

# 2021 ECONOMIC IMPACT ANALYSIS

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# 2021 ECONOMIC IMPACT ANALYSIS

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Since 2017, the High-Speed Rail Authority (Authority) has annually produced the Economic Impact Analysis that estimates the economic impacts of planning and constructing a high-speed rail system. The estimates include Authority expenditures from July 2006 through the end of the most-recently completed fiscal year. The scope of this presentation covers the 2021 Economic Impact Analysis, which adds the 2020-21 fiscal year expenditure analyses to the project totals.



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## Economic Indicators:

- **Job-Years** - Job-Years are the equivalent number of one-year-long, full-time jobs supported by the project.  
For example:
  - 1 Employee working for 5 years = 5 Job-Years
  - 5 Employees working for 1 year = 5 Job-Years
  - 10 Half Time Employees working for 1 year = 5 Job-Years
- **Labor Income** - Labor income includes all forms of employment income, including compensation (wages, benefits, and payroll taxes) firms paid to employees, and income earned by self-employed workers or unincorporated sole proprietorships.
- **Economic Output** - Economic output is an estimate of the value of all economic activity taking place as a result of high-speed rail expenditure. A dollar invested in high-speed rail sparks several activities in addition to labor income, such as the purchases of goods and services and value created from these activities. For example, the materials purchased for the viaducts over the Fresno river constructed by Authority Contractors as well as the labor that went into constructing and placing the viaducts all contribute toward the Economic Output.

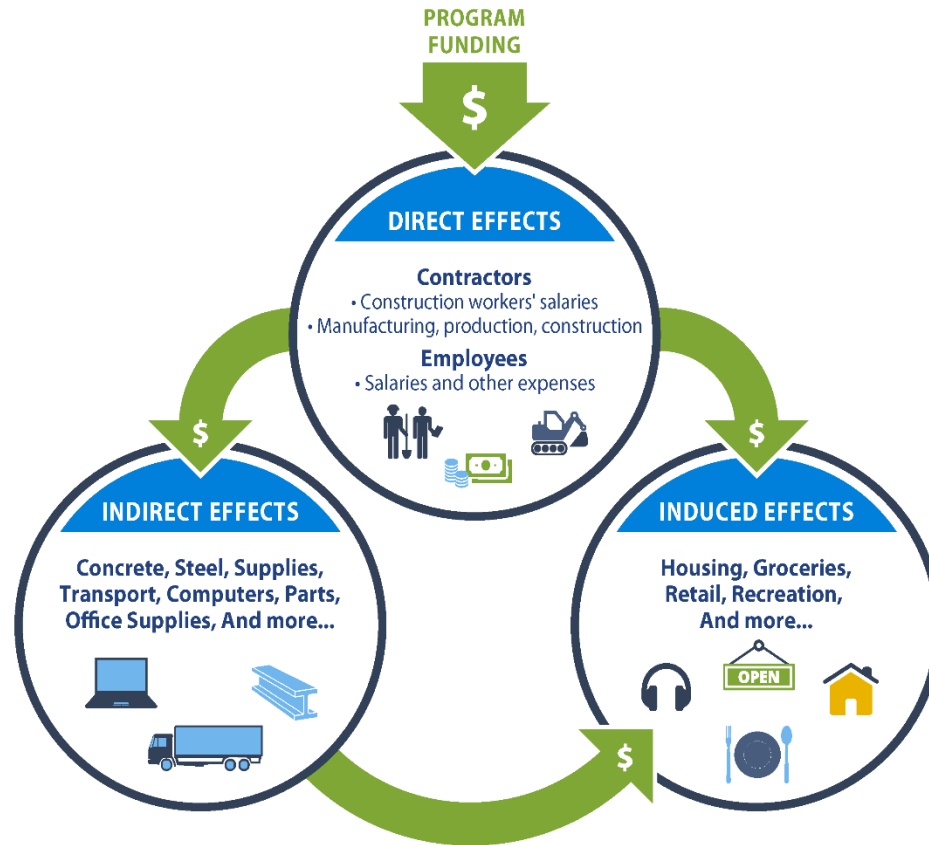


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## Economic Effects:

How the Indicators are determined is a combination of Indirect, Direct, and Induced Effects



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## Research Methods:

- Reviewed contract-level historical invoice cost data from three fiscal years to determine spending by project activity and geographic location.
- Utilized industry-standard economic models to apply economic multipliers to spending in order to determine direct, indirect, and induced benefits to the local, regional, state-wide, and national economy.

## Review and Validation:

- In the original 2017 Analysis (Historical Analysis) the Authority requested review and validation from several industry experts who reviewed inputs, assumptions, methodology, and outputs. The reviewers included: University of the Pacific, Department of Finance, Department of Labor, Peer Review Group.
- The 2021 Analysis continues to follow similar methods and approaches as the Historical Analysis.

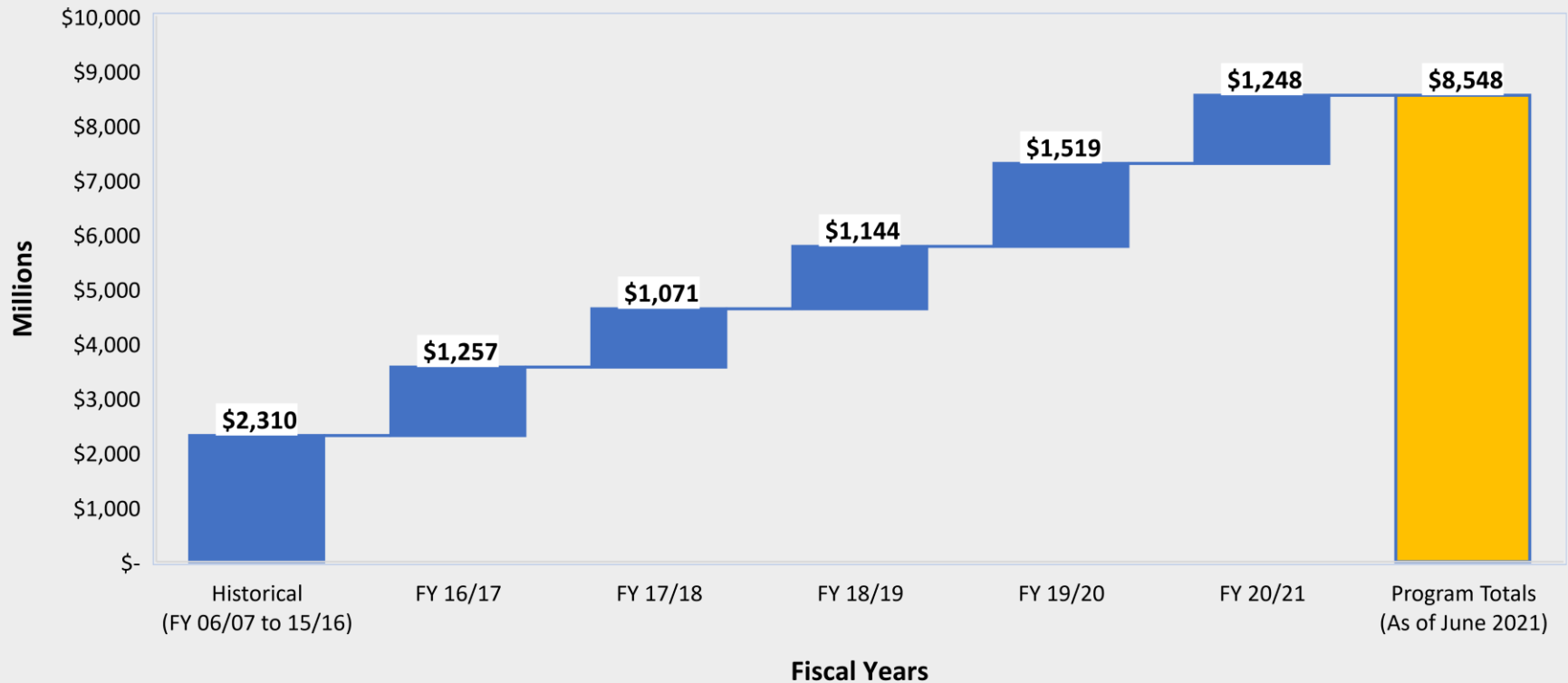


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## Program Expenditures (\$ millions) 2006-07 through 2020-21

### Program Expenditures Over Time (\$ in Millions)



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**California Statewide Economic Impacts**  
2006-07 through 2020-21



64,400 – 70,500

## JOB-YEARS OF EMPLOYMENT

**Job Years** - *Job-Years are the equivalent number of one-year-long, full-time jobs supported by the project.*

**2020-21** – *Fiscal Year estimated employment was 10,100 job years.*



# 2021 ECONOMIC IMPACT ANALYSIS

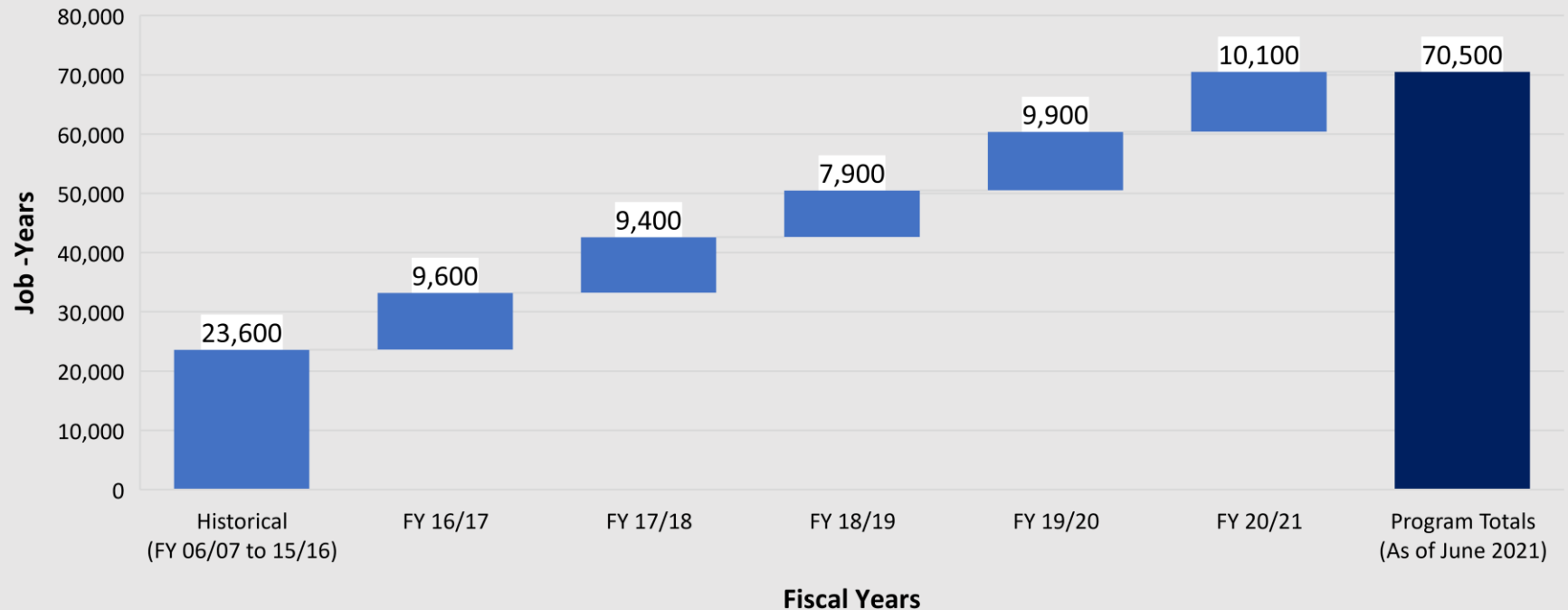
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

## California Statewide Economic Impacts 2006-07 through 2020-21

### California Economic Impacts Over Time

(Including Direct, Indirect, and Induced)

### Employment in Job-Years





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**California Statewide Economic Impacts**  
2006-07 through 2020-21



**\$4.8 - \$5.2**  
**BILLION**

## LABOR INCOME

*Labor income includes all forms of employment income, including compensation (wages, benefits, and payroll taxes) firms paid to employees, and income earned by self-employed workers or unincorporated sole proprietorships.*

**2020-21** – Fiscal Year estimated labor income was \$840 million.



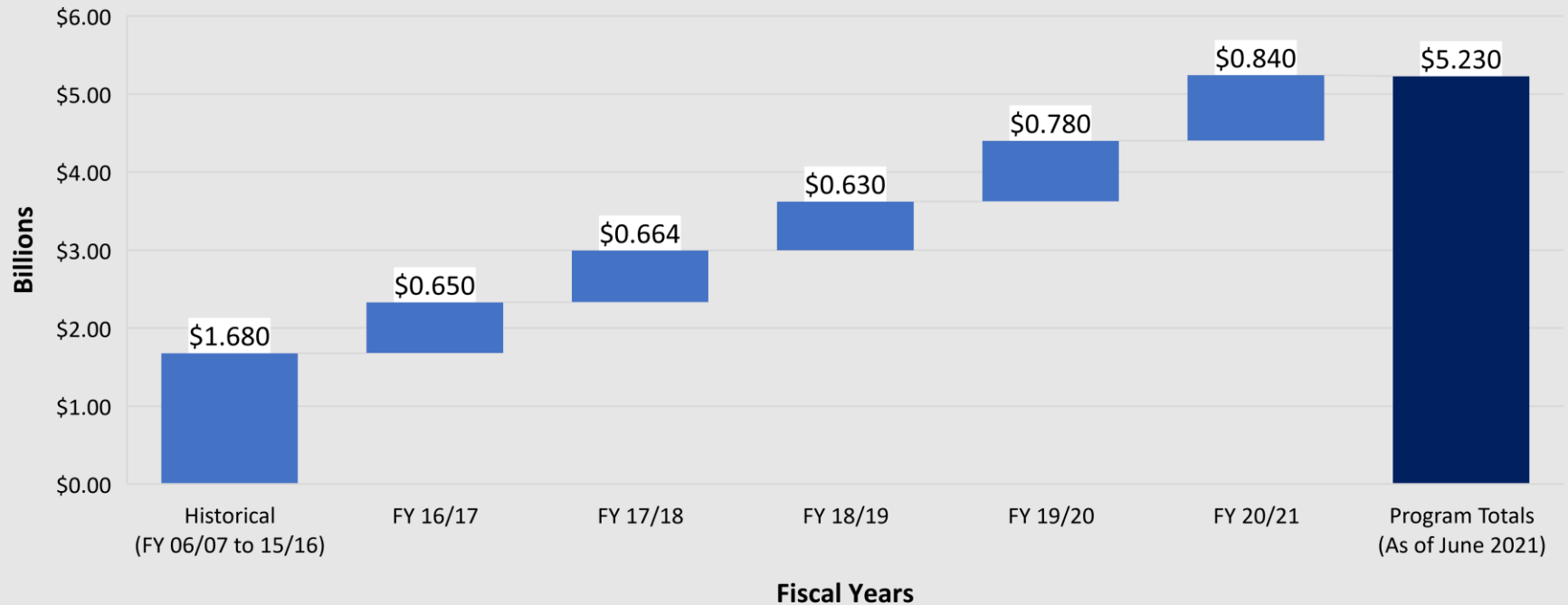
# 2021 ECONOMIC IMPACT ANALYSIS

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

## California Statewide Economic Impacts 2006-07 through 2020-21

### California Economic Impacts Over Time (Including Direct, Indirect, and Induced)

#### Labor Income



# 2021 ECONOMIC IMPACT ANALYSIS

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

## California Statewide Economic Impacts 2006-07 through 2020-21



\$12.7 - \$13.7  
BILLION

## ECONOMIC OUTPUT

*Economic output* represents the total contribution the Program has made to the Gross Domestic Product (GDP) in California and the US or the economic “value-add”.

**2020-21** – Fiscal Year estimated economic output was \$2.2 billion.



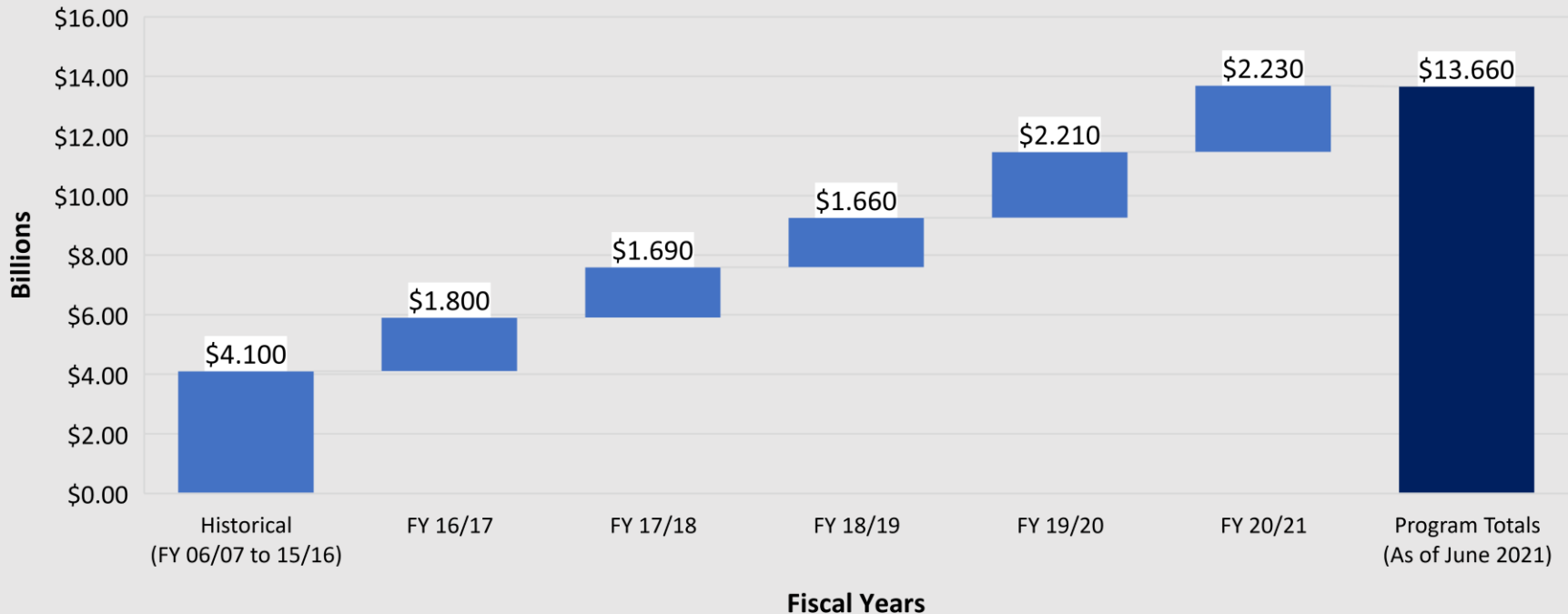
# 2021 ECONOMIC IMPACT ANALYSIS

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

## California Statewide Economic Impacts 2006-07 through 2020-21

### California Economic Impacts Over Time (Including Direct, Indirect, and Induced)

#### Economic Output

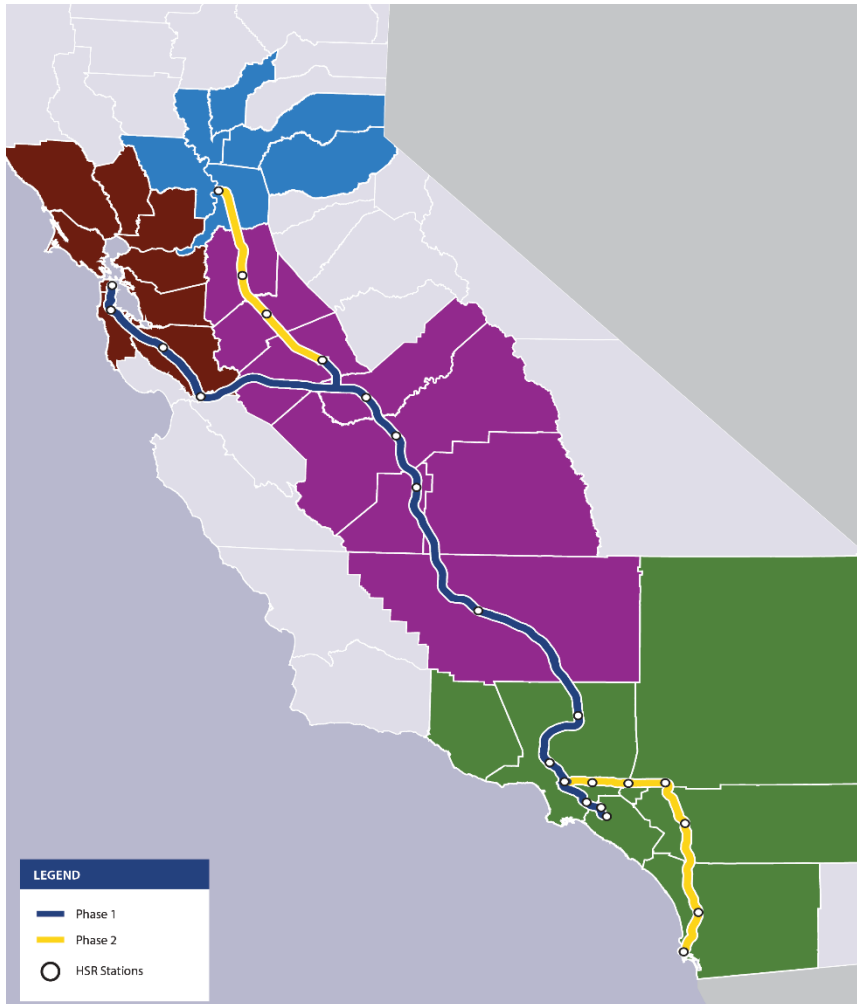


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## Direct Investment and Economic Impacts By Region

2006-07 through 2020-21



\$8.5 Billion Direct Investment in the Project from July 2006 through June 2021

SACRAMENTO	FY 20/21	PROGRAM TOTAL
Job-Years of Employment	1,350	12,700
Labor Income	\$100 M	\$900 M
Economic Output	\$260 M	\$2.1 B
BAY AREA	FY 20/21	PROGRAM TOTAL
Job-Years of Employment	840	6,400
Labor Income	\$90 M	\$620 M
Economic Output	\$220 M	\$1.4 B
CENTRAL VALLEY	FY 20/21	PROGRAM TOTAL
Job-Years of Employment	5,030	29,600
Labor Income	\$330 M	\$1,700 M
Economic Output	\$950 M	\$5.4 B
SOUTHERN CALIFORNIA	FY 20/21	PROGRAM TOTAL
Job-Years of Employment	2,400	9,200
Labor Income	\$180 M	\$680 M
Economic Output	\$510 M	\$1.8 B



# 2021 ECONOMIC IMPACT ANALYSIS

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## California Projected Economic Impacts by Project Segment Through Construction\*

### Central Valley

The 119-mile Central Valley Segment will initially serve as the testing and certification track for the nation's first electrified high-speed rail system. We will extend the 119 miles to a nearly 175-mile line from Merced to Bakersfield for initial passenger rail operations. This is the first step toward completion of the full 500-mile statewide system.



Project Segment	Job-Years	Labor Income	Economic Output
Merced to Fresno	116,000	\$9.1 B	\$23.2 B
Fresno to Bakersfield	87,000	\$6.8 B	\$18.0 B
<b>Central Valley Total</b>	<b>203,000</b>	<b>\$15.9B</b>	<b>\$41.2B</b>

\*Utilizing the same modeling and methodology as in the 2021 Economic Impact Analyses Technical Memorandum, the Authority calculated the Economic Impacts of each project segment based on the budget and spending profiles of the segments through completed construction.

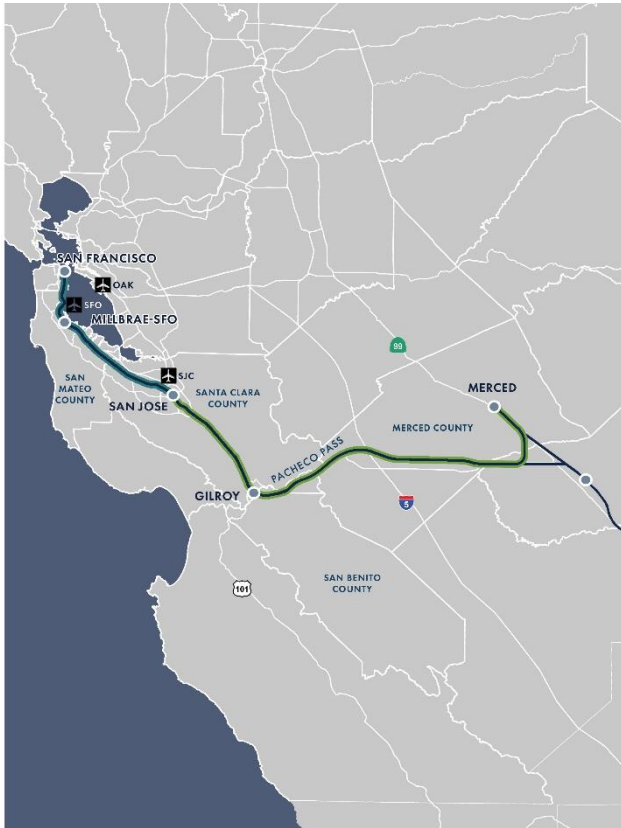


# 2021 ECONOMIC IMPACT ANALYSIS

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## California Projected Economic Impacts by Project Segment Through Construction\* Northern California

Work is well underway on bringing high-speed rail to Northern California and major milestones are coming up in 2022. Similar to the rest of the statewide system, there are components of the system at all stages of project development in Northern California. Together, these building blocks are forming the components that will become the high-speed rail system in the region.



Project Segment	Job-Years	Labor Income	Economic Output
San Francisco to San Jose	24,000	\$1.9 B	\$5.0 B
San Jose to Merced	118,000	\$9.1 B	\$25.4 B
<b>No. CA Total</b>	<b>142,000</b>	<b>\$11B</b>	<b>\$30.4B</b>

\*Utilizing the same modeling and methodology as in the 2021 Economic Impact Analyses Technical Memorandum, the Authority calculated the Economic Impacts of each project segment based on the budget and spending profiles of the segments through completed construction.



# 2021 ECONOMIC IMPACT REPORT

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

## California Projected Economic Impacts by Project Segment Through Construction\* Southern California

The Southern California megaregion is home to the southern terminus of the high-speed rail system. Activities are already underway that will provide improved transportation choices for the more than 23 million people that call Southern California home.



Project Segment	Job-Years	Labor Income	Economic Output
Bakersfield to Palmdale	139,000	\$10.7 B	\$31.5 B
Palmdale to Burbank	133,000	\$10.2 B	\$29.8 B
Burbank to LA Union Station	26,000	\$1.9 B	\$5.0 B
LA Union Station to Anaheim	23,000	\$1.8 B	\$4.4 B
<b>So. CA Total</b>	<b>321,000</b>	<b>\$24.6B</b>	<b>\$70.7B</b>

\*Utilizing the same modeling and methodology as in the 2021 Economic Impact Analyses Technical Memorandum, the Authority calculated the Economic Impacts of each project segment based on the budget and spending profiles of the segments through completed construction.



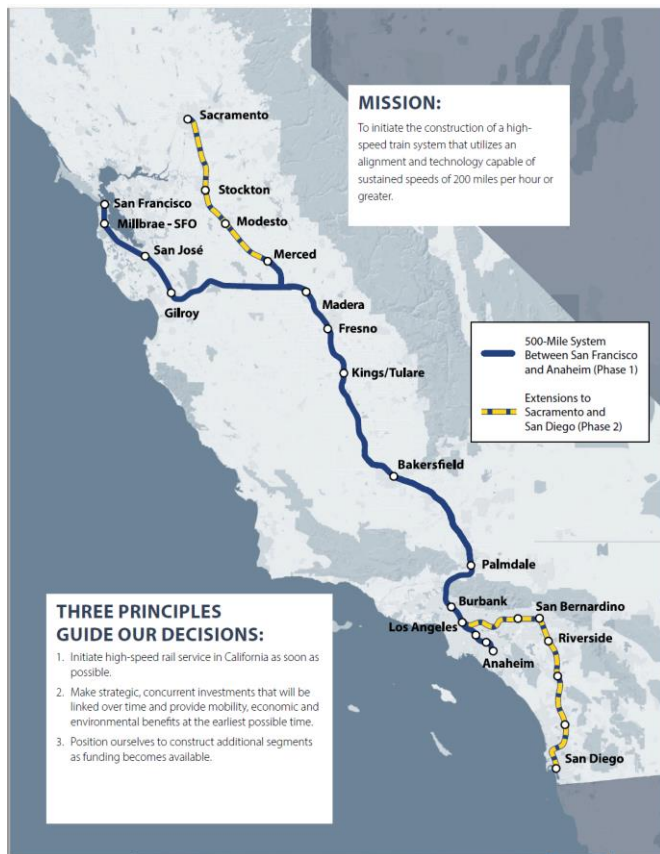


# 2021 ECONOMIC IMPACT ANALYSIS

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

## California Projected Economic Impacts by Project Segment Through Construction\* Central Valley, Valley to Valley and Phase I

The Phase I of the High-Speed Rail Project stretches nearly 500 miles from San Francisco to Anaheim. The Valley to Valley portion of the High-Speed Rail Project comprises San Francisco to Bakersfield.



Project	Job-Years	Labor Income	Economic Output
Central Valley	202,000	\$15.8B	\$41.0B
Total Valley to Valley	334,000	\$26.1B	\$69.8B
Total Phase I	666,000	\$51.5 B	\$142.3 B

\*Utilizing the same modeling and methodology as in the 20-21 Economic Impact Analyses Technical Memorandum, the Authority calculated the Economic Impacts of each project segment based on the budget and spending profiles of the segments through completed construction.



## Wrap Up

- The benefits of High-Speed Rail continue to ripple through the California economy.
- The Authority supports thousands of jobs across all functions from planning and environmental clearance to engineering and construction.
- Over half of the project's investment occurred in designated disadvantaged communities and the Authority further supports equity through job training programs.
- In the Central Valley region alone – hard hit by the Great Recession – about \$5.4 billion in economic activity has benefited the region and its workers.
- The Authority has contributed to Central Valley regional economic recovery since the Great Recession. In Fresno alone, the unemployment rate has decreased from 17% in 2010 to 9.3% in 2021.

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## Resources:

- Technical Supporting Document
  - [https://hsr.ca.gov/docs/brdmeetings/2021/brdmtg\\_012121\\_Item3\\_Economic\\_Impact\\_Technical\\_Supporting\\_Document.pdf](https://hsr.ca.gov/docs/brdmeetings/2021/brdmtg_012121_Item3_Economic_Impact_Technical_Supporting_Document.pdf)
- Fact Sheet
  - [https://hsr.ca.gov/wp-content/uploads/2021/04/Economic\\_Impact.pdf](https://hsr.ca.gov/wp-content/uploads/2021/04/Economic_Impact.pdf)
- Investing in California's Economy website
  - <https://hsr.ca.gov/programs/economic-investment/>

