



# High Speed Rail Benefits

## California Corridor: A Case Study

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# Booz Allen analyzed the changes to Gross State Product (GSP) and employment in California from an investment in High Speed Rail (HSR)

- ▶ HSR Construction and O&M costs are mid-point estimates from The Reason Foundation (RF) and CA High Speed Rail Authority (CaHSR)

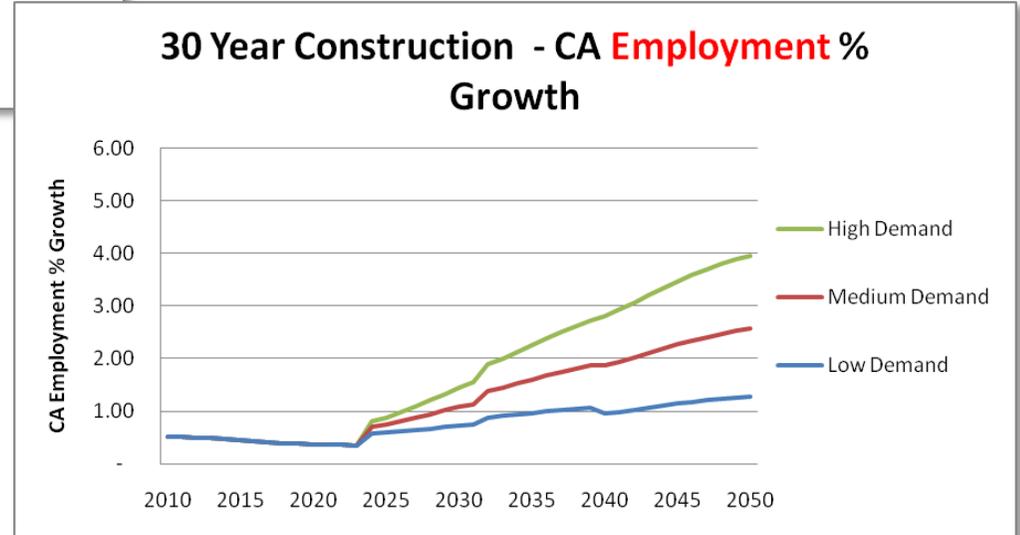
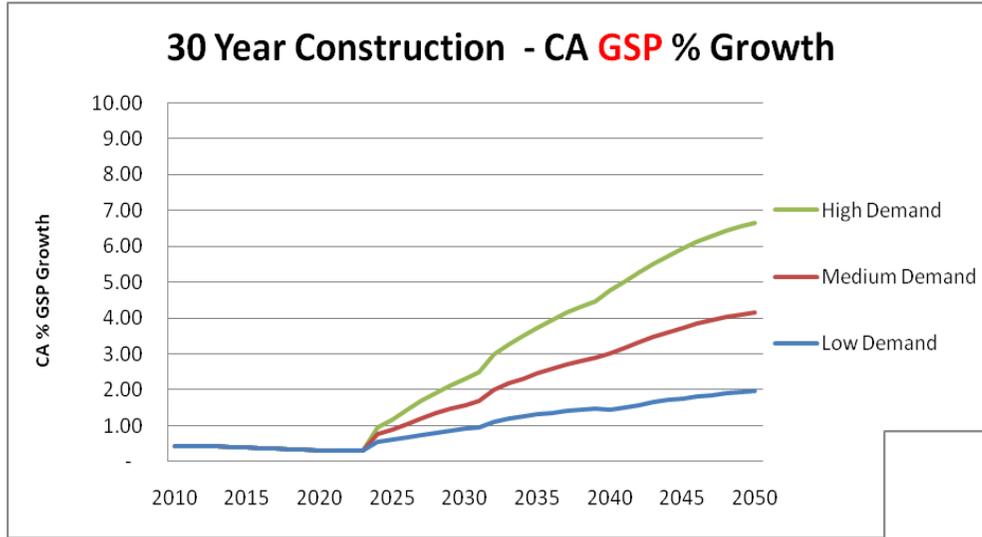


- ▶ Ridership estimates ranged from low (Reason Foundation) to high (CaHSR Authority)



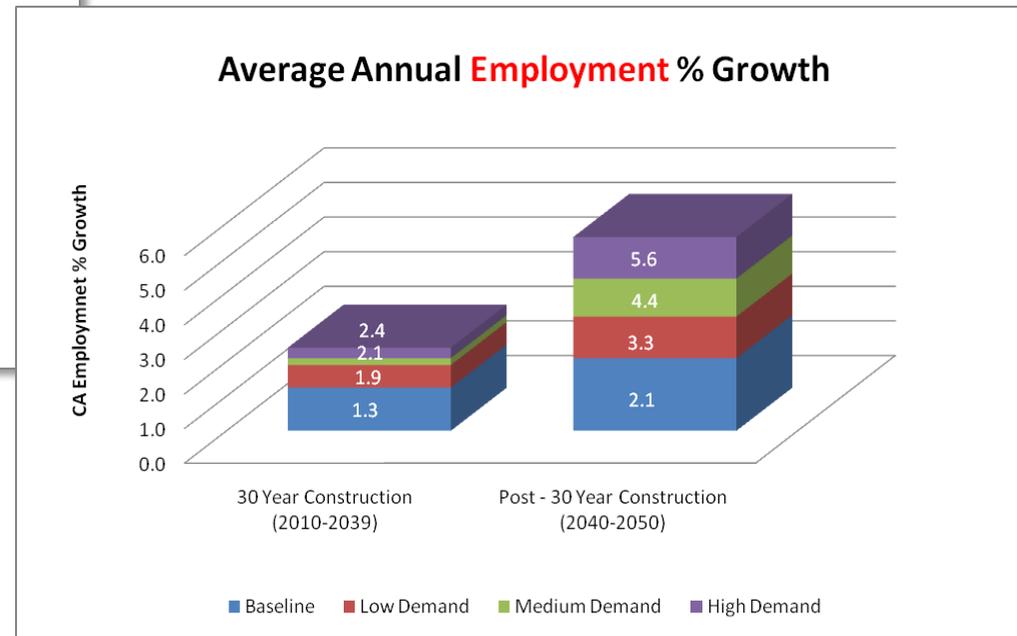
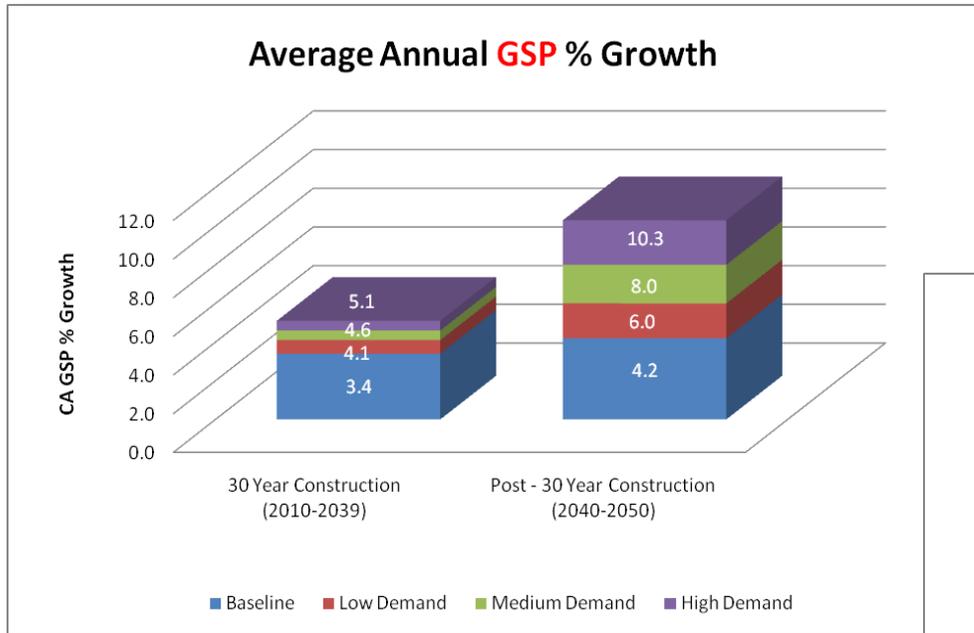
# Under a 30 year construction period, increases in GSP and employment are impressive but highly dependent upon demand (ridership) assumptions

## Impact of Ridership Assumptions on GSP and Employment



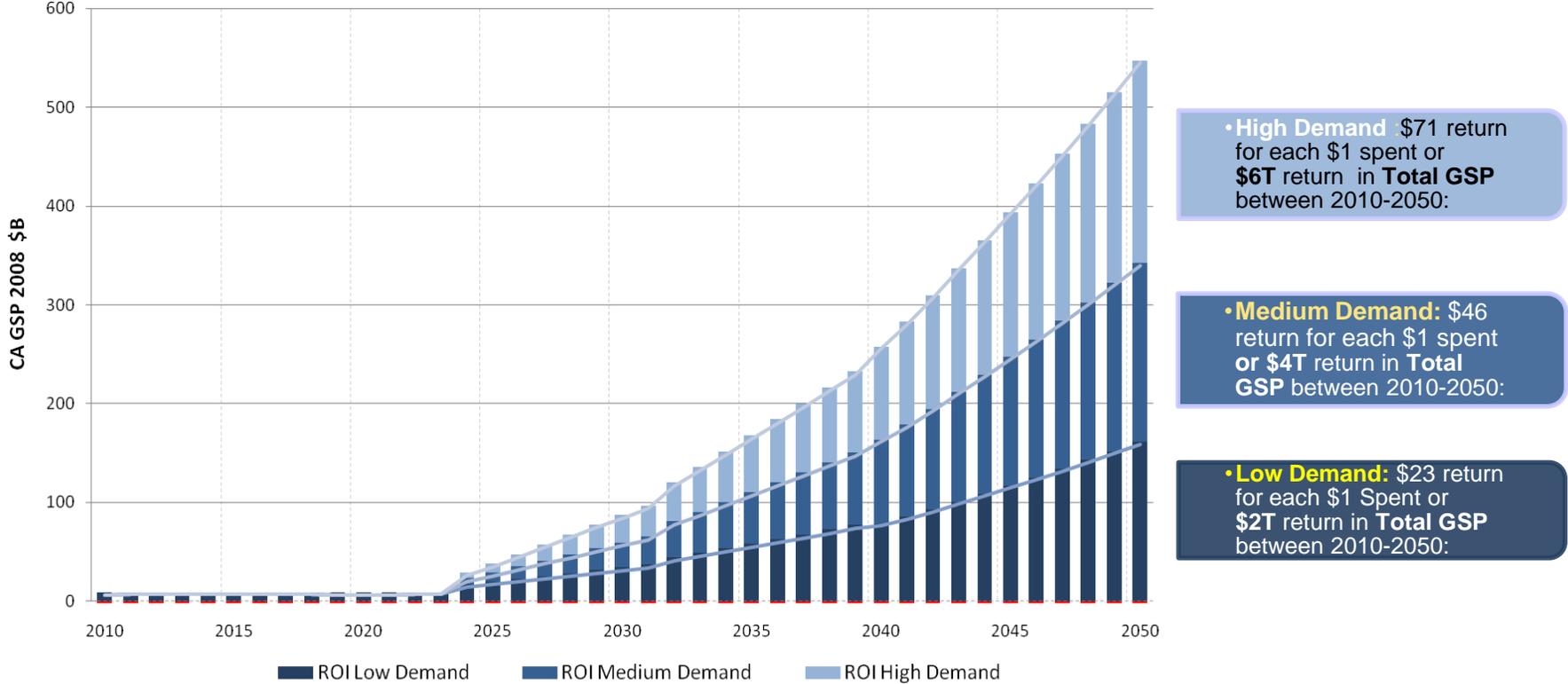
# A comparison of growth rates for the baseline (w/o HSR) versus scenario with HSR under a 30 yr construction period

## Increase in Growth Post-Construction Across Ridership Levels



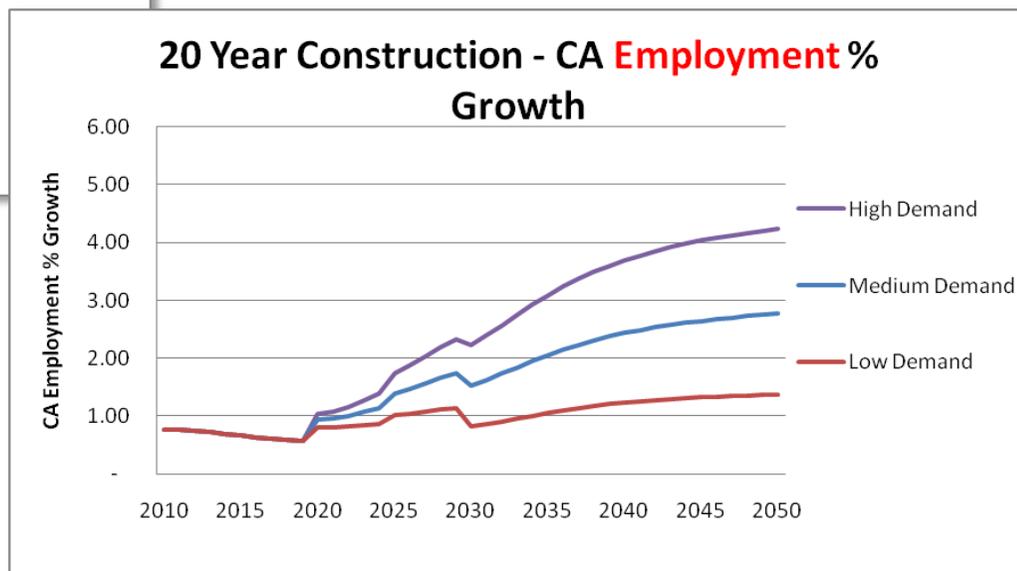
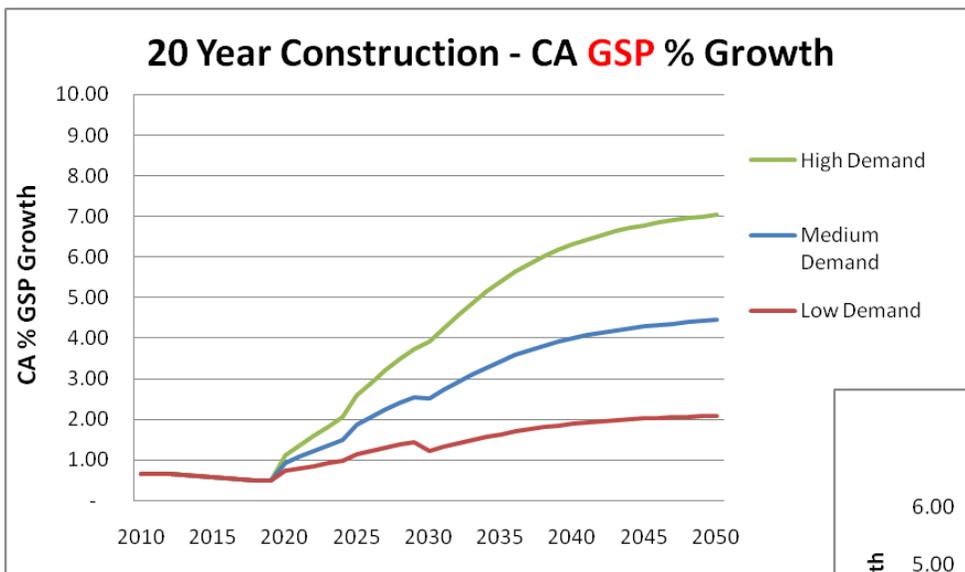
**For every \$1 invested in California HSR, assuming Low, Medium and High ridership, GSP is projected to return \$23, \$46 and \$71 respectively – a sizeable return relative to similar investments**

High Speed Rail - ROI



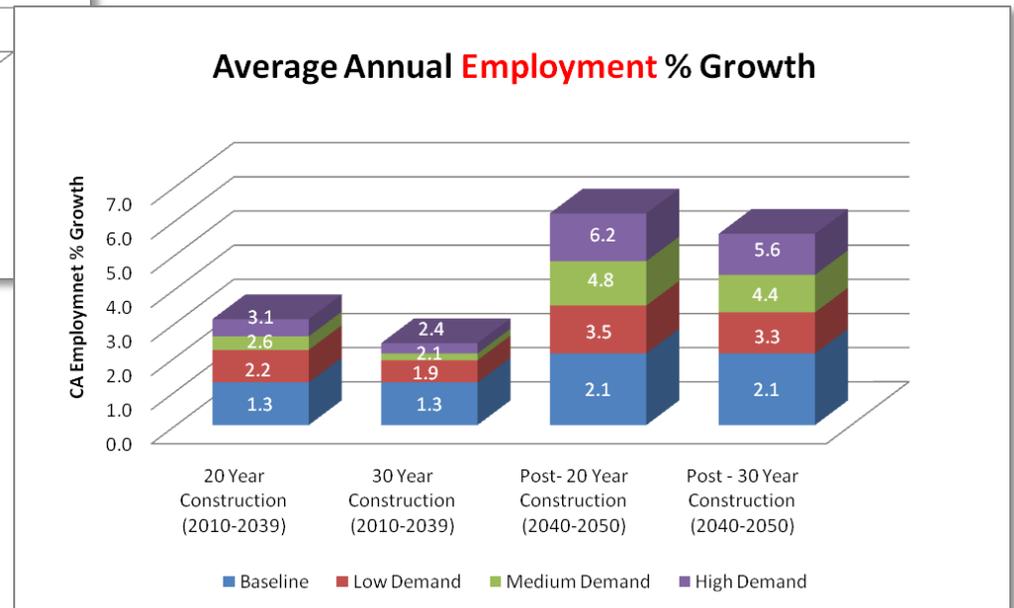
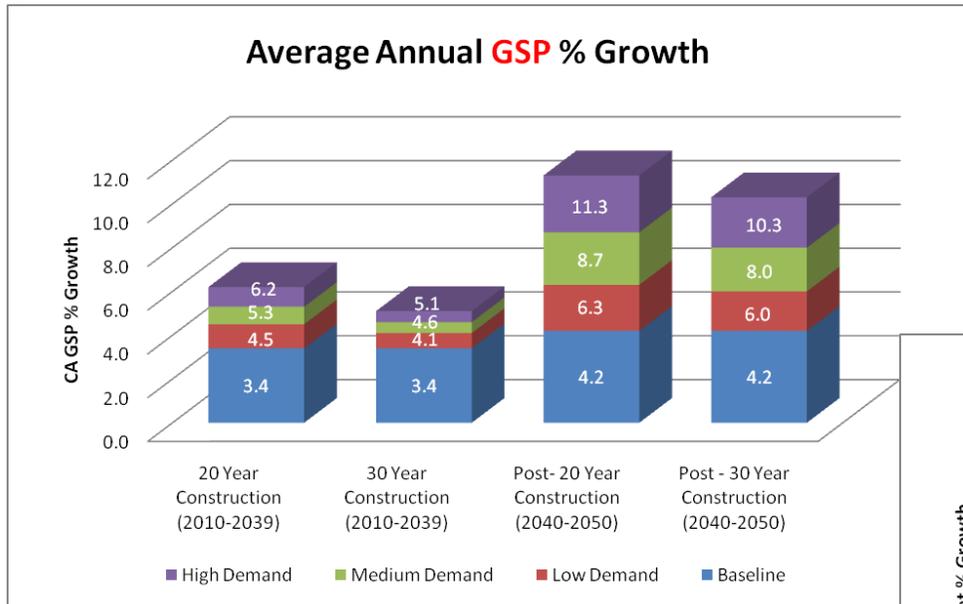
# With a 20 year construction period, HSR will increase GSP and employment by more relative to a 30 year construction period

## Impact of Ridership Assumptions on GSP and Employment with 20 Year Construction Period



# Comparison of Growth Rates for Baseline (w/o HSR) versus with HSR: 30 yr Construction and 20 yr Construction Periods

Impact of Ridership Assumptions on GSP and Employment Growth with **20 Year** Construction Period



# These results indicate that the return on investment in HSR is sizeable, with ridership estimates having a significant impact on GSP and employment

- ▶ The **30 year construction, high demand** scenario resulted in relatively large changes to GSP/employment:
  - ▶ Average annual GSP growth
    - ▶ During construction is approximately 5.1%;
    - ▶ Post construction is approximately 10.3%:
    - ▶ **Total GSP growth between 2010-2050 is approximately \$6T above the baseline**
  - ▶ Average annual employment growth
    - ▶ During construction is approx 2.4%;
    - ▶ Post construction is approximately 5.6%:
    - ▶ **Total employment growth between 2010-2050 is approximately 1.1M jobs above the baseline**
- ▶ The **20 year construction, high demand** scenario yielded the largest GSP benefits
  - Total GSP growth of approximately **\$8T above the baseline** between 2010-2050
  - Total employment gains were similar to the 30 year scenario of 1.1M jobs

**Bureau of Labor Statistics**  
The US lost 8.4M Jobs between December 2007 and December 2009; California job losses were 1.4M over the same period

## Conclusions / Recommendations

- ▶ Major capital infrastructure projects, like HSR...
  - Yes, help create jobs in the short term, during the construction period
  - But, more importantly, are critical to long term future economic growth
- ▶ This story needs to be told
  - Need to develop a broad coalition of support
- ▶ Mechanisms need to be developed for major capital infrastructure budgeting
  - So that the supply industry can plan, invest, and deliver
- ▶ Need to deliver sooner, rather than later, so that we can realize the benefits sooner
  - China took 2 years to plan, and 3 years to build a comparable HSR line

# Contact Info

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