figure 1** depicts zip codes defined as the Bay Area.³ Any Waymo customers with a billing zip code *outside* of the blue area are considered a visitor for the purposes of this analysis.

The SFO Gateway

Each day thousands of visitors enter the nation's tech capital through the San Francisco International Airport (SFO). The airport acts as an international gateway for San Francisco, Silicon Valley, and Northern California, and plays an important role in the regional economy. In 2023, 24.2 million passengers boarded flights at SFO.⁴ Between 2025 and 2050, SFO passenger boarding is expected to grow at an average annual rate of 2.5% according to the Federal Aviation Administration (FAA), outpacing expected annual population growth in both the San Francisco Bay Area (0.7%) and Los Angeles County (0.3%) during the same period.⁵ Figure 1. San Francisco Bay Area, Region: Study Area

East bay

South bay



North bay

San Francisco

San Francisco peninsula

Waymo Visitor Trends

Waymo enhances San Francisco's allure as a tourist destination by offering visitors a safe, comfortable, and futuristic transportation experience. This not only differentiates the city but also strengthens its global brand as a hub of innovation and a must-visit destination for those seeking cutting-edge technology experiences. As Anna Marie Presutti, the new President & CEO of the San Francisco Travel Association aptly stated, "Technology is what put San Francisco on the map - jeans, the iPhone, and now Waymo started here. Of course, people want to be a part of it."⁶ This sentiment highlights how Waymo contributes to the city's identity as a birthplace of innovation, drawing visitors eager to take part in the future of transportation.

While Waymo's service isn't yet available at SFO, many riders have expressed a strong desire to use Waymo for airport transportation: Waymo's July 2024 rider survey found that 89% of surveyed riders are very interested in using Waymo to get to / from SFO. In December 2024, there were approximately 13,366 searches for "SFO" on the Waymo app. In addition, 718 people installed the app while physically at SFO airport.

66 Waymo's July 2024 rider survey found that 89% of surveyed riders are very interested in using Waymo to get to / from SFO.

Nevertheless, upon leaving the airport, tourists are eager to use Waymo during their San Francisco visit. Since the start of commercial operations in August 2023, through July 2024, visitor trips have grown at a strong pace of over 10% weekly on average.

- 3- Bay Area ZIP codes defined using data from DataSF
- 4- FAA: CY23 Enplanements at Commercial Service Airports, by Rank Order
- 5- Plan Bay Area 2050: Forecasting and Modeling Report (PDF Page 31)

Iconic tourist attractions, hotels, and parks are among SF Waymo One riders' top destinations

As of August 2024



Iconic Attractions Piers 39 and 33, Golden Gate Bridge, Ferry Building, Ghirardelli Chocolate Experience, Fisherman's Wharf, Jack London Alley, Palace of Fine Arts, Fort Mason Center, Japan Center, Stonestown Galleria, Union Square, other key small business corridors



Hotels Marriott Marquis, Fairmont SF, Palace Hotel, Hyatt Regency and Grand Hyatt, Hilton Union Square and Financial District, The Westin



Parks & Recreation The Presidio, Maritime National Historic Park, Golden Gate Park, Dolores Park, Alamo Square, Union Square

^{2—} Waymo trip data reflects San Francisco trips taken between July 2023 and July 2024. Visitor spend data reflects the nine-county Bay Area region available in the most recent report <u>"The Economic Impact of Travel in California (2023)"</u> from Visit California.

⁶⁻ Revitalizing a City: How San Francisco Travel is Leading Growth through Innovation and Collaboration - Anna Marie Presutti, SF Travel

Economic Impact Defined

Visitors are bringing new dollars into the region by spending on Waymo One and at popular visitor destinations, but the economic impact of Waymofacilitated tourism extends beyond this direct spending. Direct spending creates a ripple effect, generating indirect impacts as businesses purchase supplies and services to meet increased demand. Furthermore, induced

impacts occur when employees of those businesses spend their wages within the local economy, further amplifying the overall economic benefits of Waymo-facilitated tourism. Analyzing these three levels of economic impact – direct, indirect, and induced – paints a complete picture of Waymofacilitated tourism's contribution to the local economy.

3 levels of economic impact

(direct, indirect and induced) are quantified through three key metrics:

Jobs

The number of Bay Area jobs, at Waymo and across industries, created and supported by Waymofacilitated tourism.

Income

The yearly income accrued to workers from employment at jobs created and supported by Waymofacilitated tourism, including wages, benefits and salaries.

Output

The total economic activity generated across the entire supply chain and local and regional economy as a result of Waymo-facilitated tourism.

Economic & Fiscal Impacts of Waymo Tourism in San Francisco 🕥



Economic Impact Across Visitor Growth Scenarios

Tourism spurred by Waymo generates significant positive impacts for the nine-county San Francisco Bay Area economy. San Francisco's tourism industry is rebounding from the pandemic, but tourism arrivals and spending improved only modestly in 2024.⁷ The tourism outlook is promising for 2025 with Waymo poised to play a key role in the city's continued tourist resurgence - even more so if SFO becomes available. Every single Waymo ride generates economic benefit for the SF Bay Area, culminating in nearly \$40 million in economic output associated with visitor demand.⁸

To assess the economic impact of Waymo-facilitated tourism through direct, indirect and induced economic activity, this analysis modeled three scenarios: The first scenario analyzes current visitor usage in San Francisco. The second explores the potential impact of airport access by increasing current visitor usage to the visitor share of trips in Waymo's Phoenix service area where visitors can access Waymo rides directly from Sky Harbor airport. Finally, a purely illustrative, "mature service" scenario projects the impact of Waymo trips in San Francisco and parts of San Mateo and Santa Clara county (i.e., Waymo's state-permitted operating area as of January 2024 for the 9-county Bay Area) if Waymo were to reach current trip levels for all Transportation Network Companies (TNCs), while keeping the proportion of those trips taken by visitors consistent with Waymo's current San Francisco visitor share. Holding visitor ridership steady offers a conservative estimate of Waymo's potential tourism-driven economic contribution when at scale.⁹

66 Every single Waymo ride generates economic benefit for the SF Bay Area, culminating in nearly \$40 million in economic output associated with visitor demand.

This multi-scenario approach provides a comprehensive estimate of Waymo's current and potential economic contribution to the Bay Area from tourism.

Table 1

Category	Element	Waymo Annual Bay Area Tourism Impact		
		At current SF visitor scale	Assuming airport access	At TNC trip-scale with current SF visitor share
-	Jobs	289	649	4,402
Total impacts (Direct, indirect and induced)	Income	\$15,979,000	\$34,610,000	\$234,688,000
ana madeed)	Output	\$39,668,000	\$88,982,000	\$603,391,000

Waymo's Annual Bay Area Tourism Economic Impact

 \rightarrow

To assess the economic impact of Waymo-facilitated tourism in the Bay Area through direct, indirect and induced economic activity, this analysis modeled three scenarios: (1) current visitor Waymo usage in San Francisco; (2) visitor Waymo usage scaled to Phoenix levels where riders can access Waymo directly from the airport; and (3) Waymo trips matching current rideshare trip volumes in San Francisco, and parts of San Mateo and Santa Clara county (i.e., Waymo's approved ODD as of January 2024 for the 9-county Bay Area), but the proportion of those trips taken by visitors remains at Waymo's current San Francisco visitor levels to provide a conservative estimate of Waymo's potential tourism-driven economic contribution when at scale.

Fiscal Impact Across Visitor Growth Scenarios

In addition to economic benefits, Waymo's tourism operations in San Francisco generate significant additional tax revenue for San Francisco and beyond as money is circulated in the region. This analysis estimates the fiscal impacts for San Francisco County, where Waymo currently has commercial operations.¹⁰

On an annualized basis, using Waymo 2024 trip data and at the current scale of visitor activity, Waymo tourism currently generates \$247,000 dollars in visitor generated sales tax revenue for San Francisco. This sales tax reflects visitor spending at the destinations (i.e., local establishments, including restaurants, shops, and entertainment venues) that tourists would not have visited without the opportunity to use Waymo, in addition to the additional indirect and induced economic activity associated with that visitor demand.¹¹

Across all fiscal impacts, the tax dollars generated from visitor activity can be viewed as *augmenting* the existing tax base in the regional economy. As Waymo scales, its impact on visitor spending and sales tax revenue will only continue to grow. Under an illustrative scenario where the total number of Waymo trips in San Francisco scales to match current TNC trips, the annual visitor fiscal impact would grow to \$2.7 million annually.

Table 2

Waymo's Annual Fiscal Impacts from San Francisco Operations

	San Francisco Fiscal Impacts from Bay Area Tourism		
Tax category	At current SF visitor scale	Assuming airport access	At TNC trip-scale with current SF visitor share
Visitor sales tax revenue	\$247,000	\$554,000	\$2,756,000

^{7 -} SF Travel, "San Francisco Travel Association Forecasts Modest Growth in Visitor Arrivals and Spending in 2024". September 2024.

^{8 –} Economic activity reflects the cost of a Waymo trip and the economic impact associated with visitor demand, including restaurant/entertainment venues a tourist would not have visited without the opportunity to use Waymo. In the absence of original survey data of Waymo rider behavior, this analysis applies the findings from Uber's survey of riders which found that approximately 15% of rider trips would not have occurred in the absence of a ride-hailing service. As a ride-hailing service, these same assumptions are applied to Waymo trips, to estimate that 15% of the visitor trips, or less than 5% of total trips, would not have occurred without Waymo. In other words, Waymo induces a small portion of visitors to visit additional destinations during their stay. See <u>"Uber's Economic Impacts in California"</u> (2023)

^{9 –} Trips to TNC (Transportation Network Companies) scale represents the estimated number of combined completed trips for Uber and Lyft as recorded in the most recent California Public Utilities Commission (CPUC) annual reports (2021). The geographic footprint for Trips to TNC scale reflects Waymo's approved Operational Design Domain application submitted to the CPUC in January 2024. County-level trip data from the CPUC reflect the period between September 2020 to August 2021. These figures were scaled to pre-COVID levels based on statewide trip data available for September 2019 to August 2020 from "TNCs 2020: A Profile of Ride-Hailing in California", released by the San Francisco County Transportation Authority.

¹⁰⁻Excluding the statewide sales tax of 6%, San Francisco's county sales tax is 2.625%

^{11 -} Waymo induces a small portion of visitors to visit additional destinations during their stay. This is explored in more detail in footnote 8 above.

Projected Economic & Fiscal Impacts of Waymo Tourism in Los Angeles

Commercial operations in Los Angeles began in April 2024. Visitor trip data for this emerging service area is not yet as mature as the Bay Area. For this reason, the analysis uses visitor trip shares from the Bay Area to estimate the potential future economic and fiscal impacts of Waymo visitor trips in Waymo's Los Angeles service area. The impacts, however, are adjusted to reflect the unique visitor spending patterns and composition of the Los Angeles economy. In Los Angeles County, every single Waymo ride generates economic benefit. As an illustrative scenario, if Waymo were to reach current trip levels for all TNCs in Los Angeles County, the economic benefit would generate more than \$1 billion in impact.

Waymo has the potential to drive significant visitor revenue to Los Angeles, especially if part of Los Angeles' large scale upcoming events including the 2026 World Cup and 2028 Olympics - just as Waymo did for Phoenix for the 2023 Super Bowl.



Table 3

Waymo's Annual Los Angeles County Tourism Economic Impact

Category	Element	Waymo Annual Los	Waymo Annual Los Angeles County Tourism Impact		
		At current SF visitor scale	Assuming airport access	At TNC trip-scale with current SF visitor share	
Total impacts	Jobs	17	39	4,186	
	Earnings	\$1,865,000	\$4,193,000	\$450,985,000	
	Output	\$4,784,000	\$10,760,000	\$1,156,790,000	



Tourism acts as a powerful engine for economic growth, injecting new money into a region and generating valuable tax revenue.

While tourism itself may not be a core focus for Waymo, our technology is already playing a key role in supporting this vital sector. As this analysis shows, by providing a safe, accessible, exciting, and innovative transportation option, Waymo enhances the visitor experience while boosting local businesses, strengthening the local economy, and raising a region's global profile.

This tourism success story is poised to unfold across California - and beyond - as Waymo continues to expand its service territories. Imagine California innovation being showcased to the world as thousands of fans and visitors experience Waymo One at large-scale events like the World Cup or Olympics.

Waymo's revolution in transportation extends to tourism, where it's contributing to a thriving tourism ecosystem that drives economic growth.

AECOM Methods Used for Analysis

Tourism Impact Analysis

The analysis reflects the economic contribution of Waymo trips attributable to visitors to the Bay Area and Los Angeles. Local/non-local trip counts were based on the zip-codes representing the nine-county Bay Area region. These local/ non-local trip shares were used to develop the visitor trip share assumptions that inform the model. The visitor trip shares were further adjusted based on data provided in Waymo's Q2 2024 PHX Visitor Survey. Waymo has not yet conducted a similar survey for the Bay Area. In this absence, the same assumption is applied to the Bay Area and Los Angeles visitor trip shares. Visitor spend information for the Bay Area region and Los Angeles County was sourced from "The Economic Impact of Travel in California (2023)" released by Visit California. Leisure/Business visitor shares were informed by statewide visitor counts included in this report. Sales tax rates reflect countywide tax rates.

Visitor spending impacts were calculated using Waymo's proprietary business data. These figures were annualized based on weekly and annual trip count information provided by Waymo. This analysis uses findings from rider surveys in the study "Uber's Economic Impacts in California" (2023), which found that 16% of trips were incentivized by the availability of ride-hailing services. This survey finding forms the basis for estimating induced visitor spending, applying it to 15% of all trips. These trip counts were adjusted using a rate of 1.8 trips per visitor informed by Waymo trip data to adjust to a per visitor spend. Spending per visitor was adjusted by the estimated number of trip days (3) and applied to the most common destination spend categories identified in the Waymo trip data. These categories include food service, food stores, arts, entertainment, and recreation, and retail sales. This incentivized visitor spend was applied to the economic impact analysis.

To illustrate the impact of visitor spending as trips scale, two scenarios were considered. In one scenario the level of trips remains at 2024 levels, but the share of visitors grows to the visitor share of trips in Waymo's Phoenix service area, where Waymo can directly access the airport. In the second scenario, Waymo's Bay Area visitor share remains constant, but trips are scaled to TNC levels.

The other scenario, Trips to TNC (Transportation Network Companies) scale, is for illustrative purposes only to estimate the tourism economic impact for a fully developed ride-hail service. This scenario is purely illustrative to analyze tourist impacts at a more mature scale.

This scale represents the estimated number of combined completed trips for Uber and Lyft as recorded in the most recent California Public Utilities Commission (CPUC) annual reports (2021). The geographic footprint for Trips to TNC scale reflects Waymo's approved Operational Design Domain (ODD) application submitted to the CPUC in January 2024. CPUC data is provided at the zip-code level and any zip code partially located within the approved ODD was included in-full. County-level trip data from the CPUC reflect the period between September 2020 to August 2021. These figures were scaled to pre-COVID levels based on statewide trip data available for September 2019 to August 2020 from "TNCs 2020: A Profile of Ride-Hailing in California", released by the San Francisco County Transportation Authority.

Visitor trip spending was categorized into the Taxi and Ridesharing Service industry category at the six-digit NAICS level for the application of input/output multipliers to reflect Waymo's end product operations within the ridehailing industry.¹² Induced visitor spending was applied to aggregated multipliers representing the Accommodations, Food Service, Food Stores, Arts, Entertainment and Recreation, Retail, Local Transportation and Gas, and Visitor Air sectors, as delineated in "The Economic Impact of Travel in California (2023p)" (p. 265-266). Multipliers were calculated for the nine-county Bay Area region as well as Los Angeles County. Multiplier data sourced from EMSI Lightcast and are as of 2023 (datarun 2024.3). Additional detail on the application of inputs output multipliers is included below.

Input/Output Multipliers

The analysis uses input-output multipliers to estimate the current economic contribution of Waymo operations to the Bay Area and Los Angeles County economies. Inputoutput (I/O) multipliers explore the linkages that exist in a regional economy between businesses, households, and governments. It sheds light on the industries, and level of production across industries that is supported by current levels of operations within the businesses of interest. I/O multipliers consider direct, indirect, and included impacts of business operations on a regional economy. Direct impacts are directly attributable to a business's on-site operations or direct contracts/purchases. Indirect impacts capture inter-industry spending, which reflects supply chain activity generated by the economic activity within the industry of analysis. Induced impacts reflect household income effects, which captures how household income generated from earnings and economic activity within related industries is re-spent within the regional economy. Together direct, indirect, and induced effects represent the total economic contribution of an industry within a regional economy.

The analysis relies on 2023 I/O multipliers generated by EMSI Lightcast, which are comparable to I/O multipliers developed by IMPLAN or RIMS II. The analysis specifically uses "Type Lightcast" multipliers, which are proprietary multipliers developed by EMSI Lightcast that captures direct effects, industry to industry transactions (indirect effects), household income and spending (induced effects) and additional effects of amortized investment and government spending. This type of multiplier is best used for modeling long-term regional scenarios, such as the scenarios considered in this analysis.¹³

Interpretation of Results

Results of the economic impact analysis are displayed as direct, indirect, and induced impacts for jobs, income, and output. Economic impacts are reported on an annualized basis. Job impacts reflect the number of economy-wide jobs supported by Waymo's visitor trips only. Income impacts reflect annualized economy-wide employee compensation generated by Waymo visitor trip spend. This measure includes wages, salaries, supplements (benefits and payroll taxes), and proprietor income and excludes income unrelated to employment Output impacts reflect gross receipts from the economic activity generated by Waymo visitor spending. This a broad measure of economic activity that includes both final demand (sales to consumers) and interindustry spending (sales between businesses).

Tourism Fiscal Impact Analysis

This analysis estimates the fiscal impacts of Waymo operations for county-level sales tax. Transient occupancy tax impacts were not calculated as part of this analysis because visitor hotel stays are not directly incentivized by Waymo trips. County sales tax rates are current as of May 2024 and sourced from the California Department of Finance and Taxation. The sales tax base is estimated using the 2022 U.S. Bureau of Economic Analysis Personal Consumption Expenditure data for California and adjusted to 85% to reflect a higher share of visitor spending on taxable goods and services compared to average consumption expenditures.

12 - End product reflects the final or primary product or service a company is providing to its customers.

13 — <u>"EMSI Lightcast,"</u> 2024