

# Joel M. Schwartz

(916) 203-6309

joel@joelschwartz.com

## EXPERIENCE

- Environmental Consultant**, Sacramento, California 5/02 to present
- Science and policy consulting on air pollution, transportation, and chemical risks.
- Senior Scientist and Director of the Air Quality Project**, Reason Public Policy Institute, Los Angeles, California 12/00 to 4/02
- Promoted RPPI environmental policy concepts through publication of policy studies, public speaking, media appearances, opinion columns, and regulatory and legislative testimony.
  - Researched and wrote studies and commentaries examining air quality and chemical risk science and policy issues.
- Executive Officer**, Inspection and Maintenance Review Committee (IMRC), Sacramento, California 12/97 to 12/00
- Designed and implemented an independent evaluation of the Smog Check vehicle emissions inspection program.
  - Provided committee members with detailed analyses of key Smog Check issues and recommended options for improving Smog Check.
  - Communicated IMRC findings and recommendations to policymakers, interest groups, the public and the press through research reports, comment letters, and public speaking engagements.
- Senior Policy Analyst**, Legislative Analyst's Office, Sacramento, California 6/95 to 12/97
- Researched and wrote analyses and testified before Legislature on major education issues, including class size reduction, child care, charter schools, testing, welfare reform, and reading instruction.
  - Analyzed Governor's education budget proposals for the California Legislature.
  - Designed and conducted a survey to study first-year implementation of class size reduction in California. Analyzed survey data and presented findings and recommendations to Legislature and Governor. Provided the only systematic data and analysis of class size reduction available during the first year of the program.

- Directed a legislatively mandated study of the effectiveness of charter schools, and developed recommendations for the Legislature on the future of the charter schools program.

**Special Consultant**, Inspection and Maintenance Review Committee,  
Sacramento, California

8/94 to 6/95

- Provided government advisory committee with detailed analyses of key Smog Check issues and recommended options for improving the Smog Check program.
- Published influential, comprehensive critique of EPA's research that refocused policy debates on real-world measurements of effectiveness and social incentives for repair of high-emitting vehicles.
- Testified before Congress and California Legislature on findings and recommendations.

**Environmental Consultant**, Los Angeles, California

1/94 to 8/94

**RAND Corporation**, Division of Social Policy, Santa Monica, California

- Assessed consequences of air pollution regulations for military base closure, realignment, and reuse. Advised Department of Defense officials on appropriate policy responses to smooth the realignment and reuse process.

**South Coast Air Quality Management District**, Diamond Bar, California

- Researched and wrote Transportation and Water Pollution sections of the EIR for the 1994 South Coast Air Quality Management Plan as well as EIRs for various regulations. Developed technical support for air pollution reduction measures, and negotiated with business and environmental representatives.

**Staff Scientist**, Coalition for Clean Air, Los Angeles, California

5/91 to 1/94

- Elevated stature and impact of the CCA as its first Staff Scientist, through rigorous analyses of air pollution issues.
- Developed Coalition policies and position papers on all major air pollution issues, including Smog Check, the Regional Clean Air Incentives Market, the Congestion Management Program, and the 1991 South Coast Air Quality Management Plan.
- Advised the California Legislature on Smog Check policy as a member of a Legislature-appointed Blue Ribbon committee.

**Graduate Student**, Division of Geology and Planetary Sciences,  
California Institute of Technology, Pasadena, California

9/87 to 4/91

- Developed a computer model to analyze Voyager spacecraft data of clouds and hazes on Neptune's moon Triton in an effort to understand the moon's seasonal cycles.
- Created a theoretical model of chemical and physical processing of interstellar dust during formation of the solar system to determine whether comets are likely to have formed from pristine interstellar material.
- Designed and conducted laboratory experiments to simulate and understand photochemistry in Jupiter's stratosphere.

**Research Associate**, Laboratory for Planetary Studies, Cornell University,  
Ithaca, New York

6/86 to 5/87

- Designed and conducted laboratory simulations of outer-planet atmospheric chemistry.

## EDUCATION

**German Marshall Fund Fellow - 1993**, German Marshall Fund of the United States,  
Washington, DC

Investigated European solutions to transportation-related air pollution problems through interviews with environmental, transportation, and urban planning officials, business leaders, environmentalists, and academics in six European countries.

**California Institute of Technology**, Pasadena, California

Master of Science in Planetary Science, June 1990

**Cornell University**, College of Arts and Sciences, Ithaca, New York

Bachelor of Arts in Chemistry, June 1986

## **POLICY STUDIES AND RESEARCH PAPERS**

“Clearing the Air in the San Joaquin Valley” (Los Angeles: Reason Public Policy Institute, *forthcoming*).

“Understanding Air Pollution: Trends, Risks and Current Issues” (Washington, DC: Cato, *forthcoming*).

“A Dose of Reality on Air Pollution Levels, Trends, and Risks,” *Regulation* (Summer 2003, *forthcoming*).

“No Way Back: Why Air Pollution Will Continue to Decline” (Washington, DC: American Enterprise Institute, July 2003).

“Particulate Air Pollution: Weighing the Risks” (Washington, DC: Competitive Enterprise Institute, April 2003).

“Public Interest Comment on EPA’s Endocrine Disruptor Screening Program: Proposed Chemical Selection Approach for Initial Round of Screening” (Washington, DC: Mercatus Center, March 2003).

“The Bush Administration’s Environmental Policy: Mid-Term Report Card,” Chapter on Air Quality Regulation (Bozeman, Montana: Political Economy Research Center, January 2003).

“Overview of Voluntary Vehicle Scrap Programs for Reducing In-Use Vehicle Emissions,” prepared for the Arizona Department of Environmental Quality (Austin, Texas: Eastern Research Group, June 2002).

“Extended Producer Responsibility: Re-examining its Role in Environmental Protection,” co-authored with Dana Joel Gattuso (Los Angeles: Reason Public Policy Institute, May 2002).

“How the American Lung Association’s ‘State of the Air 2002’ Report Misleads the Public about Air Pollution and Health” (Los Angeles: Reason Public Policy Institute, May, 2002).

“Hormonally Active Chemicals in the Environment” (Los Angeles: Reason Public Policy Institute, April 2002).

“Breathe Easier on Air Pollution-Asthma Link” (Dallas: National Center for Policy Analysis, March 2002).

“Grading the Graders: How Advocacy Groups’ ‘Report Cards’ Mislead the Public on Air Pollution and Urban Transport” (Los Angeles: Reason Public Policy Institute, December 2001).

“New Study Distorts Health Benefits of Greenhouse Gas Reduction” (Los Angeles: Reason Public Policy Institute, August 2001).

“Breathe Easier: The American Lung Association’s Misleading ‘State of the Air 2001’ Report” (Los Angeles: Reason Public Policy Institute, May 2001).

“Recommendations to Improve the Smog Check Program” (Sacramento: California Inspection and Maintenance Review Committee, October 2000).

“Smog Check II Evaluation,” mandated evaluation presented to the Governor and Legislature of California, co-authored with T. Wenzel, B. Singer, M. Moezzi, E. Gumerman, B. Slott and R. Sawyer (J. M. Schwartz, Project Director) (Sacramento: California Inspection and Maintenance Review Committee, August 2000).

“Improving Evaluation of Mobile Source Policies,” invited comments to the National Research Council on its review of EPA’s mobile source emissions factor model (Sacramento: California Inspection and Maintenance Review Committee, March 1999).

“Remote Sensing of Vehicle Emissions: State of the Technology, Potential Applications, Cost Estimates, and Recommendations” (Sacramento: California Inspection and Maintenance Review Committee, September 1998).

“Evaluation of Charter School Effectiveness,” J. Powell, J. Blackorby, J. Marsh, K. Finnegan and L. Anderson (J. M. Schwartz, Project Director) (Menlo Park, California: SRI International, December 1997).

“Analysis of the Reading Recovery Program” (Sacramento: California Legislative Analyst’s Office, June 1997).

“Class Size Reduction” (Sacramento: California Legislative Analyst’s Office, February 1997).

“Child Development,” in *Analysis of the 1997-1998 Budget Bill* (Sacramento: California Legislative Analyst’s Office, February 1997).

“Federal Welfare Reform (H.R. 3734): Fiscal Effect on California,” co-authored with T. Bland, D. Rabovsky, A. Lee, G. Jolivet, and L. Ehling (Sacramento: California Legislative Analyst’s Office, August 1996).

“California’s Assessment Program,” in *Analysis of the 1996-1997 Budget Bill* (Sacramento: California Legislative Analyst’s Office, February 1996).

“Child Development,” in *Analysis of the 1996-1997 Budget Bill* (Sacramento: California Legislative Analyst’s Office, February 1996).

“Parental Involvement,” in *Analysis of the 1996-1997 Budget Bill* (Sacramento: California Legislative Analyst’s Office, February 1996).

“House and Senate Welfare Reform: Fiscal Effects on California,” co-authored with T. Bland (Sacramento: California Legislative Analyst’s Office, September 1995).

“An Analysis of the USEPA’s 50-Percent Discount for Decentralized Vehicle I/M Programs” (Sacramento: California Inspection and Maintenance Review Committee, March 1995).

“Framework for an Effective I/M Program” (Sacramento: California Inspection and Maintenance Review Committee, March 1995).

“Air Credits and BRAC: Crisis or Obstacle?” co-authored with D. Rubenson (Santa Monica: RAND, November 1994).

“Urban Transport and Land Use: The Politics of Successful Policy Development and Implementation” (Washington, DC: German Marshall Fund, 1993).

“Building Consensus Among Business Interests, Environmental Organizations, and Regulatory Agencies to Effectively Link Clean Air and Transportation Policies” (Los Angeles: Sequoia Group, 1992).

“Plasma Discharge in  $N_2 + CH_4$  at Low Pressures: Experimental Results and Applications to Titan,” W. R. Thompson, T. J. Henry, J. M. Schwartz, B. N. Khare and C. Sagan, *Icarus*, vol. 90, pp. 57-73 (1991).

“Scatterers in Triton’s Atmosphere: Implications for the Seasonal Volatile Cycle,” J. B. Pollack, J. M. Schwartz and K. Rages, *Science*, vol. 250, pp. 440-443 (1990).

“Voyager 2 at Neptune: Imaging Science Results,” B. A. Smith, L. A. Soderblom et al., *Science*, vol. 246, pp. 1422-1449 (1989).

“Light Hydrocarbons from Plasma Discharge in  $H_2$ -He- $CH_4$ : First Results and Uranian Auroral Chemistry,” W. R. Thompson, T. Henry, B. N. Khare, L. Flynn, J. M. Schwartz and C. Sagan, *Journal of Geophysical Research*, vol. 92, no. A13, pp. 15,083-015,092 (1987).

## COMMENTARIES AND OP-EDs

“The Insincerity Principle,” *Tech Central Station*, June 23, 2003.

“Pollution Report Plays Numbers Game,” *Los Angeles Daily News*, May 7, 2003.

“State of the Scare,” co-authored with Steven Hayward, *Tech Central Station*, May 1, 2003.

“Clear Skies, Hazy Logic,” *Tech Central Station*, April 23, 2003.

“Air Pollution Con Game,” *Washington Times*, September 13, 2002.

“CDC Hates the Suburbs,” *Health Facts and Fears*, [healthfactsandfears.com](http://healthfactsandfears.com), American Council on Science and Health, July 26, 2002.

“Railroaded to Nowhere,” *Tech Central Station*, July 22, 2002.

“Tackle Traffic, Pollution Separately,” *Atlanta Journal-Constitution*, June 25, 2002.

“Don’t Blame Bay Area for Problems,” *Bakersfield Californian*, June 16, 2002.

“ALA Misleads About Air Pollution,” *Health Facts and Fears*, American Council on Science and Health, May 22, 2002.

“Gasping at Straws,” *Las Vegas Review-Journal*, May 5, 2002.

“Muddy Statistics Dirty Air,” *Tech Central Station*, May 1, 2002.

“Hazy Logic Clouds State’s Smog Wars,” *San Francisco Examiner*, March 29, 2002.

“Enhanced Smog Check and Bay Area Air Pollution Transport Fact Sheet,” Reason Public Policy Institute, March 2002.

“The Skinny on Soot,” co-authored with Ken Green, Reason Public Policy Institute, March 2002.

“Air Pollution and Health - Interpreting the Newest Study Linking Particulate Air Pollution and Mortality,” co-authored with Ken Green, Reason Public Policy Institute, March 2002.

“Does Ozone Cause Asthma?” Reason Public Policy Institute, February 2002.

“Ethanol Mandate: Forcing Outdated Technology that May Not Even Work,” Reason Public Policy Institute, August 2001.

“Electricity Crisis Short Circuits Promising Environmental Program” co-authored with Ken Green, Reason Public Policy Institute, June 2001.

“Autos and Air Pollution Should File for Divorce,” *Tech Central Station*, May 15, 2001.

“Class Size Reduction: A First Look at Implementation” California Legislative Analyst’s Office, December 1996.

## **TESTIMONY**

“Reducing In-Use Vehicle Emissions,” invited testimony to the Governing Board of the Bay Area Air Quality Management District, San Francisco, California, June 5, 2002.

“Vehicle Emissions Inspection and Pollution Transport Mitigation in the San Francisco Bay Area,” comments to the California Air Resources Board, September 26, 2001.

“Vehicle Scrap Programs in California,” comments to the California Air Resources Board, August 9, 2001.

“Concerns Regarding EPA’s I/M Evaluation Guidance,” comments to the U.S. Environmental Protection Agency, July 15, 1999.

“Analysis and Recommendations on the MOBILE6 Vehicle Emissions Model,” comments to the U.S. Environmental Protection Agency, July 15, 1999.

“Charter School Performance,” invited testimony to the California Senate Education Committee, December 18, 1997.

“The 1997-98 K-12 Budget Proposal,” testimony to the California Assembly and Senate budget subcommittees and the Budget Conference Committee, several appearances, Winter-Spring 1997.

“The 1996-97 K-12 Budget Proposal,” testimony to the California Assembly and Senate budget subcommittees and the Budget Conference Committee, several appearances, Winter-Spring 1996.

“Vehicle Inspection and Maintenance: Comments on the U.S. EPA’s 50-Percent Effectiveness Discount for Decentralized I/M Programs,” invited testimony presented before the United States House of Representatives, Commerce Committee, Subcommittee on Oversight and Investigations, March 23, 1995.

“Analysis and Recommendations on California’s Smog Check Program,” report of the blue-ribbon Commission on Vehicle Inspection Programs before the California Senate Transportation Committee, August 1993.

“Cleaning the Air with an Improved Smog Check Program,” invited testimony to the California Assembly Transportation Committee, February 16, 1993.

“The Emissions Inventory and the CO Plan,” testimony to the South Coast Air Quality Management District Governing Board, November 6, 1992.

“SCAQMD’s 1991 Air Quality Management Plan,” testimony to the California Air Resources Board, October 16, 1992.

“Comments on the SCAQMD’s RECLAIM Pollution Trading Program,” testimony to the South Coast Air Quality Management District Governing Board, July 10, 1992.

“Comments on Cal/EPA’s Reorganization and Permit Streamlining Plan,” comments to the California Environmental Protection agency, May 27, 1992.

“Marketable Permits: A Phased Approach,” comments to the South Coast Air Quality Management District and the California Air Resources Board, March 5, 1992.

“Comments on the Final Draft of LACTC’s Congestion Management Program,” comments to the Los Angeles County Transportation Commission, October 15, 1991.

## **PRESENTATIONS**

“No Way Back: Why Air Pollution Will Continue to Decline,” invited presentation at the American Enterprise Institute/Pacific Research Institute Earth Day Conference, Washington, DC, April 21, 2003.

“Air Pollution: Trends, Health Effects, and Current Issues,” invited presentation at the Association for Private Enterprise Education Conference, Las Vegas, April 8, 2003.

“How to Clean the Air,” invited presentation at the Preserving the American Dream conference, Washington, DC, February 25, 2003.

“Institutional Problems in Air Pollution Policy,” invited presentation at the Preserving the American Dream conference, Washington, DC, February 25, 2003.

“OBD and the Future of Smog Check,” invited presentation at the California Council for Environmental and Economic Balance, Summer Issues Seminar, Lake Tahoe, California, July 31, 2001.



“Electric Vehicles and Air Quality,” invited presentation at the California Council for Environmental and Economic Balance Summer Issues Seminar, Lake Tahoe, California, July 31, 2001.

“Making Vehicle Inspection Programs More Effective, Less Expensive, and More Convenient,” invited presentation to the Commissioners of Butler County, Ohio, July 23, 2001.

“The Role of I/M in Improving Air Quality,” invited presentation to the Texas Clean Air Force, Dallas, December 13, 2000.

“Evaluating and Improving Smog Check,” invited presentation to the California Air Pollution Control Officers Association, Sacramento, September 20, 2000.

“Evaluating and Improving Smog Check,” invited presentation at the California Council for Environmental and Economic Balance, Summer Issues Seminar, Lake Tahoe, California, July 20, 2000.

“I/M Programs: A Look at Where We’ve Been and Where We’re Going,” invited presentation to the National Research Council on its review of vehicle emissions inspection programs, February 15, 2000.

“Improving Evaluation of Mobile Source Policies,” invited presentation to the National Research Council on its review of EPA’s mobile source emissions factor model, March 4, 1999.

“Designing Effective I/M Programs,” presented at the 1998 Air and Waste Management Association Annual Meeting, San Diego, June 16, 1998.

“Class-Size Reduction: First-Year Results,” invited presentation at the California Education Research Association annual conference, Sacramento, May 1997.

“Meeting Environmental Goals through Market-Based Regulation,” invited presentation at the “RECLAIM: Pioneering Market-Based Air Regulation” conference, Los Angeles, May 12, 1993.

“RECLAIM,” invited presentation to the Los Angeles Business Council, November 9, 1992.

“Regulations vs. Market Incentives: Which Work Best?” invited presentation at the Association for Commuter Transportation, Southern California Chapter Regional Conference, June 11, 1992.

“Distribution of Scatterers in Triton’s Atmosphere,” J. M. Schwartz, J. B. Pollack and K. Rages, 22nd Annual Meeting of the Division of Planetary Sciences of the American Astronomical Society, Charlottesville, Virginia, October 1990.

“Physical and Chemical Processing of Gas and Grains in the Solar Nebula Accretion Disk,” J. M. Schwartz and D. J. Stevenson, 21st Annual Meeting of the Division of Planetary Sciences of the American Astronomical Society, Providence, Rhode Island, October 1989.

“Radiation Chemistry in Nitrogen-Rich  $N_2/CH_4$  Atmospheres at Moderate to Low Pressures: The Atmospheres of Titan, Triton and Pluto,” W. R. Thompson, T. Henry, J. M. Schwartz, B. N. Khare and C. Sagan, Origin and Evolution of Planetary and Satellite Atmospheres, Tucson, Arizona, March 1987.

“Radiation Chemistry in H<sub>2</sub>/He/CH<sub>4</sub> Atmospheres: Laboratory Results at Moderate to Low Pressures and High Hydrogen Dilution,” B. N. Khare, W. R. Thompson, E. T. Arakawa, J. M. Schwartz and C. Sagan, Origin and Evolution of Planetary and Satellite Atmospheres, Tucson, Arizona, March 1987.

“Laboratory Simulations of Organic Chemistry in Irradiated Planetary Atmospheres,” W. R. Thompson, B. N. Khare, T. Henry, L. Flynn and J. M. Schwartz, Laboratory Measurements for Planetary Science, Meudon, France, November 1986.

## BOARDS AND PANELS

- Participant in the California Environmental Dialogue’s Clean Air Dialogue (2000–present).
- Member of the Advisory Board and Expert Reviewer, American Council on Science and Health (2001–present).
- Expert Reviewer for the University of California Transportation Center’s research grant program (1999–2001).
- Expert Reviewer for the National Academy of Sciences evaluation of vehicle emissions inspection and maintenance programs and policy (2001).
- Expert Reviewer of submitted papers for the Transportation Research Board’s annual meeting (2001).
- Member of the California Little Hoover Commission’s Charter Schools Advisory Panel (1995–1996).
- Member of a Legislature-appointed blue-ribbon commission that evaluated California’s vehicle emissions inspection policy options and made recommendations to the Legislature (1993).
- Member of the Advisory and Steering Committees for the development of the Regional Clean Air Incentives Market (RECLAIM), a pollution trading market for nitrogen and sulfur oxides in the South Coast Air Quality Management District (1991–1993).
- Member of the Los Angeles Metropolitan Transportation Authority’s Congestion Management Advisory Committee (1992–1993).
- Participant in EPA regulatory negotiation FACA (Federal Advisory Committee Act) committee on architectural coatings regulation (1992–1993).
- Member of the Sequoia Group, a forum for business leaders, environmentalists, and regulators to informally discuss and attempt to reach consensus on air pollution and transportation issues (1991–1993).
- Peer-Reviewer for *Journal of Geophysical Research* (1991).

## **PROFESSIONAL ASSOCIATIONS**

- American Chemical Society
- Air and Waste Management Association