# The Economic Impacts of Highway, Street, Bridge, & Transit Investment in the San Joaquin Valley Region, California

SUPPORTING \$14.2 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** 



#### About the Author

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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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# The Economic Impacts of Highway, Street, Bridge, & Transit Investment in the San Joaquin Valley Region, California

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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 \$14.2 billion in annual economic output, earnings, tax revenue, and user benefits in the San Joaquin Valley region over the next decade.

The investment will support an average of 34,852 jobs each year and contribute \$3.8 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 suggest that the benefits of \$141.8 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 the San Joaquin Valley region, which includes Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties, is expected to grow from \$4.1 billion to \$45.2 billion over that time.

Based on the expected mix of capital projects and operations in the San Joaquin Valley, the regional impacts of state highway, street, bridge, and transit investments include:

Sales and revenue by local businesses of nearly \$7.7 billion each year, totaling \$76.8 billion over 10 years. This is across all sectors of the San Joaquin Valley 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.
- 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 the San Joaquin Valley Region, 2021-2030			
	Total	Annual Average	
Savings for Users of the System			
Highway, Street & Bridge	\$26.8 billion	\$2.7 billion	
Transit	\$6.0 billion	\$0.6 billion	
Economic Impacts			
Business Sales & Output	\$76.8 billion	\$7.7 billion	
Employee Earnings	\$19.4 billion	\$1.9 billion	
Tax Revenue	\$12.9 billion	\$1.3 billion	
Total Economic Benefits	\$141.8 billion	\$14.2 billion	
Number of Jobs	348,522 job-years	34,852	
Contribution to GSP	\$37.7 billion	\$3.8 billion	

- This will support 34,852 jobs each year, with growing investment over the next decade adding over 8,800 new jobs.
- Those workers will **earn an average of \$1.9 billion** per year, resulting in \$19.4 billion in additional earnings over 10 years.
- These earnings are part of the **\$3.8 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 \$1.3 billion per year, for a total of \$12.9 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 \$3.3 billion per year for San Joaquin Valley region drivers, transit riders, and businesses, adding up to \$32.7 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 the San Joaquin Valley Region

Highway, street, bridge, and transit investment in the San Joaquin Valley region 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.

The San Joaquin Valley's highway, street, bridge, and transit investment will support the following benefits over the next decade:

- Generate \$7.7 billion annually in economic output as businesses throughout the economy sell goods and services to both other businesses and consumers, totaling \$76.8 billion over 10 years.
- Contribute \$3.8 billion per year of state GSP, adding up to \$37.7 billion over 10 years.
- Support or create 34,852 jobs on average each year throughout the economy, with 77 percent of the employment outside of the construction industry. This includes an estimated 6,390 jobs in transportation and warehousing, 2,200 jobs in retail trade, and nearly 2,000 jobs in health care services. This will add up to 348,522 job-years supported or created over the next 10 years.
- These workers will earn nearly \$1.9 billion in wages annually, totaling \$19.4 billion over 10 years.
- \$1.3 million in additional tax revenues each year, adding up to \$12.9 billion over 10 years. This includes:
  - \$386 million in annual state and local tax revenue from payroll, business, income, sales and use taxes, totaling \$3.9 billion over 10 years
  - \$904 million in annual federal payroll, income, and business taxes, totaling \$9 billion over 10 years

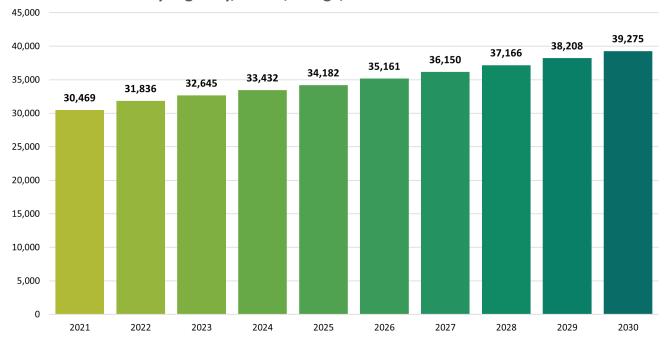
This economic activity is broken down by four different types of transportation spending.

- 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.

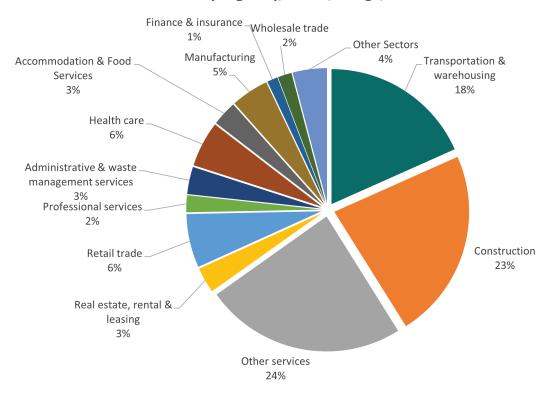
Total Economic Impact of Highway, Bridge, Street and Transit Investment in the San Joaquin Valley Region Over 10 Years (in billions \$)						
	Impact of Highway, Bridge and Street Construction  Impact of Transit Operations & Other Activity  Impact of Design, Engineering, Right of Way, Project Support and Administration					
Total Output	\$23.1	\$1.4	\$4.5	\$47.8	\$76.7	
Total Value Added (GSP)	\$11.9	\$0.7	\$1.9	\$23.2	\$37.7	
Earnings	\$6.1	\$0.4	\$1.4	\$11.5	\$19.4	
Employment (Job-Years)	100,333	6,193	62,282	179,714	348,522	
Total Tax Revenues	\$4.7	\$0.3	\$2.7	\$5.2	\$12.9	
Federal Tax Revenue	\$3.3	\$0.2	\$1.9	\$3.6	\$9.0	
State & Local Tax Revenue	\$1.4	\$0.1	\$0.8	\$1.6	\$3.9	

Annual Average Economic Impact of Highway, Bridge, Street and Transit Investment in the San Joaquin Valley Region (in billions \$)						
	Impact of Highway, Bridge and Street Construction  Impact of Transit Operations & Other Activity  Impact of Design, Engineering, Right of Way, Project Support and Administration					
Total Output	\$2.3	\$0.1	\$0.4	\$4.8	\$7.7	
Total Value Added (GSP)	\$1.2	\$0.1	\$0.2	\$2.3	\$3.8	
Earnings	\$0.6	\$0.0	\$0.1	\$1.1	\$1.9	
Employment	10,033	619	6,228	17,971	34,852	
Total Tax Revenues	\$0.5	\$0.0	\$0.3	\$0.5	\$1.3	
Federal Tax Revenue	\$0.3	\$0.0	\$0.2	\$0.4	\$0.9	
State & Local Tax Revenue	\$0.1	\$0.0	\$0.1	\$0.2	\$0.4	

# Jobs Supported/Created in the San Joaquin Valley Region by Highway, Street, Bridge, & Transit Investment



## Breakdown of Jobs Supported/Created in the San Joaquin Valley Region 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 the San Joaquin Valley region.

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 the San Joaquin Valley Region

Industry	Impact on Industry Output (in millions)	Jobs Supported or Created (job-years)	Earnings (in millions)	Tax Revenues (in millions)
Accommodation and Food Services	\$906	10,446	\$265	\$440
Administrative and waste management services	\$1,188	11,395	\$458	\$623
Agriculture, forestry, fishing, and hunting	\$349	2,463	\$84	\$173
Arts, entertainment, and recreation	\$151	1,408	\$46	\$54
Construction	\$19,810	79,295	\$5,339	\$4,201
Educational services	\$236	2,948	\$107	\$33
Finance and insurance	\$1,481	4,473	\$356	\$163
Health care and social assistance	\$2,473	19,009	\$1,026	\$543
Information	\$486	1,231	\$102	\$51
Management of companies and enterprises	\$271	932	\$109	\$56
Manufacturing	\$6,178	15,767	\$1,081	\$678
Mining	\$1,111	4,698	\$259	\$203
Other services	\$29,560	83,985	\$6,408	\$960
Professional, scientific, and technical services	\$1,193	7,074	\$545	\$306
Real estate and rental and leasing	\$2,241	10,679	\$372	\$441
Retail trade	\$2,185	22,383	\$779	\$871
Transportation and warehousing	\$4,337	63,896	\$1,472	\$2,839
Utilities	\$573	624	\$82	\$19
Wholesale trade	\$2,017	5,816	\$478	\$252
Total industry impact	\$76,746	348,522	\$19,367	\$12,905

# Average Annual Economic Impact of Highway, Bridge, Street & Transit Investment in the San Joaquin Valley Region

Industry	Impact on Industry Output (in millions)	Jobs Supported or Created	Earnings (in millions)	Tax Revenues (in millions)
Accommodation and Food Services	\$91	1,045	\$27	\$44
Administrative and waste management services	\$119	1,139	\$46	\$62
Agriculture, forestry, fishing, and hunting	\$35	246	\$8	\$17
Arts, entertainment, and recreation	\$15	141	\$5	\$5
Construction	\$1,981	7,930	\$534	\$420
Educational services	\$24	295	\$11	\$3
Finance and insurance	\$148	447	\$36	\$16
Health care and social assistance	\$247	1,901	\$103	\$54
Information	\$49	123	\$10	\$5
Management of companies and enterprises	\$27	93	\$11	\$6
Manufacturing	\$618	1,577	\$108	\$68
Mining	\$111	470	\$26	\$20
Other services	\$2,956	8,398	\$641	\$96
Professional, scientific, and technical services	\$119	707	\$55	\$31
Real estate and rental and leasing	\$224	1,068	\$37	\$44
Retail trade	\$219	2,238	\$78	\$87
Transportation and warehousing	\$434	6,390	\$147	\$284
Utilities	\$57	62	\$8	\$2
Wholesale trade	\$202	582	\$48	\$25
Total industry impact	\$7,675	34,852	\$1,937	\$1,290

## **Accommodation and Food Services**

Highway, street, bridge, and transit investment in the San Joaquin Valley region will support \$906 million in business output for this industry over the next decade.

This sector currently includes 6,678 establishments that employ 117,188 people in the San Joaquin Valley region, who earn \$2 billion in wages.

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

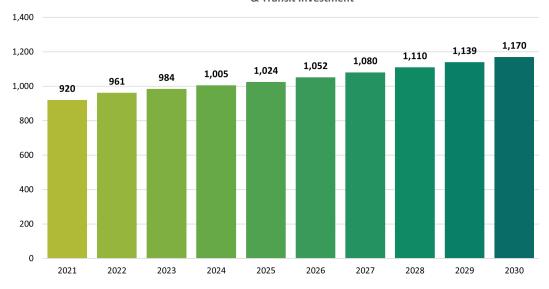
- \$90.6 million in business output
- \$48.1 million in gross state product (GSP)
- 1,045 jobs either supported or created
- \$44.0 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$90.6 million	\$906.2 million
GSP	\$48.1 million	\$480.9 million
Employment	1,045 jobs	10,446 jobs-years*
Payroll	\$26.5 million	\$265.0 million
Tax Revenue	\$44.0 million	\$440.0 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 Accommodation and Food Services sector comprises establishments providing customers with lodging and/ or reparing meals, snacks, and beverages for immediate consumption.

## Accomodation and Food Services: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



<sup>\*</sup>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 the San Joaquin Valley region will support \$1 billion in business output for this industry over the next decade.

This sector currently includes 3,469 establishments that employ 68,525 people in the San Joaquin Valley region, who earn \$3 billion in wages.

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

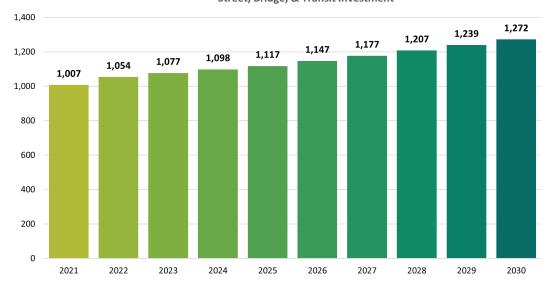
- \$118.8 million in business output
- \$71.3 million in gross state product (GSP)
- 1,139 jobs either supported or created
- \$62.3 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$118.8 million	\$1.2 billion
GSP	\$71.3 million	\$712.6 million
Employment	1,139 jobs	11,395 jobs-years*
Payroll	\$45.8 million	\$458.1 million
Tax Revenue	\$62.3 million	\$622.7 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 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



<sup>\*</sup>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 the San Joaquin Valley region will support \$349 million in business output for this industry over the next decade.

This sector currently includes 7,192 establishments that employ 136,411 people in the San Joaquin Valley region, who earn \$5 billion in wages.

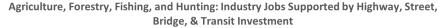
The average annual economic activity supported by highway, street, bridge, and transit investment include:

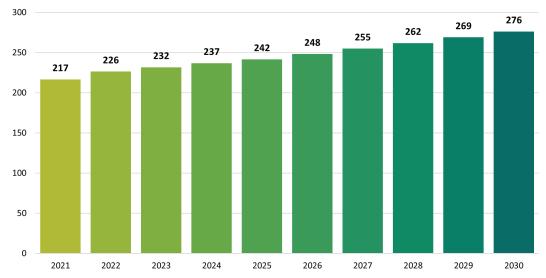
- \$34.9 million in business output
- \$13.3 million in gross state product (GSP)
- 246 jobs either supported or created
- \$17.3 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$34.9 million	\$349.1 million
GSP	\$13.3 million	\$132.9 million
Employment	246 jobs	2,463 jobs-years*
Payroll	\$8.4 million	\$84.2 million
Tax Revenue	\$17.3 million	\$172.6 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.





<sup>\*</sup>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 the San Joaquin Valley region will support \$151 million in business output for this industry over the next decade.

This sector currently includes 811 establishments that employ 15,252 people in the San Joaquin Valley region, who earn \$374 million in wages.

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

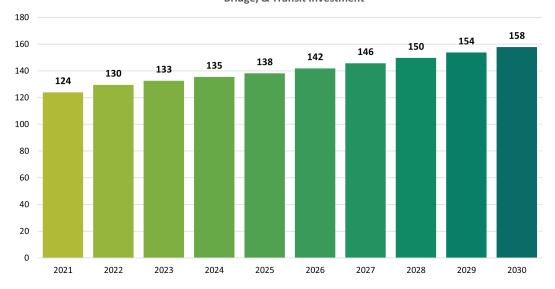
- \$15.1 million in business output
- \$8.8 million in gross state product (GSP)
- 141 jobs either supported or created
- \$5.4 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$15.1 million	\$150.8 million
GSP	\$8.8 million	\$87.7 million
Employment	141 jobs	1,408 jobs-years*
Payroll	\$4.6 million	\$45.9 million
Tax Revenue	\$5.4 million	\$54.3 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 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



<sup>\*</sup>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 the San Joaquin Valley region will support \$20 billion in business output for this industry over the next decade.

This sector currently includes 6,649 establishments that employ 70,498 people in the San Joaquin Valley region, who earn \$4 billion in wages.

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

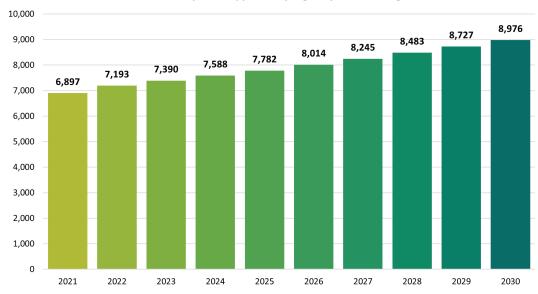
- \$2.0 million in business output
- \$996.3 million in gross state product (GSP)
- 7,930 jobs either supported or created
- \$420.1 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$2.0 billion	\$19.8 billion
GSP	\$996.3 million	\$10.0 billion
Employment	7,930 jobs	79,295 jobs-years*
Payroll	\$533.9 million	\$5.3 billion
Tax Revenue	\$420.1 million	\$4.2 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 Construction sector comprises establishments primarily engaged in the construction of buildings or engineering projects (e.g., highways and utility systems).

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



<sup>\*</sup>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 the San Joaquin Valley region will support \$236 million in business output for this industry over the next decade.

This sector currently includes 3,097 establishments that employ 103,127 people in the San Joaquin Valley region, who earn \$5 billion in wages.

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

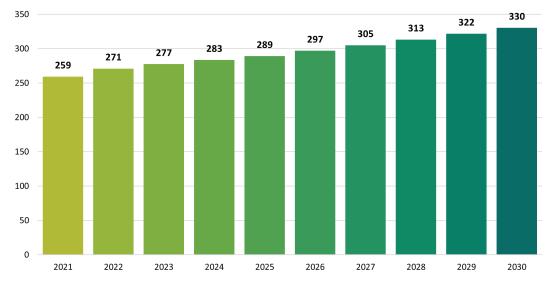
- \$23.6 million in business output
- \$16.6 million in gross state product (GSP)
- 295 jobs either supported or created
- \$3.3 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$23.6 million	\$236.0 million
GSP	\$16.6 million	\$165.8 million
Employment	295 jobs	2,948 jobs-years*
Payroll	\$10.7 million	\$106.9 million
Tax Revenue	\$3.3 million	\$33.5 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 Educational Services sector comprises establishments that provide instruction and training in a wide variety of subjects.

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



<sup>\*</sup>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 the San Joaquin Valley region will support \$1 billion in business output for this industry over the next decade.

This sector currently includes 3,312 establishments that employ 26,588 people in the San Joaquin Valley region, who earn \$2 billion in wages.

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

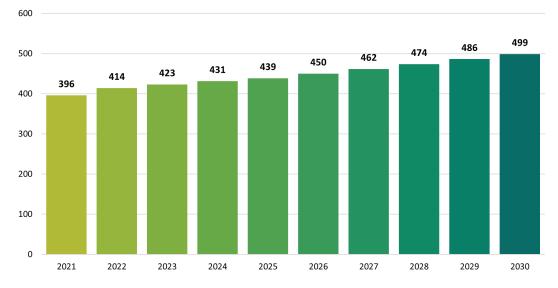
- \$148.1 million in business output
- \$85.6 million in gross state product (GSP)
- 447 jobs either supported or created
- \$16.3 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$148.1 million	\$1.5 billion
GSP	\$85.6 million	\$855.9 million
Employment	447 jobs	4,473 jobs-years*
Payroll	\$35.6 million	\$356.0 million
Tax Revenue	\$16.3 million	\$162.9 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 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.





<sup>\*</sup>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 the San Joaquin Valley region will support \$2 billion in business output for this industry over the next decade.

This sector currently includes 53,258 establishments that employ 226,704 people in the San Joaquin Valley region, who earn \$11 billion in wages.

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

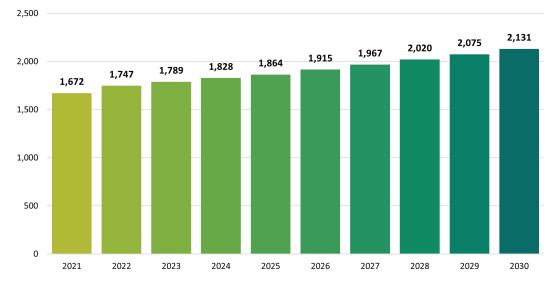
- \$247.3 million in business output
- \$149.6 million in gross state product (GSP)
- 1,901 jobs either supported or created
- \$54.3 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$247.3 million	\$2.5 billion
GSP	\$149.6 million	\$1.5 billion
Employment	1,901 jobs	19,009 jobs-years*
Payroll	\$102.6 million	\$1.0 billion
Tax Revenue	\$54.3 million	\$542.6 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 Health Care and Social Assistance sector comprises establishments providing health care and social assistance for individuals.

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



<sup>\*</sup>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 the San Joaquin Valley region will support \$486 million in business output for this industry over the next decade.

This sector currently includes 511 establishments that employ 6,132 people in the San Joaquin Valley region, who earn \$370 million in wages.

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

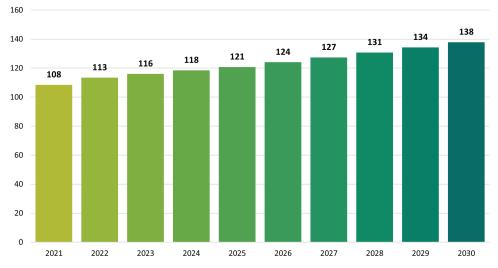
- \$48.6 million in business output
- \$25.9 million in gross state product (GSP)
- 123 jobs either supported or created
- \$5.1 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$48.6 million	\$485.8 million
GSP	\$25.9 million	\$259.2 million
Employment	123 jobs	1,231 jobs-years*
Payroll	\$10.2 million	\$101.6 million
Tax Revenue	\$5.1 million	\$50.6 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.





<sup>\*</sup>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 the San Joaquin Valley region will support \$271 million in business output for this industry over the next decade.

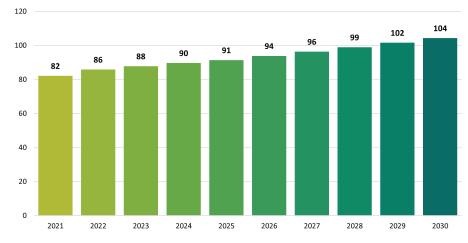
This sector currently includes 277 establishments that employ 11,805 people in the San Joaquin Valley region, who earn \$1 billion in wages.

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

- \$27.1 million in business output
- \$17.2 million in gross state product (GSP)
- 93 jobs either supported or created
- \$5.6 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$27.1 million	\$271.4 million
GSP	\$17.2 million	\$171.9 million
Employment	93 jobs	932 jobs-years*
Payroll	\$10.9 million	\$109.1 million
Tax Revenue	\$5.6 million	\$56.1 million

Management of Companies and Enterprises: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



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.

<sup>\*</sup>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 the San Joaquin Valley region will support \$6 billion in business output for this industry over the next decade.

This sector currently includes 2,715 establishments that employ 110,892 people in the San Joaquin Valley region, who earn \$6 billion in wages.

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

- \$617.8 million in business output
- \$177.4 million in gross state product (GSP)
- 1,577 jobs either supported or created
- \$67.8 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$617.8 million	\$6.2 billion
GSP	\$177.4 million	\$1.8 billion
Employment	1,577 jobs	15,767 jobs-years*
Payroll	\$108.1 million	\$1.1 billion
Tax Revenue	\$67.8 million	\$677.7 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 Manufacturing sector comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products.

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



<sup>\*</sup>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 the San Joaquin Valley region will support \$1 billion in business output for this industry over the next decade.

This sector currently includes 240 establishments that employ 9,461 people in the San Joaquin Valley region, who earn \$966 million in wages.

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

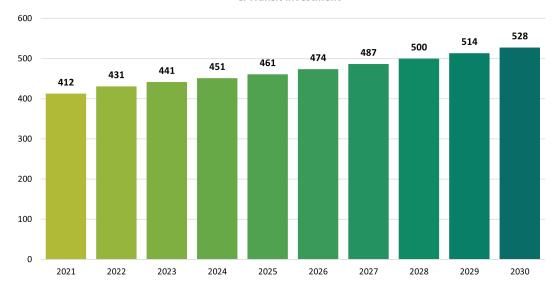
- \$111.1 million in business output
- \$66.3 million in gross state product (GSP)
- 470 jobs either supported or created
- \$20.3 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$111.1 million	\$1.1 billion
GSP	\$66.3 million	\$663.3 million
Employment	470 jobs	4,698 jobs-years*
Payroll	\$25.9 million	\$259.3 million
Tax Revenue	\$20.3 million	\$203.2 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



<sup>\*</sup>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 the San Joaquin Valley region will support \$30 billion in business output for this industry over the next decade.

This sector currently includes 5,658 establishments that employ 25,578 people in the San Joaquin Valley region, who earn \$911 million in wages.

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

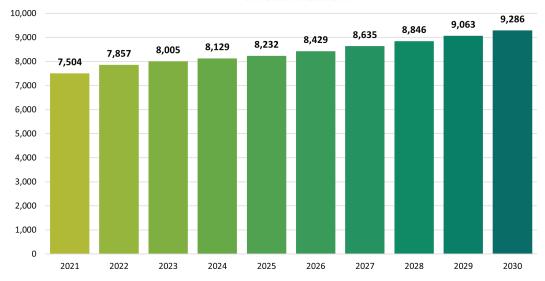
- \$3.0 million in business output
- \$1.4 million in gross state product (GSP)
- 8,398 jobs either supported or created
- \$96.0 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$3.0 billion	\$29.6 billion
GSP	\$1.4 billion	\$13.8 billion
Employment	8,398 jobs	83,985 jobs-years*
Payroll	\$640.8 million	\$6.4 billion
Tax Revenue	\$96.0 million	\$960.1 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 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



<sup>\*</sup>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 the San Joaquin Valley region will support \$1 billion in business output for this industry over the next decade.

This sector currently includes 5,365 establishments that employ 37,358 people in the San Joaquin Valley region, who earn \$2 billion in wages.

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

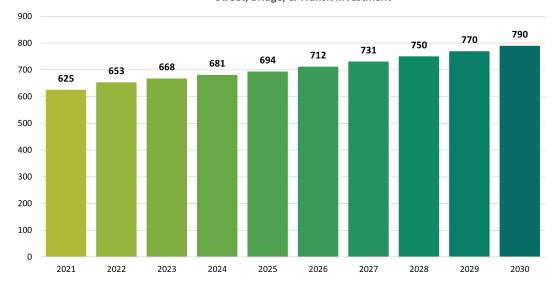
- \$119.3 million in business output
- \$78.5 million in gross state product (GSP)
- 707 jobs either supported or created
- \$30.6 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$119.3 million	\$1.2 billion
GSP	\$78.5 million	\$785.2 million
Employment	707 jobs	7,074 jobs-years*
Payroll	\$54.5 million	\$545.0 million
Tax Revenue	\$30.6 million	\$305.5 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 Professional, Scientific, and Technical Services sector comprises establishments that specialize in performing professional, scientific, and technical activities for others.

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



<sup>\*</sup>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 the San Joaquin Valley region will support \$2 billion in business output for this industry over the next decade.

This sector currently includes 3,159 establishments that employ 16,341 people in the San Joaquin Valley region, who earn \$760 million in wages.

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

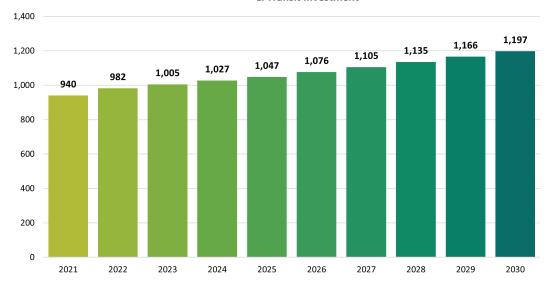
- \$224.1 million in business output
- \$157.6 million in gross state product (GSP)
- 1,068 jobs either supported or created
- \$44.1 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$224.1 million	\$2.2 billion
GSP	\$157.6 million	\$1.6 billion
Employment	1,068 jobs	10,679 jobs-years*
Payroll	\$37.2 million	\$371.7 million
Tax Revenue	\$44.1 million	\$441.4 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 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.





<sup>\*</sup>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 the San Joaquin Valley region will support \$2 billion in business output for this industry over the next decade.

This sector currently includes 9,518 establishments that employ 152,169 people in the San Joaquin Valley region, who earn \$5 billion in wages.

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

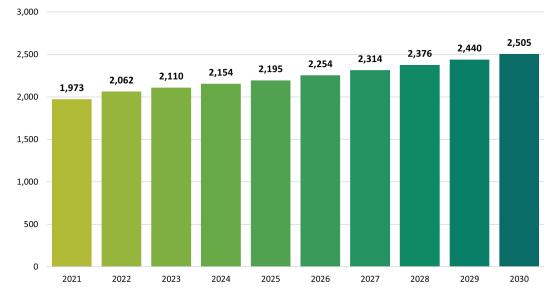
- \$218.5 million in business output
- \$145.3 million in gross state product (GSP)
- 2,238 jobs either supported or created
- \$87.1 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$218.5 million	\$2.2 billion
GSP	\$145.3 million	\$1.5 billion
Employment	2,238 jobs	22,383 jobs-years*
Payroll	\$77.9 million	\$778.7 million
Tax Revenue	\$87.1 million	\$870.8 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 Retail Trade sector comprises establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.





<sup>\*</sup>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 the San Joaquin Valley region will support \$4 billion in business output for this industry over the next decade.

This sector currently includes 3,525 establishments that employ 83,488 people in the San Joaquin Valley region, who earn \$4 billion in wages.

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

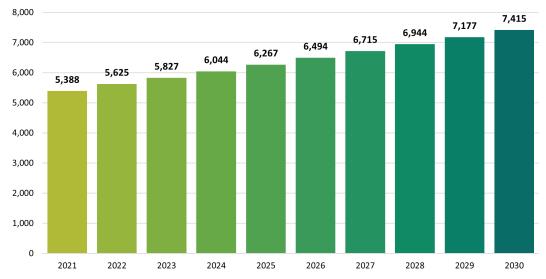
- \$433.7 million in business output
- \$178.9 million in gross state product (GSP)
- 6,390 jobs either supported or created
- \$283.9 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$433.7 million	\$4.3 billion
GSP	\$178.9 million	\$1.8 billion
Employment	6,390 jobs	63,896 jobs-years*
Payroll	\$147.2 million	\$1.5 billion
Tax Revenue	\$283.9 million	\$2.8 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.





<sup>\*</sup>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 the San Joaquin Valley region will support \$573 million in business output for this industry over the next decade.

This sector currently includes 344 establishments that employ 8,986 people in the San Joaquin Valley region, who earn \$1 billion in wages.

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

- \$57.3 million in business output
- \$33.8 million in gross state product (GSP)
- 62 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	\$57.3 million	\$572.7 million
GSP	\$33.8 million	\$337.5 million
Employment	62 jobs	624 jobs-years*
Payroll	\$8.2 million	\$81.8 million
Tax Revenue	\$1.9 million	\$19.1 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



<sup>\*</sup>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 the San Joaquin Valley region will support \$2 billion in business output for this industry over the next decade.

This sector currently includes 3,075 establishments that employ 40,924 people in the San Joaquin Valley region, who earn \$3 billion in wages.

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

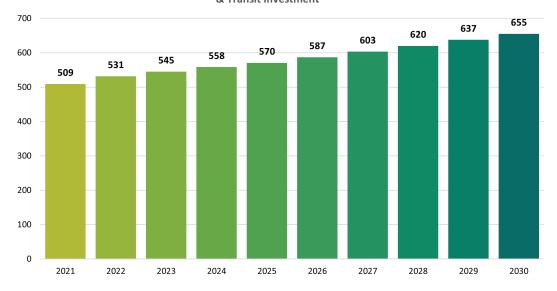
- \$201.7 million in business output
- \$121.5 million in gross state product (GSP)
- 582 jobs either supported or created
- \$25.1 million in federal, state, and local tax revenue

	Average Annual Impact	Total Economic Impact, 10 Years
Business Output	\$201.7 million	\$2.0 billion
GSP	\$121.5 million	\$1.2 billion
Employment	582 jobs	5,816 jobs-years*
Payroll	\$47.8 million	\$478.0 million
Tax Revenue	\$25.1 million	\$251.5 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.

#### Wholesale Trade: Industry Jobs Supported by Highway, Street, Bridge, & Transit Investment



<sup>\*</sup>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.