

The Economic Impacts of Highway, Street, Bridge, & Transit Investment in Los Angeles County, California

SUPPORTING \$35.7 BILLION IN ANNUAL ECONOMIC ACTIVITY



Commissioned by

The California Alliance for Jobs • The California Transit Association
The California State Association of Counties • The League of California Cities

Prepared by



American Road
& Transportation
Builders Association

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About the Author

This research was conducted for the California Alliance for Jobs by the economics and research team at the Washington, D.C.-based American Road & Transportation Builders Association (ARTBA). This analysis was conducted by Dr. Alison Premo Black, the association's senior vice president and chief economist.

Since joining ARTBA in 2000, Dr. Black has led teams and authored over 100 studies examining state transportation funding and investment patterns. Dr. Black also leads the operation of the Transportation Investment Advocacy Center™. She has a Ph.D. in economics from the George Washington University and a master's in international economics and Latin American Studies from the Johns Hopkins School of Advanced International Studies.

About the American Road & Transportation Builders Association

ARTBA is a federation whose primary goal is to aggressively grow and protect transportation infrastructure investment to meet the public and business demand for safe and efficient travel. In support of this mission, ARTBA also provides programs and services designed to give its more than 8,000 public and private sector members a global competitive edge.

ARTBA's Transportation Investment Advocacy Center™ (TIAC) is a first-of-its kind, dynamic education program and internet-based information resource designed to help private citizens, legislators, organizations and businesses successfully grow transportation investment at the state and local levels through the legislative and ballot initiative processes. It's powered by: transportationinvestment.org.

About The California Alliance for Jobs

The California Alliance for Jobs is a unique labor-management partnership that advocates for responsible investments in public infrastructure projects. Representing over 2,000 heavy construction companies and 80,000 union construction workers, the Alliance focuses on the core of what keeps California's people and economy moving as the state's population grows: transportation networks, water systems, and increasing the quality of infrastructure for all Californians.

About The California Transit Association

The California Transit Association is dedicated to advocating for the creation of transit-friendly policy, to protect and increase transit funding, and to support a balanced transportation system.

About The California State Association of Counties

The primary purpose of CSAC is to represent county government before the California Legislature, administrative agencies and the federal government. CSAC places a strong emphasis on educating the public about the value and need for county programs and services.

About The League of California Cities

The League of California Cities has been shaping the Golden State's political landscape since the association was founded in 1898. We defend and expand local control through advocacy efforts in the Legislature, at the ballot box, in the courts, and through strategic outreach that informs and educates the public, policymakers, and opinion leaders. Cal Cities also offers education and training programs designed to teach city officials about new developments in their field and exchange solutions to common challenges facing their cities.

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I. Executive Summary

The construction, maintenance, and operation of California's highway, street, bridge, and transit infrastructure will yield an average of **\$35.7 billion in annual economic output, earnings, tax revenue, and user benefits in Los Angeles County over the next decade.**

The investment will support an average of 111,800 jobs each year and contribute \$8.6 billion to the Gross State Product (GSP).

In addition to the economic impact quantified in this report, there are additional benefits for California residents and businesses, such as gains in business productivity from greater access to labor, suppliers, and customers, which are not included in this analysis.

This suggests that **the benefits of \$357.5 billion in this report are just the minimum.**

Total highway, street, bridge, and transit investment in California is expected to grow from \$40.4 billion in 2021 to \$52.6 billion in 2030, not including any additional spending included in the 2021 federal infrastructure bill being negotiated in Congress.

This includes investment from federal, state, and local government revenue sources to spend on capital outlays, design work, maintenance, system improvements, safety, administration, and operations.

Investment in Los Angeles County is expected to grow from \$7.6 billion to \$9.9 billion over that time.

Based on the expected mix of capital projects and operations in Los Angeles, the regional impacts of state highway, street, bridge, and transit investments includes:

- Sales and revenue by local businesses of nearly **\$17.1 billion each year**, totaling \$170.6 billion over 10 years. This is across all sectors of the Los Angeles economy.

Highway, street, bridge, and transit investment has a positive economic impact on the state in three ways:

- 1) Transportation agencies, construction firms, and supplier industries purchase goods and services, and hire employees to operate, maintain, and improve the infrastructure network.
- 2) Employees of these firms spend their wages and support additional demand throughout the economy.
- 3) As improvements to the system are made, drivers, shippers, and transit riders will save money through lower operating costs and travel times, improved safety, and greater network access.

How does the economic ripple effect work? The highway, street, bridge, and transit investments support **business sales and output** across all sectors of the economy, which in turn allows firms to hire more **employees**.

The **earnings** from those workers are part of the value each industry contributes to California's **Gross State Product (GSP)**, which is a measure of overall economic output.

Tax revenue is collected from businesses and individuals through state, federal, and local income taxes, sales and use taxes, and corporate taxes. These funds are available to support additional investments in the community.

With improved service and infrastructure, **users of the system** benefit as they save time and money. Safety improvements help reduce crash costs and save lives.

Businesses become more productive as transportation costs decrease and they have greater access to more employees, inputs, services, and customers.

Economic Activity Supported by Highway, Street, Bridge & Transit Investment in Los Angeles County, 2021–2030		
	Total	Annual Average
Savings for Users of the System		
Highway, Street & Bridge	\$27.4 billion	\$2.7 billion
Transit	\$73.2 billion	\$7.3 billion
Economic Impacts		
Business Sales & Output	\$170.6 billion	\$17.1 billion
Employee Earnings	\$43.1 billion	\$4.306 billion
Tax Revenue	\$43.4 billion	\$4.3 billion
Total Economic Benefits	\$357.6 billion	\$35.8 billion
Number of Jobs	1,117,536 job-years	111,754
Contribution to GSP	\$86.2 billion	\$8.6 billion

- This will support **111,800 jobs** each year, with growing investment over the next decade adding over 14,000 new jobs.
- Those workers will **earn an average of \$4.3 billion** per year, resulting in \$43.1 billion in additional earnings over 10 years.
- These earnings are part of the **\$8.6 billion per year value-added** that these businesses contribute to the state GSP.
- Federal, state, and local government **tax revenue from the economic activity will average \$6 billion per year**, for a total of \$59.8 billion over the decade. This includes estimated revenues from individual income, business, corporate, and sales and use taxes.

In addition to the immediate economic impacts, drivers and transit riders will benefit from additional savings as improvements and upgrades are made to the road and transit networks.

Depending on the mix of projects, user benefits could average as much as \$10 billion per year for Los Angeles County drivers, transit riders, and businesses, adding up to \$100.6 billion over 10 years.

Commuters and truck drivers will spend less time sitting in traffic and the cost of maintaining and operating vehicles will go down as roadway conditions improve and safety enhancements are put in place. Transit riders will take more trips and have greater access to goods and services.

Any future revenue increases would support additional economic output and would continue to improve system conditions and the quality of life for California residents for the next generation.

II. Economic Impact of Transportation Investment in Los Angeles County

Highway, street, bridge, and transit investment in Los Angeles County has a significant impact on all sectors of the county's economy. Transportation capital investments triggers immediate economic activity that creates and sustains jobs and tax revenues while yielding long-lived capital assets that facilitate economic growth for the next generation by providing access to jobs, services, materials, and markets.

Los Angeles County's highway, street, bridge, and transit investment will support the following benefits over the next decade:

- Generate nearly \$17.1 billion annually in economic output as businesses throughout the economy sell goods and services to both other businesses and consumers, totaling \$170.6 billion over 10 years.
- Contribute \$8.6 billion per year of state GSP, adding up to \$86.2 billion over 10 years.
- Support or create 111,754 jobs on average each year throughout the economy, with nearly 90 percent of the employment outside of the construction industry. This includes an estimated 51,732 jobs in transportation and warehousing, 9,973 jobs in manufacturing and trade, and 8,873 jobs in professional and business services. This will add up to over 1.1 million job-years supported or created over the next 10 years.
- These workers will earn nearly \$4.3 billion in wages annually, totaling \$43 billion over 10 years.
- \$4.3 billion in additional tax revenues each year, adding up to \$43.3 billion over 10 years. This includes:
 - \$1.2 billion in annual state and local tax revenue from payroll, business, income, sales and use taxes, totaling \$12 billion over 10 years
 - \$3.1 billion in annual federal payroll, income, and business taxes, totaling \$31.2 billion over 10 years

This economic activity is broken down by four different types of transportation spending.

- Highway, street, and bridge construction and maintenance activity include major investments to improve the infrastructure.
- Transit construction is comprised of improvements to the physical infrastructure and the purchase of other capital, such as rolling stock.
- Other highway, street, and bridge spending encompasses additional investments by state and local governments on operations, planning and design work, right of way purchases, administration, research, and overhead.
- Transit operations include spending to run transit agencies and deliver services to California residents.

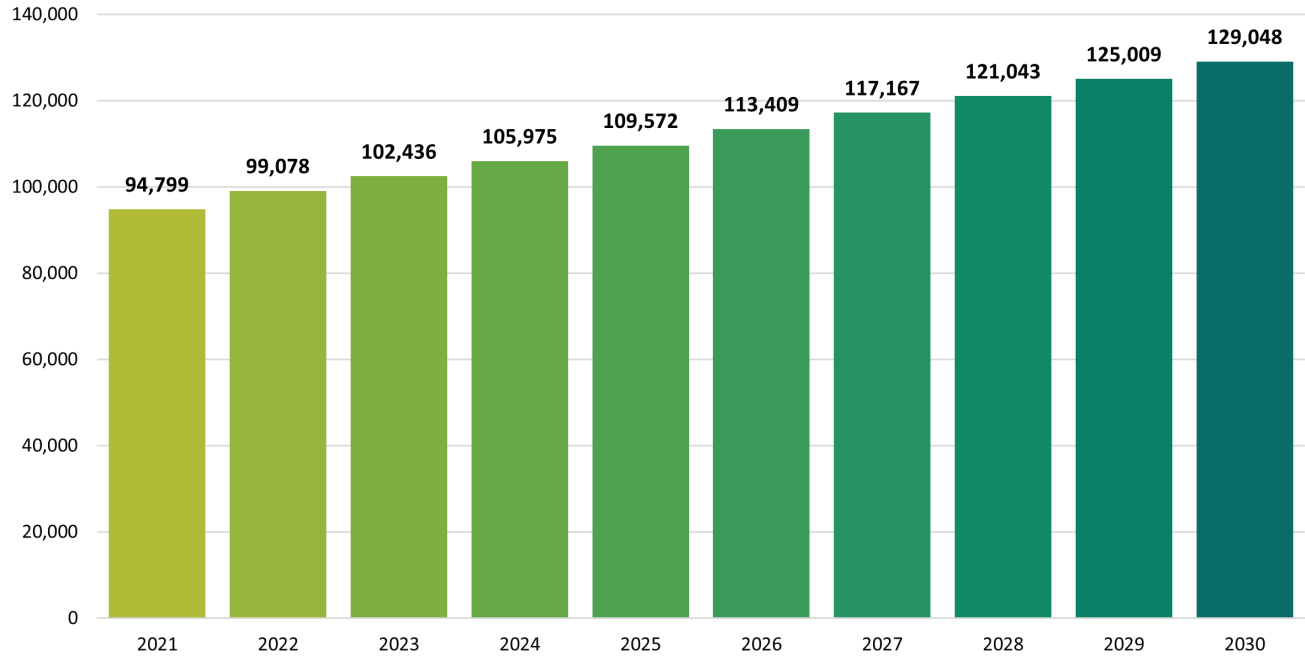
**Total Economic Impact of Highway, Bridge, Street and Transit Investment
in Los Angeles County Over 10 Years (in billions \$)**

	Impact of Highway, Bridge and Street Construction	Impact of Transit Construction	Impact of Transit Operations & Other Activity	Impact of Design, Engineering, Right of Way, Project Support and Administration	Total Impact
Total Output	\$26.6	\$28.1	\$58.3	\$57.6	\$170.6
Total Value Added (GSP)	\$13.9	\$14.7	\$29.3	\$28.2	\$86.2
Earnings	\$6.2	\$6.5	\$17.3	\$13.1	\$43.1
Employment (Job-Years)	108,886	115,066	657,731	235,853	1,117,536
Total Tax Revenues	\$5.0	\$5.3	\$24.8	\$8.2	\$43.4
Federal Tax Revenue	\$3.7	\$3.9	\$17.9	\$5.9	\$31.3
State & Local Tax Revenue	\$1.4	\$1.5	\$6.9	\$2.3	\$12.1

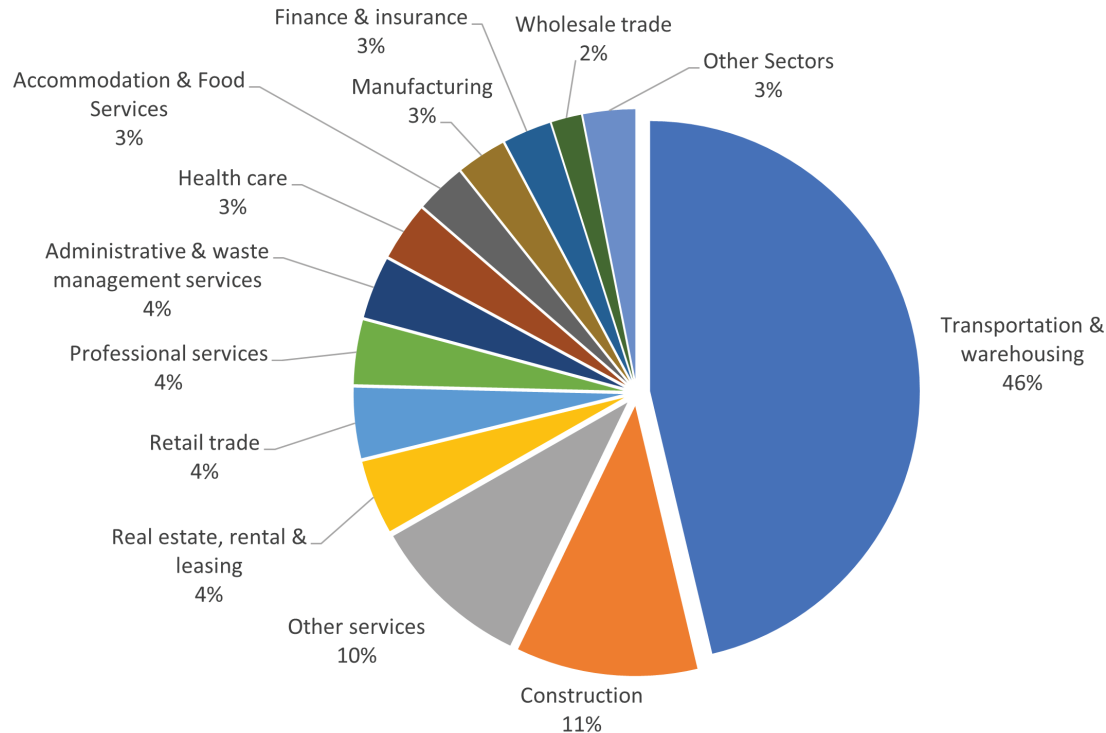
**Annual Average Economic Impact of Highway, Bridge, Street and Transit Investment
in Los Angeles County (in billions \$)**

	Impact of Highway, Bridge and Street Construction	Impact of Transit Construction	Impact of Transit Operations & Other Activity	Impact of Design, Engineering, Right of Way, Project Support and Administration	Total Annual Impact
Total Output	\$2.7	\$2.8	\$5.8	\$5.8	\$17.1
Total Value Added (GSP)	\$1.4	\$1.5	\$2.9	\$2.8	\$8.6
Earnings	\$0.6	\$0.7	\$1.7	\$1.3	\$4.3
Employment	10,889	11,507	65,773	23,585	111,754
Total Tax Revenues	\$0.5	\$0.5	\$2.5	\$0.8	\$4.3
Federal Tax Revenue	\$0.4	\$0.4	\$1.8	\$0.6	\$3.1
State & Local Tax Revenue	\$0.1	\$0.1	\$0.7	\$0.2	\$1.2

Jobs Supported/Created in Los Angeles County by Highway, Street, Bridge, & Transit Investment



Breakdown of Jobs Supported/Created in Los Angeles County by Highway, Street, Bridge, & Transit Investment



III. Economic Impact of Highway, Street, Bridge & Transit Investment on Major Industry Sectors

Highway, street, bridge, and transit investment has an impact across all sectors of the California economy. This comes from spending on capital projects, system upgrades, maintenance, administration, research, safety, and other spending that supports the operation, maintenance, and upgrades to the transportation system.

The following section calculates the economic impact of highway, street, bridge, and transit investment for major industry sectors in Los Angeles County.

These sectors include:

Accommodation and Food Services

The Accommodation and Food Services sector comprises establishments providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption.

Administrative and Support and Waste Management and Remediation Services

The Administrative and Support and Waste Management and Remediation Services sector comprises establishments performing routine support activities for the day-to-day operations of other organizations.

Agriculture, Forestry, Fishing, and Hunting

The Agriculture, Forestry, Fishing and Hunting sector comprises establishments primarily engaged in growing crops, raising animals, harvesting timber, and harvesting fish and other animals from a farm, ranch, or their natural habitats.

Arts, Entertainment, and Recreation

The Arts, Entertainment, and Recreation sector includes a wide range of establishments that operate facilities or provide services to meet varied cultural, entertainment, and recreational interests of their patrons.

Construction

Construction sector comprises establishments primarily engaged in the construction of buildings or engineering projects (e.g., highways and utility systems).

Educational Services

The Educational Services sector comprises establishments that provide instruction and training in a wide variety of subjects.

Finance and Insurance

The Finance and Insurance sector comprises establishments primarily engaged in financial transactions (transactions involving the creation, liquidation, or change in ownership of financial assets) and/or in facilitating financial transactions.

Health Care and Social Assistance

The Health Care and Social Assistance sector comprises establishments providing health care and social assistance for individuals.

Information

The Information sector comprises establishments engaged in the following processes: (a) producing and distributing information and cultural products, (b) providing the means to transmit or distribute these products as well as data or communications, and (c) processing data.

Management of Companies and Enterprises

The Management of Companies and Enterprises sector comprises (1) establishments that hold the securities of (or other equity interests in) companies and enterprises for the purpose of owning a controlling interest or influencing management decisions or (2) establishments (except government establishments) that administer, oversee, and manage establishments of the company or enterprise and that normally undertake the strategic or organizational planning and decision-making role of the company or enterprise.

Manufacturing

Manufacturing sector comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products.

Mining

Mining, Quarrying, and Oil and Gas Extraction sector comprises establishments that extract naturally occurring mineral solids, such as coal and ores; liquid minerals, such as crude petroleum; and gases, such as natural gas.

Other Services

The Other Services (except Public Administration) sector comprises establishments engaged in providing services not specifically provided for elsewhere in the classification system.

Professional, Scientific, and Technical Services

The Professional, Scientific, and Technical Services sector comprises establishments that specialize in performing professional, scientific, and technical activities for others.

Real Estate and Rental and Leasing

The Real Estate and Rental and Leasing sector comprises establishments primarily engaged in renting, leasing, or otherwise allowing the use of tangible or intangible assets, and establishments providing related services.

Retail Trade

Retail Trade sector comprises establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.

Transportation and Warehousing

The Transportation and Warehousing sector include industries providing transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation.

Utilities

Utilities sector comprises establishments engaged in the provision of the following utility services: electric power, natural gas, steam supply, water supply, and sewage removal.

Wholesale Trade

Wholesale Trade sector comprises establishments engaged in wholesaling merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.

Total Economic Impact of Highway, Bridge, Street & Transit Investment in Los Angeles County				
Industry	Impact on Industry Output (in millions)	Jobs Supported or Created (job-years)	Earnings (in millions)	Tax Revenues (in millions)
Accommodation and Food Services	\$252	3,308	\$76	\$145
Administrative and waste management services	\$344	4,126	\$131	\$215
Agriculture, forestry, fishing, and hunting	\$2	19	\$1	\$1
Arts, entertainment, and recreation	\$84	901	\$26	\$37
Construction	\$3,366	12,144	\$785	\$638
Educational services	\$70	924	\$29	\$6
Finance and insurance	\$931	3,208	\$217	\$137
Health care and social assistance	\$469	3,849	\$190	\$121
Information	\$363	939	\$71	\$61
Management of companies and enterprises	\$112	338	\$39	\$20
Manufacturing	\$1,662	3,281	\$243	\$140
Mining	\$116	163	\$13	\$7
Other services	\$3,213	10,730	\$663	\$205
Professional, scientific, and technical services	\$763	4,269	\$301	\$209
Real estate and rental and leasing	\$1,040	4,937	\$156	\$221
Retail trade	\$457	4,699	\$145	\$194
Transportation and warehousing	\$3,078	51,732	\$1,060	\$1,892
Utilities	\$204	192	\$23	\$3
Wholesale trade	\$533	1,993	\$138	\$86
Total industry impact	\$17,059	111,754	\$4,306	\$4,337

Average Annual Economic Impact of Highway, Bridge, Street & Transit Investment in Los Angeles County				
Industry	Impact on Industry Output (in millions)	Jobs Supported or Created	Earnings (in millions)	Tax Revenues (in millions)
Accommodation and Food Services	\$2,522	33,081	\$756	\$1,449
Administrative and waste management services	\$3,439	41,264	\$1,305	\$2,148
Agriculture, forestry, fishing, and hunting	\$23	195	\$9	\$9
Arts, entertainment, and recreation	\$839	9,012	\$260	\$374
Construction	\$33,660	121,444	\$7,854	\$6,377
Educational services	\$701	9,244	\$295	\$62
Finance and insurance	\$9,311	32,082	\$2,173	\$1,370
Health care and social assistance	\$4,689	38,494	\$1,900	\$1,210
Information	\$3,629	9,386	\$712	\$606
Management of companies and enterprises	\$1,124	3,378	\$388	\$195
Manufacturing	\$16,620	32,814	\$2,428	\$1,403
Mining	\$1,158	1,627	\$132	\$72
Other services	\$32,130	107,298	\$6,630	\$2,054
Professional, scientific, and technical services	\$7,627	42,689	\$3,007	\$2,086
Real estate and rental and leasing	\$10,400	49,370	\$1,559	\$2,208
Retail trade	\$4,567	46,991	\$1,446	\$1,935
Transportation and warehousing	\$30,780	517,317	\$10,600	\$18,920
Utilities	\$2,039	1,924	\$231	\$32
Wholesale trade	\$5,334	19,927	\$1,379	\$862
Total industry impact	\$170,592	1,117,536	\$43,063	\$43,372

Accommodation and Food Services

Highway, street, bridge, and transit investment in Los Angeles County will support \$3 billion in business output for this industry over the next decade.

This sector currently includes 23,178 establishments that employ 448,709 people in Los Angeles, who earn \$12 billion in wages.

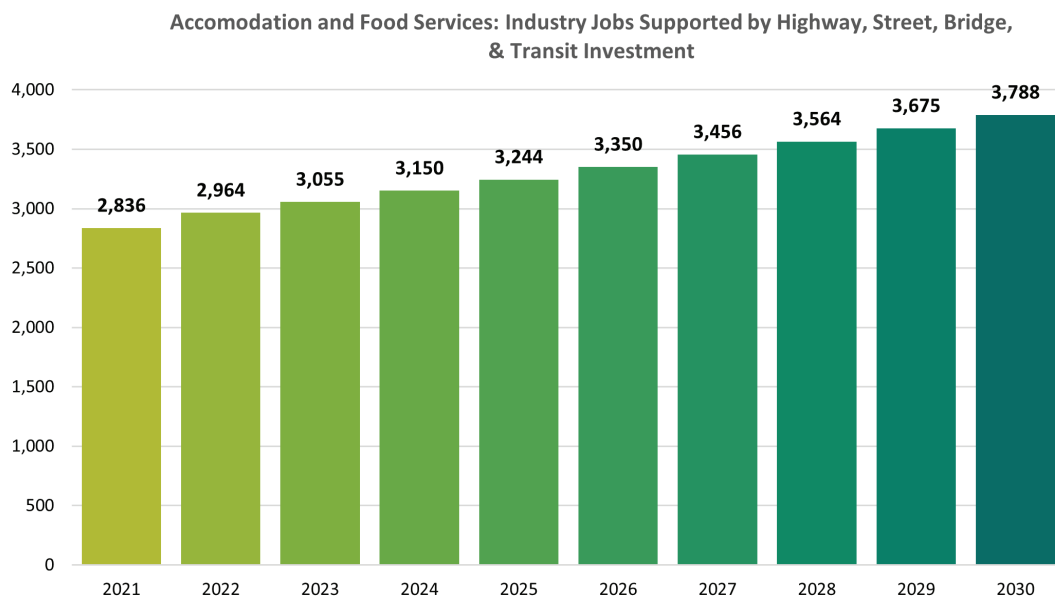
The average annual economic activity supported by highway, street, bridge, and transit investment include:

- \$252.2 million in business output
- \$139.4 million in gross state product (GSP)
- 3,308 jobs either supported or created
- \$144.9 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$252.2 million	\$2.5 billion
GSP	\$139.4 million	\$1.4 billion
Employment	3,308 jobs	33,081 jobs-years*
Payroll	\$75.6 million	\$755.7 million
Tax Revenue	\$144.9 million	\$1.4 billion

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Accommodation and Food Services sector comprises establishments providing customers with lodging and/or repairing meals, snacks, and beverages for immediate consumption.



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Administrative and Waste Management Services

Highway, street, bridge, and transit investment in Los Angeles County will support \$3 billion in business output for this industry over the next decade.

This sector currently includes 13,392 establishments that employ 278,535 people in Los Angeles, who earn \$13 billion in wages.

The average annual economic activity supported by highway, street, bridge, and transit investment include:

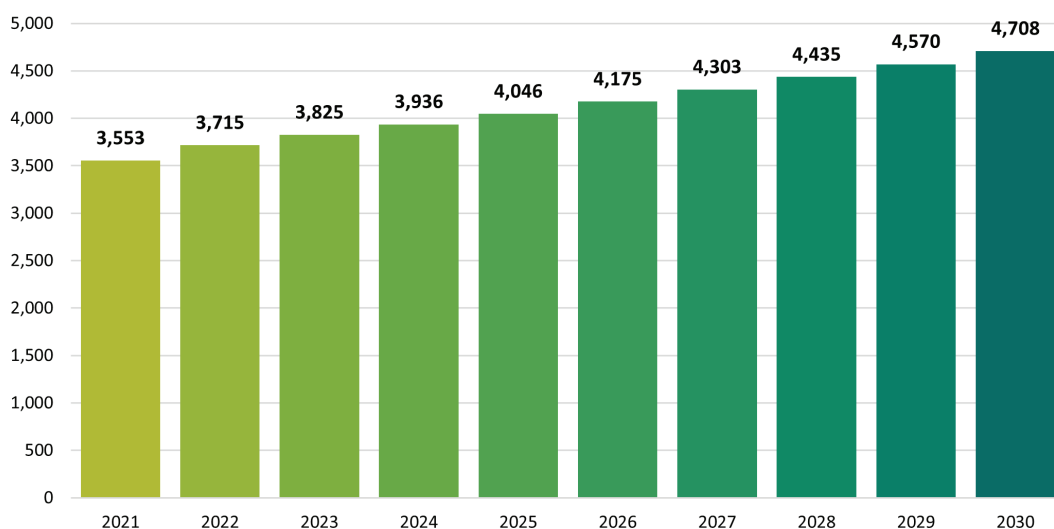
- \$343.9 million in business output
- \$214.8 million in gross state product (GSP)
- 4,126 jobs either supported or created
- \$214.8 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$343.9 million	\$3.4 billion
GSP	\$214.8 million	\$2.1 billion
Employment	4,126 jobs	41,264 jobs-years*
Payroll	\$130.5 million	\$1.3 billion
Tax Revenue	\$214.8 million	\$2.1 billion

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Administrative and Support and Waste Management and Remediation Services sector comprises establishments performing routine support activities for the day-to-day operations of other organizations.

Administrative and Waste Management Services: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Agriculture, Forestry, Fishing, and Hunting

Highway, street, bridge, and transit investment in Los Angeles County will support \$23 million in business output for this industry over the next decade.

This sector currently includes 435 establishments that employ 4,383 people in Los Angeles, who earn \$186 million in wages.

The average annual economic activity supported by highway, street, bridge, and transit investment include:

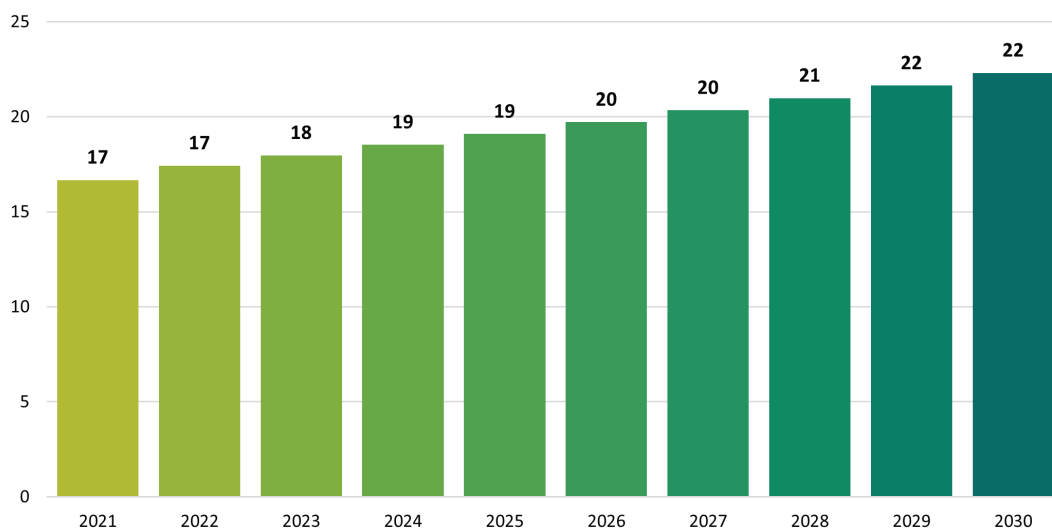
- \$2.3 million in business output
- \$1.4 million in gross state product (GSP)
- 19 jobs either supported or created
- \$0.9 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$2.3 million	\$22.9 million
GSP	\$1.4 million	\$14.3 million
Employment	19 jobs	195 jobs-years*
Payroll	\$0.9 million	\$8.7 million
Tax Revenue	\$0.9 million	\$9.3 million

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Agriculture, Forestry, Fishing and Hunting sector comprises establishments primarily engaged in growing crops, raising animals, harvesting timber, and harvesting fish and other animals from a farm, ranch, or their natural habitats.

Agriculture, Forestry, Fishing, and Hunting: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Arts, Entertainment, and Recreation

Highway, street, bridge, and transit investment in Los Angeles County will support \$839 million in business output for this industry over the next decade.

This sector currently includes 16,058 establishments that employ 107,967 people in Los Angeles, who earn \$12 billion in wages.

The average annual economic activity supported by highway, street, bridge, and transit investment include:

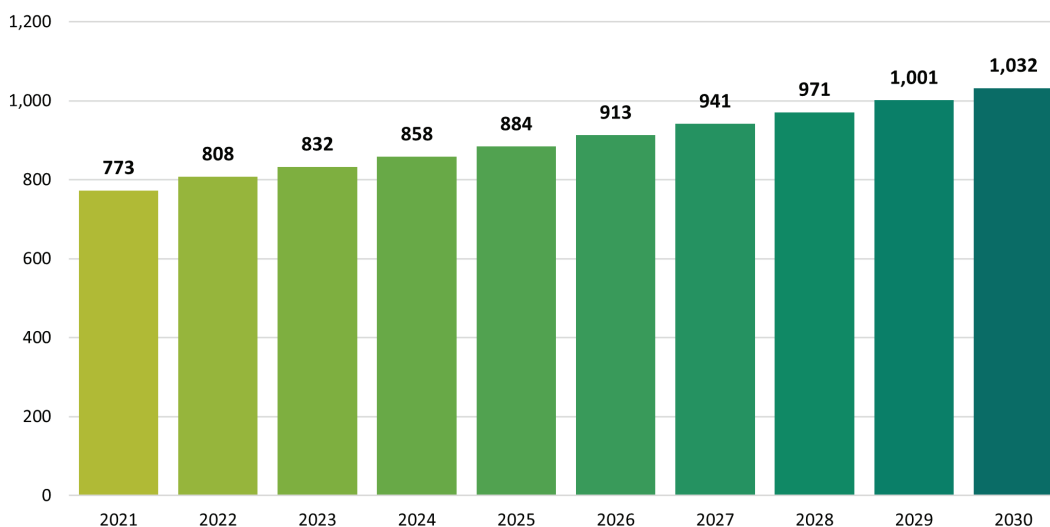
- \$83.9 million in business output
- \$49.0 million in gross state product (GSP)
- 901 jobs either supported or created
- \$37.4 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$83.9 million	\$838.9 million
GSP	\$49.0 million	\$489.6 million
Employment	901 jobs	9,012 jobs-years*
Payroll	\$26.0 million	\$260.4 million
Tax Revenue	\$37.4 million	\$373.9 million

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Arts, Entertainment, and Recreation sector includes a wide range of establishments that operate facilities or provide services to meet varied cultural, entertainment, and recreational interests of their patrons.

Arts, Entertainment, and Recreation: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Construction

Highway, street, bridge, and transit investment in Los Angeles County will support \$34 billion in business output for this industry over the next decade.

This sector currently includes 16,755 establishments that employ 149,695 people in Los Angeles, who earn \$10 billion in wages.

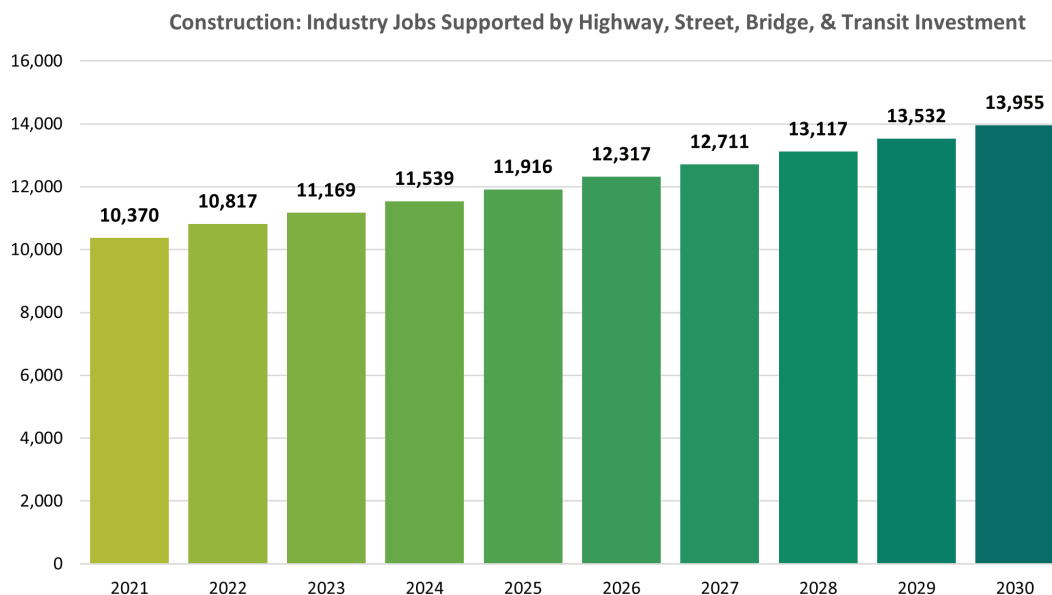
The average annual economic activity supported by highway, street, bridge, and transit investment include:

- \$3.4 million in business output
- \$1.8 million in gross state product (GSP)
- 12,144 jobs either supported or created
- \$637.7 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$3.4 billion	\$33.7 billion
GSP	\$1.8 billion	\$17.6 billion
Employment	12,144 jobs	121,444 jobs-years*
Payroll	\$785.4 million	\$7.9 billion
Tax Revenue	\$637.7 million	\$6.4 billion

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Construction sector comprises establishments primarily engaged in the construction of buildings or engineering projects (e.g., highways and utility systems).



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Educational Services

Highway, street, bridge, and transit investment in Los Angeles County will support \$701 million in business output for this industry over the next decade.

This sector currently includes 8,658 establishments that employ 380,928 people in Los Angeles, who earn \$24 billion in wages.

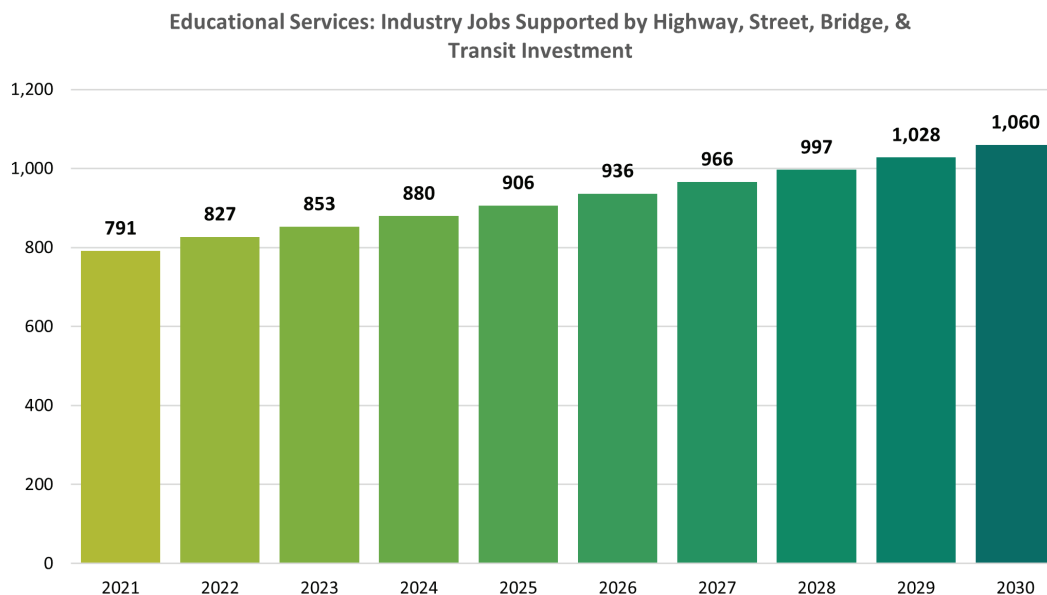
The average annual economic activity supported by highway, street, bridge, and transit investment include:

- \$70.1 million in business output
- \$42.9 million in gross state product (GSP)
- 924 jobs either supported or created
- \$6.2 million in federal, state, and local tax revenue

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Educational Services sector comprises establishments that provide instruction and training in a wide variety of subjects.

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$70.1 million	\$700.9 million
GSP	\$42.9 million	\$429.2 million
Employment	924 jobs	9,244 jobs-years*
Payroll	\$29.5 million	\$294.8 million
Tax Revenue	\$6.2 million	\$62.0 million



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Finance and Insurance

Highway, street, bridge, and transit investment in Los Angeles County will support \$9 billion in business output for this industry over the next decade.

This sector currently includes 13,159 establishments that employ 134,635 people in Los Angeles, who earn \$18 billion in wages.

The average annual economic activity supported by highway, street, bridge, and transit investment include:

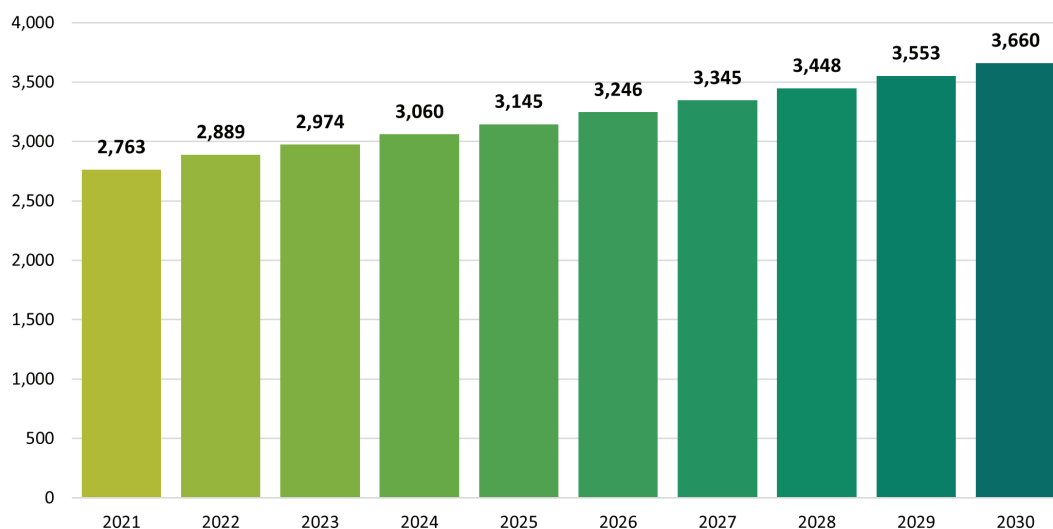
- \$931.1 million in business output
- \$478.0 million in gross state product (GSP)
- 3,208 jobs either supported or created
- \$137.0 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$931.1 million	\$9.3 billion
GSP	\$478.0 million	\$4.8 billion
Employment	3,208 jobs	32,082 jobs-years*
Payroll	\$217.3 million	\$2.2 billion
Tax Revenue	\$137.0 million	\$1.4 billion

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Finance and Insurance sector comprises establishments primarily engaged in financial transactions (transactions involving the creation, liquidation, or change in ownership of financial assets) and/or in facilitating financial transactions.

Finance and Insurance: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Health Care and Social Assistance

Highway, street, bridge, and transit investment in Los Angeles County will support \$5 billion in business output for this industry over the next decade.

This sector currently includes 240,938 establishments that employ 777,828 people in Los Angeles, who earn \$39 billion in wages.

The average annual economic activity supported by highway, street, bridge, and transit investment include:

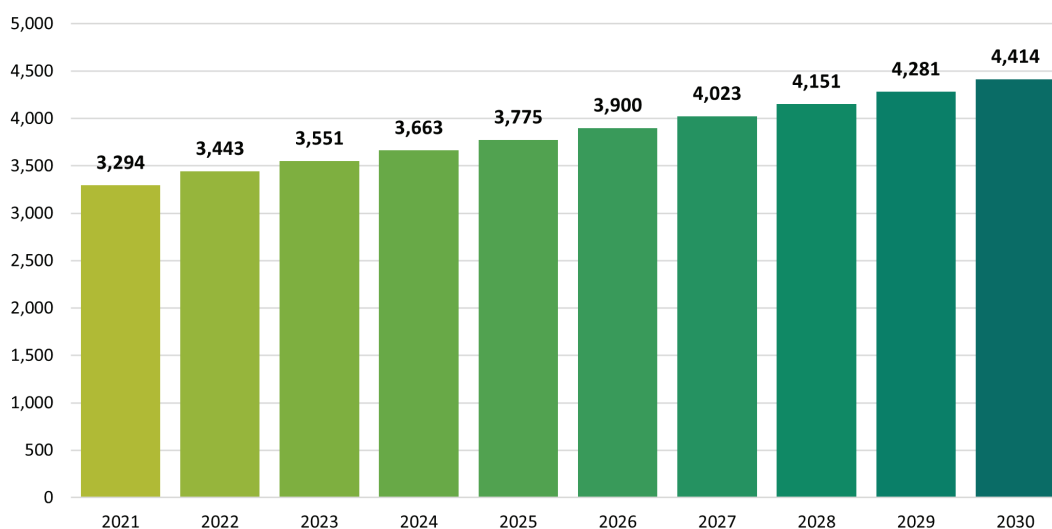
- \$468.9 million in business output
- \$279.5 million in gross state product (GSP)
- 3,849 jobs either supported or created
- \$121.0 million in federal, state, and local tax revenue

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Health Care and Social Assistance sector comprises establishments providing health care and social assistance for individuals.

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$468.9 million	\$4.7 billion
GSP	\$279.5 million	\$2.8 billion
Employment	3,849 jobs	38,494 jobs-years*
Payroll	\$190.0 million	\$1.9 billion
Tax Revenue	\$121.0 million	\$1.2 billion

Health Care and Social Assistance: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Information

Highway, street, bridge, and transit investment in Los Angeles County will support \$4 billion in business output for this industry over the next decade.

This sector currently includes 13,195 establishments that employ 210,439 people in Los Angeles, who earn \$29 billion in wages.

The average annual economic activity supported by highway, street, bridge, and transit investment include:

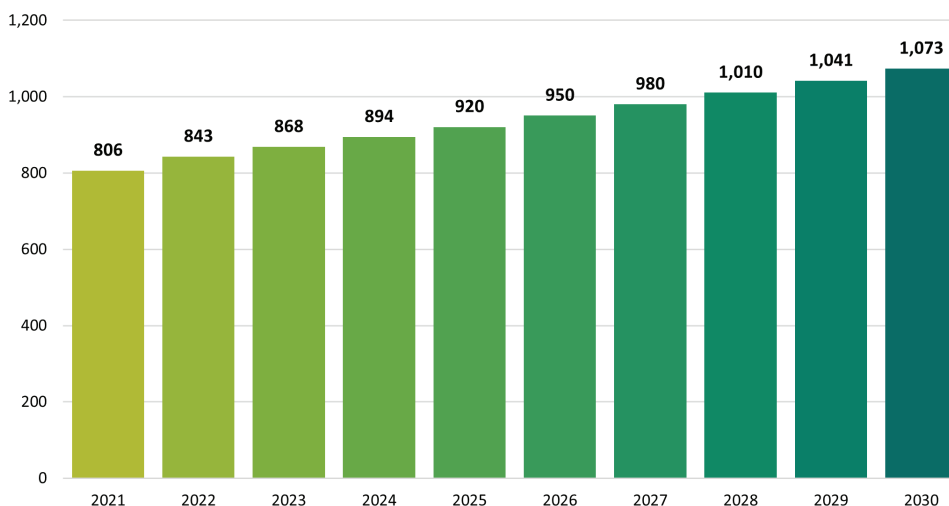
- \$362.9 million in business output
- \$207.5 million in gross state product (GSP)
- 939 jobs either supported or created
- \$60.6 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$362.9 million	\$3.6 billion
GSP	\$207.5 million	\$2.1 billion
Employment	939 jobs	9,386 jobs-years*
Payroll	\$71.2 million	\$711.7 million
Tax Revenue	\$60.6 million	\$605.8 million

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Information sector comprises establishments engaged in the following processes: (a) producing and distributing information and cultural products, (b) providing the means to transmit or distribute these products as well as data or communications, and (c) processing data.

Information: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Management of Companies and Enterprises

Highway, street, bridge, and transit investment in Los Angeles County will support \$1 billion in business output for this industry over the next decade.

This sector currently includes 1,080 establishments that employ 62,711 people in Los Angeles, who earn \$7 billion in wages.

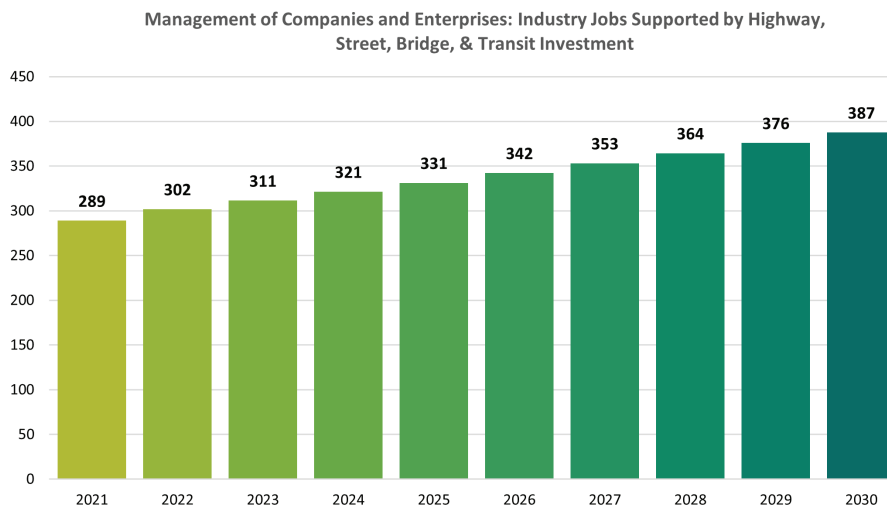
The average annual economic activity supported by highway, street, bridge, and transit investment include:

- \$112.4 million in business output
- \$67.5 million in gross state product (GSP)
- 338 jobs either supported or created
- \$19.5 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$112.4 million	\$1.1 billion
GSP	\$67.5 million	\$675.5 million
Employment	338 jobs	3,378 jobs-years*
Payroll	\$38.8 million	\$388.1 million
Tax Revenue	\$19.5 million	\$195.3 million

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Management of Companies and Enterprises sector comprises (1) establishments that hold the securities of (or other equity interests in) companies and enterprises for the purpose of owning a controlling interest or influencing management decisions or (2) establishments (except government establishments) that administer, oversee, and manage establishments of the company or enterprise and that normally undertake the strategic or organizational planning and decision making role of the company or enterprise.



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Manufacturing

Highway, street, bridge, and transit investment in Los Angeles County will support \$17 billion in business output for this industry over the next decade.

This sector currently includes 12,617 establishments that employ 338,308 people in Los Angeles, who earn \$25 billion in wages.

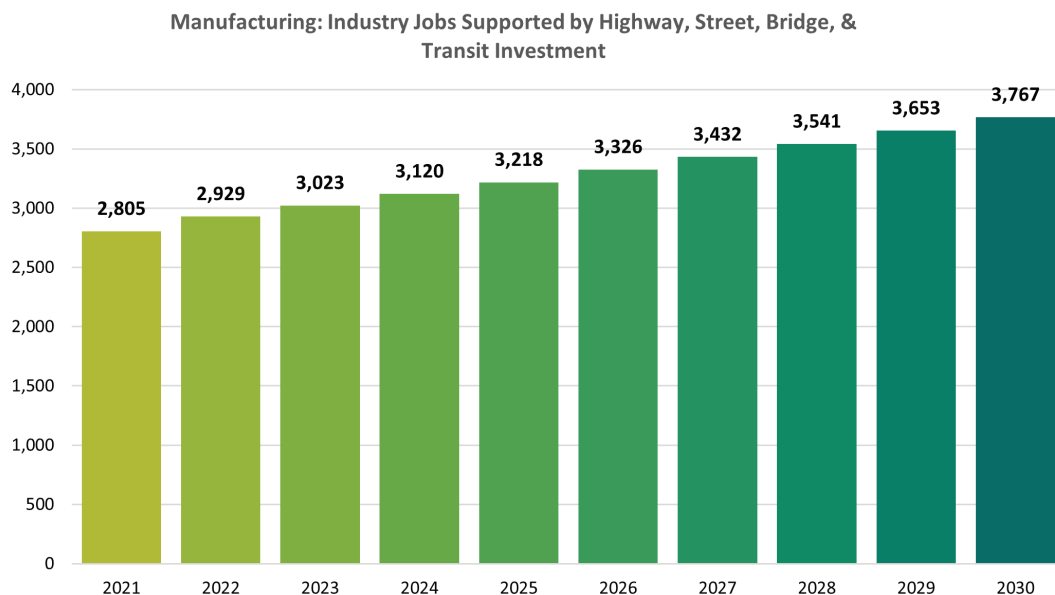
The average annual economic activity supported by highway, street, bridge, and transit investment include:

- \$1.7 million in business output
- \$524.6 million in gross state product (GSP)
- 3,281 jobs either supported or created
- \$140.3 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$1.7 billion	\$16.6 billion
GSP	\$524.6 million	\$5.2 billion
Employment	3,281 jobs	32,814 jobs-years*
Payroll	\$242.8 million	\$2.4 billion
Tax Revenue	\$140.3 million	\$1.4 billion

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Manufacturing sector comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products.



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Mining

Highway, street, bridge, and transit investment in Los Angeles County will support \$1 billion in business output for this industry over the next decade.

This sector currently includes 93 establishments that employ 1,895 people in Los Angeles, who earn \$180 million in wages.

The average annual economic activity supported by highway, street, bridge, and transit investment include:

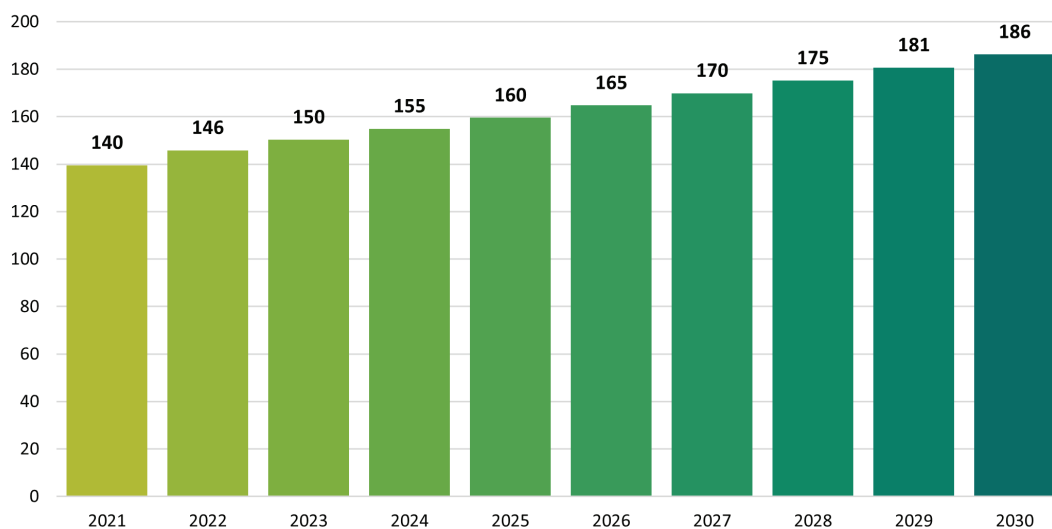
- \$115.8 million in business output
- \$80.0 million in gross state product (GSP)
- 163 jobs either supported or created
- \$7.2 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$115.8 million	\$1.2 billion
GSP	\$80.0 million	\$800.2 million
Employment	163 jobs	1,627 jobs-years*
Payroll	\$13.1 million	\$131.5 million
Tax Revenue	\$7.2 million	\$71.7 million

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Mining, Quarrying, and Oil and Gas Extraction sector comprises establishments that extract naturally occurring mineral solids, such as coal and ores; liquid minerals, such as crude petroleum; and gases, such as natural gas.

Mining: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Other Services

Highway, street, bridge, and transit investment in Los Angeles County will support \$32 billion in business output for this industry over the next decade.

This sector currently includes 29,056 establishments that employ 154,961 people in Los Angeles, who earn \$7 billion in wages.

The average annual economic activity supported by highway, street, bridge, and transit investment include:

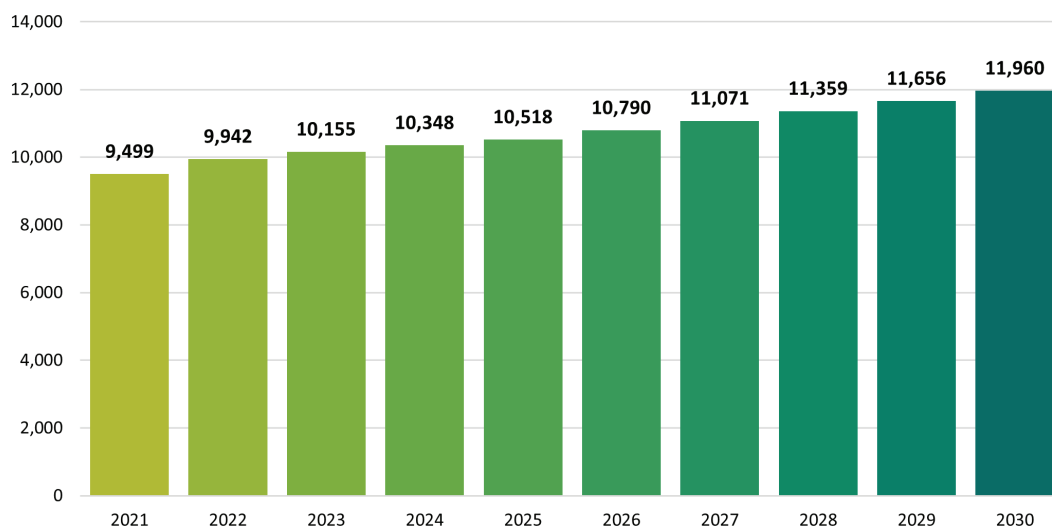
- \$3.2 million in business output
- \$1.4 million in gross state product (GSP)
- 10,730 jobs either supported or created
- \$205.4 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$3.2 billion	\$32.1 billion
GSP	\$1.4 billion	\$13.8 billion
Employment	10,730 jobs	107,298 jobs-years*
Payroll	\$663.0 million	\$6.6 billion
Tax Revenue	\$205.4 million	\$2.1 billion

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Other Services (except Public Administration) sector comprises establishments engaged in providing services not specifically provided for elsewhere in the classification system.

Other Services: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Professional, Scientific, and Technical Services

Highway, street, bridge, and transit investment in Los Angeles County will support \$8 billion in business output for this industry over the next decade.

This sector currently includes 41,530 establishments that employ 299,007 people in Los Angeles, who earn \$33 billion in wages.

The average annual economic activity supported by highway, street, bridge, and transit investment include:

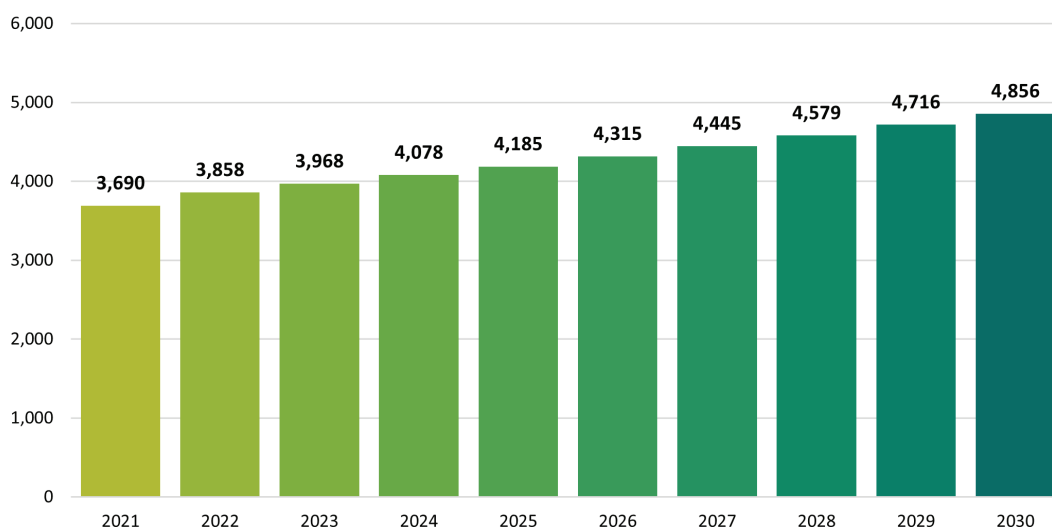
- \$762.7 million in business output
- \$471.5 million in gross state product (GSP)
- 4,269 jobs either supported or created
- \$208.6 million in federal, state, and local tax revenue

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Professional, Scientific, and Technical Services sector comprises establishments that specialize in performing professional, scientific, and technical activities for others.

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$762.7 million	\$7.6 billion
GSP	\$471.5 million	\$4.7 billion
Employment	4,269 jobs	42,689 jobs-years*
Payroll	\$300.7 million	\$3.0 billion
Tax Revenue	\$208.6 million	\$2.1 billion

Professional, Scientific, and Technical Services: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Real Estate and Rental and Leasing

Highway, street, bridge, and transit investment in Los Angeles County will support \$10 billion in business output for this industry over the next decade.

This sector currently includes 16,956 establishments that employ 88,646 people in Los Angeles, who earn \$7 billion in wages.

The average annual economic activity supported by highway, street, bridge, and transit investment include:

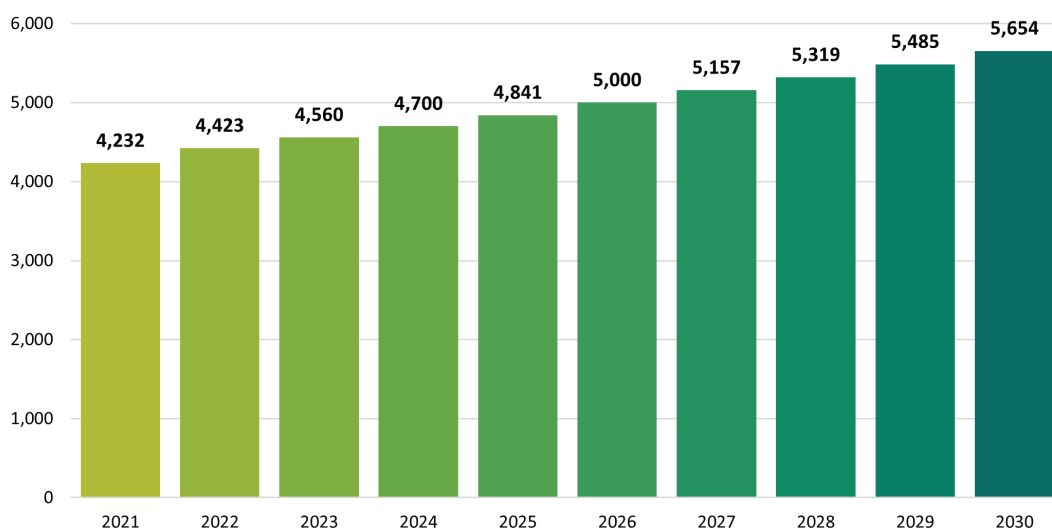
- \$1.0 million in business output
- \$727.8 million in gross state product (GSP)
- 4,937 jobs either supported or created
- \$220.8 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$1.0 billion	\$10.4 billion
GSP	\$727.8 million	\$7.3 billion
Employment	4,937 jobs	49,370 jobs-years*
Payroll	\$155.9 million	\$1.6 billion
Tax Revenue	\$220.8 million	\$2.2 billion

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Real Estate and Rental and Leasing sector comprises establishments primarily engaged in renting, leasing, or otherwise allowing the use of tangible or intangible assets, and establishments providing related services.

Real Estate and Rental and Leasing: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Retail Trade

Highway, street, bridge, and transit investment in Los Angeles County will support \$5 billion in business output for this industry over the next decade.

This sector currently includes 28,785 establishments that employ 416,640 people in Los Angeles, who earn \$16 billion in wages.

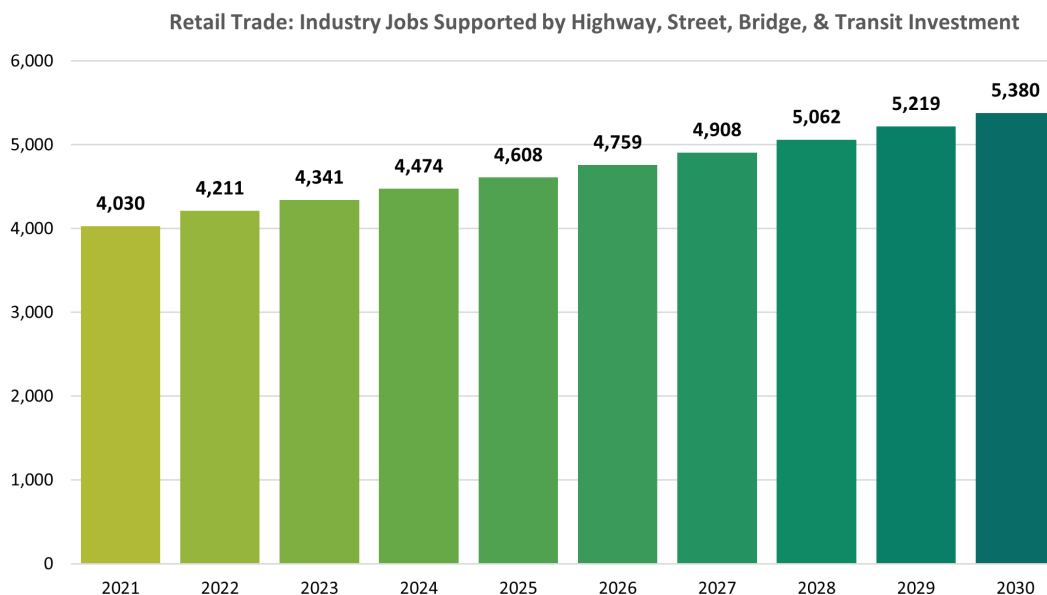
The average annual economic activity supported by highway, street, bridge, and transit investment include:

- \$456.7 million in business output
- \$302.1 million in gross state product (GSP)
- 4,699 jobs either supported or created
- \$193.5 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$456.7 million	\$4.6 billion
GSP	\$302.1 million	\$3.0 billion
Employment	4,699 jobs	46,991 jobs-years*
Payroll	\$144.6 million	\$1.4 billion
Tax Revenue	\$193.5 million	\$1.9 billion

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Retail Trade sector comprises establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Transportation and Warehousing

Highway, street, bridge, and transit investment in Los Angeles County will support \$31 billion in business output for this industry over the next decade.

This sector currently includes 8,742 establishments that employ 230,039 people in Los Angeles, who earn \$15 billion in wages.

The average annual economic activity supported by highway, street, bridge, and transit investment include:

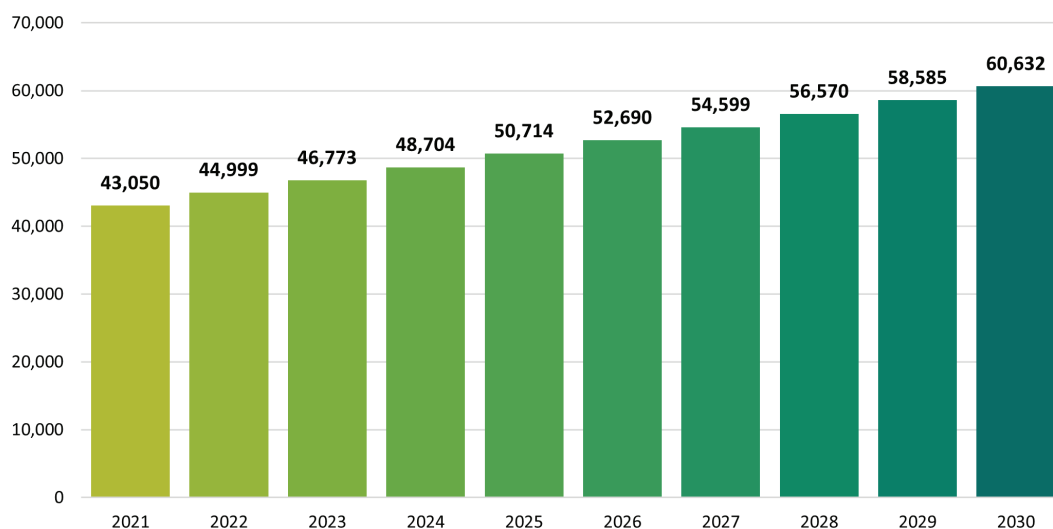
- \$3.1 million in business output
- \$1.4 million in gross state product (GSP)
- 51,732 jobs either supported or created
- \$1.9 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$3.1 billion	\$30.8 billion
GSP	\$1.4 billion	\$14.2 billion
Employment	51,732 jobs	517,317 jobs-years*
Payroll	\$1.1 billion	\$10.6 billion
Tax Revenue	\$1.9 billion	\$18.9 billion

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Transportation and Warehousing sector includes industries providing transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation.

Transportation and Warehousing: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Utilities

Highway, street, bridge, and transit investment in Los Angeles County will support \$2 billion in business output for this industry over the next decade.

This sector currently includes 312 establishments that employ 28,370 people in Los Angeles, who earn \$4 billion in wages.

The average annual economic activity supported by highway, street, bridge, and transit investment include:

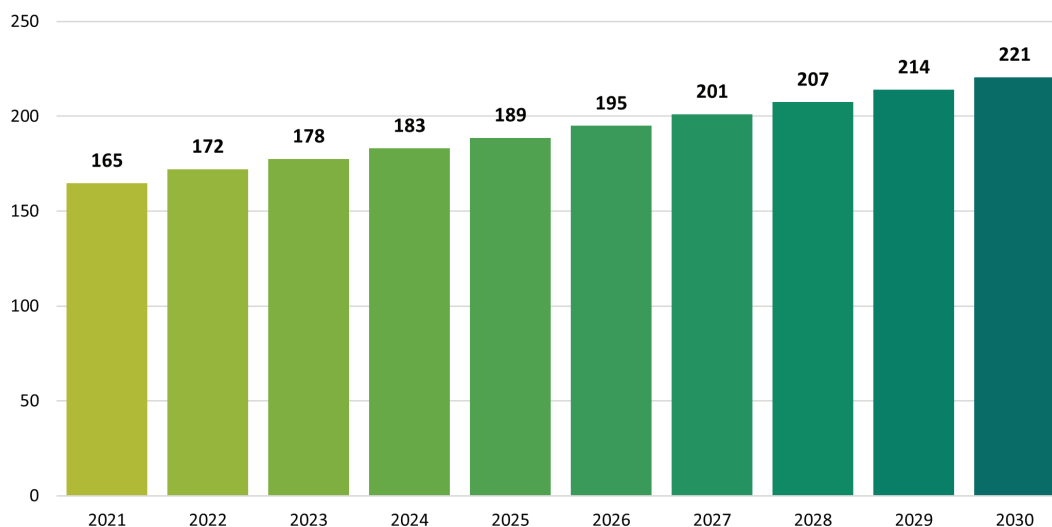
- \$203.9 million in business output
- \$109.1 million in gross state product (GSP)
- 192 jobs either supported or created
- \$3.2 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$203.9 million	\$2.0 billion
GSP	\$109.1 million	\$1.1 billion
Employment	192 jobs	1,924 jobs-years*
Payroll	\$23.1 million	\$231.4 million
Tax Revenue	\$3.2 million	\$32.1 million

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Utilities sector comprises establishments engaged in the provision of the following utility services: electric power, natural gas, steam supply, water supply, and sewage removal.

Utilities: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Wholesale Trade

Highway, street, bridge, and transit investment in Los Angeles County will support \$5 billion in business output for this industry over the next decade.

This sector currently includes 21,422 establishments that employ 218,454 people in Los Angeles, who earn \$15 billion in wages.

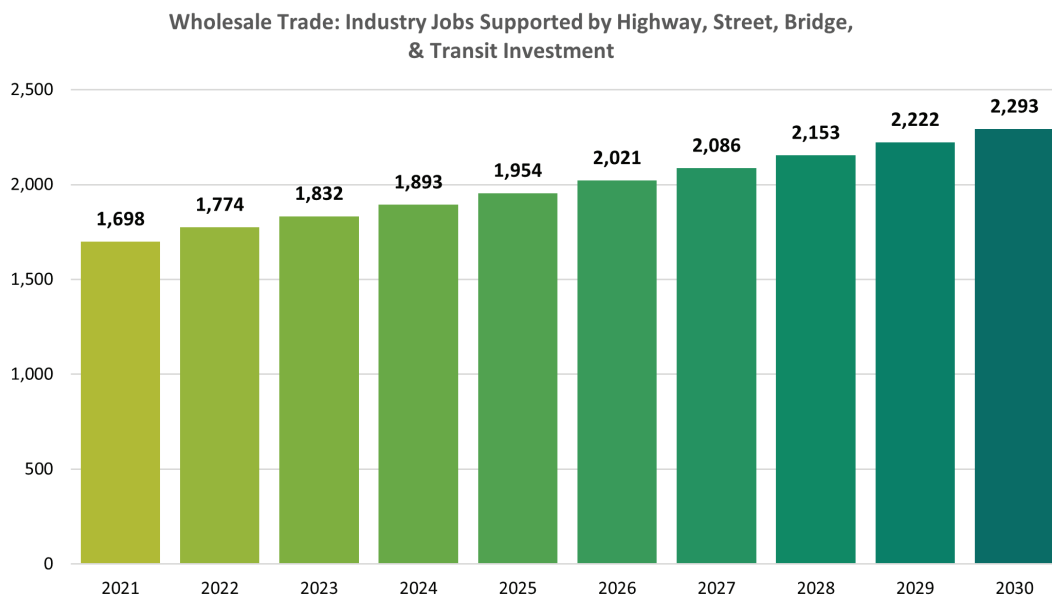
The average annual economic activity supported by highway, street, bridge, and transit investment include:

- \$533.4 million in business output
- \$362.0 million in gross state product (GSP)
- 1,993 jobs either supported or created
- \$86.2 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$533.4 million	\$5.3 billion
GSP	\$362.0 million	\$3.6 billion
Employment	1,993 jobs	19,927 jobs-years*
Payroll	\$137.9 million	\$1.4 billion
Tax Revenue	\$86.2 million	\$861.8 million

Highway, street, bridge, and transit investment has a positive economic impact on this sector in two ways. The first is through direct purchases from transportation construction firms and suppliers involved in building, maintaining, and operating the area's infrastructure systems. The second effect is when employees of transportation and supplier firms spend their wages and make purchases throughout the economy.

The Wholesale Trade sector comprises establishments engaged in wholesaling merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.



*A job-year of employment is defined as employment for one person for one year. Thus, this number will include people whose jobs are supported over multiple years. For example, if a person is hired in this sector and remains in her position for five years, this is counted as five job-years.

Methodology and Sources

This report uses the U.S. Department of Commerce Regional Input–Output Modeling System (RIMS II) and the Federal Highway Administration’s Highway Economic Reporting System (HERS–ST) to quantify short and long–run economic benefits of transportation investment in California. RIMS II is based on input output (I–O) tables. For a given industry, the I–O tables show the industrial distribution of inputs purchased and outputs sold. In this analysis, four separate multipliers specific to California were used to estimate the impacts of highway, street, bridge, and transit construction and non–construction investment.

According to the U.S. Department of Commerce, RIMS multipliers have been used to estimate such things as the regional impact of military base closings, tourist expenditures, new energy facilities, offshore drilling and the opening or closing of manufacturing plants and other facilities. These multipliers are also used frequently to analyze the impact of new construction projects, including transportation construction.

Current investment levels are based on expenditure data from the California state budget, the Federal Highway Administration’s (FHWA) Highway Statistics Series, and the Federal Transit Administration’s (FTA) National Transit Database. Future spending levels are assumed to increase in line with revenue estimates from the California Transportation Commission, the federal–aid surface transportation program, and local government revenues. Breaking the state spending down to the county and regional investment levels is based on a combination of historical spending in each location and planned expenditures in the SHOPP and STIP. Tax revenue estimates are based on historical per employee tax contributions by industry and location for federal, state, and local income, business, corporate, and sales and use taxes, using data from the U.S. Census Bureau and the California Department of Tax and Fee Administration.

The FHWA HERS–ST model is used to estimate highway investment needs for California, using the same modeling techniques as those employed by FHWA when preparing the Needs and Conditions Report on the nation’s transportation infrastructure. HERS–ST selects a set of optimal improvements based on funding constraints over a given time–period to the state roads that are part of the federal aid system. Thus, the results are illustrative, and one example of possible user benefits based on the most optimal investments. All data used in the HERS–ST model is submitted by Caltrans to FHWA as part of the Highway Performance Monitoring System. Benefits are extrapolated to account for additional state and local investment.

Baseline employment and establishment data for each industry is from the U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages.