



**CALIFORNIA**  
High-Speed Rail Authority

# 2022 Economic Impact Analysis

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# 2022 ECONOMIC IMPACT ANALYSIS

## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Since 2017, the High-Speed Rail Authority (the Authority) has annually produced the Economic Impact Analysis that estimates the economic impacts of expenditures tied to 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 2022 Economic Impact Analysis, which adds the 2021-22 fiscal year expenditure analyses to the project totals. Forecasts for future economic impacts are based on the 2023 Project Update Report.

# 2022 ECONOMIC IMPACT ANALYSIS

## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

### Economic Indicators:

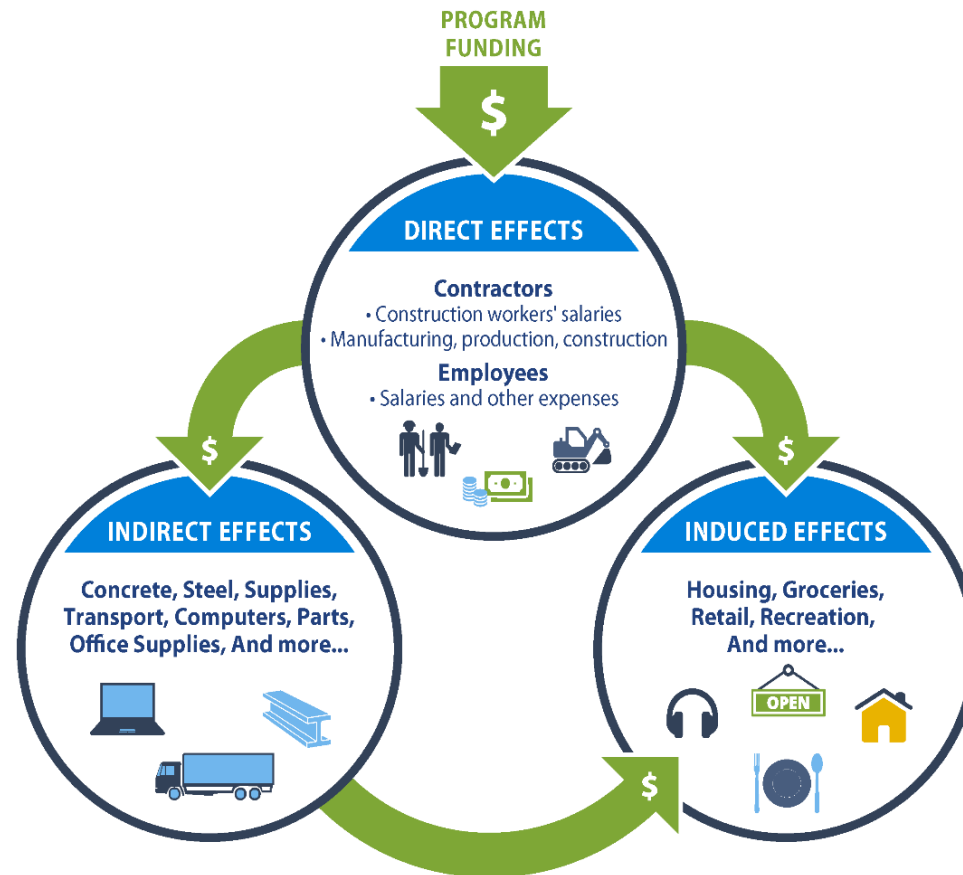
- **Job-Years** - Job-Years are the equivalent number of one-year-long jobs supported by the project. For example:
  - 1 Employee working for 5 years = 5 Job-Years
  - 5 Employees working for 1 year = 5 Job-Years
- **Labor Income** - Labor income includes all forms of employment income, including compensation (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.

# 2022 ECONOMIC IMPACT ANALYSIS

## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

### Economic Effects:

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



# 2022 ECONOMIC IMPACT ANALYSIS

## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

### Research Methods:

- Reviewed contract-level historical invoice cost data from three prior 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 2022 Analysis continues to follow similar methods and approaches as the Historical Analysis.

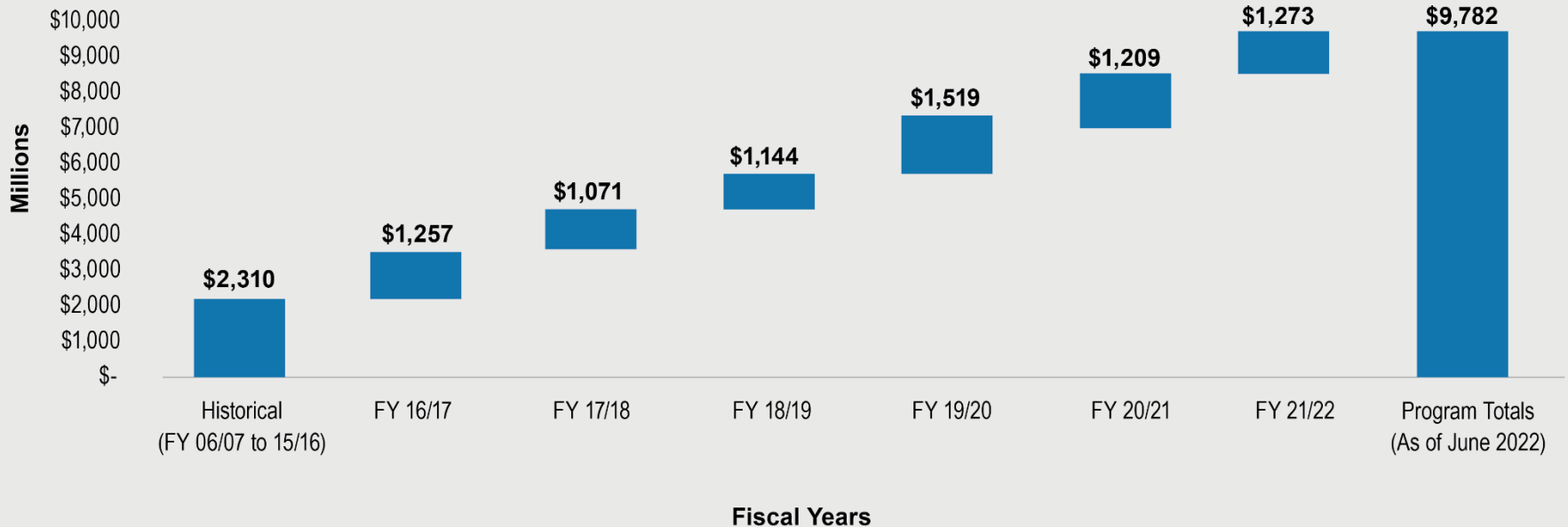


# 2022 ECONOMIC IMPACT ANALYSIS

## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

### Program Expenditures (\$ millions) 2006-07 through 2021-22

Program Expenditures Over Time  
(\$ in millions)



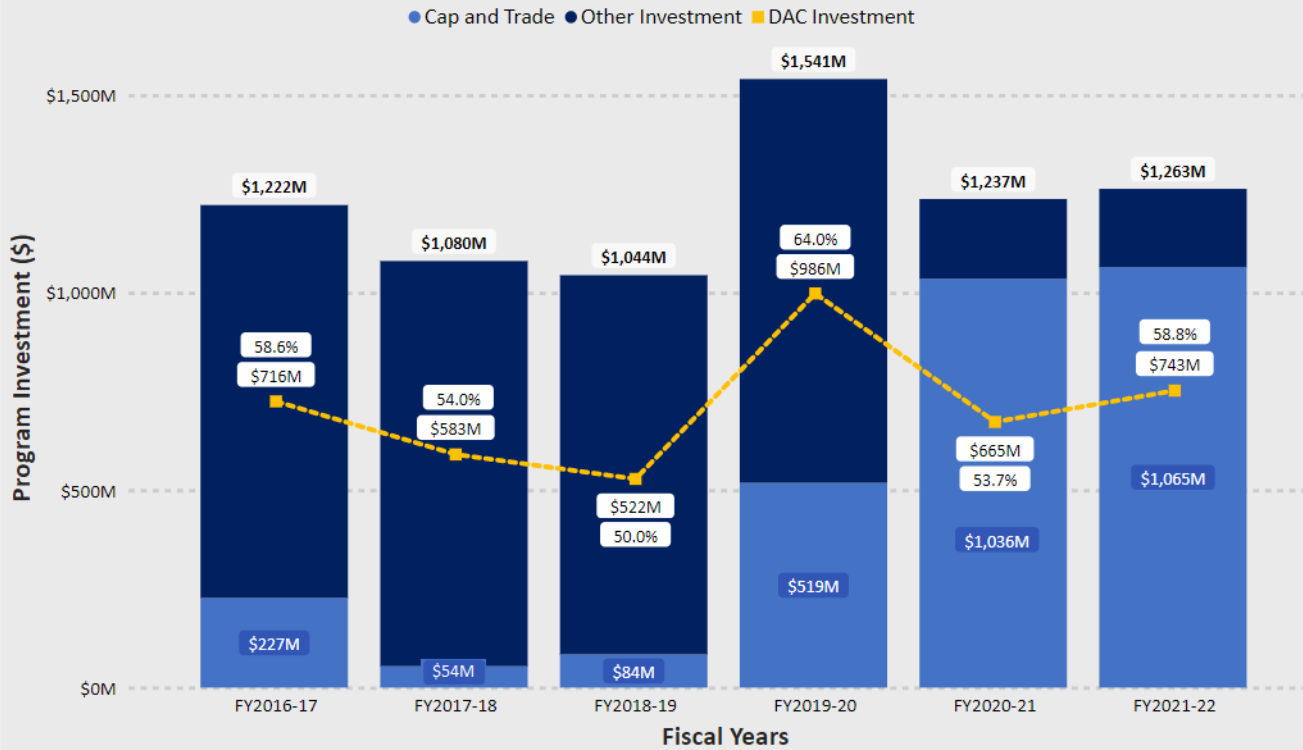
# 2022 ECONOMIC IMPACT ANALYSIS

## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

### Disadvantaged Communities Investments

California recognizes specific geographic areas as disadvantaged communities based on series of indices that include pollution burden, sensitive populations, and socioeconomic factors. Disadvantaged communities are defined as those that score in the top 25% of the most impacted by pollution and socioeconomic conditions

Program Expenditures by Funding Source and by DAC Investment Amount



An average of \$700 million/year, ranging from 50-64 percent of annual expenditures, has occurred in disadvantage communities since FY 2016/2017.

Note: Other investment sources include Federal grant funds and Proposition 1A



# 2022 ECONOMIC IMPACT ANALYSIS

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

California Statewide Economic Impacts  
2006-07 through 2021-22



80,000

## JOB-YEARS OF EMPLOYMENT

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

**2021-22** – *Fiscal Year estimated employment was 9,700 job years.*



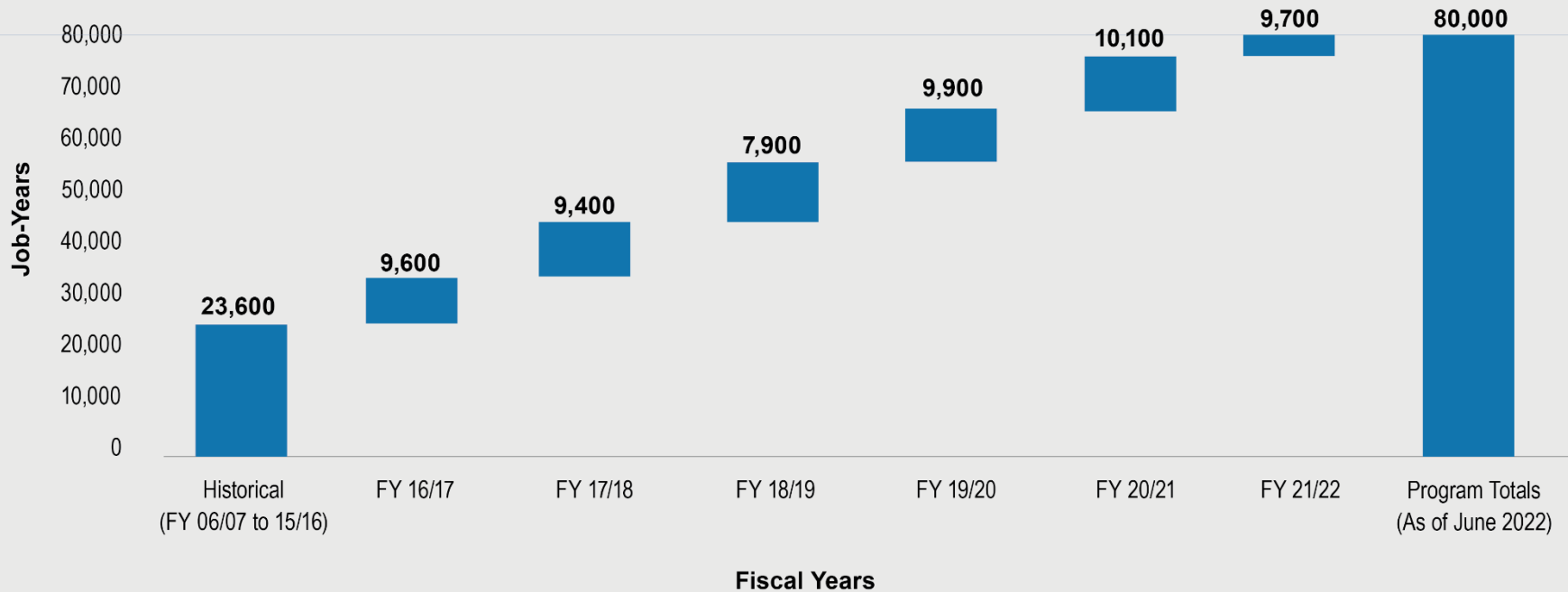


# 2022 ECONOMIC IMPACT ANALYSIS

## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

### California Statewide Economic Impacts 2006-07 through 2021-22

California Economic Impacts Over Time  
(Including Direct, Indirect, and Induced)  
Employment in Job-Years



# 2022 ECONOMIC IMPACT ANALYSIS

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

California Statewide Economic Impacts  
2006-07 through 2021-22



\$6.0  
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.*

**2021-22** – Fiscal Year estimated labor income was \$830 million.



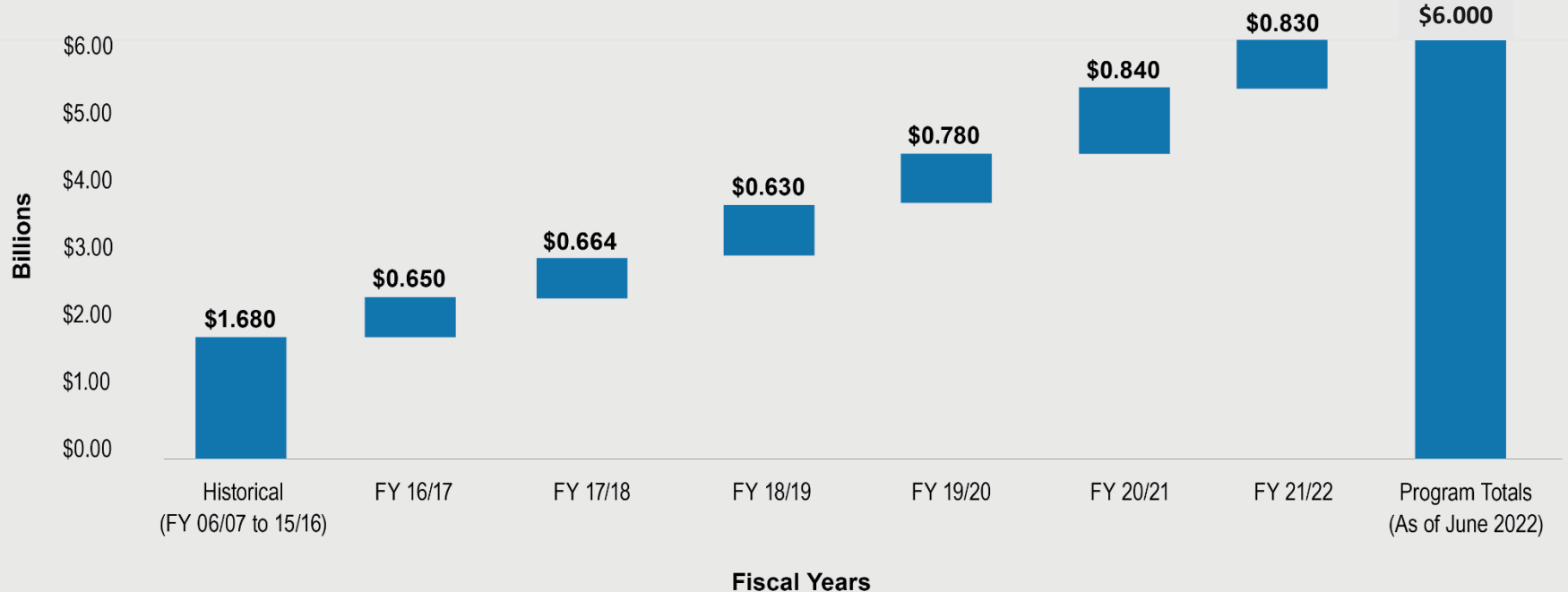
# 2022 ECONOMIC IMPACT ANALYSIS

## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

### California Statewide Economic Impacts 2006-07 through 2021-22

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

#### Labor Income



# 2022 ECONOMIC IMPACT ANALYSIS

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

California Statewide Economic Impacts  
2006-07 through 2021-22



\$16  
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”.

**2021-22** – Fiscal Year estimated economic output was \$2.3 billion.

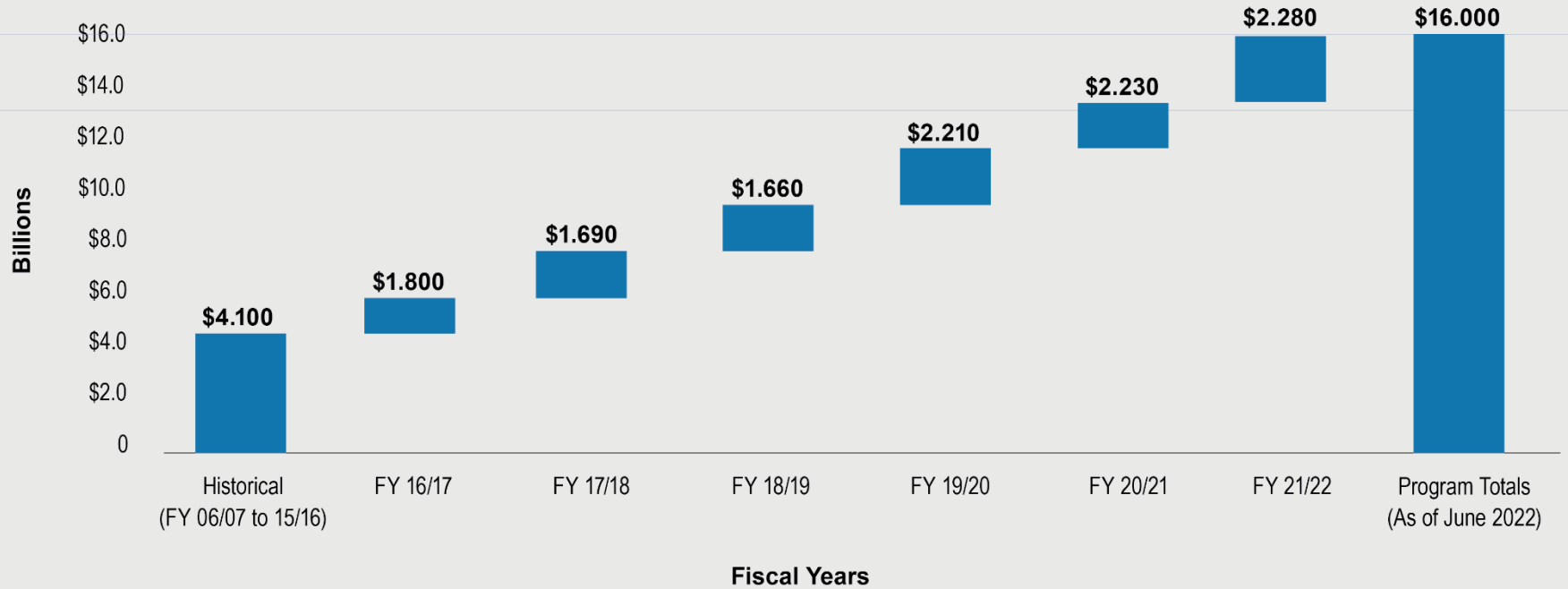


# 2022 ECONOMIC IMPACT ANALYSIS

## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

### California Statewide Economic Impacts 2006-07 through 2021-22

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

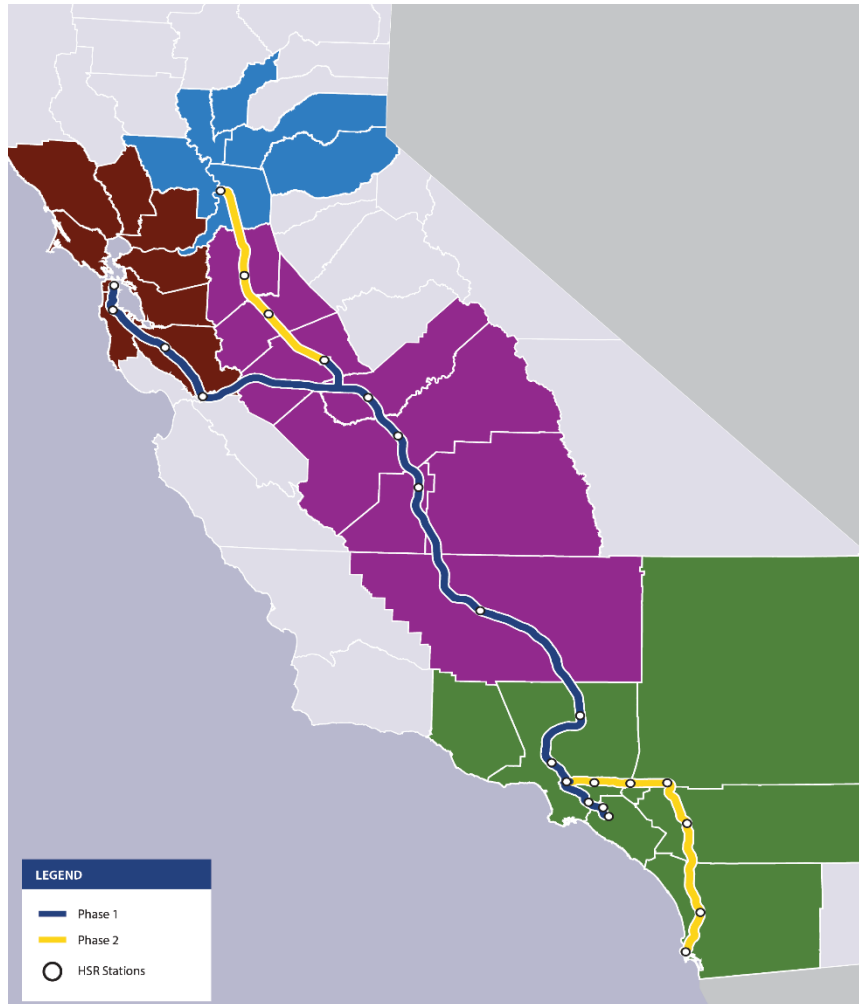


# 2022 ECONOMIC IMPACT ANALYSIS

## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

### Direct Investment and Economic Impacts By Region

2006-07 through 2021-22



### \$9.8 Billion Direct Investment in the Project from July 2006 through June 2022

SACRAMENTO	FY 21/22	PROGRAM TOTAL
Job-Years of Employment	1,240	13,890
Labor Income	\$100 M	\$1,000 M
Economic Output	\$260 M	\$2,350 M
BAY AREA	FY 21/22	PROGRAM TOTAL
Job-Years of Employment	1,310	7,750
Labor Income	\$140 M	\$760 M
Economic Output	\$370 M	\$1,760 M
CENTRAL VALLEY	FY 21/22	PROGRAM TOTAL
Job-Years of Employment	4,930	34,530
Labor Income	\$330 M	\$2,020 M
Economic Output	\$1,010 M	\$6,430 M
SOUTHERN CALIFORNIA	FY 21/22	PROGRAM TOTAL
Job-Years of Employment	1,480	10,680
Labor Income	\$120 M	\$800 M
Economic Output	\$330 M	\$2,110 M
CALIFORNIA NON-REGIONAL	FY 21/22	PROGRAM TOTAL
Job-Years of Employment	710	13,320
Labor Income	\$140 M	\$1,480 M
Economic Output	\$310 M	\$3,290 M

# 2022 ECONOMIC IMPACT ANALYSIS

## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

### 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 171-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	148,000	\$12.2 B	\$30.4 B
Fresno to Bakersfield	175,000	\$14.2 B	\$34.4 B
<b>Central Valley Total</b>	<b>323,000</b>	<b>\$26.4 B</b>	<b>\$64.8 B</b>

\*See the 2022 Economic Impact Analysis Technical Supporting Document for an explanation of the modeling and methodology to produce estimates through construction completion



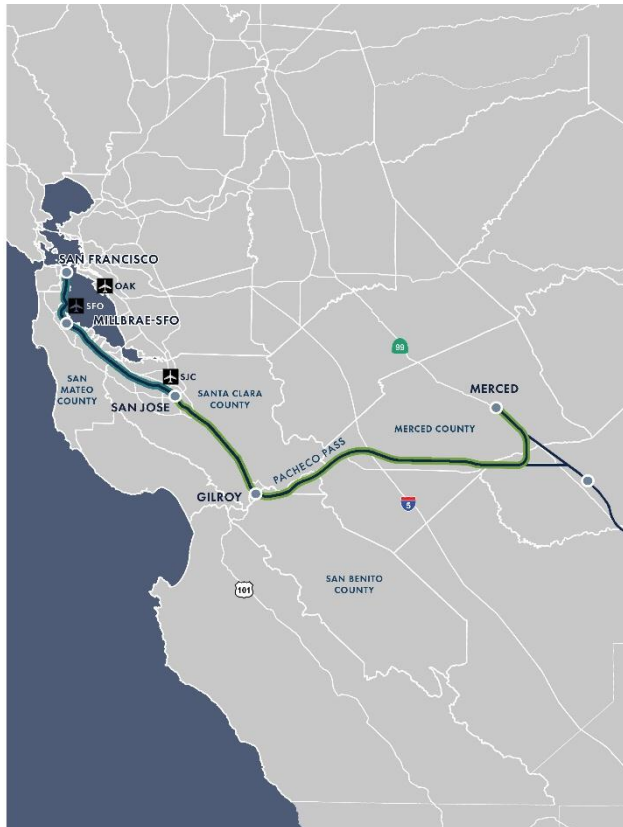
# 2022 ECONOMIC IMPACT ANALYSIS

## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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

#### Northern California

Work is well underway on bringing high-speed rail to Northern California. 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	60,000	\$4.7 B	\$11.1 B
San Jose to Merced	169,000	\$13.6 B	\$37.4 B
<b>No. CA Total</b>	<b>229,000</b>	<b>\$18.3 B</b>	<b>\$48.5 B</b>

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# 2022 ECONOMIC IMPACT ANALYSIS

## 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	134,000	\$10.7 B	\$30.4 B
Palmdale to Burbank	125,000	\$10.1 B	\$29.2 B
Burbank to LA Union Station	18,000	\$1.4 B	\$3.5 B
LA Union Station to Anaheim	25,000	\$2.0 B	\$5.1 B
<b>So. CA Total</b>	<b>302,000</b>	<b>\$24.2 B</b>	<b>\$68.2 B</b>

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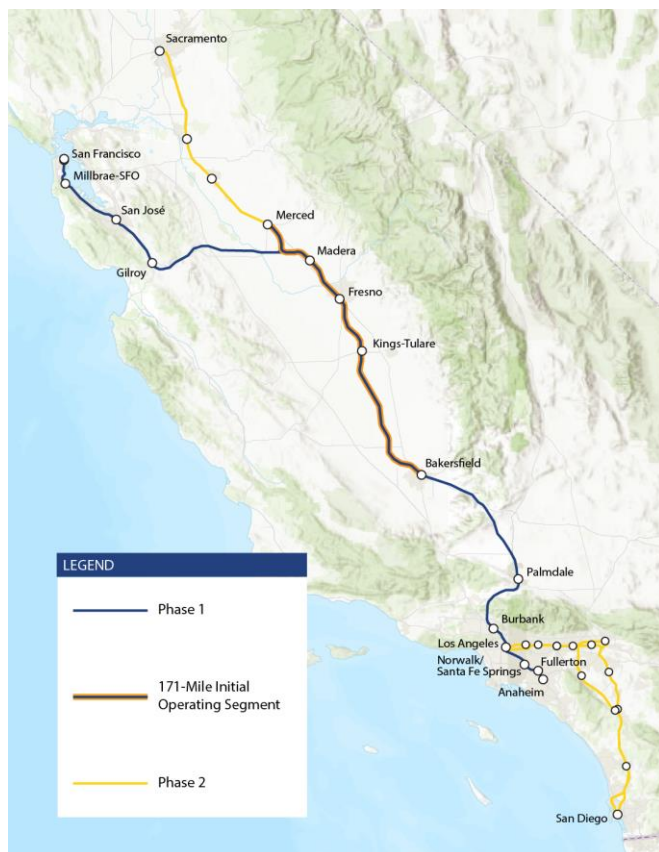
# 2022 ECONOMIC IMPACT ANALYSIS

## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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

#### Merced to Bakersfield, 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
<b>Merced to Bakersfield**</b>	325,000	\$26.5 B	\$65.1 B
<b>Total Valley to Valley</b>	506,000	\$41.1 B	\$105.4 B
<b>Total Phase I</b>	<b>855,000</b>	<b>\$69.0 B</b>	<b>\$181.4 B</b>

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\*\*Merced to Bakersfield includes PH1 balance Environmental Clearance and Bookends costs.



# 2022 ECONOMIC IMPACT ANALYSIS

## CALIFORNIA HIGH-SPEED RAIL AUTHORITY

### Wrap Up

- The benefits of High-Speed Rail investment 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 \$6.4 billion in economic activity has benefited the region and its workers.

# 2022 ECONOMIC IMPACT ANALYSIS

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

## Resources:

- Technical Supporting Document
  - [2022 Economic Impact Analysis](#)
- Fact Sheet
  - [The Economic Impact of California High-Speed Rail](#)
- Investing in California's Economy website
  - <https://hsr.ca.gov/programs/economic-investment/>