d/b/a JShefftz Consulting 14 Moody Field Road Amherst MA 01002 www.JShefftzConsulting.com 413-256-1101 phone 866-252-7130 fax

Mr. Shefftz is an independent consultant who specializes in the application of financial economics to litigation disputes, regulatory enforcement, and public policy decisions. Previously he was a consultant with Industrial Economics, Incorporated ("IEc") from 1992 until 2006 when he moved to western Massachusetts. Mr. Shefftz has extensive experience in settlement and litigation support, and has been qualified as an expert witness in U.S. District Court, a federal agency's Administrative Court, and a state court.

Mr. Shefftz's recent experience includes work in the following areas.

- Calculating the economic damages suffered by companies and individuals from alleged wrongful actions.
- Applying financial economics to civil penalty factors in regulatory enforcement actions.
- Analyzing financial economic issues related to public policy decisions.

Mr. Shefftz has performed this work in a variety of contexts, including expert witness testimony, computer model development, training course delivery, and regulatory review. He has supervised project teams comprising economists, accountants, paralegals, and software developers, as well as worked in parallel with engineers, scientists, lawyers, and lobbyists. His clients have included federal and state governmental agencies, private litigators, and other private-sector entities.

Mr. Shefftz holds a B.A. *magna cum laude* and *Phi Beta Kappa* in Economics and Political Economy from Amherst College, and an M.P.P. degree, with concentrations in Government & Business and Energy & Environmental Policy, from the John F. Kennedy School of Government at Harvard University.

Mr. Shefftz's positions have included Eastern Vice President for the National Association of Forensic Economics (upcoming 2011-14 term), Chair for the Town of Amherst Planning Board, referee for the *Journal of Forensic Economics*, Course Liaison for the "Engineering Economic Decision Making" course at the University of Massachusetts Amherst, and member of the Finance Committee for the Jewish Community of Amherst. He is also a member of the Government Finance Officers Association, Eastern Economics Association, Western Economics Association International, and Amherst Area Chamber of Commerce.

Economic Damages

Mr. Shefftz has experience with the following work on economic damages and has provided expert witness deposition testimony in both U.S. District Court and a state court. He has also applied his expertise in unjust enrichment calculation, financial statement analysis, municipal financial assessment, and corporate control / ownership issues to private-party damages cases – this expertise is described in more detail in the "Financial Factors in Regulatory Enforcement" section.

Business Damages

Mr. Shefftz has modeled companies' cash flows under hypothetical "but-for" states of the world versus actual states of the world to calculate business damages in numerous cases. Sample contexts include an engineering firm that lost business to a spin-off competitor, timber companies that alleged a contract breach from U.S. Forest Service implementation of Congressional legislation, a furniture company whose relationship with a joint venture partner was interfered with by a key customer, a fixed base operator prohibited from selling jet fuel by a municipal airport commission, a brownfields remediation firm with an incapacitated key principal, a state-chartered joint underwriting association whose prior servicing carrier incorrectly determined premiums, a dealer who delivered contaminated diesel fuel, and a sports organization whose apparel licensee breached a contract.

Personal Damages

Mr. Shefftz has assessed lost earnings and household services along with incurred and anticipated medical costs in numerous cases involving wrongful death, personal injury, wrongful termination, estate disputes, and divorce proceedings. Sample contexts for this work include alleged employment discrimination, medical malpractice, workplace injuries, vehicular accidents, retail store accidents, below-market earnings, and an arrest instigated by a former spouse.

Groundwater Contamination

For a private landowner, Mr. Shefftz analyzed the diminution in real estate development value from groundwater contamination, projecting the development schedule with the contamination-induced delay vs. the original schedule. For a U.S. territory, Mr. Shefftz estimated the present value of future expenses for a proposed desalination plant to replace contaminated groundwater sources. On a class action lawsuit by property owners, he evaluated the defense economist's statistical analysis of property values; on another class action lawsuit, he assisted with present value calculations for whole-house drinking water treatment systems to replace contaminated well water.

Intellectual Property

For defense counsel in a copyright infringement lawsuit, Mr. Shefftz assessed declarations from the plaintiff's expert economist who asserted that a "companion" book would damage the author of the original series of novels. He also assisted counsel with preparation for trial cross examination.

Computer Model Development

For the U.S. Department of Justice Commercial Litigation Branch, Mr. Shefftz developed a standalone computer application to calculate statutorily determined interest accruing on damages claims under the Contract Disputes Act.

Financial Factors in Regulatory Enforcement

Mr. Shefftz has experience with the following work on enforcement actions brought under the Asbestos Hazard Emergency Response Act (AHERA), Clean Air Act (CAA), Clean Water Act (CWA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Emergency Planning and Community Right-to-Know Act (EPCRA), Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), Oil Pollution Act (OPA), Resource Conservation and Recovery Act (RCRA), Spill Prevention, Control and Countermeasure (SPCC) rule, Toxic Substances Control Act (TSCA), and others. Mr. Shefftz has been qualified as an expert witness on numerous occasions in Administrative Court, U.S. District Court, and a state court. His clients have included the U.S. Environmental Protection Agency (EPA), U.S. Department of Justice (DOJ), private litigators, state Attorneys General, and a corporate defendant.

Financial Statement Analysis / Ability-to-Pay / Economic Impact / Corporate Control & Ownership Mr. Shefftz has examined the tax returns, financial statements, and other financial documentation for individuals, businesses, municipalities, territorial governments, and not-for-profits to assess the ability to pay for – and/or economic impact of – sought environmental expenditures, e.g., compliance costs, penalty demands, and cleanup/remediation costs. He has reviewed discovery documents and conducted research in many cases to assess the extent to which subsidiaries can rely on their corporate parents for financial support and the extent to which corporate control of their subsidiaries goes beyond that exercised by mere ownership.

Financial Gain / Economic Benefit / Unjust Enrichment

Mr. Shefftz has modeled companies' and municipalities' cash flows under hypothetical full and timely compliance states of the world versus actual delayed compliance states of the world to calculate the economic benefit (i.e., financial gain or unjust enrichment) on numerous enforcement actions. As part of this work, he has estimated the weighted-average cost of capital for a wide variety of companies and industries.

Other Financial Factors in Regulatory Enforcement Actions

Mr. Shefftz has performed work on other financial factors in regulatory enforcement actions: the "size of violator" penalty element; the relative weight of different financial indicators for establishing deterrence; and, the adequacy of financing plans to ensure environmental compliance.

Computer Model Development, Training, and Support

Mr. Shefftz has managed the development of the current versions of the BEN, PROJECT, ABEL, INDIPAY, and MUNIPAY computer models that U.S. EPA's Office of Enforcement and Compliance Assurance applies to financial economics issues in enforcement actions. He has prepared the models' help systems and training materials, as well as presented training courses and provided related support for federal and state enforcement staff. Mr. Shefftz has also assisted in several U.S. EPA academic peer reviews and public comment processes for the BEN computer model and related economic benefit recapture issues.

Public Policy

Cost of Capital Estimation

Mr. Shefftz assessed peer reviewer comments and then revised a draft report on cost of capital estimation for water systems. His work included applying the capital asset pricing model to the commercial drinking water industry and correcting for the earlier draft's assumptions regarding capital structure and industry-level business risk.

Financial Assurance

For a state agency, Mr. Shefftz proposed appropriate inflation forecasts and discount rates, drafted a guidance document, and then developed a stand-alone computer model to calculate the net present value of future remediation costs. For EPA's Office of Solid Waste, he provided recommendations on discounting future cleanup costs; for the Office of Site Remediation and Enforcement, he created a computer model to assess the combined affordability of financial assurance and cleanup costs; for another EPA office, he created a spreadsheet model to calculate the insurance and/or trust fund amounts necessary to provide for post-closure care. For the U.S. Department of the Interior's Office of Surface Mining Reclamation and Enforcement, he reviewed other agencies' approaches and developed a spreadsheet model to calculate initial trust fund amounts and then recalculate subsequent years' annual rebalancings to reflect actual returns and additional future costs.

Joint Cost Allocation

For a study of Bureau of Reclamation rate setting for California's Central Valley Project, Mr. Shefftz researched economically efficient methods for allocating water project costs to user classes.

Proposed Legislation

For an industry association, Mr. Shefftz designed and implemented a survey and analyzed its results to predict the impacts of a proposed national lead tax upon lead consumption and dependent industrial sectors. For a national waste management firm, he analyzed the financial impacts of a proposed state tax on hazardous waste land disposal.

Superfund Impacts

Mr. Shefftz examined the Department of Energy SURE model's predictions of economic impacts from Superfund liability and cost allocation reform. At a Superfund site, he critiqued a small city's claims that a proposed contaminated soil cleanup would lead to widespread economic disruptions.

Legislative Review

For the 1990 Clean Air Act amendments, Mr. Shefftz investigated the potential of fuel oxygenation requirements to cause petroleum refinery closures. For the Safe Drinking Water Act, he reviewed EPA's national-level drinking water affordability criteria, assessed their implications for small water systems' finances, proposed alternative criteria, created databases to predict how many systems would be judged unable to afford drinking water rules, and evaluated public comments.

Representative Clients

Mr. Shefftz has been retained by the following clients, whether directly as an independent consultant, during his prior employment at Industrial Economics, Incorporated ("IEc"), and/or as an independent consultant via subcontract with IEc.

State Agencies

Massachusetts

New Hampshire

New Mexico

Pennsylvania

California

Illinois

Indiana

Michigan

Ohio

Texas

Virginia

Wisconsin

Connecticut

Private Law Firms

Adler, Cohen, Harvey, Wakeman & Guekguezian LLP

Law Office of Jacqueline L. Allen

Arnold & Porter LLP

Bayh, Connaughton and Malone

The Collins Law Firm, P.C.

D'Ambrosio Law Offices

Law Offices of John K. Dema, P.C.

Doherty, Wallace, Pillsbury & Murphy

The Garcia Law Firm

David S. Hammer, Esq.

Hanson Curran LLP

George E. Hays, Esq.

Henrichsen Siegel Moore, PLLC

Kasowitz, Benson, Torres & Friedman LLP

James E. Kolenich

Lucentini & Lucentini LLP

Marr Law Offices

Meyers Nave

Morrison Mahoney LLP

Law Office of Michael D. Parker

Edward M. Pikula, Esq.

Ryan, Ryan, Johnson & Deluca, LLP

Simonds, Winslow, Willis & Abbott

Smith & Lowney, PLLC

Stoel Rives LLP

Wilson Elser Moskowitz Edelman & Dicker LLP

Joseph J. Zajac III (pro se)

Reed Zars, Esq.

Federal Agencies

U.S. Department of Justice (Civil Division - Commercial Litigation Branch; Environment and Natural Resources Division - Environmental Enforcement Section, Environmental Defense Section)

U.S. Environmental Protection Agency (various Headquarters Offices and Regional Counsels)

U.S. Fish and Wildlife Service (within U.S. Department of Interior)

National Oceanic and Atmospheric Administration (within U.S. Department of Commerce)

Office of Surface Mining Reclamation and Enforcement (within U.S. Department of Interior)

Citizen Groups and Industry National Environmental Law Center

Alabama Environmental Council National Parks Conservation Association **Biodiversity Conservation Alliance**

CWM Chemical Services, Incorporated Our Children's Earth Foundation

Grand Canyon Trust Sierra Club

Lead Industries Association Tulane Environmental Law Clinic

Natural Resources Defense Council

Publications and Presentations

- Present Value and the Resolution of Uncertainty, paper discussant at Allied Social Sciences Associations Conference (Denver CO), 1/8/11 (anticipated).
- Alternative Perspectives for Breach-Nonbreach Scenario Specifications in Commercial Litigation, paper presentation at Western Economics Association International Annual Conference (Portland OR), 7/1/10.
- Sampling Issues in Commercial Damages Cases, paper discussant at Western Economics Association International Annual Conference (Vancouver BC), 7/1/09.
- Net Discount Rates: Does Duration Matter?, paper discussant at Eastern Economics Association Annual Conference (Boston MA), 3/7/08
- Enforcement Economics: Deterrence, Economic Benefit, & Ability to Pay, presentation at California Environmental Protection Agency State Water Resources Control Board "Enforcenomics" Workshop (Berkeley CA), 1/11/08.
- Alternative Focuses for "But-For" Scenario Specification in Commercial Litigation, paper presentation at Western Economics Association International Annual Conference (Seattle WA), 6/30/07
- Expert Witness Role Play, presentation at U.S. EPA 9th Financial Analyst Workshop (Atlanta GA), 5/3/07.
- Working with Experts in Environmental Cases: An Expert Economist's Perspective on Expert Testimony, presentation at Public Interest Environmental Law Conference (Eugene OR), 3/2/07.
- Alternative Measures and Focuses for Economic Damages Calculations, paper presentation at Eastern Economics Association Annual Conference (New York NY), 2/23/07.
- Lost Profit as a Measure of Lost Earning Capacity, panelist at Western Economics Association International Annual Conference (San Francisco CA), 7/7/05
- "EPA's Economic Benefit Analysis Policy and Practice," *Natural Resources and Environment*, Fall 2004.
- "Taxation Considerations in Economic Damages Calculations," *Litigation Economics Review*, Summer 2004.
- Economic Benefit and Wrongful Profits in the Calculation of Penalties for Environmental Violations, presentation to Boston Bar Association Environmental Litigation Committee, 9/23/04.
- Business Valuation / Commercial Damages, panelist at Western Economics Association International Annual Conference (Vancouver BC), 7/1/04.
- "Wrongful Profits: Setting the Record, and the Concept, Straight," Environment Reporter, 1/2/04.
- Present Value Sensitivity to Ex Ante vs. Ex Post Perspective, paper presentation at Western Economics Association International Annual Conference (Denver CO), 7/12/03.
- Taxation Considerations in Economic Damages Calculations, paper presentation at Eastern Economics Association Annual Conference (New York NY), 2/22/03.
- Economic Benefit from Illegal Competitive Advantage and Complex Economic Benefit Scenarios, presentation at U.S. EPA 5th Financial Analyst Workshop (Boston MA), 7/26/00.
- Economic Benefit in Wetlands Cases: Financial Analysis Issues, presentation at U.S. EPA Wetlands Enforcement Conference (Alexandria VA), 3/22/00.
- Economic Benefit, presentation at U.S. EPA 4th Analyst Workshop (Denver CO), 3/10/99.

Testimony History

- Elizabeth Russell and Katherine Gates v. Joseph Reilly and James Georges, Executors of the Estate of K. Mildred Dooling, a/k/a Mildred K. Dooling, and Patrick Curtin, Individually and as Trustee of the M.D. Realty Trust (Massachusetts Superior Court), courtroom testimony 7/21/10.
- Hildagarde Bartling, et al. v. Country Villa Bay Vista Healthcare Center, et al. (California State Court), deposition 1/29/10.
- Joseph J. Zajac III v. Pamela J. Trueblood, et al. (USDC, MD Fla.), affidavit 9/16/09.
- In the matter of 99 Cents Only Stores (U.S. EPA Administrative Court), courtroom testimony 6/24/09.
- U.S. v. Government of Guam (USDC, Guam), courtroom testimony 12/9/08 and 4/13/09.
- U.S. v. James and Nancy Oliver d/b/a Safety Waste Incineration (USDC, Alaska), courtroom testimony 3/25/09 and 3/27/09.
- In the matter of Valimet, Inc. (U.S. EPA Administrative Court), courtroom testimony 12/10/08.
- Rectrix Aerodome Centers, Inc. v. Barnstable Municipal Airport Commission, et al. (USDC, Mass.), deposition 12/2/08.
- State of Ohio v. The Shelly Holding Company et al. (Franklin County Municipal Court), depositions 7/30/08 and 9/19/08, courtroom testimony 10/16/08 and 10/17/08.
- In the matter of Lowell Vos Feedlot (U.S. EPA Administrative Court), courtroom testimony 9/17/08.
- French Heritage, Inc. v. Ethan Allen, Inc. (Connecticut State Court), deposition 6/28/06 and 6/29/06.
- Oregon Public Interest Research Group, Diane Heintz, and Rena Taylor v. Pacific Coast Seafoods Company, Pacific Surimi Joint Venture, LLC, Pacific Surimi Co., Inc., and Dulcich Inc. d/b/a Pacific Seafood Group (USDC, Oregon), deposition 4/18/06.
- In the matter of Rizing Sun LLC (U.S. EPA Administrative Court), courtroom testimony 2/7/06.
- State of Ohio v. Container Recyclers, Inc. (Franklin County Municipal Court), deposition 4/1/05.
- In the matter of Vico Construction Corporation and Smith Farm Enterprises (U.S. EPA Administrative Court), courtroom testimony 6/20/02 and 10/8/03.
- U.S. v. The New Portland Meadows, Inc. (USDC, Oregon), courtroom testimony 5/20/03.
- In the matter of Vico Construction Corporation and Amelia Venture Properties (U.S. EPA Administrative Court), courtroom testimony 1/14/03.
- United States Public Interest Research Group, Stephen E. Crawford, and Charles Fitzgerald v. Heritage Salmon, Inc.; U.S. PIRG et al. v. Stolt Sea Farm, Inc.; U.S. PIRG et al. v. Atlantic Salmon of Maine LLC (USDC, Maine), deposition 6/5/01, courtroom testimony 10/15/02.
- U.S. v. Murphy Oil USA, Inc. (USDC, WD Wis.), deposition 4/24/01.
- U.S. v. Royal Oak Enterprises, Inc. (USDC, ED Va.), depositions 3/22/00 and 5/19/00.
- In the matter of Titan Wheel Corporation of Iowa (U.S. EPA Administrative Court), affidavit 11/24/99.
- U.S. v. Gulf States Steel, Inc. (USDC, ND Ala.), affidavit 12/30/98, deposition 10/22/99.
- U.S. v. Koch Industries, Inc. (USDC, ND Okla. and SD Tex.), depositions 5/24/99 and 6/1/99.
- State of Wisconsin v. I-K-I Manufacturing Company, Inc., deposition 4/13/99.
- U.S. v. Borden Chemicals & Plastics (USDC, MD La.), deposition 2/5/98.
- State of New Hampshire v. Johnson Products, Incorporated, deposition 2/3/98.
- *In the matter of EK Associates, L.P., d/b/a EKCO/GLACO, and EK Management Corporation* (U.S. EPA Administrative Court), courtroom testimony 8/14/97.
- U.S. v. Smithfield Foods, Inc., et al. (USDC, ED Va.), deposition 7/9/97.
- U.S. v. Nucor Corporation (USDC, ND Ala.), deposition 6/12/97.
- U.S. v. U.S. Metallics, Inc., and Town of Onalaska, Wis. (USDC, WD Wis.), affidavit 10/21/96.