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A Review of SB 1 Project Performance: Cost Overruns, Schedule Delays, and Cancellations

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Issue

The Road Repair and Accountability Act of 2017 (Senate Bill 1 or SB 1) aims to improve and enhance California's transportation infrastructure. Like many infrastructure programs, however, there are concerns with project cost overruns, delays, and cancellations, as these can undermine program goals and negatively impact quality of life in California.

To better understand SB 1 program performance thus far, we analyzed quarterly Caltrans SB 1 project reports¹ between 2018 and 2023 to provide insights into project costs, delays, and cancellations.

Key Research Findings

Cost overruns affect 40% of SB1 projects. The average cost overrun is \$1.8 million across all projects, with significant variation across geographic locations, funding programs, and project types. Common causes include unforeseen site conditions and changes in project scope.

Delays occurred in over 70% of the projects with an average delay of 1.5 years. Delays have increased since 2018. Factors like weather conditions and land acquisition issues contribute significantly to these delays.

Two percent of projects were canceled. Budget constraints and scope changes are leading causes for the cancellation of approximately 373 projects or project segments.

Cost overruns and schedule delays vary across programs, time periods, and locations. Table 1 summarizes cost overruns, schedule delays, and cancellations by fiscal

quarter. Figure 1 displays average cost overruns by SB1 program type and district.

Policy Considerations

Revise forecasting and contingency planning. Overhaul current forecasting methods and contingency planning. Forecasts of project costs and timelines continue to be overly optimistic. Current standards, such as the 20% contingency rule, are insufficient in many cases.

Enhance data quality and transparency. Commit to providing more detailed and accessible data on project cost overruns, delays, and cancellations. More importantly, collect better data on why costs increased and why projects were delayed. Obtaining better information on the reasons for cost overruns and project delays is critical to improving the SB 1 program.

Incentivize accurate project forecasting. Establish mechanisms that reward honest and accurate estimates in project planning and execution. Such incentives could help reduce instances of overly optimistic forecasts and ensure more realistic planning.

More Information

This policy brief is drawn from the report "Modeling and Analyzing Cost Overruns, Delays, and Cancellations in Senate Bill 1 Projects" available at www.ucits.org/research-project/2023-39. For more information about findings presented in this brief, please contact Michael Hyland at hylandm@uci.edu.



Table 1: Overview of Cost Overruns, Schedule Delays, and Project Cancellations by Reporting Period

Period				FY 18- 19 Q4	FY 19-20 Q1-2	FY 21-22 Q3-4	FY 22-23 Q1	FY 22-23 Q2	FY 22-23 Q3
Cost (thousand \$)	Total Cost	Observations		759	798	1377	1373	1361	1386
		Overrun	Count	233	230	525	511	530	560
			Ratio	31%	29%	38%	37%	39%	40%
		Avg. Overrun		669	285	2537	1691	1390	1843
		Std. Dev.		13,161	13,113	14,862	13,528	12,958	12,380
Schedule (days)	End of Constr^	Observations		73	83	158	160	161	183
		Delay	Count	30	53	99	101	110	130
			Ratio	41%	64%	63%	63%	68%	71%
		Avg. Delay		122	219	337	363	401	452
		Std. Dev.		326	357	542	527	552	534
	Canceled	Total Count		14	240	40	43	36	0
	Completed	Total Count		0	15	31	14	19	11

^{^&}quot;End of Constr" means the End of Construction.

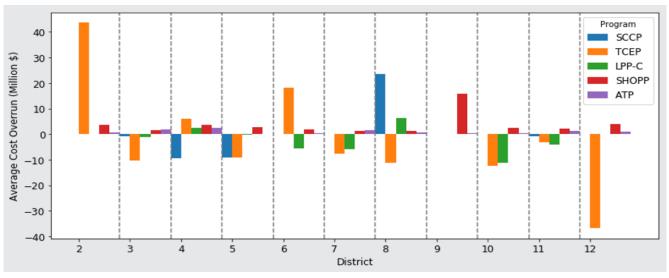


Figure 1: Average Cost Overrun by Caltrans District and SB1 Programs: Solutions for Congested Corridors Program (SCCP), Trade Corridor Enhancement Program (TCEP), Local Partnership Proram (LPP-C), State Highway Operation and Protection Program (SHOPP), and Active Transportation Program (ATP)

¹https://dot.ca.gov/programs/sb1/progress-reports

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