



BRIEFING: MARCH 19, 2019 BOARD MEETING AGENDA ITEM #6

TO: Brian Kelly, CEO

FROM: Russell Fong, Chief Financial Officer

DATE: March 19, 2019

RE: Update on the High-Speed Rail Program Economic Impact Analysis

Background

Since 2017, the High-Speed Rail Authority (Authority) staff has produced three Economic Impact Analysis reports that estimate the economic impacts of planning and constructing the high-speed rail system. The 2016 California High-Speed Rail Economic Impact Analysis (Historical Analysis) estimated the economic impact of the Authority's expenditures over a ten-year period (July 2006 through June 2016), and became the base to which the Authority would build off annually going forward. The Fiscal Year 2016/2017 Analysis (FY 16/17 Analysis) produced the estimated economic impact of the Authority's expenditures for that fiscal year. Likewise, the Fiscal Year 2017/2018 Analysis (FY 17/18 Analysis) produced the estimated economic impact for that fiscal year.

Each Analysis illustrates the economic benefits of the high-speed rail program on a countywide, regional, statewide, and national level. The scope of the two more recent annual Analyses is strictly limited to the economic impacts from historical project expenditures that have already been spent, while the 2016 Analysis included historical and forecasted project expenditures because it was the first iteration. It does not attempt to quantify the many long-term benefits and impacts associated with future rail operations, such as increased accessibility, reduced vehicle miles traveled and vehicular congestion, increased transportation safety, greenhouse gas emission reductions, and other benefits.

Methodology

The range of economic impacts are estimated using multiple industry-standard approaches, including a "top-down" analysis applying input-output models to project expenditures to estimate impacts at the state level, and a more in-depth, "bottom-up" methodology that involved rigorous internal and external research on detailed project expenditures and customized geographic economic impact modeling using economic modeling software.

To confirm this methodology and its assumptions, in 2016 the Authority requested review and validation from multiple industry experts both within and outside of state government who reviewed inputs, assumptions, methodology, and outputs associated with the 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 two update analyses, the expert validation remains applicable.

Additionally, the California State Auditor reviewed the Historical Analysis and the FY 16/17 Analysis as part of its audit of the Authority (Audit Report 2018-108) and concluded,

The Authority used two widely accepted economic modeling programs to measure the total economic impacts of its spending from its contracting and construction activities... (T)he Authority reported and the fact that the amounts are intended to be estimates, we are not concerned that the Authority’s economic impact reporting is misleading or substantially under- or overstated. Further, the Authority disclosed the assumptions it made when designing its methodology by discussing those assumptions in the public technical memorandum that accompanied its reports.

Prior Board Action

The Authority presented the 2016 California High-Speed Rail Economic Impact Analysis to the Board in July 2017.

Discussion

The Analysis presents the economic impacts (or effects) in terms of:

- *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.
- *Job-years* - represent 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.

As shown on the table below, the \$4.5 billion infrastructure investment from 2006 to June 2018 has supported total direct, indirect, and induced jobs ranging from 37,600 to 42,600 and generated \$6.8 to \$7.6 billion in economic activity.

Cumulative California Economic Impacts, July 2006 – June 2018*

	Jobs Years	Labor Income	Economic Output
Direct	16,900 – 19,100	\$1,360M - \$1,590M	\$3,230M - \$3,590M
Indirect	9,500 – 10,800	\$640M - \$720M	\$1,770M - \$1,930M
Induced	11,100 – 12,800	\$600M - \$700M	\$1,790M - \$2,060M
Total	37,600 – 42,600	\$2,600M - \$2,990M	\$6,780M - \$7,560M

**Totals may not sum due to rounding*

Most of this economic activity has taken place within the state, with 95% of spending going to contractors, consultants, and small businesses based in California.

Program investments have already had significant positive impact on the Central Valley economy, generating an estimated 15,780 job years of employment and about \$2.75 billion in total economic activity from July 2006 to

June 2018. This reflects the fact that the Authority is now a project delivery organization with construction that has been escalating in the Central Valley since FY 2013-2014 with the three design-build construction contracts. The Sacramento region also shows significant impact because of direct Authority expenditures at its Sacramento headquarters and other government spending, with 8,190 total job-years and \$1.36 billion in total economic output. The Bay Area and Southern California show significant impacts derived primarily from engineering and other professional services firms based there as well as an increasing amount of construction firms from those areas, with 3,620 total job-years and \$650 million in economic output, and 4,530 job-years and \$790 million in total economic output respectively.

Over half (54%) of the \$4.5 billion program investment in the system through June 2018 occurred in designated disadvantaged communities throughout California, spurring economic activity in these areas.

While most of the spending has occurred within California, companies from at least 36 different states have worked on the program, contributing to everything from planning and engineering to construction. Out-of-state spending has accounted for nearly 4% of total expenditure and includes spending across the United States as well as some expenditures for specialized services that could only be provided from experts abroad.

As the investment in high-speed rail infrastructure grows over time, so too will the economic effects associated with it. The analysis of these effects is updated on an annual basis.

Recommendations

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

Attachments

- 2017/2018 Economic Impact Analysis Technical Support Document
- 2017/2018 Economic Impact Factsheet