Citizens Against Government Waste and The Howard Jarvis Taxpayers Foundation

2008 CALIFORNIA PIGLET BOOK

“The Book Sacramento Doesn’t Want You to Read”
CITIZENS AGAINST GOVERNMENT WASTE

Citizens Against Government Waste (CAGW) is a private, nonprofit, nonpartisan organization dedicated to educating the American public about waste, mismanagement, and inefficiency in the federal government.

CAGW was founded in 1984 by J. Peter Grace and nationally-syndicated columnist Jack Anderson to build support for implementation of the Grace Commission recommendations and other waste-cutting proposals. Since its inception, CAGW has been at the forefront of the fight for efficiency, economy, and accountability in government.

CAGW has 1.2 million members and supporters nationwide. Since 1986, CAGW and its members have helped save taxpayers $944 billion. CAGW publishes a quarterly newsletter, Government Waste Watch, and produces special reports, monographs, and television documentaries examining government waste and what citizens can do to stop it.

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THE HOWARD JARVIS TAXPAYERS FOUNDATION

The Howard Jarvis Taxpayers Foundation (HJTF) is the affiliated foundation of the Howard Jarvis Taxpayers Association (HJTA). Both HJTF and HJTA are dedicated to the protection of Proposition 13 and fighting for taxpayer rights in the state of California.

These organizations are named for Howard Jarvis, the father of the modern tax revolt movement who, along with his wife Estelle, worked tirelessly to preserve homeownership for millions of Californians who were being threatened by steep increases in property taxes.

Today, with over 200,000 members, HJTF maintains offices in both Los Angeles and Sacramento conducting its lobbying activities, litigation efforts and, of course, proposing new citizen sponsored initiatives to keep government taxation and spending in check.

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Introduction:

The 2008 California Piglet Book is the result of a joint effort by the Howard Jarvis Taxpayers Foundation (HJTF) and Citizens Against Government Waste (CAGW) to spotlight waste, fraud and abuse of taxpayers’ dollars.

An examination of public transportation projects commonly reveals misspent taxpayer funds. This is because high profile projects at the local, state, and federal government levels are a favorite of politicians who see in them numerous career building opportunities, which become an end in themselves. Elected officials enjoy the photos and speeches, while control of transportation dollars can be turned into massive clout, which in turn generates campaign contributions and votes. The goal of bringing home the transportation pork is often at odds with proper planning and management of high dollar projects. Because transportation is such a rich environment for waste, fraud, and abuse in California this year, the 2008 California Piglet Book focuses on transportation and includes a special section on high speed rail. The California High Speed Rail Proposal: A Due Diligence Report challenges the many assumptions advanced by the proponents of this massive project. All this at time when the state has already run up a record $17 billion budget deficit, and is over two months late in passing a spending plan to reconcile that problem. The full study, authored by transportation experts Wendell Cox and Joseph Vranich, was jointly sponsored by the Reason Foundation, Howard Jarvis Taxpayers Foundation and Citizens Against Government Waste and can be found at: http://www.reason.org/, http://www.hjta.org, or http://www.cagw.org.

Although the focus this year is on the elephant in the room, the high speed rail project, we have also attempted to make the 2008 Piglet more user-friendly by incorporating a Top 10 list of transportation spending outrages. These are instructive in revealing the misplaced priorities of many government officials.

The California Transportation Problem

Today, California faces a precarious transportation situation. According to Transportation California, a coalition whose main goal is to “accelerate investment in a transportation network that will serve Californians for generations to come,” California has a road project backlog in excess of $100 billion, with much of that money going toward simply keeping up the roads that have already been built.¹

The Public Policy Institute of California (PPIC) California 2025 report stated, “from 1980 to 2003, California added only about 6 percent to its stock of state highway lane miles, despite a doubling of state highway miles driven.”²

With auto travel increasing, commute times are also growing dramatically across the state. According to the PPIC, the average increased by 10 percent, to 27 minutes, from 1990-2005.\(^3\) Many solutions and dollars have been put forth to encourage mass transit, with little effect. According to the non-partisan California Legislative Analyst’s Office (LAO), while auto travel increased by 26 percent between 1990-2004, growth in total transit ridership was practically zero.\(^4\)

Even among individual sectors that saw growth, such as rail, ridership does not appear to be justifying costs. California’s intercity rail system includes 13 stops between Auburn and San Diego via Amtrak’s Capitol Corridor, Coast Starlight, Pacific Surfliner, and San Joaquins rail lines. While ridership among these lines doubled in the 10-year period between 1994-2004, the costs almost did as well, and now total nearly $100 million annually, according to the LAO.\(^5\) While the increased ridership trends are being used to justify expanding to a high-speed rail system, existing programs are not cost-effective. This could be a bad omen for this high-speed capital infrastructure project, for which costs could be as high as $140 billion after interest.

**Transportation Financing**

Currently, each gallon of gasoline is hit with a federal excise tax of 18.4 cents/gallon and a state excise tax of 18 cents/gallon. Then, the state sales tax (currently at 7.25 percent) and local sales tax ballot measures approved by voters are added in, effectively creating a tax on a tax. These state sales and excise taxes constitute a large majority of the transportation funding California receives. Assuming a $4/gallon price, Californians pay about 29 cents worth of sales tax for every gallon of gas. By comparison, when gas was $2/gallon, the amount was 15 cents. According to the State Board of Equalization, Californians purchased 15.8 billion gallons of gas in 2007. This means that over the years, while gas prices have doubled, the state has seen a gas sales tax windfall of about $2 billion based on 2007 consumption levels.

**The Spillover Fund**

Much of this additional money has found its way into what is known as the “spillover” account. Revenues in the spillover fund are computed by taking 4.75 percent of the total sales tax on gasoline, and subtracting that by .25 percent of the sales tax on all other items except fuel purchases. Thanks to this formula, the spillover fund for 2008-2009 totals nearly $1 billion, according to the LAO. As long as the price of fuel remains high, money will continue to flow into the spillover account. However, higher gas prices also translate into less driving. According to the California Department of Transportation, the number of vehicle miles driven on state highways has declined every month in 2008 through July when compared to 2007 figures.\(^6\) So, while spillover revenues are up, it would be risky to rely on them too much.

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\(^5\) Ibid.

Beginning with the upcoming 2008-2009 budget, 33 percent of spillover funds will go to the State Transit Assistance (STA) fund, to pay for transit operations, while 50 percent will go into the Mass Transit Fund. The latter fund will be used to pay for transportation expenditures that used to come out of the General Fund, such as debt service on general obligation bonds. This year, the STA is supposed to receive more than $700 million, including more than $300 million in spillover revenues, mainly to subsidize state and local transit operations. The key issue is whether or not they need to be subsidized when so few people use those modes of transportation.

**The use of general obligation bonds to fund transportation**

The $350 million in the spillover fund used to pay off general obligation bond debt could arguably be well spent if the money went for “brick and mortar” projects. Recently, even that money has been wasted.

Traditionally, bonds are used to provide up-front money for various capital infrastructure projects that will last the length of the bond, typically 30 years. This allows taxpayers to gradually pay off the bond interest, while benefiting from the new projects. Sadly, many of today’s bonds are dedicated for projects to either maintain roads, or provide for other services. This forces our children to bear the interest costs, with nothing tangible to show them for it. Obviously, the waste that the High Speed Rail project would create is another prime example, and that project is easily number one on the Top Ten Transportation Outrages.

Another example is Proposition 1B, a $20 billion general obligation bond approved by voters in 2006, which provides funding for various road, public transit, and many other projects which seemingly have little to do with transportation. While arguably $11 billion is going toward projects that increase road capacity and/or reduce congestion, it is only as this money begins to be divided up that taxpayers will see whether they are getting real bang for their buck. Of the remaining $9 billion, much of it goes to infrastructure and security upgrades for rail and other transit programs, as well as shipping port improvements and reducing transportation-related air pollution. Perhaps these are important programs, but given the interest payments it is not really an effective use of scarce transportation taxpayer dollars. These dollars will not get people home to their families faster each night.

**Better uses of transportation funds**

Under the Los Angeles County Metropolitan Transportation Agency’s (LACMTA) budget, in fiscal year 2008, the agency’s proposed expenditures totaled $3.1 billion. Revenue from fares totaled $341 million, or 11 percent. This means the other 90 percent of funds came from a combination of sales taxes, grants, and bond revenue. The LACMTA’s own estimates (updated in June 2008) indicate that there were 474 million combined rail and bus riders. This means every ride on the MTA network cost an average of $6.33, again, much of it subsidized.8

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By comparison, one of the last major freeways to be completed in California was the 17-mile Century Freeway, opened in Los Angeles. Published reports at the time indicated the freeway was the most expensive in state history, totaling about $127 million/mile.\(^9\) If the LACMTA’s budget priorities were changed it could result in nearly 24 miles of new highway capacity every year in one of the biggest metropolitan areas in the United States. While the authors of the *Piglet Book* are not advocating dissolving the MTA, important consideration must be paid to how effectively dollars for public transportation are used. A high-speed rail proposal only further extends California’s misplaced transportation priorities.

Unfortunately, much of the impetus for these counterproductive proposals begins and ends with the California Legislature. California has spent far too much money on public transportation. Instead of maintaining California roads, it appears to be the state’s policy objective to have residents live in dense residential housing environments, sell their cars, and have their movement restricted.

As demonstrated by the very limited available public transportation, people value personal transportation and the freedom and opportunity it provides. Californians resent the pressure from Sacramento to give up the automobile, and they don’t like to be asked to pay more for services they don’t want to use.

Taxpayers should be getting the best results with the dedicated transportation dollars already provided. Flashy, high-tech solutions like high-speed rail will serve a limited number of riders at tremendous cost, unfortunately at the expense of doing what is prudent for the great majority of Californians—maintaining and expanding the highway system.

Top Ten Transportation Spending Outrages

After reviewing just how badly the state’s elected leaders have squandered California’s transportation dollars, here is a Top Ten list of more specific outrages. For the first nine Outrages, neither their inclusion nor order is based on the dollars at stake. They are being “honored” because of the quality and quantity of arrogance, insensitivity and incompetence shown by those officials charged with the prudent management of taxpayers’ money.

#10: Of local elected officials and vehicle allowances

Four upper-level administrators of the San Diego County Sheriff’s Department have received fully loaded Dodge Charger trucks valued between $32,000-$35,000.10

The trucks came equipped with powerful V-8 “Hemi” engines, which added at least $10,000 to the price, and could be used for “take-home” purposes. The egregious spending is made worse by the fact that the vehicles were purchased so that the managers could “try them out” to see if they would make good patrol cars. Upon realizing they would not, one administrator sought to defend the purchase. “We don’t get the cheapest cars we can get, that’s a decision made by the sheriff. That’s not the way he operates—that’s not the way he treats his senior management.”

The problem also arises locally in cities including San Francisco. Phil Matier and Andrew Ross reported that, “San Francisco city records show that no fewer than 246 workers, including police brass, airport employees and Muni managers, have take-home car privileges.”11 Perhaps if the cars were just used for official business around the city proper, this would be an appropriate expense. However, the cars are being used for long commutes, including 150 miles from Manteca in San Joaquin County and 133 miles from Tracy.

According to Matier and Ross, one investigator in the San Francisco District Attorney’s office commuting from Petaluma has more then doubled his fuel costs, from $2,000 in 2003 to more than $4,000 today. In an attempt to rationalize this expensive behavior on the taxpayers’ dime, city officials made the argument that the potential for emergency calls, or the need to be somewhere on short notice, necessitates the need for take-home cars. Given that pension costs and other local government services are continuing to increase, it doesn’t make sense to offer a $4,000 subsidy to workers who are already gainfully employed and can certainly afford their own gas. Workers in the private sector are certainly not entitled to such perks.

Lastly, the City of Los Angeles also dispenses free vehicle benefits to many of their elected officials. City elected officials receive, “…the free use of a car, treated as a taxable benefit. The electeds get free gas, free maintenance and free carwashes, and they can use the car for personal business, as long as they drive it themselves and stay in the Los Angeles metro area. Most of the cars are recent models that sell for about $25,000 to $35,000.”12

#9: “Green” buses waste greenbacks

The Santa Clara Valley Transportation Authority (VTA) has purchased three zero-emission hydrogen buses whose operating costs appear to be exceeding their effectiveness. In fact, the VTA has determined that these buses cost more than $51/mile to fuel and maintain, compared to $1.61/mile to operate a diesel bus. Despite taxpayers being on the hook for the hydrogen buses, the California Air Resources Board is poised to spend $36 million in 2009 to expand the program statewide. This is an effort to meet yet another costly mandate that large transportation agencies must have 15 percent of their fleets comprised of zero emission buses by 2012. In a desire to push the technological envelope, these “prototype” buses are unnecessarily hanging taxpayers out to dry. Such technology should be proven effective before it is forced on taxpayers through the mandate process.

VTA’s project-planning practices were highlighted in a July 2008 report by the Bureau of State Audits (BSA). In a review of 10 selected projects, the BSA found that,

VTA created detailed plans for the projects but did not always anticipate the potential revenues a project might generate, secure necessary project funding for Measure A Transit Improvement Program projects, and identify the sources of funding for future operating costs. The principal causes of these deficiencies are that VTA has not documented its planning process and has not systematically required these elements of project planning. Consequently, VTA risks pursuing projects that it may not be able to financially support in the future... VTA implements its project-monitoring policies inconsistently, allowing some project managers to reduce the frequency and level of content in required monitoring reports. As a result, accountability is reduced and critical information may not be reaching decision makers in executive management and on the board.

VTA should get its fiscal and project-planning house in order before pursuing any additional infusions of taxpayer dollars.

#8: Taxpayers get drenched in car wash

Santa Clara County spends about $60,000/year to have a private company wash 1,700 county vehicles. Costs total $6.50 per car, $8 per truck and $15.95 for oversized vehicles that can’t fit through an automated wash. There is no justification for the expensive outsourcing, when the tasks could be performed by inmates or those doing community service. The article notes the county believes the state is to blame because it was concerned about polluted runoff. Frankly, this argument fails to hold water. Regardless of whether inmates or a private firm does the washing, runoff will still be an issue. Such waste should leave taxpayers feeling drained.


#7: Spiraling fuel costs

California is having trouble keeping track of fuel purchases for its 50,000 state-owned vehicles. This is a precarious fiscal concern with gas at four dollars per gallon and a state deficit of $17 billion. Nor does California, which has one of the largest fleets in the nation, buy all of its fuel at bulk rate to take advantage of the state’s buying power. Each vehicle comes with a credit card assigned to it, and these cards totaled $98 million in expenditures in 2007 but only 60 percent of total fuel costs. The other 40 percent, bought at bulk rate wholesale prices, remains unaccounted for. States should develop a centralized system to measure and contain fuel consumption. Texas, for instance, has required its agencies to insert data into a central database detailing vehicle use and the amount of fuel used per vehicle.16

#6: CalTrans spends $3 million on vans to assist farm workers

A $3 million grant has been provided by CalTrans to pay for 30 vans to take farm workers to and from the fields.17 The money, to be spent by the Ventura County Transportation Commission, would cover the costs of the program for three years. The Commission claims that rider fees of $4 per person would allow the program to pay for itself thereafter. Volunteer farm workers would drive the vans, which would also be equipped with automatic locator devices to prevent theft. Taxpayers should not pay any of the bill for the workers and farm owners who benefit from the labor.

#5: California Highway Patrol buys vans, doesn’t use them

Perhaps the Ventura County Transportation Commission could call the California Highway Patrol (CHP). The BSA found that the CHP wasted $1 million to buy 51 vans, then used all but five sparingly over the course of two years.18 The audit found that 46 of the 51 vans sat almost entirely idle, and were parked outside on CHP property. These vans had been driven a cumulative total of 401 miles—an average of nine miles per van. Most of them were to be used in the CHP’s commercial truck inspection units.

The audit noted that at least some of the vans were purchased before it was determined how to equip them. Further delays occurred after CHP determined the equipping process had to be performed by an outside vendor, only to later realize that the work could be done in-house. While all the vans are on the road today, the incident highlights the necessity of planning ahead when making large purchases—and the impact of failing to do so on the State Treasury. According to the BSA, had the vans been purchased and equipped in a timelier manner, the state could have saved $90,000 in interest. While a relatively small amount, it is nonetheless an important reminder to be careful with every taxpayer dollar, especially in the face of a $17 billion General Fund deficit.

#4 Grade separations and the Public Utilities Commission

In order to understand just how awkward this title appears, it is important to define its two major terms. Grade separation: either a bridge or an underpass that separates a roadway from railroad tracks. Public Utility Commission (PUC): State agency in charge of regulating power providers and assisting in the establishment of customer utility rates.

Clearly, something does not add up here. How does the PUC have any jurisdiction over transportation projects? The BSA and State Assemblyman Mike Duvall shared the same concern and addressed it, respectively, through an audit and legislation.

According to a September 2007 BSA audit, legislators appropriated $15 million in the 1974 General Fund budget to spend on grade separations. This is a Caltrans budget line item, as it should be.

But the PUC is required to solicit applications from local agencies and then prioritize the funding under a specific formula. However, with no new funding and an increasing backlog of grade separation projects the need for such projects is crucial, both from a driver safety standpoint, as well a desire to move goods both quickly and efficiently across the state.

Despite the need however, program funding has remained at the same $15 million level, while construction costs per project have increased dramatically. According to the BSA audit, average cost per project grew from $2.5 million in 1974 to $26 million in 2007. BSA estimates indicate that $165 million would be needed to fund the same number of projects as in 1974.

Such a backlog is even more troubling when one realizes even the entire $15 million worth of annual funds is usually not totally doled out. Considering the PUC’s priority list consists of 50-70 projects, distributing the money wouldn’t seem to be hard to do. But over the last five years, only 10 local agencies applied for funding. The BSA attributes this apathy mainly to either low priority on the PUC’s list, or a lack of local funds to match the state. Due to the limited competition for these state funds, Assemblyman Duvall concurred with the BSA recommendation to discontinue the program. However, his bill, AB 1845, was defeated in the State Senate.

The Senate Transportation and Housing Committee noted in its June 16, 2008 analysis on AB 1845 that $250 million in Proposition 1B bond funds were intended to go toward grade separation projects. The committee noted that $150 million in bond funds could help fund the eight highest ranked projects, but only if local governments can put up half of the funding, about $68 million. There are several troubling aspects of this program: the PUC’s involvement in an area outside of its purview, and local governments being forced to assume so much cost for these needed improvements. The only way to deal with the ongoing infrastructural shortfall is to focus on building infrastructure on a “pay as you go” basis. That approach will serve to both curtail unnecessary spending and interest payments, and make California golden again.

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#3 Los Angeles department determines that walking creates congestion

The lead from this story really says it all. “Every once in a while, there’s a sentence in a city report that seems so patently ridiculous it should be put in a museum.” The guilty report this time comes from the Los Angeles Department of Water and Power (DWP). The city holds a “Festival of Lights” in Griffith Park every holiday season. Polluting cars line up and wait to view the mile-long light display. In an effort to “go green” nearby residents wanted to make the event pedestrian-only.

DWP did what most government agencies do when they want to make it appear like they are doing something: they planned a study. Months later, they were still studying. When it was finally released, the report said, “transportation officials did voice strong concerns that the walking-only event could generate more traffic and congestion, due to established car-driving patterns and the limited number of parking spaces that are available in the immediate festival area.” The concern is that the nearby Los Angeles Zoo would not have enough parking spots to handle the walkers, even though residents mentioned in the article claim there are more than 2,500 spots.

As a compromise, the DWP allowed the festival to be pedestrian-only on the first five nights, November 21 to November 25, when the light show has the fewest number of visitors. The article noted that nearby park resident Bernadette Soter was not pleased. “You’re asking someone to come walk in a park,” she said, “and the city responds by calling a walk in the park a pilot program?” The base premise, that walking creates congestion, is ludicrous. More to the point, the study was a complete waste of tax dollars.

#2 Los Angeles contractor tears up street, then leaves on vacation

Construction workers tore up downtown Canoga Park for a beautification project, then left on vacation. Needless to say, local small business owners failed to find the situation beautiful. “It’s unbelievable. It’s pandemonium. It’s crazy,” said Craig Dillmann, owner of Canoga Auto Body. “The whole town is just going, ‘What were they thinking?’” The impact on local businesses was made even worse by the fact the delay was already three weeks long before the article was written. It appears the contractor tore up the street without having the right cement mix or tools to fix it. The delay occurred with little response from the alleged offender, the Community Redevelopment Agency of Los Angeles, who had done nothing to monitor traffic flows or otherwise aid the businesses already suffering in a downturned economy.

And the #1 Transportation Spending Outrage is…

#1: The Bullet Train to Bankruptcy, an $81 billion boondoggle

The proposed high-speed rail project, which will appear as Proposition 1A on the November ballot, represents the worst in misplaced and wasteful transportation spending. If voters approve the $9.95 billion down payment ($19.4 billion when bond interest is calculated) on high speed rail that will serve only a limited number of communities, the bullet train promoters will likely need to come back to taxpayers for another $70 billion (nearly $140 billion counting interest) to complete the project. (See Table 1 of the following study summary showing costs before interest could reach $81,400,000,000).

The executive summary and conclusion from *The California High Speed Rail Proposal: A Due Diligence Report* by Wendell Cox and Joseph Vranich details why the bullet train is the number one transportation spending outrage. It is called a “Due Diligence Report” because the authors and sponsors of the study believe the California High-Speed Rail Authority did not do its “due diligence” in researching and making cost projections for the mammoth project.

The complete study, which was made possible by support from the Reason Foundation, the Howard Jarvis Taxpayers Foundation and Citizens Against Government Waste, can be viewed at: http://www.reason.org/, http://www.hjta.org, or http://www.cagw.org.
Executive Summary

The purpose of this Due Diligence Report is to examine the proposal to build a California high-speed rail system (HSR) between the San Francisco Bay Area and Sacramento to Los Angeles and San Diego via the San Joaquin Valley. The general plan is to build a system of from 700 to 800 miles with an initial state general obligation bond of $9 billion and a similar amount in grant funding from the federal government. The balance of what has now become at least a $54.3 billion system would be provided by private equity investors and commercial bond purchasers. As is noted below, the system has already encountered substantial capital cost increases and this Due Diligence report projects that the final cost of the system is likely to be between $65.2 billion and $81.4 billion (2008$).

The California High-Speed Rail Authority (CHSRA or Authority), which is responsible for the project, anticipates that operating profits will pay for operating expenses, profits to private investors, debt service to commercial bond holders and sufficient revenues to build segments beyond Phase I (downtown San Francisco to Los Angeles and Anaheim). This would include a line from Los Angeles through the Inland Empire to San Diego, a line connecting Sacramento to the system in the San Joaquin Valley, a line through Altamont Pass and an East Bay line from San Jose to Oakland. The CHSRA has expended $58 million in state funding during the last 10 years planning such a system of “bullet trains.”

It is possible that HSR can serve legitimate public and environmental purposes and be a financial success in California. However, the current CHSRA proposal cannot achieve such objectives. The principal message of this Due Diligence report is that CHSRA’s plans have little or no potential to be implemented in their current form and that the project is highly risky for state taxpayers and private investors.

The CHSRA plans as currently proposed are likely to have very little relationship to what would eventually be built due to questionable ridership projections and cost assumptions, overly optimistic projections of ridership diversion from other modes of transport, insufficient attention to potential speed restrictions and safety issues and discounting of potential community or political opposition. Further, the system’s environmental benefits have been grossly exaggerated, especially with respect to reduction of greenhouse gas emissions that have been associated with climate change.

The CHSRA documentation provides virtually no objective analysis about risks and uncertainties, nor has CHSRA documentation been scrutinized in an independent review. This report is such an effort—which is why it is a Due Diligence Report—one that examines the CHSRA’s documentation based on empirical data, historical trends and domestic and international experience.

This report specifically examines the following topics: HSR ridership and revenue, demographics, construction costs, operating costs, financing costs, airport and highway alternatives, train speeds, train designs, safety regulations and standards, greenhouse gas reductions, potential community opposition and historical experience in the United States.
Regarding ridership and costs, this report evaluates projections from CHSRA and also develops independent projections.

**Financial Prospects**
The HSR system can be categorized as a “mega-project,” one taking many years to decades and many billions of dollars to construct and put in operation. Such mega-projects run high risks of failing to meet their ridership projections, financial forecasts and other objectives. This analysis compares the CHSRA’s proposed system with major HSR systems operating overseas.

It is noteworthy that California is proceeding with HSR plans based on assumptions that may be appropriate to European and Asian environments but hold little applicability in the state. Moreover, it is not clear that the world’s HSR systems have typically covered their operating and capital costs without subsidies—a determination that would be appropriate in a due diligence process for any commercial HSR proposal.

The CHSRA and state officials are proposing or in the past have proposed sources of public funds to pay for HSR’s construction and operation, which include bond issues, sales taxes and matching funds from the federal and local governments. Such an array of public funding is expected to induce private investment. The state Senate Transportation and Housing Committee observed that Californians are being asked to be “investors” in a project based on promises of commercial return. However, most commentary and analysis by the Authority relies on unrealistically optimistic forecasts, is promotional in nature, and falls far short of conveying the project risks to taxpayers and potential investors.

The CHSRA lacks a comprehensive financing plan. The proposed state bonds would be insufficient to build Phase I, much less the rest of the system. Little appears firm about potential matching funds from federal and local governments and from potential investors. The state Senate Transportation and Housing Committee has issued cautionary statements about the availability of matching federal funds. Also, CHSRA advisor Lehman Brothers has outlined risks that can be a barrier to private investment, including cost overruns, failure to reach ridership and revenue projections and political meddling. Meanwhile, the cost of the project continues to grow.

It should give pause that previous HSR projects have been halted in three states—California (for Los Angeles–San Diego), Texas and Florida. The federally sponsored HSR program for Boston–New York–Washington serves only a fraction of its projected ridership and carries a fraction of the passengers that European and Japanese lines carry. Despite such data going back decades, it does not appear that the CHSRA has taken into sufficient account market, costs, financing or community concerns.

In the final analysis, it will be most difficult for CHSRA to obtain sufficient financing to complete the Phase I San Francisco–Los Angeles–Anaheim route. This Due Diligence report concludes that commercial revenues from that route are unlikely to be sufficient to pay operating
costs and debt service, much less finance Phase II and other extensions. As a result, it seems highly unlikely that the Inland Empire–San Diego, Sacramento, East Bay San Jose–Oakland and Altamont Pass routes will be built. Further, in the worst case, funding shortfalls could require greater use of improved conventional rail infrastructure in Phase I, which could add hours to the promised travel times.

All of this could lead to negative financial consequences, such as substantial additional taxpayer subsidies, private investment losses, and commercial bond defaults.

**Costs and Revenues**

To determine a more realistic construction cost estimate, it should first be noted that capital costs have risen 50 percent to $49.0 billion in 2008$ (or $45.4 billion in 2006$) at the same time the Oakland–East Bay–San Jose line (referred to as the “Missing Phase” in this report) has been dropped from the plan. It is estimated that including the Missing Phase would raise the cost to $54.3 billion (2008$), based upon CHSRA projections. The system, including Phase I, Phase II and the Missing Phase is likely to escalate in costs to between $65.2 billion and $81.4 billion (2008$). Additional segments, referred to as the “Implied Phase” (Altamont Pass, Anaheim–Irvine and the Dumbarton Bridge over lower San Francisco Bay) would raise costs even further.

During severe funding shortages, more expensive urban route sections would be particularly at risk and new HSR infrastructure could be relinquished in place of improvements to existing tracks. The HSR trains could gain access by sharing upgraded tracks with slower commuter rail and freight trains on the Peninsula line in the San Francisco area and Metrolink in Los Angeles and Orange County. Trains on such a “skeletal” HSR system would offer slower schedules, which could seriously reduce ridership and revenues.

This report offers a Case Study about what can go wrong should funding be insufficient to complete the Inland Empire line between Los Angeles and San Diego. The Authority may view service to San Diego as part of its continuing mission and revive plans to operate high-speed trains over an upgraded in-place rail alternative—the Coastal Route via Fullerton, Anaheim, Tustin, Irvine, San Juan Capistrano, San Clemente, Oceanside, Encinitas and Del Mar. The route change would likely stir strong opposition in communities that helped stop a former high-speed rail plan.

It is likely that HSR will require substantial additional taxpayer funding to complete Phase I, Phase II, and the Missing Phase or more of the state will go without high-speed rail service than is immediately apparent. Also, it is likely that the system will not generate sufficient revenues to cover either its operating costs or debt service. As result, continuing subsidies from California taxpayers are likely to be necessary and made a permanent part of Sacramento’s annual appropriations process.
Travel Time, Speed and Train Design

Based upon international HSR experience, it appears that the CHSRA speed and travel time objectives cannot be met. As a result, HSR will be less attractive as an alternative to airline travel and is likely to attract fewer passengers than projected. Notably, the CHSRA’s anticipated average speeds are not being achieved anywhere in the world, including on the most advanced systems. Additionally, incomplete consideration has been given to California’s urban and terrain profiles where HSR trains must operate more slowly than circumstances allow in, for example, France. This study, by assuming realistic speeds, estimates that a non-stop San Francisco–Los Angeles trip would take 3 hours and 41 minutes—59 minutes longer than the statutory requirement of 2 hours, 42 minutes. In the future, the CHSRA’s travel times may be further lengthened by train weight and safety issues and also by political demands to add stops to the system.

The proposed HSR system appears unlikely to provide travel time advantages for long-distance airline passengers. It is likely that HSR door-to-door travel times would be greater and there would be considerably less non-stop service than air service. Moreover, HSR would be unattractive to drivers in middle-distance automobile markets because little or no door-to-door time savings would be achieved and costly local connections would often be required (rental cars or taxicabs). Another convenience factor is that California urban areas lack the extensive local transit infrastructure that connects with HSR systems found in dense Asian and European urban areas. The HSR system will experience disadvantages and commercial challenges in competing with air and auto travel that have been understated in CHSRA documentation.

No existing European or Asian HSR train capable of meeting the speed and capacity goals of the CHSRA system can legally be used in the United States. The CHSRA’s intention to share tracks with commuter and freight trains complicates designing a train to meet Federal Railroad Administration (FRA) safety and crashworthiness standards that are considered the toughest in the world. The necessary regulatory approvals of an overseas train are unlikely to be achieved without substantial changes in design and weight.

The CHSRA has yet to decide on basic design specifications for a train and has based studies on inconsistent seating capacities of 450-500, 650, 1,175, 1,200 and 1,600 per train. Also, a train redesigned for the U.S. will become much heavier and is thus unlikely to reach promised speeds. In short, the Authority does not have a usable train design and the eventually required modifications could substantially impair operating performance.

Because of the above circumstances it is fair to state that the CHSRA’s train may become the world’s longest and heaviest HSR train—yet be expected to operate at the highest speed current technology permits. It is likely that a series of designs, tests, prototypes and safety reviews never before achieved anywhere in the world must succeed for the CHSRA’s train to become a reality. Any degradation in performance would negate the CHSRA’s assumptions on which it has based travel times, ridership and revenues, energy requirements, GHG emissions, noise generation, capital and operating costs, and overall system financial performance.
**Ridership Projections**

It appears that the CHSRA 2030 ridership projections are absurdly high—so much so that they could well rank among the most unrealistic projections produced for a major transport project anywhere in the world. Under a passenger-mile per route-mile standard, the CHSRA is projecting *higher* passenger use of the California system than is found on the Japanese and French HSR networks despite the fact that these countries have conditions that are far more favorable to the use of HSR.

The CHSRA’s ridership projections reflect assumptions contrary to actual experience, forecasts inconsistent with independent projections, load factors and other calculations that are highly questionable, and reliance on extraordinarily low fares that are not found on similar systems.

The CHSRA has been increasing forecasted ridership over time and has issued a Base Projection of 65.5 million intercity riders and a High Projection of 96.5 million intercity riders for 2030. The CHSRA ridership projections are considerably higher than independent figures developed for comparable California systems in Federal Railroad Administration and University of California Transportation Center at Berkeley studies.

Using generous assumptions this Due Diligence Report projects a 2030 base of 23.4 million intercity riders, 64 percent below the CHSRA’s base of 65.5 million intercity riders, and a 2030 high of 31.1 million intercity riders, nearly 60 percent below the CHSRA’s high of 96.5 million. It is likely that the HSR will fall far short of its revenue projections, leading to a need for substantial additional infusions of taxpayer subsidies.

**Greenhouse Gas Reduction**

Claims about HSR’s environmental benefits have been greatly overstated. California HSR will do little to reduce CO₂ emissions (greenhouse gas emissions). Based upon California Air Resources Board projections, HSR would ultimately remove CO₂ emissions equal to only 1.5 percent of the current state objective. This is a small fraction of the CHSRA’s exaggerated claims of “almost 50 percent” of the state objective. The Intergovernmental Panel on Climate Change (IPCC) has indicated that for between $20 and $50 per ton of reduced greenhouse gases emissions, deep reversal of CO₂ concentrations can be achieved between 2030 and 2050. A McKinsey report indicates that substantial CO₂ emission reductions can be achieved in the United States for less than $50 per ton. Yet the cost per ton of CO₂ emission removal by HSR is far higher—between 39 and 201 times the international IPCC ceiling of $50. The reality is that HSR’s impact on CO₂ would be inconsequential while being exorbitantly costly.

Hence, HSR’s CO₂ emission reduction strategy cannot be legitimately included as an element of a rational strategy for reducing GHG emissions. In view of the untenable traffic impact projections and other factors, CHSRA’s claims are considered specious. There is a need for an objective, independent assessment of HSR’s CO₂ impacts, including both operations and construction. Until such an analysis is completed, CHSRA should cease making any statements about CO₂ or other air quality impacts.
Safety
Terrorism against rail targets is a concern considering the extent of attacks that continue to occur on rail systems around the world. The Authority appears to have given insufficient attention to this issue notwithstanding the RAND recommendation to industry and government regarding improvements to domestic rail security. The CHSRA documentation provides virtually no evidence that a proper security assessment of the proposed HSR system has been undertaken, nor does it appear that security applications and methodologies elsewhere have been reviewed. The Authority assumes minimal security at HSR train stations and concludes passengers will be spared airport-like security screening and delays. However, should more stringent security measures become necessary, the CHSRA’s ridership demand forecasts would be even further undermined. The CHSRA has not issued a low-end ridership forecast based on such a circumstance.

Opposition
Emerging public opposition will likely spread as site-specific urban, suburban and rural impacts become better understood. It is unlikely that the California HSR program will find smooth sailing among impacted communities. This finding is based in part on nascent opposition to the project. Opposition to prior HSR projects has been based on underestimated costs, overestimated ridership, eminent domain and environmental impacts. Also, the credibility of HSR promoters has waned as pledges of “no subsidy” or “only low subsidies” turned into calls for high subsidies. This Due Diligence Report identifies such factors as weaknesses in the CHSRA planning process.

In prior cases opponents have shown great resourcefulness in sustaining campaigns to oppose HSR construction. Opposition could spread, particularly in communities where train speeds and noise would be considered excessive, where massive elevated railways would create a “Berlin Wall” effect that divides communities—a prospect that has caused Menlo Park and Atherton to join in a lawsuit against the CHSRA’s environmental review process—or where a history of staunch opposition exists, such as in Tustin or San Diego County.

Diversion from Other Modes of Transport
The assertion that the Highway and Aviation Alternatives to HSR will cost $82 billion is highly inflated and based on dubious assumptions and fundamental flaws. Examples include the CHSRA proposing far more highway construction than is necessary to accommodate the demand that would exist if HSR were not built. This Due Diligence Report estimates that with realistic estimates regarding highway construction costs and diversion of drivers, HSR could reduce highway construction needs by approximately $0.9 billion. This immense cost difference illustrates how modest a future role HSR will play in reducing highway congestion. In short, meeting the highway demand that would occur if HSR were not built would require much less investment compared to the cost of HSR.

Also, diversion of air travelers is over-estimated. The CHSRA assumes that airlines will cancel a large share of the flights within California because passengers will have switched to HSR—and
the diversion will free up airport capacity and make it possible to avoid costly airport expansions. This is not the experience even on the premier Japanese and French systems, which show that strong air markets remain after HSR corridors are in operation. Moreover, the CHSRA treats the commercial aviation system as if it is static—as if efficiencies to enhance capacity are impossible.

The CHSRA alternatives appear to be of little value in genuine cost analysis and cannot be taken seriously. They are, in fact, little more than “straw men,” which have the effect of misrepresenting the choices that are available to policy makers in California, in such a way that HSR, which is exceedingly expensive, is made to appear affordable.

**Conclusion**

Considering the factors enumerated above, it appears unlikely that sufficient private funding and public subsidies will be found to finance the complete HSR plan. There are no genuine financial projections that indicate there will be sufficient funds to complete Phase I, much less Phase II or any other phases. It is possible that the system will either be built only in part or not at all.

Claims of profitability could not conceivably be credible under even the most optimistic assumptions, unless some or all capital and debt costs are ignored. This due diligence analysis indicates that the San Francisco–Los Angeles line alone by 2030 would suffer annual financial losses of up to $4.17 billion, with a small profit possible under only the most optimistic and improbable conditions.

Finally, the HSR system as envisaged in state statute appears highly unlikely to be delivered under the present plan. The taxpayers and potential investors can be appropriately served only by objective analysis, not by the kind of exaggerations and projections that would be expected in brochures promoting speculative real estate investment. That nearly $58 million in public funds has been spent on such a flawed planning process makes it all the more troubling.

There is little likelihood that the passenger or revenue projections will be met, that the aggressive travel times will be achieved, that the service levels promised will be achieved, that the capital and operating costs will be contained consistent with present estimates, that sufficient funding will be found, or that the system will be profitable.

It is likely that these circumstances will represent an expensive and continuing drain on the state’s tax resources. Under three of the four scenarios outlined in this report, an early bond default, taxpayer bailout, and investment losses by private funding participants could occur.

To address a fiscal shortfall, past and present proposals to finance HSR’s construction and operation through various federal, state and local taxpayer subsidies could be futile. Hence, the HSR system is unlikely to be completed in any form consistent with the current plan and that even the delivery of a recognizable Phase I could be most difficult. The outcome could mean investors in the project will see no financial returns and the HSR system as proposed could require significant subsidies from California taxpayers in perpetuity.
A summary of the CHSRA and Due Diligence projections is found in Table 1.

<table>
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<tr>
<th></th>
<th>CHSRA</th>
<th>Due Diligence Report</th>
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</thead>
<tbody>
<tr>
<td>Annual Ridership: 2030: Base, Intercity Only</td>
<td>65,500,000</td>
<td>23,400,000</td>
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<tr>
<td>Annual Ridership: 2030: Base, Intercity + Commuter</td>
<td>88,000,000</td>
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<tr>
<td>Annual Ridership: 2030: High, Intercity Only</td>
<td>96,500,000</td>
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<tr>
<td>Annual Ridership: 2030: High, Intercity + Commuter</td>
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<td>Capital Cost: Entire System (2008$): Low*</td>
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<td>$65,200,000,000</td>
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<tr>
<td>Capital Cost: Entire System (2008$): High*</td>
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<td>Fastest Non-Stop Express Travel Time: LA-SF</td>
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<td>03:41</td>
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<td>Greenhouse Gas Reduction (Tons of CO₂): 2030**</td>
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<td>Share of California 2020 Goal</td>
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<td>Cost per CO₂ Ton Reduced: Low</td>
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<td>Cost per CO₂ Ton Reduced: High</td>
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<td>Times CO₂ IPCC $50-per-Ton Ceiling: Low</td>
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<tr>
<td>Times CO₂ IPCC $50-per-Ton Ceiling: High</td>
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<td>Net Profit: 2030: Phase I: Optimistic Midpoint</td>
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<td>Net Profit: 2030: Phase I: Pessimistic Midpoint</td>
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*Entire system cost. Includes Missing Phase. Does not include Implied Phase

**CHSRA greenhouse gas reduction adjusted to account for improved automobile and airline fuel efficiency.