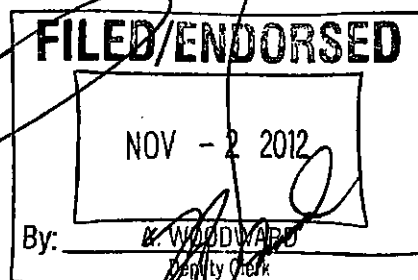


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16 SUPERIOR COURT OF THE STATE OF CALIFORNIA

17 COUNTY OF SACRAMENTO

18 **COUNTY OF MADERA, et al.,**

19 Petitioners and Plaintiffs,

20 v.

21
 22 **CALIFORNIA HIGH-SPEED RAIL**
 23 **AUTHORITY, a public entity, and DOES 1**
 24 **through 20,**

25 Respondents and Defendants.

Lead Case No. 34-2012-80001165-CU-WM-GDS

Cases Consolidated for Case Management, Briefing and Trial Purposes Only with:

Case Nos: 34-2-12-80001166-CU-WM-GDS and 34-2-12-80001168-CU-WM-GDS

DECLARATION OF IRA HIRSCHMAN
IN SUPPORT OF RESPONDENT'S
OPPOSITION TO COUNTY OF MADERA
ET AL'S MOTION FOR PRELIMINARY
INJUNCTION/STAY

Hearing on Motion/Application

Date: November 16, 2012

Time: 1:30 pm in Department 29

ASSIGNED FOR ALL PURPOSES TO THE
 HONORABLE TIMOTHY FRAWLEY

1 **CITY OF CHOWCHILLA, a California**
2 **municipal corporation**

3 Petitioners and Plaintiffs,

4 v.

5 **CALIFORNIA HIGH-SPEED RAIL**
6 **AUTHORITY, a public entity, and DOES 1**
7 **through 20,**

Respondents and Defendants.

8 **TIMELESS INVESTMENT, INC.,**
9 **MILLENNIUM ACQUISITIONS, INC.,**
10 **HORIZON ENTERPRISES, G.P.,**
11 **EVERSPRING ALLIANCE, L.P.**

Petitioners and Plaintiffs,

12 v.

13 **CALIFORNIA HIGH-SPEED RAIL**
14 **AUTHORITY, a public entity, and DOES 1**
15 **through 20,**

Respondents and Defendants.

1 I, Ira Hirschman, declare as follows:

2 1. The facts set forth in this declaration are true of my own personal knowledge and,
3 if called as a witness, I could and would competently testify to all matters set forth herein.

4 2. I am an Assistant Vice President, Principal Economist and Economics Services
5 Area Manager for Parsons Brinckerhoff's economic consulting practice, where I have worked for
6 the past 27 years. Before joining Parsons Brinckerhoff, I was a senior economist in the New York
7 City Transit Authority's (NYCTA) Office of Planning and Program Analysis.

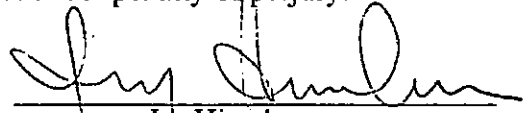
8 3. I have extensive experience and training in economic impact analysis. I hold a
9 Ph.D. in Urban and Regional Planning as well as Masters and Bachelors of Science degrees in
10 Economics. I have amassed more than 35 years of experience in the economic impact field,
11 particularly in the field of transportation economics. I currently head Parsons Brinckerhoff's
12 economics consulting practice, where I am the firm's senior practitioner in the field of economic
13 impact analysis, freight and intermodal economic analysis, benefit-cost analysis, transportation
14 pricing, industrial zone master planning, environmental economics, and related areas of
15 transportation economics. I have managed or been the primary economic analyst for
16 transportation, passenger rail, urban development, and infrastructure development studies
17 throughout the US. I have also published widely in the field of transportation economics and
18 public economics and finance, and I am the senior editor of the Economic Forecast Review, an
19 infrastructure economics journal published by Parsons Brinckerhoff. While at the NYCTA Office
20 of Planning and Program Analysis, I was responsible for statistical analysis and survey design,
21 patronage and revenue forecasting, as well as fare-policy alternatives analysis. My curriculum
22 vitae is attached hereto as Attachment A.

23 4. Parsons Brinckerhoff serves as the program manager for the High Speed Rail
24 Authority, overseeing and coordinating the activities of 108 separate consultants, and providing
25 the interface between the California High Speed Rail Authority and the other transit, rail and
26 public authorities along the route. I am the lead economist for this ongoing program and I
27 authored a paper analyzing the current state of the economy in the region and in the construction
28 industry and estimating the impacts from Construction Package 1 and the associated relocation of

1 SR-99 in Fresno. Construction Package 1 is the approximately 29-mile stretch of initial
2 construction of the high-speed rail system that is planned for Madera and Fresno counties. I
3 prepared the study based on widely accepted economic analysis principles and industry-standard
4 resources and publications. This study entitled "Economic and Fiscal Impacts of Contract
5 Package 1 and the SR-99 Relocation" is attached hereto as Attachment B.

6 I declare that the foregoing is true and correct under penalty of perjury.

7
8 Dated: Oct 30, 2012


Ira Hirschman

Attachment A

IRA HIRSCHMAN, PHD

Assistant Vice President
Principal Economist
Economics Services Area Manager

Years of Experience

32 (27 with Parsons Brinckerhoff; 5 with others)

Education

Ph.D., Urban and Regional Planning, Rutgers University, 1991; M.S. Economics, Rutgers University, 1978; B.S. Economics, Rutgers University, 1976

Professional Affiliations

Transportation Research Board (TRB), Committee on Transportation and Economic Development committee member; New York Regional Plan Association; American Planning Association (New York Metro Chapter)

Key Qualifications

Ira Hirschman heads Parsons Brinckerhoff's economics consulting practice. He is the firm's senior practitioner in the field of economic impact analysis, freight and intermodal economic analysis, benefit-cost analysis, transportation pricing, industrial zone master planning, environmental economics, and related areas of transportation economics. Dr. Hirschman has managed or been the primary economic analyst for transportation, passenger rail, urban development, and infrastructure development studies throughout the US. He has also worked internationally on consulting projects in Turkey, Bosnia, Thailand, China, Brazil, Mexico, the Georgian Republic, and Panama.

Dr. Hirschman has published widely in the field of transportation economics and public economics and finance. He is the senior editor of the Economic Forecast Review, an infrastructure economics journal published by Parsons Brinckerhoff and available on the firm's web site.

Recently, Dr. Hirschman received the 2011 Robert Ponte Award from the New York Metro Chapter of the American Planning Association in recognition of his contributions to economic development analysis and planning in the New York area.

Selected Transportation Economic Studies

- NCHRP 20-59(34) Estimating Economic Impacts of Freight Disruptions, Washington, DC: lead economist for this ongoing study, in partnership with Georgia Tech, to develop and apply one or more conceptual methodologies for identifying and estimating the short- and long-term impacts of disruptions to the goods movement system. In order to accomplish this goal, the following key objectives were pursued as part of the research: 1) synthesize the current state of knowledge of the economic impact of transportation disruptions on goods movement; 2) develop conceptual methodologies for estimating such economic impacts for different geographic and temporal scales; 3) illustrate the use of these methodologies at different scales and in different contexts; and 4) develop a strategy for gaining acceptance of these methodologies in practice.
- Long-Term Transportation Plan, New York, New York: principal economist supporting the New York City Economic Development Corporation (NYCEDC)'s business planning study to develop and finance a package of long term transportation investment and program strategies. His assessment focused on the extent to which the package of strategic transportation investments and policy initiatives would expand the economic growth potential of the City. Specific areas of focus were the impacts on labor markets and labor costs, and the constraints

to employment growth resulting from the inability of the City's baseline transportation network to deliver workers to projected areas of economic growth

- Economic Impact Study, New York City EDC, New York, New York: conducted the economic impact and financial studies to support the City approval processes to support the financing and development of the Staten Island Yankees baseball stadium at St. George. The financial and economic studies were inputs to support approval of the project by the New York City Council.
- Economic Impact and Cost Benefit Analysis, Regional Transportation Authority in Chicago, Chicago, Illinois: conducted economic impact and cost benefit analyses of alternative investment programs for the RTA and its service boards. Scenarios considered included new investments in major system expansions, funding to maintain a state of good repair, and funds to close projected operating shortfalls.
- Kansas Railroad Rehabilitation Fund Economic Impact Study, Kansas Department of Transportation, Kansas City, Kansas: as lead economist responsible for conducting an economic benefits analysis of the Kansas DOT grant and revolving loan fund for its short line railroads. The study led to the re-authorization of the loan by the state legislature.
- Ohio Department of Transportation (ODOT) Economic Impact Model, Columbus, Ohio: leading the development of ODOT's Economic Impact Model, 2007 to present, providing support the ODOT's travel demand and economic modeling team. The model, linked to the Ohio Statewide Travel Demand Model, utilizes changes in travel time, cost, and accessibility for both goods and personal travel to forecast regional and state economic benefits of highway and other transportation improvements. The model utilizes input output relationships, and market based behavioral assumptions to project localized and spillover impacts on employment, household income, output, and value added.
- TIGER Grant Applications – Economic Analyses, Various Locations, United States: provided technical direction for economics and benefit cost evaluations for multiple TIGER grant applications. Several of these were successful, reflecting Parsons Brinckerhoff's nearly 20% overall success rate in TIGER applications for its clients.
- Economic Benefits of High Speed Rail for the Orthopedics Industry, Warsaw, Indiana: project manager for an economic impact study for OrthoWorx, a private client. The objective of the study was to ascertain and estimate the economic benefits of high speed rail service to the orthopedics industry cluster in Warsaw, Indiana.
- Sound Transit 2 Benefit Cost Methodology, Seattle, Washington: technical lead in developing a detailed methodology and report for benefit cost analysis of Phase 2 major transit investments (report provided on request) 2006.
- Asset Management Business Framework, Quebec, Canada: part of the core team conducting studies leading to recommendations for the re-engineering of the Ministry of Transport's business processes. Dr. Hirschman's role is to lead the technical studies that are intended to more fully incorporate benefit-cost analysis procedures in the planning process, at various levels within the organization. Various models were under review, including HDM IV, HERS/ST, MicroBENCOST, STEAM, and others. Linkages to the MTO's pavement management system and other data bases are also being investigated.
- Economic Impact Study for the Georgia Regional Transportation Authority, Atlanta, Georgia: conducted an economic impacts analysis of the Governor's proposed \$8.3 billion program of transportation projects, utilizing innovative financing techniques. The study is currently being used as a basis for briefings and promotional materials for the Georgia legislature.
- New York City Movable Bridge Study, New York, New York: responsible for the design and implementation of cost benefit analysis of options to eliminate or improve New York City

Department of Transportation-owned movable bridges spanning New York City waterways. The analyses looked at options including fixing the bridges on a permanent basis, or either replacing or rehabilitating the bridges with movable or fixed structures. The analysis included extensive evaluation of business and real estate impacts of eliminating movable bridges along Newtown Creek, the Gowanus Canal, the Harlem River, and other waterways.

- TART Downtown Trolley EIS, Toledo, Ohio: performed economic studies related to the potential impacts of the trolley on downtown real estate development, employment, income, retail sales and profitability, and local tax revenues.
- Western Transportation Corridor Study Major Investment Study (MIS), Northern Virginia: carried out an economic impacts assessment for the Virginia Transportation Research Council (VTRC) of proposed highway bypass alternatives serving the western portion of the Washington, DC metropolitan region. The evaluation included a transportation system benefit-cost analysis, an assessment of the regional economic impacts of highway construction and maintenance, impacts on local business firms, and an assessment of potential impacts on development, land prices, and land use. The benefit cost analysis was based on full-cost models of auto use, including travel time benefits, safety, environmental impacts, and impacts on goods movement.
- ITS Corridor Coalition Economic Impacts Analysis for the I-95 Corridor Coalition: prepared studies and position papers focusing on the potential economic benefits of Intelligent Transportation System (ITS) investments in the I-95 corridor. Parsons Brinckerhoff, as the prime consultant for the Coalition, was tasked with multiple planning, programming, public outreach, and other activities on behalf of the coalition, a multi-state compact formed to advance ITS projects and systems in the corridor.
- Brockport-Albion Economic Impacts Study, West of Rochester, New York: principal economic analyst responsible for economic and fiscal impact analyses of a proposed highway extension, including forecasts of land-use impacts in the Rochester region. For this, he developed a gravity model of the residential impacts of the proposed highway. He also analyzed the retail development potential, as well as fiscal impacts of development.
- Metro-North Commuter Railroad Feasibility and Cost-Benefit of Cross-Hudson Rail Links, New York: led the economic evaluation of alternative options for rail service from Orange and Rockland Counties to Grand Central Terminal. The rail service, which in several options would include rail service to Stewart Airport, has the potential to increase and improve the balance of economic growth in the Lower Hudson Valley. The analysis involves extensive benefit-cost evaluation, as well as direct and secondary impacts on the region's economy.
- Amtrak Penn Station Redevelopment, Phase II, New York, New York: This project involves a proposal to move the Amtrak passenger terminal from the current Pennsylvania Station location to the James A. Farley Post Office Building west of Eighth Avenue. The proposed project would also entail a substantial commercial development of the Post Office site. Dr. Hirschman analyzed the regional, city, and state economic and fiscal impacts of the relocation and development on behalf of the developer. Using multipliers derived from regional input-output models and adjustments for regional economic leakages, he estimated the impacts on regional and city gross output, income, earnings, and employment during both the construction and operations phase of the project. The analysis also estimated impacts on city and state tax revenues and public expenditures.
- NJ Transit Rail Yard Site Selection Study, New Jersey/Pennsylvania: evaluated and compared the economic impacts of three alternative sites in the Trenton area for a new rail yard. Two of the sites would have placed the yard centrally in the city of Trenton, within an urban enterprise zone. The third site would have located the yard in Morrisville, Pennsylvania, just across the Delaware River. A key issue of concern for local government representatives was the potential impact of the location decision on local economic development. The economic impact analysis

considered job creation and job training potential, accessibility and employment opportunities for low-income and unemployed persons, compatibility with the enterprise zone and surrounding neighborhood character, and potential real estate and fiscal impacts.

- State Railway of Thailand, Inland Container Terminal Feasibility Study, Thailand: designed and managed studies of the economic feasibility, privatization options, and tariff policies for the procurement of privatized Inland Container Terminal facilities, serving metropolitan Bangkok as well as hinterland regions of Thailand. The results of the ongoing study were used by the SRT to solicit private concession bids for the development of such facilities and for the development of pricing policies.
- Feasibility Study and Environmental Impact Assessment of Mass Transit Systems in Expressway Rights-of-Way, Bangkok, Thailand: conducted economic and financial feasibility studies, fare policy studies, and privatization studies for proposed light rail and busway alternatives in Bangkok for the Expressway and Rapid Transit Authority of Thailand.

Selected Freight, Port, and Intermodal Projects

- Oregon Statewide Freight Plan, Oregon: lead economist for ongoing study to update Oregon Department of Transportation's state rail plan. Parsons Brinckerhoff is supporting the update of the state rail plan, development of a statewide freight plan, and a statewide port strategic plan as components of the overall effort.
- Panama Canal Master Plan & Third Locks Development Project, Panama: technical lead for the development of the Panama Canal Authority (ACP)'s demand forecasting model. The model is being used by a major financial institution to support financing for the multibillion dollar project. The assessments and forecasts included Panama Canal shipping and cargo transit forecasts, including container traffic, solid and liquid bulk cargo vessels, and auto carriers, and canal tariff structure.
- Mississippi Statewide Ports Study, Mississippi: served as the principal economist on a study for the Mississippi DOT to enhance the state's port and waterway system. His role included analyzing the current economic contribution of Mississippi's ports to the state economy, and the economic benefits of facilities improvements.
- Front Range Railroad Relocation Project, Colorado: lead economist for the benefit cost assessment of private, public, and public sector benefits and costs of relocating the existing north south freight railroads now operating near Denver to areas further to the east of the state. Benefits assessed included railroad operational benefits and cost savings, environmental savings, accident savings, road damage savings, and other categories.
- Maryland Strategic Analysis of Rail Service Requirements & Investments, Maryland: served as Principal Economist for this study. Parsons Brinckerhoff was asked to undertake a strategic analysis of freight, commuter, and Amtrak (intercity) rail service requirements and investments through Maryland. The study was conducted in three phases. The freight related economic analyses focused on the economic benefits to Maryland, the Baltimore region, and the NE Rail Corridor as a whole. This phase focused on quantifying the benefits to passenger and particularly freight rail from new tunnels.
- Pilgrim State Intermodal Freight Transportation Center Feasibility Study, New York State: performed market studies, analyzed the potential for diversion of long-haul goods movement from truck to rail, conducted benefit cost analysis, and performed economic impact analysis of various options and scenarios for the development of the intermodal freight transportation center at the Pilgrim State Hospital property on Long Island. This New York State DOT study determined that developing an intermodal freight transportation center at the Pilgrim site is feasible.

- Port of Ningbo Optimization Study, China: performed economic benefit-cost, optimization, and related transportation studies for port improvements for World Bank review. This project included cargo forecasting, with emphasis on identifying the hinterland cargos that could benefit from long-distance shipping in large vessels. Work also included analysis of the costs of inland transportation and least-cost path analysis of rail and truck transport, for purposes of identifying Ningbo's hinterland catchment area compared with competitor ports in the Yangtze delta and river basin. In addition, Parsons Brinckerhoff was responsible for preparing a master plan for port development through the year 2005. The container port at Beilun was expanded in response to the Master Plan studies.
- Xiamen and Nanjing Ports Due Diligence Review, China: principal economic analyst for the Asian Infrastructure Fund. Dr. Hirschman reviewed cargo forecasts for private port proposals as part of AIF's due diligence process. The analysis included evaluation of economic prospects, opportunities, and potential risks.
- Port of Ningbo, Container and Bulk Terminal Initial Public Offering (IPO), China: prepared cargo and revenue forecasts, on behalf of the port and its investment advisor, for an Initial Public Offering of the facility. The offering was issued on the Hang Seng in the fall of 1999.
- Ministry of Surface Transport and the Tariff Authority for Major Ports, India: served as financial and port pricing analyst for a study conducted under sponsorship of the Asian Development Bank on behalf of the above agencies. The analysis, the first and most comprehensive of its kind in Asia, was conducted to assist the Government of India in commercialization and corporatization of its major port trusts.
- Oahu Commercial Harbors 2020 Master Plan, Oahu, Hawaii: for the Hawaii Port Department, developed detailed short and long range cargo flows forecasts for the port of Oahu, based on econometric models which he developed specifically for the project. Forecasts were used as the basis for future facilities expansion plans. Private investment opportunities and opportunities for public-private ventures were included in the analysis.
- Port of Derince Financial Feasibility Study, Derince, Turkey: for a group of private port investors, developed market demand forecasts and conducted financial feasibility analysis for the privatized redevelopment of the existing public port facility in Derince, Turkey.
- Telfers Island Container Port, Panama: performed economic benefit-cost and financial feasibility studies for a new container terminal on Panama's Atlantic coast. The study, conducted on behalf of a private development consortium, included preliminary forecasts of container volumes.
- Port of Batumi Due Diligence, Georgia. Economic and financial lead, due diligence analysis for potential private investor acquisition of one of Georgia's major Black Sea oil terminals.
- Port of Brcko Due Diligence, Bosnia: principal economist and financial analyst on a study of the viability of rehabilitating the Port of Brcko, on the Sava River. The port has not been active since 1991, when hostilities commenced in the region. The study, which is part of the larger international effort to rehabilitate the country's war damaged infrastructure and economy, was sponsored by the US TDA.
- Texas DOT Second Laredo International Bridge Crossing, Presidential Permit, Texas: Lead economist in assessment of economic impacts and benefits of the second Laredo Bridge to Nuevo Leon, Mexico.
- Pima County Association of Governments, Tucson, Arizona: identified private financing options for the development of a truck-rail intermodal transfer facility in the Tucson, Arizona metropolitan area. The ramp would be located in the service area of the Union Pacific Railroad, the largest freight railroad in the United States. These options include public-private arrangements, which would involve mutually beneficial participation by the City of Tucson, the

State of Arizona, a private owner and developer of a foreign trade zone in Tucson, and the Union Pacific Railroad. Techniques for public sector credit enhancement of the private development are being investigated.

Selected rail, public transportation and urban development economic studies

- California High Speed Rail Business Plan, California High Speed Rail Authority, California: lead economist for this ongoing program management assignment. Estimated job creation and completed benefit cost analysis, station area development effects analysis, and long term economic development impact studies of the current California High Speed Rail Plan. Parsons Brinckerhoff serves as the program manager for the HSR plan, overseeing and coordinating the activities of 108 separate consultants, and providing the interface between the California High Speed Rail Authority (CHSRA) and the other transit, rail and public authorities along the route. As program manager, Parsons Brinckerhoff is responsible for developing the criteria and technical standards that will define high speed train systems and operations; managing the NEPA and the California Environmental Quality Act (CEQA) analyses and overseeing engineering sufficient to procure system-wide design-build contracts.
- Kansas Short Line Railroad Rehabilitation Fund Impact Study, Kansas DOT, Kansas City, Kansas: lead economist for the study to evaluate the benefits of the Kansas DOT short-line railroad grant and revolving loan fund. Resulted in reauthorization of the legislation creating the fund.
- Department of Transit and Community Works Northwest Corridor Benefit Cost Analysis, Hennepin County, Minnesota: conducted the benefit-cost analysis for proposed bus rapid transit service in the Northwest Corridor. Results were produced for two analysis scenarios: 1) a "Replication Analysis" in which the methodologies used in a previous benefit-cost analysis for another Twin Cities transit corridor were adhered to as closely as possible, and 2) a "Best Practices Analysis" in which selected methodological refinements were made, such that the analysis would be more consistent with current best practices in transportation economics. Benefits assessments were derived from regional travel demand model outputs, and included travel system benefits using a consumer surplus approach, environmental benefits, safety benefits, and other factors.
- Toledo Area Regional Transit Authority (TARTA) Downtown Trolley Environmental Impact Study (EIS), Toledo, Ohio: performed economic studies related to the potential impacts of the trolley on downtown real estate development, employment, income, retail sales and profitability, and local tax revenues.
- Miami East-West Multimodal Corridor Major Investment Study (MIS)/FEIS, Miami, Florida: developed the financial plan for the construction and operation of this billion dollar plus multimodal corridor, including east-west metro extensions. The financing program for the Florida Department of Transportation (FDOT), which reflects the Dade county Long Range Transportation Plan, incorporates various innovative funding sources, including joint development, expressway cross subsidies within the east-west corridor, and Miami seaport funding.
- Miami North Corridor MIS/FEIS, Miami, Florida: prepared the financial element for the construction and operation of an extension of the Miami Metro to the North Corridor, serving various communities, commercial areas, and the Joe Robbie Stadium. Plan includes potential sources such as station joint development, tax increment/transportation utility funding, and stadium ticket and/or parking surcharges.
- Norfolk-Virginia Beach LRT MIS, Norfolk, Virginia: prepared alternative financing plans for the proposed LRT system for the Tidewater Transit District Commission, focusing in particular on the potential for local dedicated retail sales tax or motor fuels tax, both of which are permitted

by state legislation, but which must be approved locally by voters. Project decision is pending locally.

- Buffalo Light Rail to Amherst, statewide, New York: provided economic impact and joint development analyses of extending the existing transit system. This project included a real estate/value capture study, operations planning, cost analysis, and regional economic benefits analysis.
- Kansas City Southtown Corridors AA/DEIS, Kansas City, Missouri: wrote various white papers for local officials on the potential economic impact of light rail in Kansas City, including potential impacts on commercial and residential development in the corridors.

Previous Experience

Before joining Parsons Brinckerhoff, Ira was a senior economist in the New York City Transit Authority's (NYCTA) Office of Planning and Program Analysis. He was responsible for statistical analysis and survey design, patronage and revenue forecasting, as well as fare-policy alternatives analysis. Specific studies that he completed at the NYCTA include:

- Five- and 10-year financial projections, including patronage, revenue, operating expenses, and subsidy forecasts. These projections were incorporated in the authority's Strategic Operating Plan.
- Analysis of the equity implications of various fare-policy alternatives for New York City residents, separated by income category.
- Estimates of the operating and capital cost savings associated with distributing rush-hour riders to shoulder periods. This included the development of separate cost models of peak and off-peak subway operations. These models were important components of a larger study of the costs and benefits of automating fare collection in New York's subways.
- A model of bus life cycle costs to assist management in bus procurement and bus rehabilitation decision-making.

Earlier, while on the faculty of the Planning Department at Rutgers University, Ira was the primary research associate for two FTA-funded studies:

- "Equity in Transit Financing: A Quantitative Assessment of the Impacts of Fare Structures, Subsidy Expenditures and Tax Burdens on Low-Income and Minority Groups." Working with the principal investigator, Ira prepared estimates of transit tax incidence for the United States and six metropolitan areas; assisted in the preparation of benefit incidences of transit subsidies; assisted in the preparation of periodic and final project reports; and collaborated on journal articles with the principal investigator.
- "Redesigning Federal Transit Subsidies to Control Costs and to Increase the Effectiveness of the Transit Subsidy Program." Working with the principal investigator, Ira prepared the computer database; developed and estimated econometric models of transit operating costs and transit productivity; and performed case studies of transit financing in several metropolitan areas in the U.S.

Presentations

- "Vulnerabilities, costs, and mitigation strategies for the US transportation network", to the Disaster Research Center and the University Transportation Center, University of Delaware, February, 2012.
- "Strategies to Increase Public Transport Usage – An Economist's Perspective," presented to the Israeli Delegation of Transportation Officials, June 2011.

- American Planning Association 2009 National Planning Conference, Minneapolis MN – Session MCC 200, "Transportation Infrastructure and Economic Growth", April, 2009
- General Session presentation, "New Economic Realities of Freight Movement" to the Future of Freight Forum, sponsored by the Corpus Christi MPO and Texas DOT, February, 2009.

Teaching Experience

- Adjunct Professor, Pratt Institute, Department of City and Regional Planning, Brooklyn, New York: 1986-1998, taught courses in statistical methods and economics.
- Adjunct Professor, Rutgers University, Department of Urban Planning and Policy Development, New Jersey: from 1980 to 1982 and 1992, taught courses in statistics and methods of planning analyses, urban economics, economic issues for local governments, and computer applications.

Publications

- Coauthor, with Joshua Schenk and Preston Elliot, "Freight Transportation Planning: Best Practices and Benchmark Survey", Transportation Research Record: Journal of the Transportation Research Board, No. 2077, pp. 9–16, 2008
- Coauthor with Kumudu Gunasekera and Emil Frankel, "Assessment of Integration of US Surface Transportation Infrastructure with Global Trends," National Surface Transportation Policy and Revenue Study Commission White Paper, Commission Briefing Paper 06-001 (2), 2007.
- Coauthor, "A Needs Assessment and Master Plan for Commercial Harbor Facilities, Oahu, Hawaii", presented at the American Society of Civil Engineers (ASCE) Ports '98 Conference, Long Beach, California, March, 1998. Published in conference proceedings.
- "The Economic Impacts of Intelligent Transportation Systems in the Northeast Corridor", presented at the Seventh Annual ITS America Meeting, Session 10, Societal Aspects of ITS: Recent Research Findings and Policy Implications, June, 1997.
- Coauthor, "Bridge and Tunnel Toll Elasticities in New York: Some Recent Evidence," Transportation, Vol. 22, No. 2, May 1995.
- Coauthor, "Path to Balanced Transportation," presented at the 1993 American Public Transit Association (APTA) Convention and published by APTA.
- Coauthor, "Urban Public Transport in the United States: Recent Developments and Policy Perspectives," Public Transit International, Fall 1993.
- Coauthor, "Passenger Transport in the United States and Europe: A Comparative Analysis of Public Sector Involvement," in Transport in a Unified Europe, Studies in Regional Science Vol. 24, Amsterdam: Elsevier Press, 1993.
- "Highway Congestion and Real Estate Development," 'Skylines,' April 1993.
- Coauthor, "Driving to the City: Factors Affecting Motor Vehicle Travel Into New York City's Central Business District," Transportation Quarterly, January 1993.
- Coauthor, "Optimal Toll Strategies for the Triborough Bridge and Tunnel Authority," University Transportation Research Center, Region II, December 1992.
- "A Competitive Framework for Evaluating the Economic Benefits of Port Improvements," presented at the American Society of Civil Engineers (ASCE) Ports '92 Conference, Seattle, Washington, July 1992. Published in conference proceedings.

- "The Social Equity Implications of the Urban Mass Transportation Administration's Major Capital Investment Policy," 'Transportation Quarterly,' January 1991.
- Coauthor, "A Methodology for Assessing Local Land Use Impacts of Highways," presented at the TRB Conference on Transportation and Economic Development, November 1989. Published in Transportation Research Record No. 1274, 1990.
- "The Use of Productivity Factors in Establishing LRT Operating Costs," presented at the Transportation Research Record, 1989.
- Coauthor, "An Airport Economic Impacts Model," presented at the ASCE Third International Conference on Microcomputers in Transportation," San Francisco, California, 1989. Published in conference proceedings.
- "Operations and Maintenance of AGT: Miami and Vancouver," presented at the ASCE Second International Conference on Automated People Movers, Miami, Florida, 1989. Published in conference proceedings.
- "An Analysis of Fare Policy Options in Istanbul, Turkey," presented at the Fifth Pan American Congress on Traffic and Transportation Engineering, Mayaguez, Puerto Rico, July 1988.
- "An Assessment of Strategies to Reduce Peak Demand on New York City's Subways," presented at the Institute of Transportation Engineers (ITE) Annual Conference, August 1987. Published in ITE conference proceedings, 1987.
- Coauthor, "A Performance Indicator-Based Microcomputer Model for Assessing the Impact of Bus System Service and Fare Changes," presented at the annual TRB meeting, 1987.
- Coauthor, "Impact of Subsidies on the Costs of Urban Public Transport," 'Journal of Transport Economics and Policy,' May 1984.
- Coauthor, "Distribution of the Transit Tax Burden in Five U.S. Metropolitan Areas," 'Transportation Journal,' Fall 1982. The paper was presented at the annual TRB meeting.
- Coauthor, "Distribution of the Tax Burden of Transit Subsidies in the United States," Public Policy Journal, Summer 1981.
- Ph.D. Dissertation: "Spatial Equity and Transportation Finance: A Case Study of the New York Metropolitan Region", University Microfilms International, 1991.

Attachment B

California High-Speed Train Project



Economic and Fiscal Impacts of Contract Package 1 and the SR-99 Relocation

Prepared for  CALIFORNIA
High-Speed Rail Authority

Prepared by **PARSONS
BRINCKERHOFF**

October, 2012



Introduction

The California High-Speed Rail Authority has secured federal and state funds for the construction of initial portions of the high-speed rail system in the Central Valley. This construction will have substantial employment, economic, and fiscal impacts on the state and region. This paper analyzes the current state of the economy in the region and in the construction industry and estimates the impacts from Construction Package 1 (CP-1) and the associated relocation of SR-99 in Fresno. CP1 is the approximately 29-mile stretch of initial construction of the high-speed rail system that is planned for Madera and Fresno counties.

Current State of the California Economy

The California economy was one of the hardest hit by the Great Recession of 2008. As of July, 2012 (the most recent finalized information available), the unemployment rate sits at 10.7 percent for the state, down from its record high of 12.4 percent in October, 2010.¹ The current unemployment rate is substantially higher than the 8.3 percent July national unemployment rate and is higher than all but two other states.

Within the state, the Central Valley has been one of the areas that experienced the most significant impacts from the recession. According to the Bureau of Labor Statistics (BLS), the six Central Valley counties through which the high-speed rail system will run have unemployment rates ranging from 13.6 percent in Kern County to 17.3 percent in Merced County, as of July, 2012.² The weighted average unemployment rate for the six counties is 14.7 percent, four points higher than the state as a whole (Table 1).

Table 1. Employment and Unemployment in the Six Central Valley Counties as of July, 2012.

County	Civilian Labor Force	Employed	Unemployed	Unemployment Rate
Fresno	450,389	384,121	66,268	14.7%
Kern	381,646	329,786	51,860	13.6%
Kings	63,192	54,089	9,103	14.4%
Madera	65,350	56,134	9,216	14.1%
Merced	106,634	88,175	18,459	17.3%
Tulare	206,446	174,084	32,362	15.7%
Six County Average	1,273,657	1,086,389	187,268	14.7%
California Average	18,404,517	16,442,258	1,962,259	10.7%

The BLS also provides annual statewide breakdowns of employment and unemployment by industry. In California, the construction industry has the highest unemployment rate out of any of the 13 major industry classifications that BLS includes in its report. The 2011 report lists the California construction

¹ Bureau of Labor Statistics. <http://data.bls.gov/timeseries/LASST06000003>. Accessed: October 15th, 2012.

² Bureau of Labor Statistics. <http://www.bls.gov/lau/laucntycur14.txt>. Accessed: October 12th, 2012.



industry unemployment rate at 19.5 percent.³ In the Central Valley, construction employment has struggled to recover from the recession. ~~Table 2~~^{Table 2} shows the maximum and minimum construction industry employment in the six Central Valley counties and the current employment as of March 2012.⁴ As the table shows, the construction industry has started recovering from the recession but it remains very far from its full employment maximums.

Table 2. Maximum, Minimum, and Current Construction Industry Employment in the Six Central Valley Counties (January 2006 – March 2012).

County	Maximum Employment (2006-2012)	Minimum Employment (2006-2012)	Current Employment (March 2012)
Fresno	23,755	10,994	11,457
Kern	20,826	11,690	16,099
Kings	1,464	725	725
Madera	2,900	897	927
Merced	3,825	1,373	1,580
Tulare	8,604	3,572	3,868
Total	61,283	30,290	34,656

Taken together, these metrics demonstrate that:

1. California's unemployment rate is one of the highest in the country.
2. California's construction industry has been the hardest hit among all of the state's industries.
3. Unemployment in the Central Valley is significantly higher than the rest of the state.
4. The construction industry in the Central Valley lost close to 50% of its jobs during the recession and has made only limited gains during the recovery.

The Potential Economic, Employment, and Fiscal Impacts of High-Speed Rail Construction in the Central Valley

The operations of the high-speed rail system will generate long-term economic benefits over time. In the near term, the construction of high-speed rail in the Central Valley can have significant impacts on the region's economy. Construction will provide short-term stimulative impacts that will include new employment opportunities in construction and other related industries, increased economic output, and fiscal impacts that will generate revenues for the state and local governments.

The economic and fiscal impacts are driven by the amount of expenditure that the construction associated with CP-1 will generate. The job impacts include the jobs that will be directly generated by construction, plus the multiplier effects leading to indirect jobs in the supply chain (such as at steel mills that will produce the rails) and induced jobs in the general economy (restaurants, retail, etc.). Job impacts are generally reported in job-years or the equivalent of one full time job for one year. Gross

³ Bureau of Labor Statistics. http://www.bls.gov/opub/gp/pdf/gp11_19.pdf. Accessed: October 15th, 2012.

⁴ Bureau of Labor Statistics. <http://www.bls.gov/cew/>. Accessed: October 12th, 2012.



Domestic Product (GDP) impacts are produced from the expenditure (the construction investment) and a multiplier as the base expenditure circulates through the regional economy. Finally, fiscal impacts are produced by the taxes that governments will collect on those expenditure and related multipliers (such as the sales and income taxes on the contractor's purchases and their employee's wages). These impacts are discussed further below.

Jobs

There are numerous studies that have examined the job impacts of infrastructure investment and their results produce a relatively wide range of potential impacts. Some example studies include:

- The **American Public Transit Association (APTA)** released a report that evaluated public transportation investment and found that 23,788 job-years of employment were created per \$1 billion in investment, including indirect and induced jobs. The study concluded that the job impacts are split with about 35% each for direct and indirect jobs and about 30% for induced jobs.⁵
- The **Congressional Research Service (CRS)** examined the impacts of the recovery measures that were employed during the recession and found that each \$1 billion in infrastructure investment created 12,289 job-years of employment in California including only direct and indirect jobs (not induced jobs).⁶
- The **Council of Economic Advisers (CEA)** produced a similar study to the CRS and found that 10,854 job-years of employment were created per \$1 billion in infrastructure investment. It appears that this does not include induced or indirect jobs.⁷
- According the **American Association of Railroads**, a \$1 billion dollar investment in railroad infrastructure leads to 20,000 job-years of employment.⁸

These studies demonstrate that there is a wide but substantial range of potential job impacts associated with infrastructure investment. The Construction Package 1 (CP1) expenditures are estimated to be from \$1.2 to \$1.8 billion (not including right-of-way acquisition).⁹ Additionally, \$226 million has been

⁵ American Public Transportation Association, Cambridge Systematics, & Economic Development Research Group. (2009). Economic Impact Of Public Transportation Investment. Washington: American Public Transportation Association.

⁶ Levine, L. (2009). Job Loss and Infrastructure Job Creation Spending During the Recession. (R40080). Washington: Congressional Research Service.

⁷ Council of Economic Advisors. (2009). Estimates of Jobs Creation From the American Recovery and Reinvestment Act of 2009. Washington: Executive Office of the President.

⁸ American Association of Railroads. (2011). Tax Incentives for Freight Railroad Infrastructure Investments from <http://www.aar.org/KeyIssues/~media/aar/BackgroundPapers/Tax-Incentives.ashx>

⁹ California High-Speed Rail Authority. Request for Proposal for Design-Build Services RFP No.: HSR 11-16 Book 1, Parts A - C: Instructions to Proposers. <http://www.cahighspeedrail.ca.gov/assets/0//443/f33221bec1a848d8bdb7068b80f56441.pdf>. Accessed: October 16th, 2012.



authorized for the relocation of SR-99 in Fresno.¹⁰ The combined investment associated with these two projects is estimated to be from \$1.43 to \$2.03 billion.

Table 3 shows the potential job impacts associated with the CP1 and the SR-99 relocation projects based on the four studies identified above. The investments are projected to create over 10,000 job-years of direct employment in construction and associated industries plus thousands of jobs in other related industries and unrelated sectors.

Table 3. Projected Job-years of Employment Produced by CP1 and the SR-99 Relocation by Source¹¹

Job-years of Employment	APTA	CRS	CEA	AAR
Direct (construction)	11,700 – 16,600	17,500 – 24,900 ¹²	15,500 – 22,000	28,500 – 40,500
Indirect	11,200 – 16,000		N/A	
Induced	10,100 – 14,400	N/A	N/A	
Total	33,100 – 47,000	N/A	N/A	

While not all of the jobs that will be created will be in the Central Valley, it is reasonable to assume that a substantial portion of the direct construction jobs and many of the other indirect and induced jobs will be in the region. This will have a positive impact on the region's construction industry and overall employment situation. However, the exact proportion of the jobs that will occur in the Central Valley will depend on a range of factors (such as the contractor's methods, the availability of local skilled labor, and others) and is impossible to determine at this time.

GDP and Fiscal Impacts

In addition to the employment impacts associated with the CP-1/SR-99 projects, the expenditures will circulate throughout the state's economy and spur further economic activity. According to the Moody's Analytics, every dollar of investment in infrastructure produces a \$1.59 increase in GDP.¹³ In a similar finding, the APTA study referenced above estimated that one dollar of infrastructure investment

¹⁰ California High-Speed Rail Authority. Resolution #HSRA 12-23. Approval to Enter Into An Interagency Agreement with Caltrans for Relocation of State Route 99 and Construction of High Speed Rail Facilities within Existing State Route 99 Rights of Way. <http://www.cahighspeedrail.ca.gov/assets/0/152/232/496/c653a39c-70fb-49b2-a177-33b65c481e72.pdf>. Accessed: October 16th, 2012.

¹¹ These totals are rounded to the nearest hundred job-years and approximate as they are not adjusted for inflation based on the actual timing of expenditures for CP1 and SR-99. Individual entries may not sum to the total due to rounding.

¹² The CRS numbers represent total direct and indirect job-years that are produced but the study does not have any measure of induced jobs.

¹³ Zandi, Mark. The Economic Impact of the American Recovery and Reinvestment Act. Moody's Analytics, 2009. [http://www.economy.com/mark-zandi/documents/Economic Stimulus House Plan_012109.pdf](http://www.economy.com/mark-zandi/documents/Economic%20Stimulus%20House%20Plan_012109.pdf). Accessed: October 16th, 2012.



produces \$1.50 in total economic activity.¹⁴ Applying the findings from these studies to the planned expenditures in CP1 and the SR-99 relocation, the potential stimulative economic impact would be between \$2.1 billion and \$3.2 billion.

Finally, some of the expenditure will come back to the state and region in the form of state and local taxes. The APTA study estimates that for every dollar of transportation infrastructure investment, \$0.35 in tax revenue is generated. Further, APTA estimates that for infrastructure construction and operations, those revenues are split between 67.4 percent in federal and 32.6 percent in state and local taxes. Applying those factors to CP1 and the SR-99 relocation expenditure yields an estimated \$500 to \$700 million in state and local tax revenue. ~~Table 4~~ Table 4 shows the estimated economic and fiscal impacts of CP1 and the SR-99 relocation according to the studies by Moody's and APTA.

Table 4. Projected Economic and Fiscal Impacts of CP1 and the SR-99 Relocation According to Moody's and APTA's Studies

Economic and Fiscal Impacts	Moody's	APTA
GDP Impact	\$2.3 - \$3.2 billion	\$2.1 – \$3.0 billion
Fiscal Impact	N/A	\$500 – \$710 million

¹⁴American Public Transportation Association, Cambridge Systematics, & Economic Development Research Group. (2009). Economic Impact Of Public Transportation Investment. Washington: American Public Transportation Association.



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No.: **34-2012-80001165**

I declare:

I am a resident of the United States, employed in the City and County of Sacramento. My business address is 455 Capitol Mall, Suite 210, Sacramento, California 95814. I am over the age of 18 years and not a party to the above-entitled action.

On November 2, 2012, I served the following **DECLARATION OF IRA HIRSCHMAN IN SUPPORT OF RESPONDENT'S OPPOSITION TO COUNTY OF MADERA *ET AL.*'S MOTION FOR PRELIMINARY INJUNCTION/STAY** on the parties in this action by causing a true copy thereof to be delivered via Federal Express to the following person(s) or their representative at the address(es) listed below:

JASON W. HOLDER
Fitzgerald, Abbott & Beardsley LLP
1221 Broadway, 21st Floor
Oakland, CA 94612

CHARLES REESE
Wulfsberg Reese Colvig & Firstman
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Oakland, CA 94612-3524

DOUGLAS V. THORNTON
Perkins, Mann & Everett
7815 N. Palm Avenue, Suite 200
Fresno, CA 93711

* * * * *

I declare under penalty of perjury under the laws of the State of California the foregoing is true and correct and that this declaration was executed on this 2nd day of November 2012, at Sacramento, California.

Matthew C. Tabarangao
Declarant

Signature