



California High-Speed Rail **BRIEFING: March 16, 2023 Board Meeting Agenda Item #3**

TO: Brian Kelly, CEO
FROM: Derek Boughton, Reporting Branch Chief
DATE: March 16, 2023
RE: 2022 Economic Impact Analysis

Background

Measures of the economic impacts associated with the Authority's investments have been documented since 2017, with the first report detailing the economic impacts that resulted from the historical investment in high-speed rail from July 2006 through June 2016 (Historical Analysis).¹ Updated reports have been produced annually since 2017.

This report, the Fiscal Year 2021-2022 (FY 2021-22) Economic Impact Analysis, provides an updated snapshot of the economic impacts resulting from Authority spending that took place over the time period of July 2021 through June 2022. Starting with a detailed analysis of Program direct spending, these costs are aggregated and assigned to appropriate industry sectors to calculate the associated economic impacts at the statewide level. Then, utilizing contract-level historical invoice cost data from the past three (3) fiscal years, geographic spending profiles that allocate share of spend by zip code and professional service contract are created and applied to the full contract spend amounts in FY 2021-22. This approach relies on previous detailed invoice reviews that comprise the total contract spending.

Methodology

The range of economic impacts are estimated using multiple industry-standard approaches that lead to a customized geographic economic impact modeling using economic the modeling software IMPLAN.

To confirm this methodology and its assumptions, the Authority has previously received review and validation from multiple industry experts both within and outside of state government who reviewed inputs, assumptions, methodology, and outputs associated with the 2017 Analysis. The reviewers confirmed the validity of the models and assumptions used and provided valuable feedback which was incorporated into the reports. These reviews included experts from the University of the Pacific's Center for Business and Policy Research, the California High-Speed Rail Peer Review Group, the Department of Finance, and the Employment Development Department. Since the same general methodology was followed for the subsequent update analyses, the expert validation remains applicable.

¹ https://www.buildhsr.com/hsrinvestment/pdf/California_Economy_2017.pdf

Discussion

The Analysis presents the economic impacts in terms of:

- *Job-Years* - represents a combination of total jobs and the length of time of those jobs. For example, one job supported for five years equals five job-years; five jobs supported for one year also equals five job- years.
- *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* - represents the total contribution the Program has made to the Gross Domestic Product (GDP) in California and the US or the economic “value-add”.
- *Direct impacts* - the economic effects generated by direct spending on a project.
- *Indirect impacts* - the economic effects that occur in the next step in the supply chain (dispersed among the industries that supply intermediate goods and services to firms with direct impacts).
- *Induced impacts* - are the economic effects that result when income earned by direct and indirect employees gets spent elsewhere in the economy.

As shown on the table below, the Authority’s \$9.8 billion in program investments from July 2006 to June 2022 has supported total direct, indirect, and induced jobs of 80,000 and generated \$16.0 billion in total economic activity.

Cumulative California Economic Impacts, July 2006 – June 2022*

Impact	Job-Years	Labor Income	Economic Output
Direct	37,000	\$3.3B	\$8.0B
Indirect	19,100	\$1.5B	\$3.8B
Induced	24,100	\$1.4B	\$4.2B
Total	80,000	\$6.0B	\$16.0B

**Totals may not sum due to rounding*




Most of this economic activity has taken place in the State of California, with 99% of 2021-22 investment expended to companies and workers in the state. For Fiscal Year 2021-22 specifically, the job years of employment was 9,670; the labor income was \$830 million, and the economic output was \$2.3 billion.

Program investments continue to have significant positive impact on the Central Valley economy, generating an estimated 34,530 job years of employment and about \$6.4 billion in total economic activity from July 2006 to June 2022. The Sacramento region also continues to show significant impact because of direct Authority expenditures at its Sacramento headquarters and other regional spending, with 13,890 total job-years and \$2.4 billion in total economic output. Additionally, the Bay Area and Southern California regions show significant impacts derived primarily from engineering and other professional service firms based there, as well as an increasing number of construction firms from those areas, with 7,750 total job-years and \$1.8 billion in economic output, and 10,680 job-years and \$2.1 billion in total economic output respectively.





Over half (56%) of the \$9.8 billion program investment in the system through June 2022 occurred in designated disadvantaged communities throughout California, spurring economic activity in these areas.

HSR Project Segment Impact Forecast*

In addition to measuring the economic impact of the annual expenditures related to Authority activities for 2021-22, the 2022 Analysis includes an evaluation of the economic impact of the total programmed capital outlay expenditures for each environmental section within Phase 1 and for the project as a whole.

Project Section 	Total Programmed Expenditures (\$B) 	Total Employment (Job-Year) 	Total Labor Income (\$B)	Total Economic Output (\$B)
San Francisco to San Jose	\$5.3	60,000	\$4.7	\$11.1
San Jose to Merced	\$19.5	169,000	\$13.6	\$37.4
Merced to Fresno	\$15.2	148,000	\$12.2	\$30.4
Fresno to Bakersfield	\$16.9	175,000	\$14.2	\$34.4
Bakersfield to Palmdale	\$15.9	134,000	\$10.7	\$30.4
Palmdale to Burbank	\$15.5	125,000	\$10.1	\$29.2
Burbank to LA Union Station	\$1.7	18,000	\$1.4	\$3.5
LA Union Station to Anaheim	\$2.5	25,000	\$2.0	\$5.1

*Totals may not sum due to rounding

Project Stage 	Total Programmed Expenditures (in \$B) 	Total Employment (Job-Year) 	Total Labor Income (\$B)	Total Economic Output (\$B) 
Merced to Bakersfield	\$32.4	325,000	\$26.5	\$65.1
Valley to Valley Expansion	\$21.0	181,000	\$14.7	\$40.3
Valley to Valley Subtotal	\$53.4	506,000	\$41.1	\$105.4
Phase 1 Buildout	\$39.2	349,000	\$27.9	\$76.0
Total Phase 1**	\$92.6	855,000	\$69.0	\$181.4

*Totals may not sum due to rounding

**The difference between the \$92.6B listed above and the 2023 Project Update Report Phase 1 capital cost total of \$106.2B is due to base year differences and the exclusion of ROW acquisition costs.

As the investment in high-speed rail infrastructure grows over time, so too will the economic effects associated with it.

Legal Approval

The Legal Office has reviewed this item and it is in compliance with Authority policy.

Budget and Fiscal Impact

This is an informational item on the 2022 Economic Impact Analysis, and by itself, does not have a budget or fiscal impact.

REVIEWER INFORMATION	SIGNATURE
Reviewer Name and Title: Brian Annis Chief Financial Officer	Signature verifying budget analysis:
Reviewer Name and Title: Alicia Fowler Chief Legal Counsel	Signature verifying legal analysis:

Recommendations

This item is informational only; there are no recommended actions at this time.