

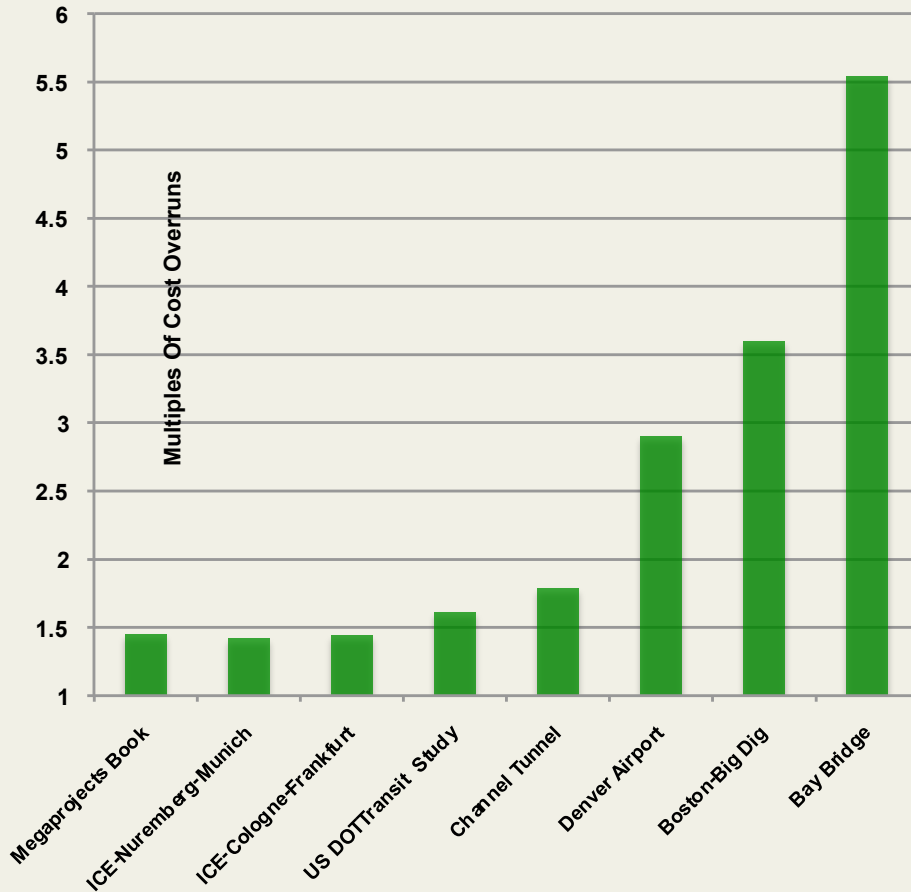
# **FINANCIAL ASPECTS OF CALIFORNIA'S PROPOSED HIGH-SPEED RAIL SYSTEM**

William Warren  
William Grindley  
Alain Enthoven

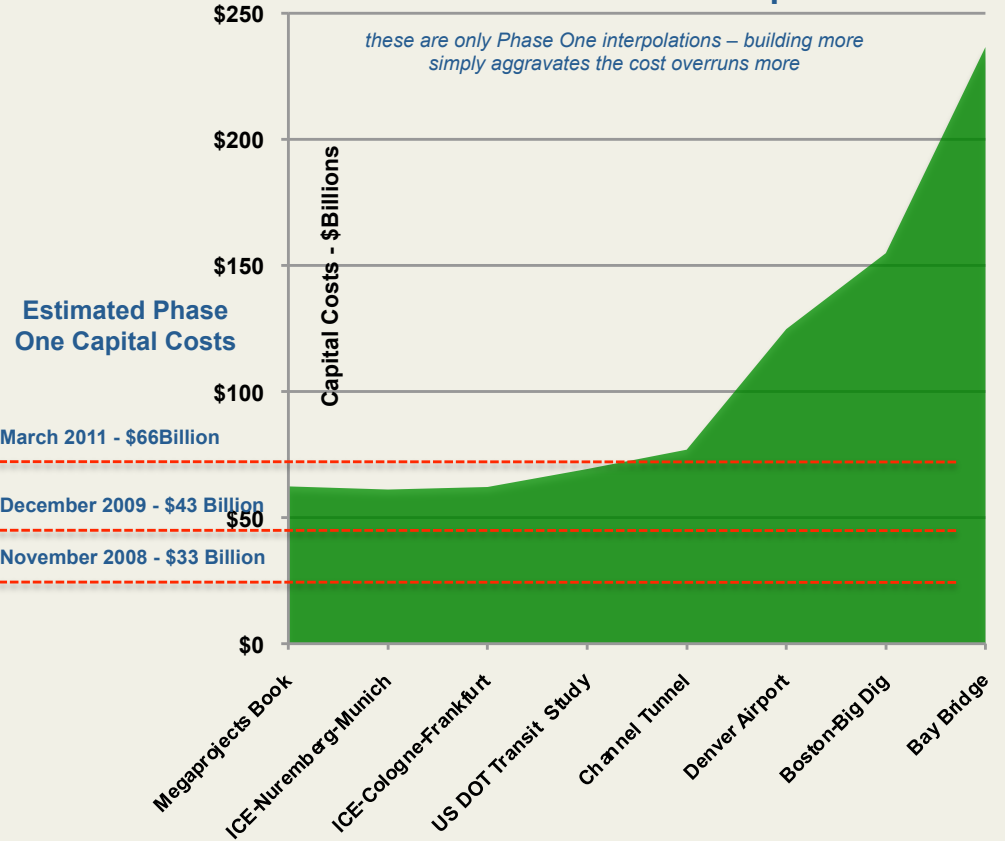
26 August 2011

# Cost Overruns On Transport Megaprojects Are Nothing New Nor Likely To Be Different Here

Examples Of Capital Cost Overruns



Phase One Capital Costs If Equal To Actual Overrun Examples

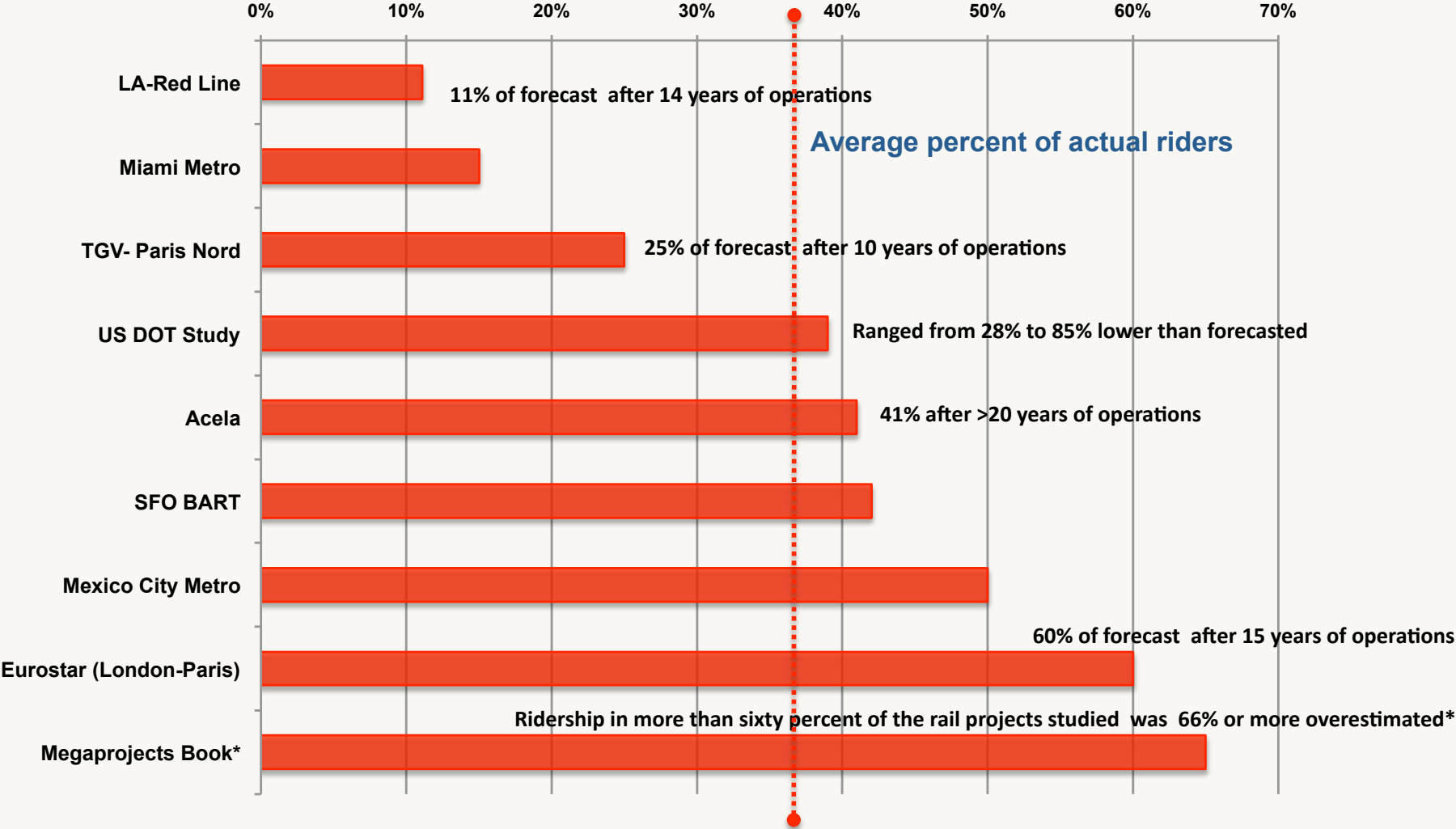


The Megaprojects' authors conclude "... cost overrun has not decreased over time. Cost overrun today (2003) is in the same order of magnitude as it was ten, thirty or seventy years ago."

\* Flyvbjerg, Bent; Bruzelius, Nils and Rothengatter, Werner: Megaprojects And Risk, An Anatomy of Ambition; Cambridge University Press, 2003

# Actual Riders Are Always Fewer Than Forecasted Riders

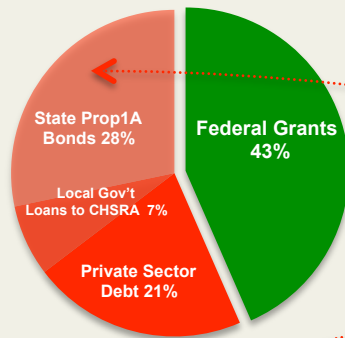
Most of the time a lot fewer riders



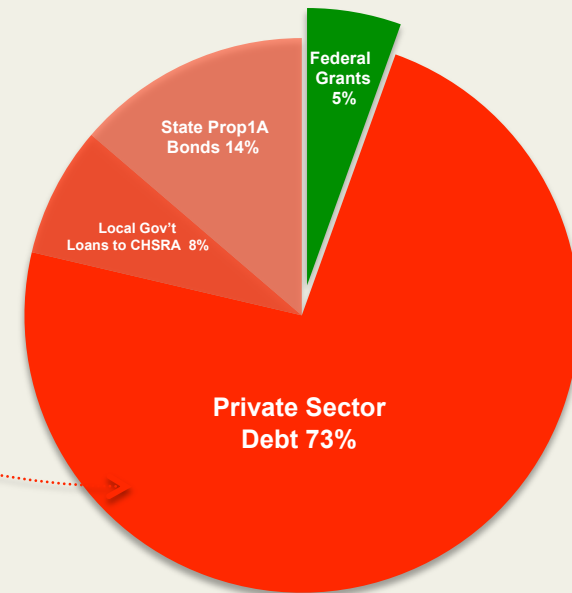
\* Flyvbjerg, Bent; Bruzelius, Nils and Rothengatter, Werner: Megaprojects And Risk, An Anatomy of Ambition; Cambridge University Press, 2003

# Huge Challenges Emerge Now That The Vast Majority Of The Project's Construction Requires Financing

2008 Plan To Finance \$33B of Phase One Construction

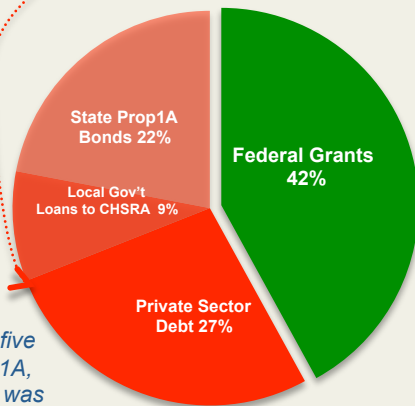


2011 Sources To Finance \$66B of Phase One Construction



Everything in 'red' must be paid back to investors

2009 Plan To Finance \$43B of Phase One Construction



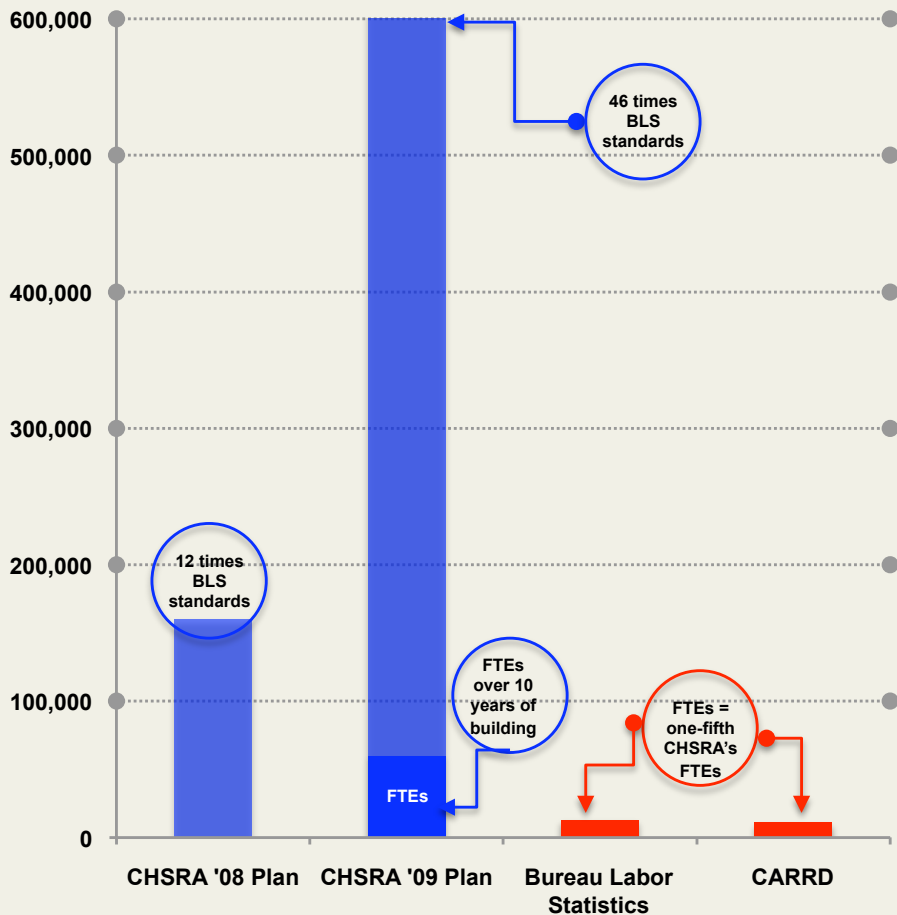
On June 11<sup>th</sup> 2008, five months before Prop1A, the Authority's Board was told there would be no private money without revenue guarantees (IMG Report, October 2008)

Phase One construction now requires California to borrow ±\$54Billion. Paying back that debt commits the State to \$4.6Billion/year – \$138 Billion over 30 years

*That's about equal to the States entire long-term debt today*

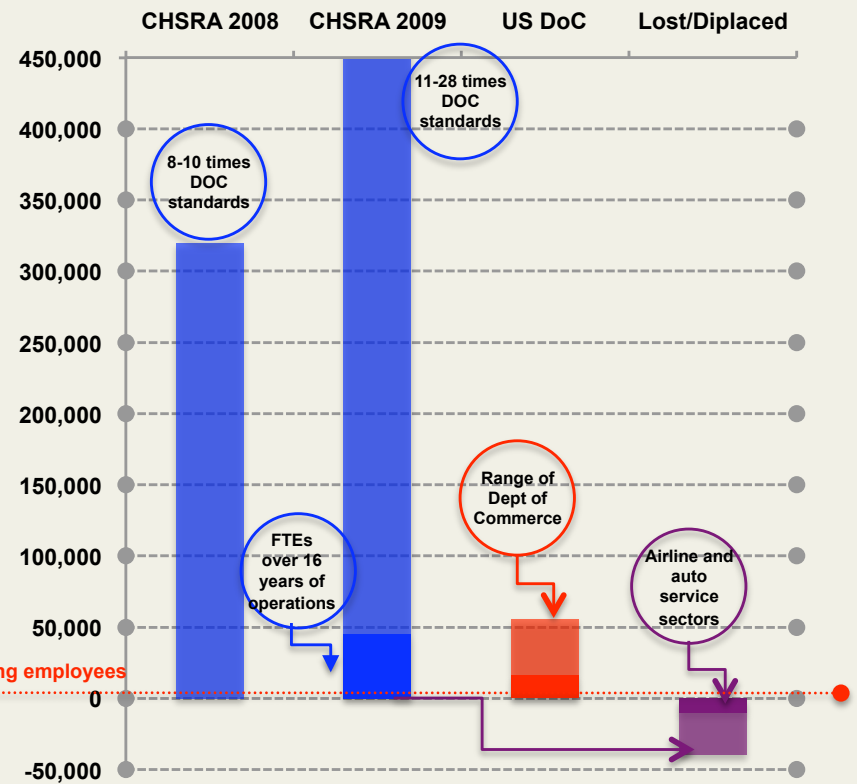
# There Will Be Far Fewer Construction And Permanent Jobs Than CHSRA Has Promised

## Construction Job Years & FTEs



## Permanent Jobs

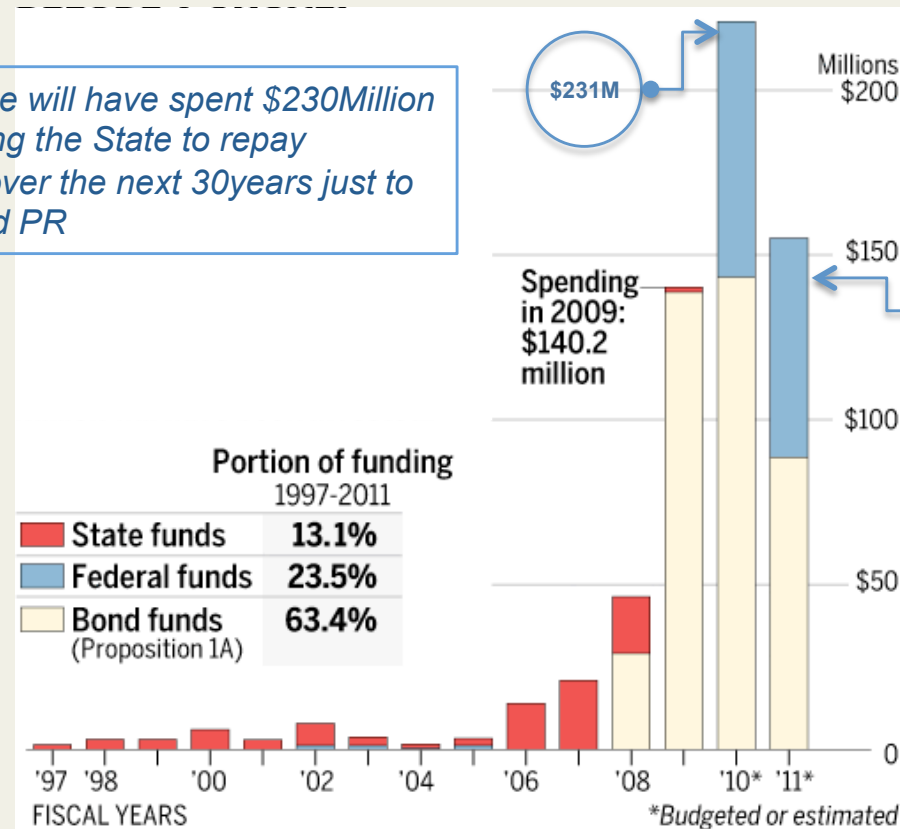
(including those to be displaced by the train or lost to better management at CHSRA)



# To Date The State Has Spent Over \$500,000,000 On Studies And Public Relations

The only jobs created have been about 20 FTE State employees and 600 FTE consultants who in FY 2010-11 cost an average of \$355,000 each

By the end of FY 2011-12 the State will have spent \$230 Million of Prop1A bond monies – obligating the State to repay \$17 Million/year or \$510,000,000 over the next 30 years just to meet the payments for studies and PR

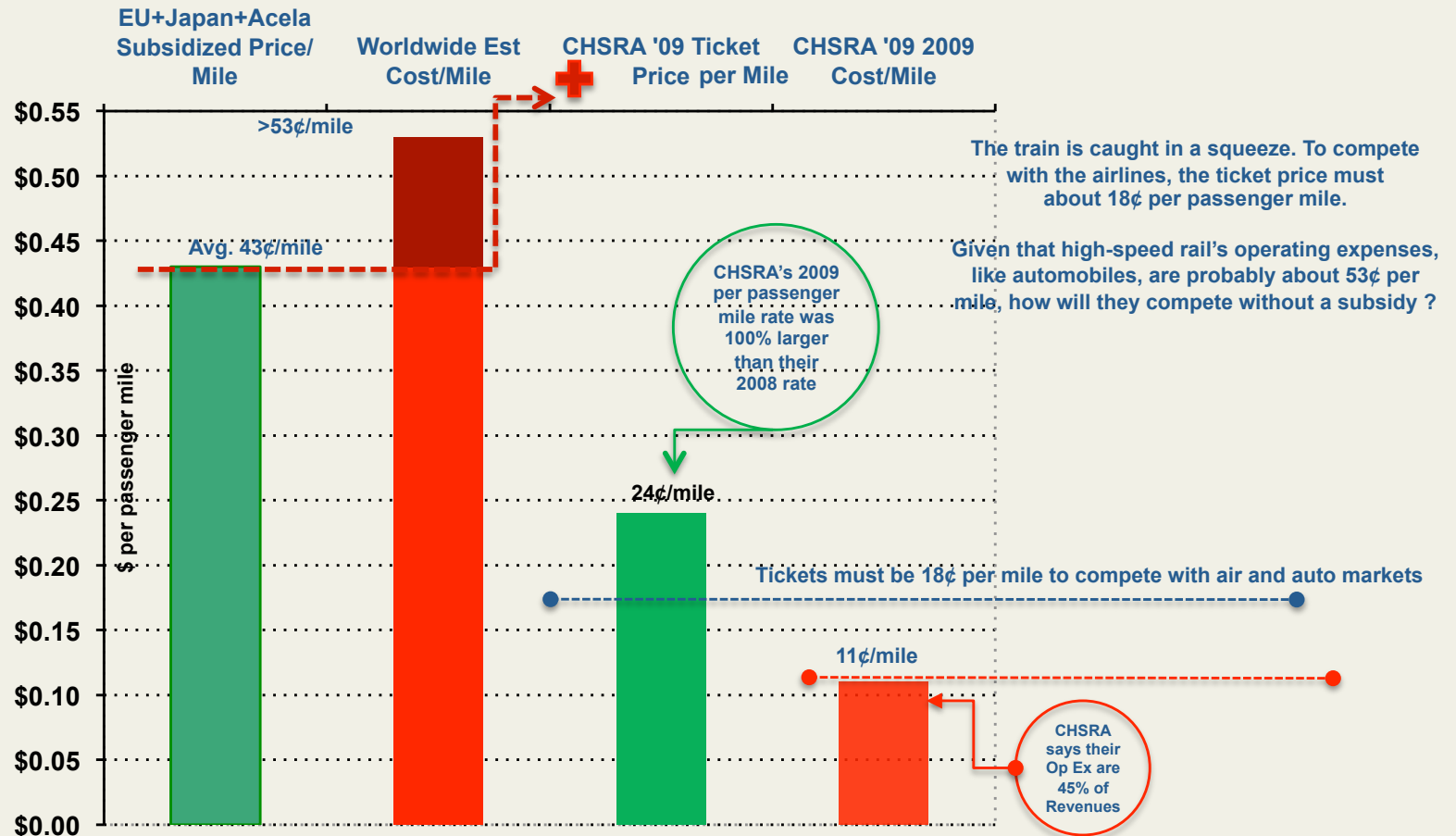


Sources: California Department of Finance, California High-Speed Rail Authority

Sacramento Bee July 11<sup>th</sup> 2011

The LAO, the State Auditor, the Inspector General, Judge Kopp, the Peer Review Group and others have pointed out the mismanagement and waste of these monies. FRA's Inspector General already has a case file on the project

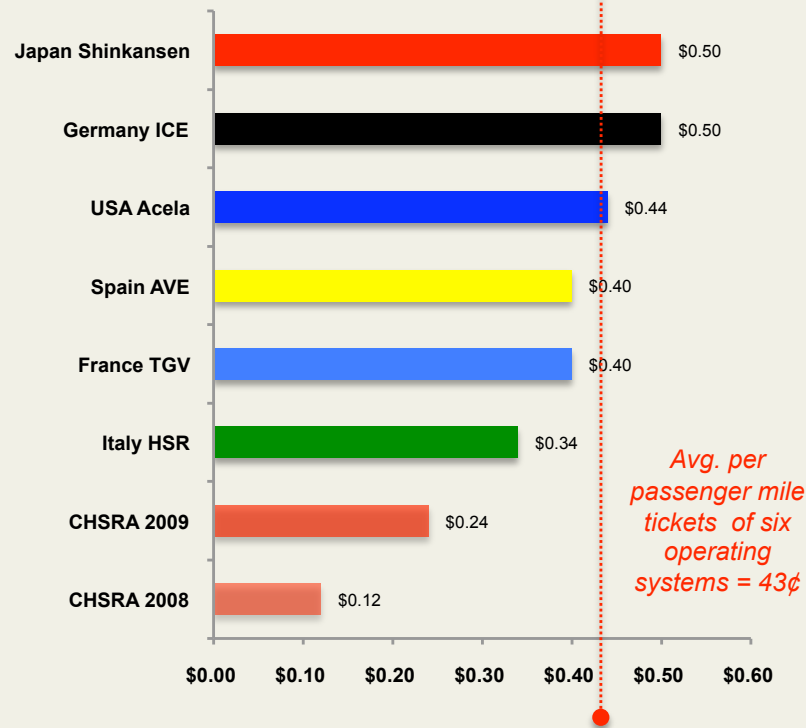
# Europe, Japan & Acela's Subsidized Ticket Prices Per Passenger Mile Are Twice The Price Of CHSRA's 2009 Plans For Phase One



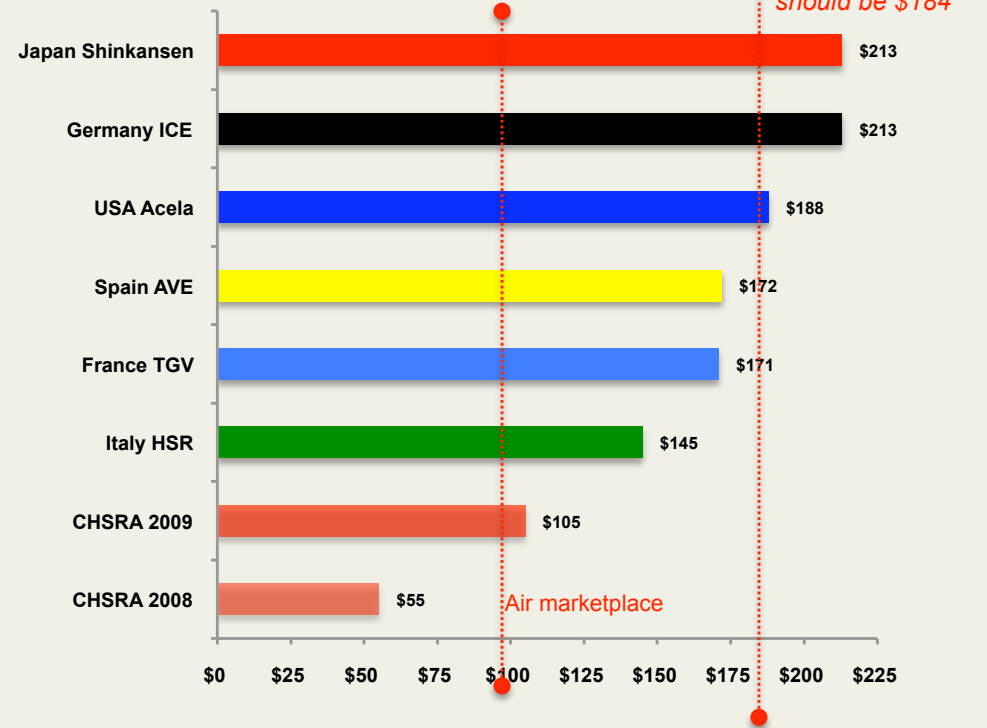
? How can the California system operate at about 55% of Europe and Japan's subsidized per passenger mile ticket prices and 25% of Europe and Japan's cost per mile ?

# California's Middle Class Can't Afford To Use The Train And CHSRA Can't Afford To Run It

*Even the subsidized systems of Europe and Japan charge nearly twice per passenger mile as the CHSRA contemplates*

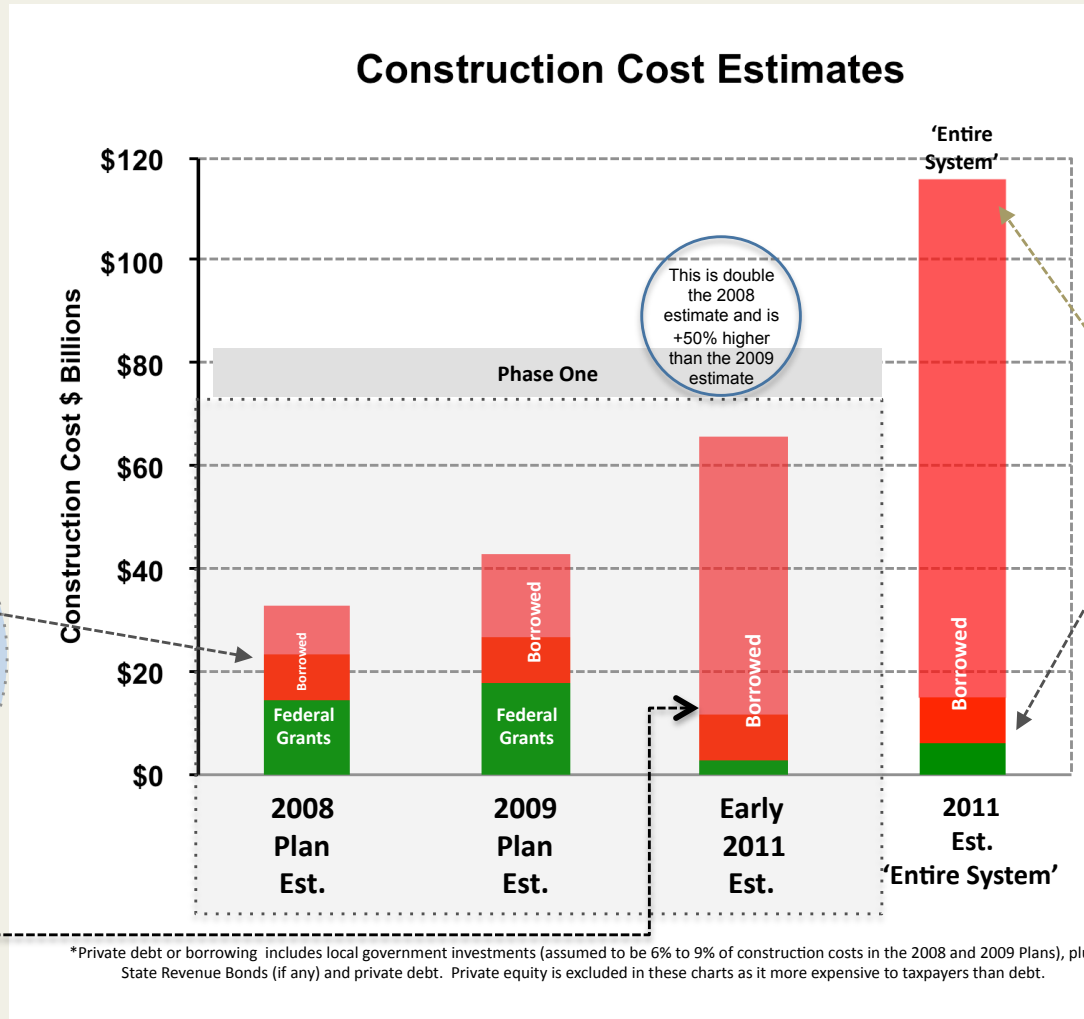


*A one-way 'economy' ticket from SF to LA/Anaheim – even at the average of subsidized fares in Europe and Japan – would cost \$184*



**A realistic round trip fare from SF to LA/Anaheim for a family of four would be (\$184xRTx4 people) **\$1,472**. That's about 4% of California's 2009 median household income.**

# Follow The Money – #1



In 2008 only 56% of the total had to be borrowed.

By 2011 about 95% of the Phase One finance had to be borrowed

Even doubling the Federal contribution the State would have to borrow 95% of the 'Entire System' costs

**By accepting \$3Billion of 'free' grants the State commits to spend \$137Billion to pay off 30-year GO bonds for Phase One That's \$46 CA have will to spend to get \$1 'free' Federal \$**

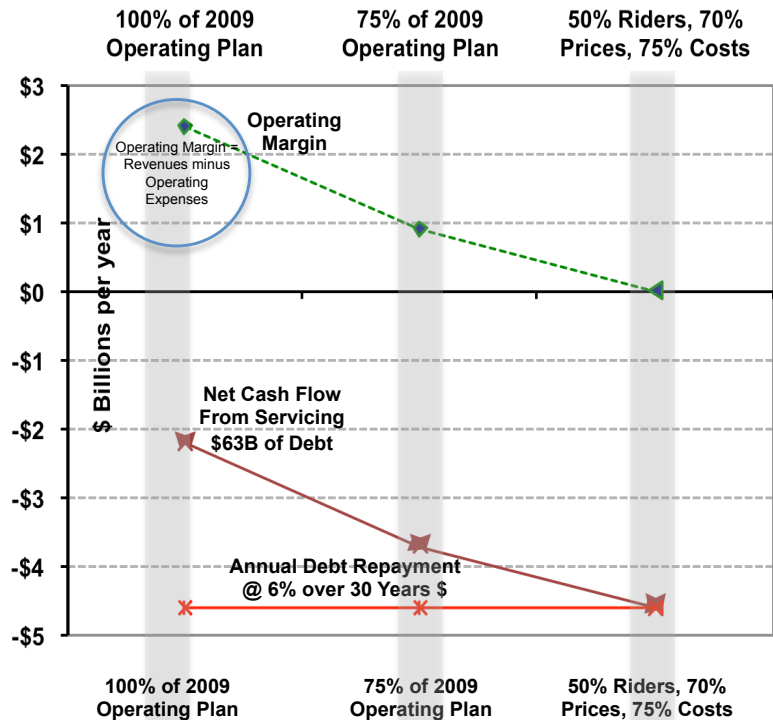
**If CA accepts \$6Billion of 'free' grants for the 'Entire System' the State commits to spend \$240Billion to pay off 30-year GO bonds That's \$40 CA will have to spend for every \$1 'free' Federal \$**

# Follow The Money – #2

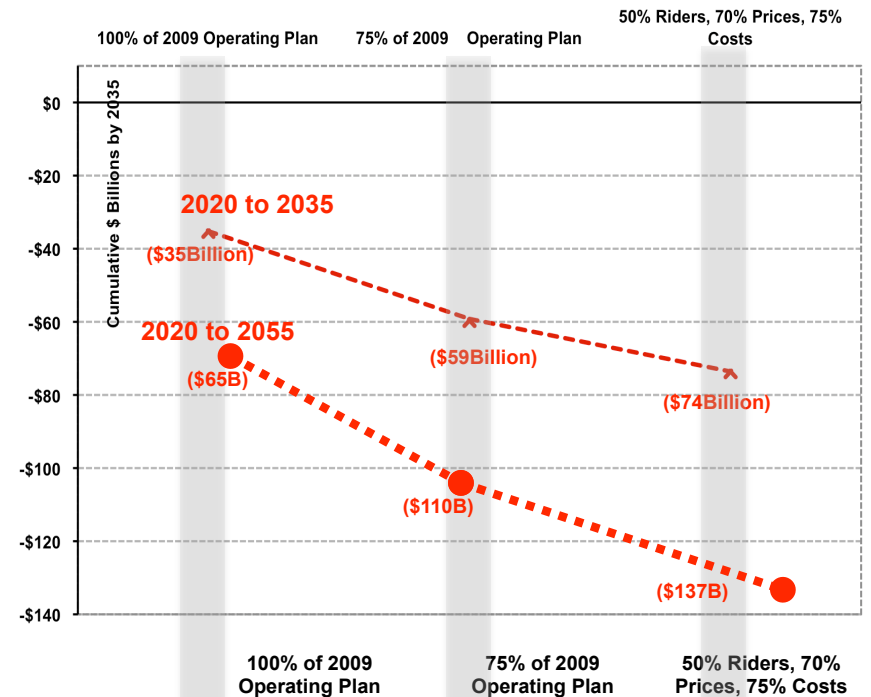
## Phase One – Based on \$66 Billion Construction Cost Estimates From CHSRA Records

We will not know exactly what the annual and cumulative payments on \$66B will be because we will not know actual expenses and revenues for 15 years, but this range of results seems realistic

Annual Average Cash Flows - 100% Case to 75% Case To No Operating Margin Case



Cumulative Cash Flows 2020 to 2035 and 2055 100% Case to 75% Case To No Operating Margin Case

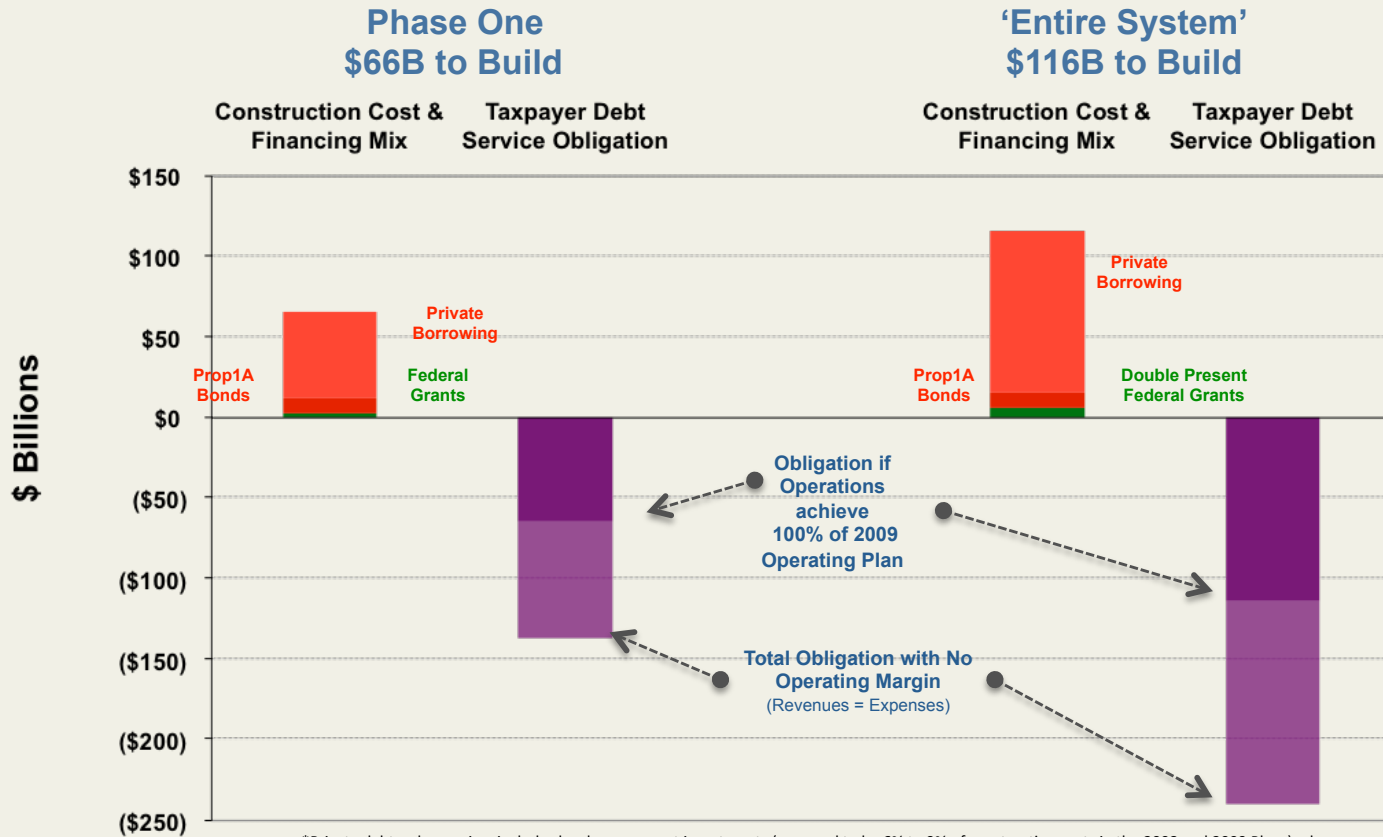


At \$66B construction costs, even IF the train's operations produced 100% of 2009's forecasts, there is NEVER positive cash flow

The negative cash flows from just building (no operating losses) the train could easily expose Californians to \$130-\$140Billion of accumulated debt and taxes

# Follow The Money # 3

**In The Train's First Thirty Operating Years, Even CHSRA's Best Case For Phase One and The 'Entire System' Generate Nothing But Negative Cash Flows**

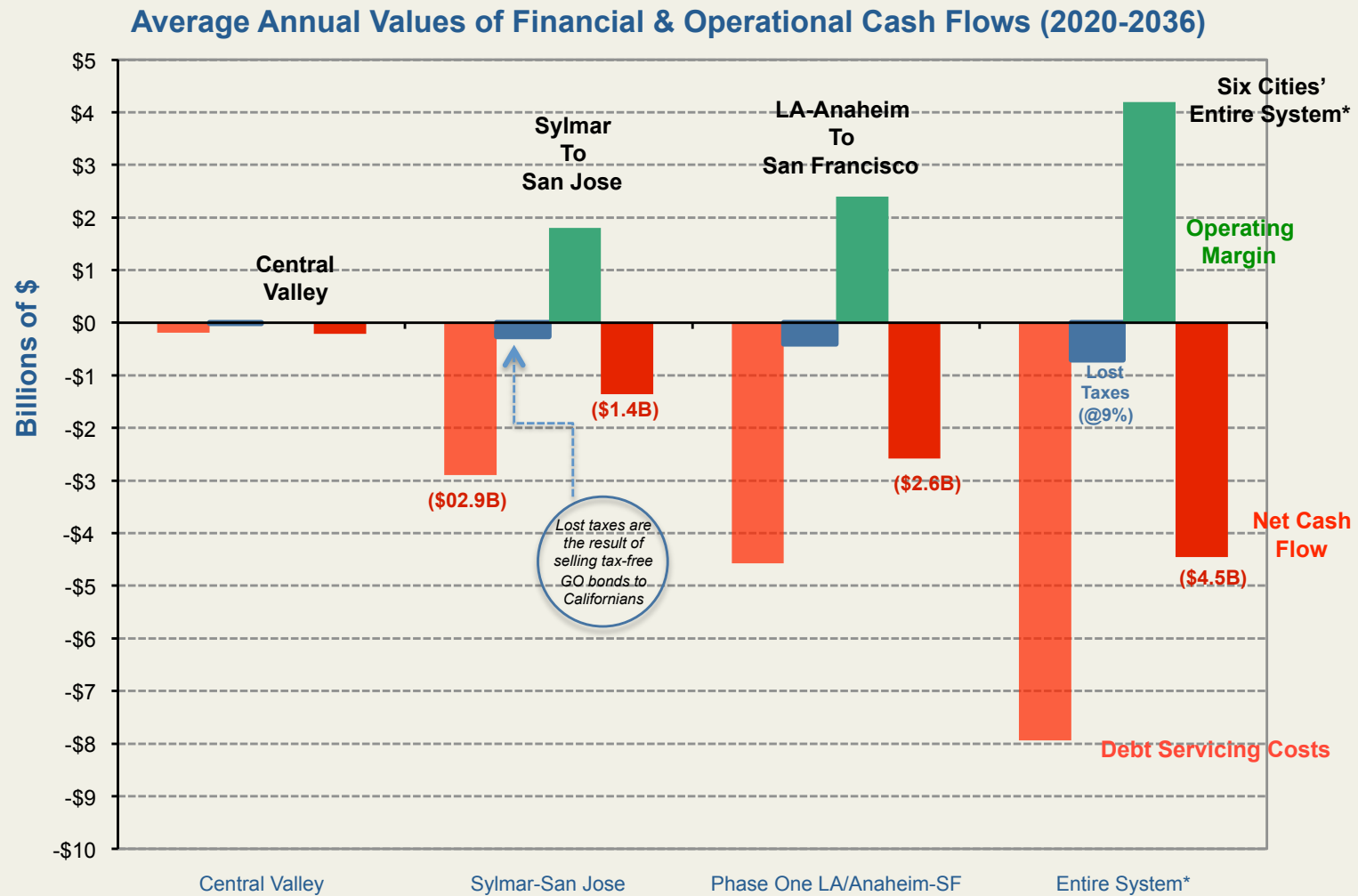


\*Private debt or borrowing includes local government investments (assumed to be 6% to 9% of construction costs in the 2008 and 2009 Plans), plus State Revenue Bonds (if any) and private debt. Private equity is excluded in these charts as it more expensive to taxpayers than debt.

**The State's thirty year obligation for Phase One could be \$137Billion and the 'Entire System' could be \$240Billion**

# Follow The Money #4

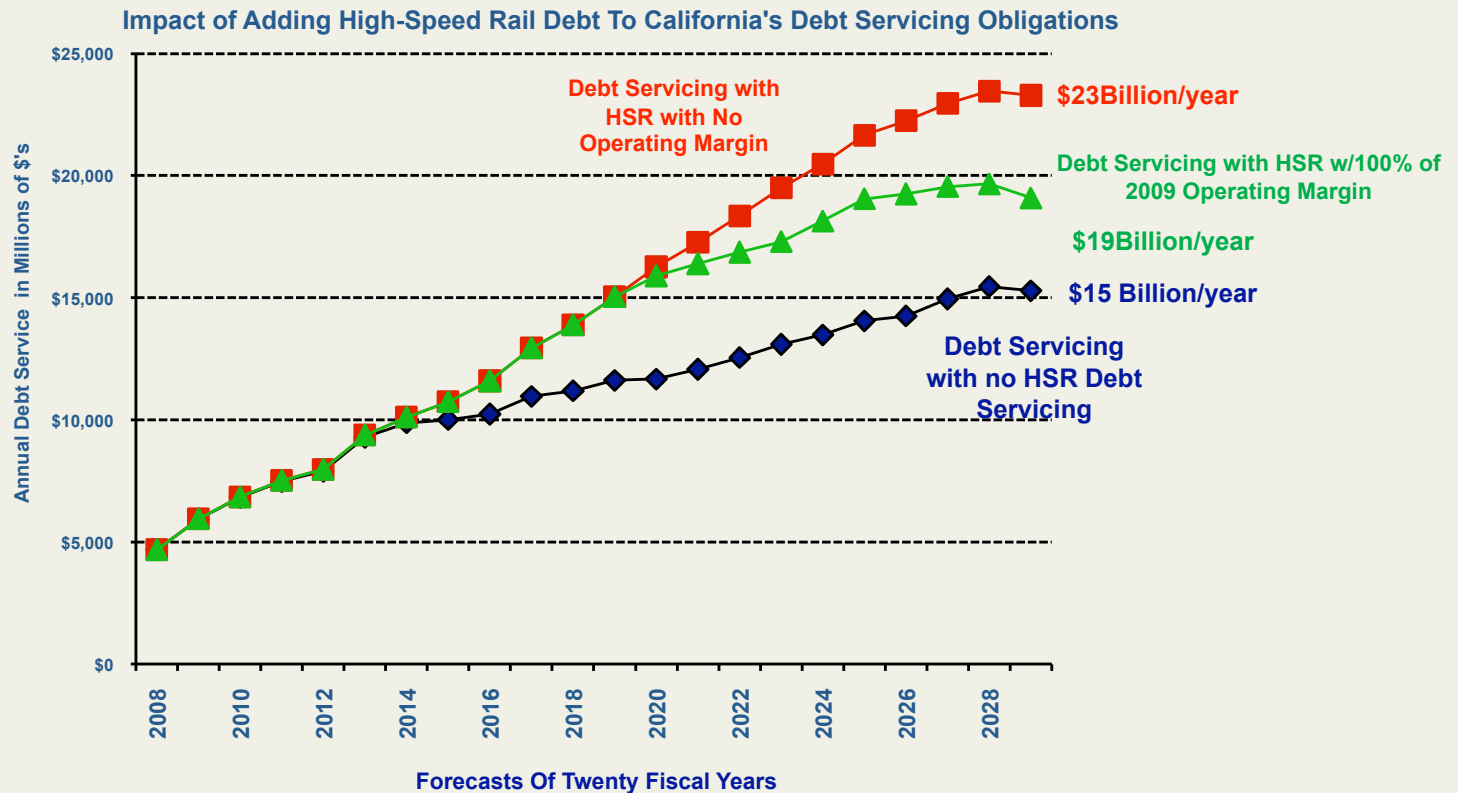
Whether It Is The Central Valley Section Or Phase One Or The 'Entire System', Even The Best Case's Annual Average Cash Flows To The General Fund Are Always Negative



Central Valley = \$6B to build, with \$3B Federal Grants, No Operating Margin (no revenues) Sylmar-SJ = \$43B to build, with \$3B Federal Grants, \$1.8B Annual Operating Margin  
 Phase One = \$66B to build, with \$3B Federal Grants, \$2.4B Annual Operating Margin as per CHSRA's 2009 Plan  
 \*Entire System (SD, LA, Riverside, SF, Oak, Sac) = \$116B to build, with \$3B Federal Grants, \$4.2B Operating Margin (proportionately increased on the basis of additional miles)

# Follow The Money # 5

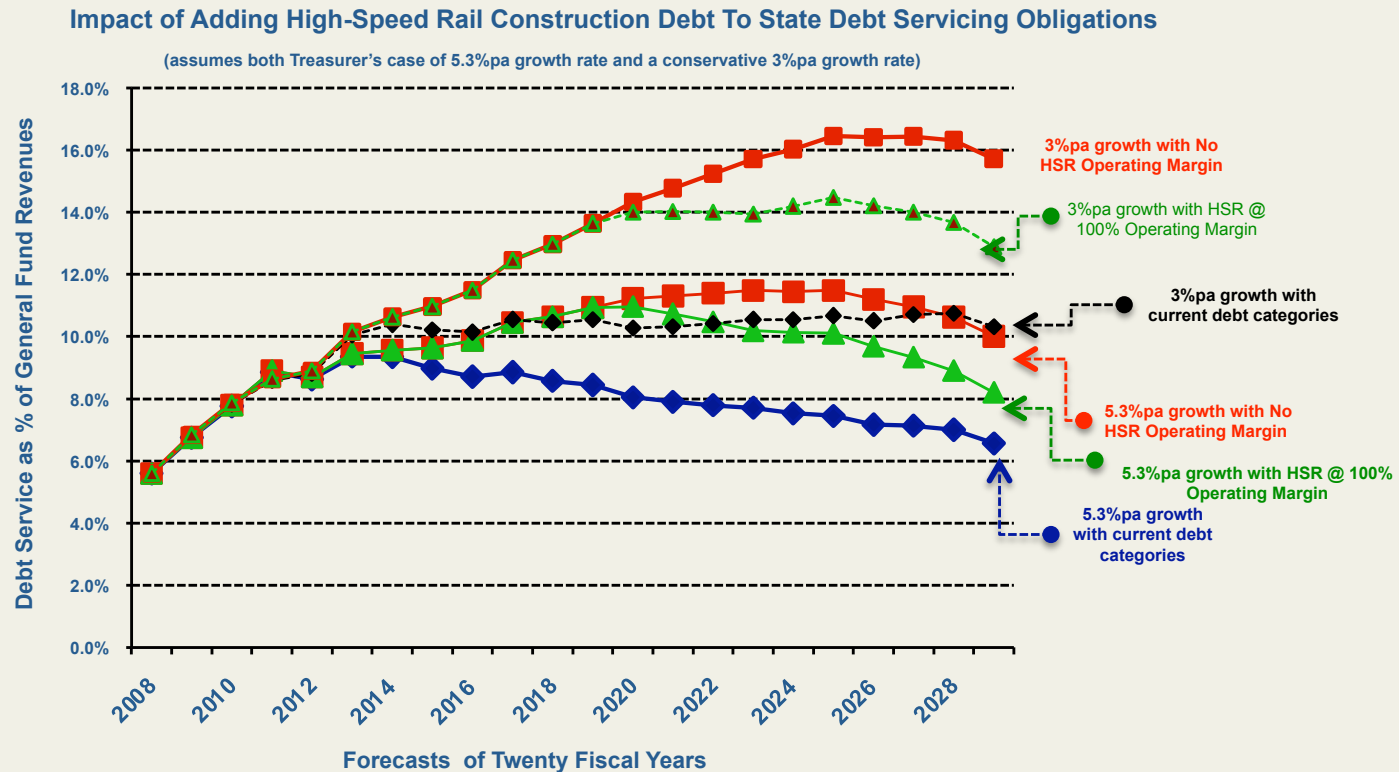
**By The Late 2020s Servicing The Debt On Building The 'Entire System' Could Add Least \$8Billion/Year To The State's Long Term Obligations**



**By 2028, the annual debt servicing could easily rise by \$8Billion/year if the 'Entire System' trains only break even financially – ie. income = expenses**

# Follow The Money # 6

**In The Late 2020s Servicing The Debt On Building The 'Entire System' Could Increase The State's Long Term Obligations By Four To Six Percentage Points of General Fund Revenues**



**This single project could increase the State's outstanding long term debt servicing obligations by 50%**

# **Eighteen Months Of Financial Analyses Have Taught Some Hard Lessons**

## **1. The real construction costs of Phase One (SF-LA) are at least \$66Billion – probably considerably more**

- Financing this will cost the State \$138Billion over 30 years – or \$4.6Billion/year before adjusting for any surplus

## **2. There are little or no more Federal grant monies coming to California**

- Raising ±\$50Billion from the private sector without giving them an illegal ‘revenue guarantee’ is unlikely
- For private operators or investors to even approach ‘break even’ the State will have to service the construction debt from the General Fund – with either new taxes or fees or both

## **3. Perhaps 15-20,000 FTE construction jobs will be created – not the 60,000 FTEs claimed by the Authority**

- Perhaps 40,000 ‘permanent’ jobs (not the CHSRA’s 450,000) will be created. But any estimate must be balanced against jobs displaced from the airline and auto services sectors

## **4. The train’s riders will be wealthy or expense-reimbursed or both**

## **5. For the State, the train’s cash flow is always negative. It gets worse the more miles built – and doubles if the entire system (+ SD, Oak, Sacramento) is built**

- Even **IF** operations provide a ‘surplus’ – the cash flows remain negative and taxes must be raised

**? Is It Worth Spending Another \$700,000  
per Working Day On This Project ?**