### JAMES DAVID FINE

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### **EDUCATION**

Energy and Resources Group, University of California, Berkeley, CA

- Ph. D. in Energy and Resources, May 2003
  Dissertation: The Ends of Uncertainty: Air Quality Science and Planning in California's Central Valley
- M. S. in Energy and Resources, May 1998
  Thesis: Using Tradable Particulate Emissions Permits to Improve Air Quality in California's Central Valley

Wharton School of Business, University of Pennsylvania, Philadelphia, PA

• B. S. in Economics, May 1989

### PROFESSIONAL EXPERIENCE

### ENVIRONMENTAL DEFENSE FUND

2007 - Present

### Energy and Climate Change Economics and Policy

- Representing environmental goals in the state climate legislation and regulation development
- Developing policy to achieve global climate stabilization and local environmental justice

## INDEPENDENT CONTRACTOR, ENVAIR & M.CUBED

1994 - 2007

## **Energy Economics Modeling**

- Compared the costs of decommissioning or relicensing the Klamath Dam complex.
- Forecasted energy demand and production/delivery capacity for the City of San Francisco.

## Air Quality and Transportation

- Analyzed the costs incurred by the construction industry to comply with the off-road diesel vehicle emissions reduction rule proposed by the California Air Resources Board.
- Calculated public revenues and expenditures associated with surface transportation (state highways, local roadways, mass transit service) in the six counties encompassing Chicago.
- Evaluated the feasibility of identifying the influence of variable biogenic VOC emissions on tropospheric ozone formation in the San Francisco Bay Area
- Wrote a technical report about nitrogen oxides pollution that surveys existing legislation and regulation, analyzes issues that may lead to further emissions controls, lists emissions sources, and identifies future research needs
- Conducted research for an economic impact analysis of the California Air Resources Board's State Implementation Plan for attainment of national ambient air quality standards

## Water Quality and Water Rights Economics

- Evaluated the potential for implementing a tradable discharge permit program to reduce nonpoint sources of water pollution in the Oregon's Deschutes River Basin
- Estimated the fair market value of a farmer's water right to facilitate its acquisition by federal agents to augment river flows for fish habitat

# UNIVERSITY OF SAN FRANCISCO, Dept Env. Science & Studies

2003 - Present

- Teach graduate courses in the Masters of Science in Environmental Management program
- Teach undergraduate courses in the Environmental Science and Environmental Studies majors
- Oversee and advise graduate students' research

## WEST OAKLAND ENV. INDICATORS PROJECT, Coordinating Team

2005- Present

- Coordinating Team Member
- Co Chairing (with EPA) of West Oakland Toxics Reduction Collaborative Alternative Fuels Team
- Cal-EPA grantee to service as Technical Advisor to West Oakland community in goods movement planning

### CUMULATIVE AIR RISK EVALUATION COMMUNITY TASK FORCE

2005- Present

- Member of Task Force convened by the Bay Area Air Quality Management District
- Conducting community-based participatory research on diesel particulate emissions in West Oakland to inform the
  second phase of the BAAQMD's toxic air contaminate emissions estimates. USF students are conducting research
  on questions posed by community members about the CARE study. Research topics include truck driver
  socioeconomic survey, truck traffic activity observations, and forecasting construction-related emissions.

### LAWRENCE BERKELEY NATIONAL LAB, Atmospheric Sciences Program

1999 - 2003

## Ozone Air Quality Modeling and Planning

As part of dissertation research, reviewed methods to estimate photochemical air quality simulation model
uncertainties and evaluated the potential utility of uncertainty information for use in policy-making. Interviewed
agency planners, modeling technicians, and stakeholder representatives to describe modeling practice and
document an air quality planning process for California's San Joaquin Valley

## LSA ASSOCIATES, INC., Resource Policy and Economics Group

1991 - 1994

### Fiscal and Economic Impacts

- Compared fiscal impacts of six land use alternatives for redevelopment of a blighted portion of the City of Orange.
- Analyzed the fiscal impacts to the Town of Colma of proposed annexation and subsequent development of a 52-acre area of San Mateo County, which included a BART station.
- Performed a fiscal impact analysis of a 800-unit development in Alameda County.
- Calculated the economic impacts associated with development of commercial, industrial, hospitality and golf uses on a 1,900-acre parcel near the Sacramento Airport.
- Analyzed the economic impacts of changing natural resource management policies.
- Performed socioeconomic, cost effectiveness, public services, land use, and air quality impact analyses to satisfy state (CEQA) and federal (NEPA) requirements for environmental review

### **PUBLICATIONS**

- Fine, J., Busch, C. and R. Garderet. The upside hedge value of California's global warming policy given uncertain future oil prices. Energy Policy. 44 (2012) 46–51.
- Motsinger, J., Moss, S. and J. Fine. 2010. A Gold Standard for Equity in Climate Cap-and-Trade Programs. Environment Magazine. V54:(July/Aug): 35-43.
- Fine, J. and D. Owen. 2005. Technocracy and Democracy: Technocracy and Democracy: Conflicts between Models and Participation in Environmental Law and Planning. <u>Hastings Law Journal</u>. V56(May):900-981.
- Fine, J., L. Vuilleumier, S. Reynolds, P. Roth, and N. Brown. 2003. Evaluating Uncertainties in Regional Photochemical Air Quality Modeling. <u>Annual Review of Environmental and Resources</u>. V28 (Nov. 2003)
- Roth, P.M, S.D. Ziman, and J.D. Fine. 1993. Tropospheric Ozone. Keeping Pace With Science and Engineering: Case Studies In Environmental Regulation. <a href="Mattended:National Academy Of Engineering">National Academy Of Engineering</a>. Washington D.C.

#### REPORTS

- Fine, J. & Salter, R. Residential Rate Design Proposal of Environmental Defense Fund. Submittal to California Public Utility Commission. R. 12-06-13. June 2013.
- Fine, J., Roos, M., Copithorne, B., Lee, R., Feingold, J., and E. Stein. On-Bill Repayment: Repaying Clean Energy Investments on Utility Bills. Energy Research Roundtable. EDF for Regional Plan Association. June 2013.
- Shock Proofing Society: How California's Global Warming Solutions Act (AB 32) Reduces the Economic Pain of Energy Price Shocks. Authors: J. Fine, C. Busch and R. Garderet. Environmental Defense Fund, Center for Resource Solutions and Energy Independence Now. September 2010.
- Securing a Gold Standard for Equity: Methods for Crediting Residential and Small Business Emissions Reductions in Carbon Markets. Authors: J. Fine, S. Moss and J. Motsinger. Environmental Defense Fund and San Francisco Community Power. April 2010.
- Left to Our Own Devices: Financing Efficiency For Small Businesses And Low-Income Families. 2010. Authors: S. Moss and J. Fine. Environmental Defense Fund. January, 2010.
- Economic Modeling of Relicensing and Decommissioning Options for the Klamath Basin Hydroelectric Project. 2006. Prepared for California Energy Commission in association with M.Cubed. CEC-700-2006-10
- Calculating Off-Grid Terrestrial Greenhouse Gas Emission Reductions. 2004. Prepared for Environmental Defense.
- The Economic Benefits of Treasure Island Wetlands. 2002. Prepared for Treasure Island Wetlands Project.
- Evaluation of Technical Questions Associated with Using the SNTemp Model to Study Temperature in the Burnt River, Oregon. 1998. Prepared for Environmental Defense Fund.
- Evaluating The Potential For Implementing A Tradable Discharge Permit Program in the Deschutes Drainage Basin 1997. Prepared for Environmental Defense Fund and Deschutes Basin Resources Conservancy
- Estimation of the Fair Market Value of a Water Storage Contract Proposed for Sale to the United States. Memo Report. 1997. Prepared for Environmental Defense Fund.
- Spatial Representativeness of Monitoring Sites and Zones of Influence of Emissions Sources. 1998. California Regional Particulate Air Quality Study 1995 Integrated Monitoring Study Data Analysis. Prepared for the San Joaquin Valleywide Air Pollution Study Agency.
- San Joaquin Valley Source Signature Scoping Study Initial Phase Findings Report. 1996. Prepared for the San Joaquin Valley Air Pollution Study Agency Technical Advisory Committee.
- Feasibility of Identifying the Influence of Biogenic Emissions on Air Quality in the San Francisco Bay Area. 1996. Prepared for the Western States Petroleum Association and the Bay Area Air Quality Management District.
- Felling the Myth: The Role of Timber in the Economy of California's Sierra Nevada. 1995. Prepared for the Natural Resources Defense Council.
- The Potential for Further Regulation of Nitrogen Oxides Emissions. 1995. Prepared for the Coerr Envir. Corp.
- Public Finance of Surface Transportation in the Chicago Metropolitan Area During 1990. 1995. Prepared for the Environmental Defense Fund.
- Northwest Orange Land Use Alternatives Fiscal Impact Analysis. 1994. Prepared for the City of Orange Community Development Department.
- Cost Effectiveness Analyses for the Environmental Assessments of the Moss Landing Marine Laboratory and Watsonville Community Hospital Relocations. 1994. Prepared for the Federal Emergency Management Agency.
- Clean Water Act Section 404(b)(1) Alternatives Analysis for the Gelsar Property. 1994. Prepared for Gelsar and the U.S. Army Corps of Engineers.
- An Economic Profile and Analysis of the Relative Importance of Mining in the California Desert Conservation Region. 1993. Prepared for The Wilderness Society.
- Native Monterey Pine Forest Inventory and Sustainability Evaluation. 1993. Prepared for the Pebble Beach Company Real Estate Division.

- A Review of Selected Multi-Resource Forest Planning Models. 1993. Prepared for The Pacific Forest Trust.
- Socioeconomic Impact Analysis for the Environmental Assessment of the proposed Natural Gas Line Number 6902. 1993. Prepared for The Gas Company.
- Mitigation Monitoring and Financial Assurance Programs for the Forward Inc. Landfill Use Permit and Modification Environmental Impact Report. 1993. Prepared for the San Joaquin County Community Development Department.
- Robert's Landing Residential Development Fiscal Impact Analysis. 1992. Prepared for the City of San Leandro Planning and Building Department.
- Socioeconomic Impact Analysis for the Environmental Impact Report on the proposed Anaheim Enterprise Zone. 1992. Prepared for the City of Anaheim.
- Colma BART Study Area Fiscal Impact Analysis. 1992. Prepared for the Town of Colma.
- Metro Air Park Development Economic Impacts Assessment. 1992. Prepared for The O'Connell Corporation.