

- [Bay Crossings Journal](#)
- [New Look for BART Herald's Sweet Summer Deal for Commuters](#)
- [The Hungry Gourmet](#)
- [Port of Oakland News](#)
- [Libations](#)
- [Ferry Building Marketplace Directory](#)
- [Vallejo – Affordable Waterfront Living](#)
- [The Classic Craftsman Tour: Visit Homes of Natural Charm](#)
- [A Little Bit of Boating](#)
- [Music is great on those Hot Summer Nights in August](#)
- [What's Going On In there?](#)
- [Vallejo Artist Shines in the Sun](#)
- [Ferry For Sale](#)
- [Gearheads Go Gaga Over FasTrak](#)
- [Bay Crossings on the Cover](#)
- [BIG Fat Lies](#)
- [San Francisco Bay's Ferry of the Future](#)
- [What's Happening to the Richmond-San Rafael Bridge?](#)
- [Bay Crossings Bay Round Up](#)
- [Shipyard Turns 150](#)
- [Water Transit Authority WTA](#)

## BIG Fat Lies

By Guy Span

Why is it so many big transit construction projects have so many big cost overruns and fail to provide the benefits promised? BART to SFO was going to cost \$590 million and attract lots of riders. Instead, we got a \$1.5 billion project that is not attracting riders. How could this be? Are we just that bad at planning and cost analysis or is there, perhaps, another reason?



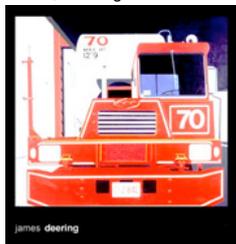
A typical early series High-Speed Bullet Train.

There is an interesting history to gigantic rail projects, and this story begins in Japan. In 1957, as America was passing its Defense and Interstate Highway Act and trains are on their way out, Japan was struggling with what to do with its creaky narrow gauge railway. Some railway men wanted to enhance capacity by building additional narrow gauge tracks. The other camp wanted the standard gauge Shinkansen, literally a new main line.

According to Bill Hoskawa, author of *Old Man Thunder*, Sinji Sogo, the old man of the title, felt the 300 billion yen construction costs for the new 136 mph Bullet Train (speeds were later raised to 160 mph) would never be funded, so he ordered the estimates cut in half. He was asked by his subordinates what he would do when they ran out of money and it was only half built. He replied that they would have to give him more money because with the project half built, the country would have been thoroughly committed.

So it was clear that the Shinkansen was designed for cost overruns and the original budget had been drafted before standards had been set and even before a final alignment had been chosen. In other words, the designers, estimators and engineers had no idea what the final cost would be. But they firmly believed that investing in high-speed standard gauge railways would be better for Japan than in keeping its old, slow and narrow railway and building highways. One small group ended up spending 380 million yen and designing the transportation future for Japan. Project managers everywhere studied how the Japanese constructed (and funded) this new type of railway.

Closer to home, we have San Francisco's Bechtel Corporation, one of the largest construction companies in the world. They have a really big project going on in Boston, called the "Big Dig," where they are burying 7.5 miles of roadway to eliminate a rusting elevated structure. But all is not well in Beantown, as the state filed a complaint in Superior Court seeking up to \$146 million in damages, the estimated profits and incentive fees for Bechtel and Parsons Brinkerhoff (an engineering consultancy). The familiar cause for this action is that the original 1994 estimate was a whopping \$7.7 billion and as it nears completion later than expected, it looks to be almost double, chiming in at an unbelievable \$14.6 billion.



This painting by James Deering is a close up of one of the many construction vehicles that have become a symbol of the Big Dig.

And just like in Japan, the main reason for the overrun, according to the Boston Globe, was that they lied about it. The Globe discovered that confidential 1995 documents purport that Bechtel was asked by state officials to lower estimates in order to make the project more palatable to voters. Ironically, the state's lawsuit claims it was Bechtel's error. Either way, it was a huge error. And the Globe also noted that Bechtel and its subcontractors have spent \$225,000 funding Massachusetts legislators over the life of the project.

Back in 1957, while Japan was developing 136 mph trains, the Bay Area was getting ready to fund BART, a nice shiny new electric railway that would have an average speed of 45 mph (including stops). So voters agreed and funded several bonds for a total of \$996 million for a 71.5 mile system. Helping it get built were some familiar names, like Parsons Brinkerhoff, Tudor Engineering, and Bechtel. When it did get built, the final price tag

was a breathtaking \$1.6 billion.

The other interesting fact about BART's beginning is that planners thought so many people would ride that it would be profitable. When that didn't happen, BART had to scramble for operating subsidies, eerily similar to the way Samtrans has had to scramble for more BART subsidies when the ridership on the new SFO line was grossly over projected. And the SFO extension construction costs only missed the original estimate by \$1 billion.

While it looks like there is a pattern developing, someone has actually studied it. Bent Flyvbjerg suggests in the 2002 Summer APA Journal that the majority of errors are indeed on purpose. Flyvbjerg is not alone in his analysis, as other scholars have concluded intentional deception as a cause of the overruns. He found that 9 out of 10 transportation projects were underestimated and that rail projects had the highest overruns at 45% (not counting the Big Dig). He also found that cost estimates had not improved in 70 years and that the error could not be explained by statistical analysis. His conclusion was that it could best be explained by "strategic misrepresentation, i.e., lying."

So far, we have had huge cost overruns on every bridge project, including the "replacement" Bay Bridge, a signature structure that pleased politicians. It is clear that the cozy relationship between the builders, the politicians and the suckers who pay for it all needs further investigation. In the meantime, BART has another bond measure, where the taxpayers need to step to the plate to fund a huge additional expense. This is on top of what BART calls its "successful" enhancements.

BART in 1995 had a 10 year, \$1.2 billion systemwide renovation program. This was to rehabilitate stations, renovate the existing and aging fleet of cars, upgrade train controls, replace fare machines, and update escalators and elevators. BART says this is now 95% complete. Here's what BART said we bought:

- BART Cars: rehabilitation of the entire original fleet of 439 cars, now complete
- Elevators: overhaul of 60 elevators, now complete
- Stations: renovation of 20 stations, now complete
- Bill-to-bill changers: 67 changers installed in 43 stations, now complete
- Shops and yard: \$82 million expansion and improvement program, now complete
- Faregates: 572 new gates installed in 43 stations, now complete
- Ticket vending machines: 185 new machines installed, 114 remaining

- Add-fare machines: 118 new machines installed, 44 remaining
- Escalator Rehabilitation: 114 complete, six remaining
- Escalator Replacement: 23 replaced, now complete

But this is not enough. Now BART wants a \$980 million general obligation bond paid by property taxes to "strengthen its Transbay Tube, stations and elevated tracks."

It's on the November ballot. The full cost according to BART is \$1.3 billion, with the remainder coming from federal sources and the riders of BART. While BART wishes to use the Transbay Tube as its poster child for earthquake readiness, the fact is that the RM-2 (Regional Measure 2, which raised tolls by one dollar on local bridges) is already paying for the seismic work that is underway. There is a shortfall, but given BART's history, one wonders who will really benefit from this next billion dollar program.

We have seen that mega-projects are consistently underestimated. While the public benefits from the completion of the project, there is a serious question of whether the public would support such a project, if the true costs were known. Without a doubt, we know the winners here, Parsons Brinkerhoff and Bechtel, and the losers, the dumb taxpayers.

You can contact Guy Span at [info@baycrossings.com](mailto:info@baycrossings.com).