CURRICULUM VITAE—FEBRUARY 2021

ADAM M. FINKEL, Sc.D., M.P.P., CIH

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PROFESSIONAL EXPERIENCE:

1/15 – CLINICAL PROFESSOR OF ENVIRONMENTAL HEALTH SCIENCES, **University of Michigan School of Public Health.** Recurrent guest lecturer in Environmental Epidemiology (EPID 608). Director, Pilot Project Research Training Program (occupational health and safety grants to young researchers, part of the UM Center for Occupational Health and Safety Engineering). Faculty Member, Michigan Concussion Center. Member of dissertation committee for Katrina Burns (Ph.D., 2020: "Safety Culture and Occupational Health in Academic Research Laboratories: Upstream Factors of Risk.")

1/21 – ADJUNCT PROFESSOR, Telfer School of Management, University of Ottawa, Ontario, Canada. Member of dissertation committee for Andrew Scarffe ("Public Perceptions of Weight of Evidence Determinations and Decision Regret").

1/18 – 3/19 SENIOR FELLOW, **Wharton Risk Management and Decision Processes Center, University of Pennsylvania.**

11/07 – 12/17 SENIOR FELLOW, **University of Pennsylvania Law School** and EXECUTIVE DIRECTOR, **Penn Program on Regulation**. Courses taught include "Cost-Benefit Analysis: Policy, Law, and Practice" (LAW 985; Spring 2008, 2009, 2010, 2011); "Navigating the Regulatory State: Law, Science, and Policy" (LAW 529; Spring 2015). Annual guest lecturer in "Environmental Law" (LAW 634), "Risk Assessment and Environmental Management" (Wharton School), "Current Environmental Protection" (College of Liberal and Professional Studies), "Policy: Analysis of Issues, Strategy, and Process" (School of Social Policy & Practice), and "The Control of Toxic Substances in Products and Workplaces" (Univ. of Texas School of Law). Also VISITING SCHOLAR, Center for Bioethics, Penn Medical School, 1/10-1/16.

9/04 – 12/14 PROFESSOR, DEPARTMENT OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH, **Rutgers (formerly UMDNJ) School of Public Health,** Piscataway, NJ. Courses taught include "Fundamentals of

Environmental Health Risk Assessment" (ENOH 656; Spring 2005, 2006, 2007, 2008, 2009).

9/04 – 11/07 VISITING PROFESSOR OF PUBLIC AFFAIRS, **Woodrow Wilson School of Public and International Affairs, Princeton University**, Princeton, NJ. Courses taught include "Policy Analysis: Economics, Science, and Environmental Regulation" (WWS 594b; Spring 2005), "Risk Policy and Regulation" (WWS 586e; Spring 2006), "Applied Statistical Decision Theory" (WWS 594p; Spring 2006), and "Quantitative Skills for Decision-Making in Medical and Environmental Settings" (WWS/STC 458; Spring 2007; mixed undergraduate/graduate course). Guest lecturer in "Global Environmental Governance" (2005; 2008; 2009) and "The Use of Science in Environmental Policy" (2005; 2007).

6/07 – 1/11 MEMBER, **Board of Scientific Counselors, National Center for Environmental Research Standing Subcommittee,** U.S. Environmental Protection Agency.

11/06 – 12/08 MEMBER, **Committee on Improving Risk Analysis Approaches Used by the U.S. Environmental Protection Agency,** National Research Council, Board on Environmental Studies and Toxicology. Report, **Science and Decisions: Advancing Risk Assessment,** published Jan. 2009.

10/03- 8/04 SENIOR SAFETY AND HEALTH ADVISOR (SES-2), Office of the Assistant Secretary, **Occupational Safety and Health Administration,** Washington, DC.

10/00 – 10/03 REGIONAL ADMINISTRATOR (Region VIII—Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming), **U.S. Occupational Safety and Health Administration,** U.S. Department of Labor, Denver, CO.

6/01 – 6/04 CLINICAL FACULTY, Department of Preventive Medicine and Biometrics, **University of Colorado School of Medicine.**

3/95 – 10/00 DIRECTOR (SES-2), Directorate of Health Standards Programs, **U.S. Occupational Safety and Health Administration**.

1/95 - 3/95 SENIOR FELLOW, **Cecil and Ida Green Center for the Study of Science and Society,** University of Texas at Dallas.

9/87 - 10/94 FELLOW, Center for Risk Management, **Resources for the Future,** Washington, D.C.

9/91- 1/94 MEMBER, **Committee on Risk Assessment of Hazardous Air Pollutants**, National Academy of Sciences, Board on Environmental Studies and Toxicology. Report, *Science and Judgment in Risk Assessment,* released 1/94.

Primary author of chapters on uncertainty, interindividual variability, "cross-cutting issues," and a policy appendix on the benefits of "conservatism" in risk assessment.

6/85 - 10/85 TECHNICAL ADVISOR, **Fundación Méxicana para la Restauración Ambiental,** Mexico City, Mexico [as an employee of the Conservation Foundation, Washington, D.C.].

Summer 1984 ASSOCIATE, **ICF Inc.**, Washington, D.C.

12/83 - 6/84 CONSULTANT, **National Academy of Sciences, Committee on the Institutional Barriers to Hazardous Waste Reduction.**

Summer 1983 CONGRESSIONAL INTERN, **Investigations and Oversight Subcommittee,** House Science and Technology Committee (Rep. Albert Gore, Jr., Chairman). Participated in 7/83 field hearing on the local effects of mercury and other pollution from the Department of Energy facilities in Oak Ridge, Tennessee; briefed Members and witnesses, prepared cross-examination, and wrote final committee report.

3/82 - 5/83 CO-AUTHOR, **The Almanac of Science and Technology: What's New and What's Known** (Harcourt Brace Jovanovich)**,** a narrative almanac explaining recent practical and theoretical breakthroughs in various fields. Researched and wrote 40,000-word chapters on medicine, public health, and biotechnology.

4/80 - 4/83 EDITOR-IN-CHIEF, **Hazardous Materials Intelligence Report,** Cambridge, Mass. (weekly, non-advocacy newsletter on hazardous waste sites and chemical accidents).

EDUCATION:

9/84 - 6/87 **Harvard School of Public Health,** Boston, Mass. Doctor of Science degree in Environmental Health Sciences received 6/87. Dissertation: *Uncertainty, Variability, and the Value of Information in Cancer Risk Assessment.* Major field: quantitative risk assessment. Minor fields: cancer biology, biostatistics. Lecturer in course on operations research. Commencement speaker, 1987.

9/82 - 6/84 **John F. Kennedy School of Government, Harvard University.** Master of Public Policy degree received 6/84. Master's thesis "Heterogeneity in Human Susceptibility to Environmental Carcinogens: Public Health, Regulatory, and Ethical Implications" published 11/84 by Kennedy School's Energy and Environmental Policy Center (EEPC Discussion Paper #E-84-08). Teaching fellow in course on institutional and political analysis. Recipient, Kennedy

Fellowship, 1983. Passed oral and written general exams and accepted to the School's Ph.D. program, 5/84. Commencement speaker, 1984.

9/75 - 6/79 **Harvard College,** Cambridge, Mass. A.B. in biology, *cum laude*, 1979. Concentrator in astronomy, 1975-77. Took courses at Harvard Medical School (toxicology) and Harvard Law School (environmental law). Performed laboratory research adapting the Ames mutagenicity assay for the study of human body fluids. Harvard Scholarship (hon.) 1977-79.

AWARDS/OTHER EXPERIENCE:

9/19- 5/20 MEMBER, BOARD OF DIRECTORS, North Country Alliance for Balanced Change (https://northcountryabc.org). Non-profit group advocating for environmentally-responsible siting of landfills in northern New Hampshire.

7/16 – MEMBER, Advisory Board, American Sustainable Business Council (report on "The High-Road Workplace: Route to a Sustainable Economy," http://asbcouncil.org/sites/default/files/asbc_building_the_high_road_report_2017.pdf).

6/15 – 1/18 MEMBER, Dean's Leadership Council, Harvard T.H. Chan School of Public Health.

10/13 RECIPIENT, Harvard School of Public Health Alumni Leadership Award for Public Health Practice—for "selfless service and leadership in the practice of public health at the local, state, regional, national or international level."

6/12 – CO-FOUNDER, Occupational Health and Safety Specialty Group, Society for Risk Analysis (SRA); CHAIR, 2015-2016.

10/11 – 10/17 MEMBER, BOARD OF DIRECTORS, HARVARD GLEE CLUB FOUNDATION, Inc. (elected twice by general membership to a 3-year term).

7/11 – 12/14 MEMBER, EXTERNAL ADVISORY BOARD, University of Michigan Risk Science Center, Univ. of Michigan School of Public Health.

8/09 – CO-EDITOR-IN-CHIEF, *RISK REGULATION & POLICY E-JOURNAL* (Social Science Research Network).

7/09 FINALIST, WORLD TECHNOLOGY NETWORK AWARD IN ETHICS, and elected a WTN Fellow (http://www.wtn.net/summit2009/nominees.html).

10/07 –	MEMBER, BOARD OF ADVISORS, Institute for Policy Integrity, New York University School of Law.
1/08 – 11/10	MEMBER, BOARD OF DIRECTORS, Public Employees for Environmental Responsibility, Washington DC.
12/07 – 12/08	CHAIR, Risk Policy and Law Specialty Group, SRA.
11/06	RECIPIENT, David P. Rall Award for Advocacy in Public Health, American Public Health Association. Awarded for "a career in advancing science in the service of public health protection."
8/05 – 1/08	SIGMA XI DISTINGUISHED LECTURER (chosen by SRA to speak on science and policy issues to Sigma Xi chapters)
12/04 – 12/07	COUNCILOR, SRA (elected by general membership).
12/98	RECIPIENT, Chauncey Starr Award ("honoring an individual under age 40 who has made outstanding contributions to the field of risk analysis"), SRA.
6/98 – ongoing	DIPLOMATE, American Board of Industrial Hygiene, and Certified Industrial Hygienist.
3/99 – 4/01	PRESIDENT, Risk Assessment and Policy Association (Pres.-Elect, 3/97-3/99).
9/95 – 1/96	CHAIRPERSON, Combined Federal Campaign (OSHA representative). Agency received "Chairman's Award" for dollar and participation totals.
10/91 – 6/92	VOLUNTEER, **D.C. Public School System.** Taught two classes per week; pre-algebra (5th graders) and a Junior Great Books group (6th graders).
Summers '84-87	FIELD RESEARCHER, **Appalachian Mountain Club.** Collected and performed chemical analyses of samples of cloud-water, and conducted analyses of tropospheric ozone, while in residence at Lakes-of-the-Clouds Hut on Mt. Washington, New Hampshire.
4/80 – 2/85	MEMBER, BOARD OF DIRECTORS, **Great Books Foundation, New England Council.**
Summer 1977	LOBBYIST, **Friends of the Earth**, Boston, MA.

PEER REVIEWER for:

American Journal of Industrial Medicine
Annals of Emergency Medicine

Climatic Change
Environmental Health Perspectives
Environmental Research
Environmental Science and Policy
Environmental Science & Technology
European Journal of Risk Regulation
F1000Research
Integrated Environmental Assessment and Management
International Journal for Equity in Health
International Journal of Occupational and Environmental Health
Journal of the American Medical Association
Journal of Benefit-Cost Analysis
Journal of Empirical Legal Studies
Journal of Environmental Economics and Management
Journal of Occupational and Environmental Hygiene
Journal of Risk Research
New Solutions: A Journal of Environmental and Occupational Health Policy
Proceedings of the National Academy of Sciences
Public Affairs Quarterly
Risk Analysis (Editorial Board, 1989- 2018)
Safety Management (The British Safety Council Magazine), editorial advisory board 2012-
Science (AAAS)
The Environmental Forum (Board of Editors, 2003-present)
Wiley Encyclopedia of Operations Research and Management Science

GRANTS AWARDED:

Since returning to academia from government in 2005, I have written ten proposals (in their entirety or nearly so) to government and foundation sources, and received awards for eight of those ten, as follows (in each of these projects, I am/was the Principal Investigator, except for the two entries *in italics,* which are funded proposals I helped author with Cary Coglianese, who is/was the P.I. on each project):

Funder	Title	Amount	Duration	Collaborating Institutions
National Science Foundation (NSF) (Decision, Risk, and Management Science program)	"Transferring to Regulatory Economics the Risk-Analysis Approaches to Uncertainty, Interindividual Variability, and Other Phenomena." *(see* https://sites.google.com/a/adamfinkel.com/nsfprojectoutputs/ *)* for all outputs of the project.	$749,000	5 years (12/07 – 12/12)	Resources for the Future; Applied Biomathematics Inc,; Decision Science Research Institute; Clark University; University of California

Public Welfare Foundation	"Reversing Thirty Years of Neglect in Occupational Disease Prevention."	$500,000	2 years (6/10 – 6/12)	Public Employees for Environmental Responsibility
City of Philadelphia, Air Pollution Control Board	"Comparative Risk Assessment (Carcinogenicity and Neurotoxicity) of Perchloro-ethylene and 1-Bromopropane in Dry Cleaning"	$30,000	1 year (6/10 - 6/11)	None
Robert Wood Johnson Foundation	"Modernizing Occupational Safety and Health Enforcement: Improving OSHA's Capability to Prevent, Detect, and Control Grave Risks to U.S. Workers"	$449,914	3 years (11/10 – 11/13)	Dept. of Statistics and Criminology, U Penn; Penn Medical School
Alfred P. Sloan Foundation	"Designing a 'Solution-Focused' Governance Paradigm for Synthetic Biology: Case Studies of Improved Risk Assessment and Creative Regulatory Design"	$191,754	33 months (4/13 – 12/15)	University of Michigan SPH
Alberta Energy Regulator, Province of Alberta, Canada	*"Best-in-Class Regulator Initiative" (see* www.bestinclassregulator.org)	*$1,200,000*	*10 months (10/14-7/15)*	*Wharton School; Penn Project on Civic Engagement; Kleinman Center for Energy Policy*
Ewing Marion Kauffman Foundation	*"Outsized Influence and Unfair Outcomes? Business Involvement in the Regulatory Process"*	*$500,000*	*3 years (6/15-6/18)*	*None*
NSF (Decision, Risk, and Management Science program)	"Innovative Experiments to Explore Possible Mis-estimation of the Net Benefits of Environ-mental, Public Health, and Safety Regulations"	$599,863	3 years (4/17-4/20)	Decision Science Research Institute

Before entering government service, I was the P.I. on a three-year grant (1992-95) from the Pew Charitable Trusts to Resources for the Future: "Rational Risk Reduction Program" (this grant culminated in a 3-day conference and the 1994 book **Worst Things First? The Debate Over Risk-Based National Environmental Priorities)**.

PUBLICATIONS

PEER-REVIEWED JOURNAL ARTICLES:

Finkel, Adam M., and George M. Gray (2020). "The Pebble Remains in the Master's Hand: Two Careers Spent Learning (Still) from John Evans." *Risk Analysis,* published online at https://onlinelibrary.wiley.com/doi/abs/10.1111/risa.13649.

Finkel, Adam M. (2020). "The 'Dangerous Trades,' Fifty Years after Alice Hamilton's Death." Book review in *American Journal of Public Health*, **110(9):** 1256-7; https://doi.org/10.2105/AJPH.2020.305848

Casper, Stephen T., Don Comrie, 12 others, and Adam M. Finkel (2020). "Toward Complete, Candid, and Unbiased International Consensus Statements on Concussion in Sport." *New England Journal of Medicine,* in review.

Brand, Kevin P. and Adam M. Finkel (2020). "A Decision-Analytic Approach to Addressing the Evidence about Football and CTE." *Seminars in Neurology,* **40(4):** 450-460, available at https://www.thieme-connect.com/products/ejournals/abstract/10.1055/s-0039-1688484

Finkel, Adam M., Kevin P. Brand, Arthur L. Caplan, John S. Evans, and Paul Root Wolpe (2019). "First Report the Findings: Genuine Balance when Reporting on CTE." *Lancet Neurology,* **18:** 521-522, June.

Finkel, Adam M., and Branden B. Johnson (2018). "The Limits of Self-Interest: Results from a Novel Stated-Preference Survey to Estimate the Social Benefits of Life-Prolonging Regulations." *Environmental Law* (Lewis & Clark Law School), **48(3):** 453-476.

Finkel, Adam M. and Kevin F. Bieniek (2018). "A Quantitative Risk Assessment for Chronic Traumatic Encephalopathy (CTE) in Football: How Public Health Science Evaluates Evidence." *Human and Ecological Risk Assessment,* **25(3):** 564-589, https://doi.org/10.1080/10807039.2018.1456899.

Finkel, Adam M., Benjamin D. Trump, Diana Bowman, and Andrew Maynard (2018). "A 'Solution-Focused' Comparative Risk Assessment of Conventional and Synthetic Biology Solutions to Control Mosquitoes Carrying Dengue Fever." Final report to the Alfred P. Sloan Foundation, 58 pp. *Environment Systems and Decisions,* **38(2):** 177-197, https://doi.org/10.1007/s10669-018-9688-3.

Finkel, Adam M., Christopher R. Deubert, Orly Lobel, I. Glenn Cohen, and Holly Fernandez Lynch (2018). "The NFL as a Workplace: The Prospect of Applying Occupational Health and Safety Law to Protect NFL Workers." *Arizona Law Review,* **60:** 291-368.

Finkel, Adam M. (2018c). "A Healthy Public Cannot Abide Unhealthy and Unsafe Workplaces." Invited essay, *American Journal of Public Health*, **108(3):** 312-313, March 2018.

Finkel, Adam M. (2018d). "Demystifying Evidence-Based Policy Analysis by Revealing Hidden Value-Laden Constraints." In *Governance of Emerging Technologies: Aligning Policy*

Analysis with the Public's Values, Gregory E. Kaebnick and Michael K. Gusmano, eds., *Hastings Center Report,* **48(S1):** S21-S49.

Finkel, Adam M. and George M. Gray (2018). "Taking the Reins: How Decision-Makers Can Stop Being Hijacked by Uncertainty." *Environment Systems and Decisions,* **38(2):** 230-238, https://doi.org/10.1007/s10669-018-9681-x.

Finkel, Adam M., Daniel E. Walters, and Angus Corbett (2018). "Planning for Excellence: Insights from an International Review of Regulators' Strategic Plans." *Pace Environmental Law Review.* **35(2):** 240-291.

Cranor, Carl F., and Adam M. Finkel (2018). "Toward the Usable Recognition of Individual Benefits and Costs in Regulatory Analysis and Governance." *Regulation and Governance*, **12:** 131-149, https://DOI:10.1111/rego.12128.

Finkel, Adam M. (2017). "Designing a 'Solution-Focused' Governance Paradigm for Synthetic Biology: Case Studies of Improved Risk assessment and Creative Regulatory Design." Report to the Alfred P. Sloan Foundation, in final preparation.

Johnson, Branden B., and Adam M. Finkel (2016). "Public Perceptions of Regulatory Costs, Their Uncertainty and Interindividual Distribution," *Risk Analysis,* **36(6):** 1148-1170, June 2016.

Ashford, Nicholas A., P. Bauman, H.S. Brown, R.W. Clapp, A.M. Finkel, D. Gee. D.B. Hattis, M. Martuzzi, A.J. Sasco, and J.B. Sass (2015). "Cancer Risk: Role of Environment," *Science,* Feb. 5, 2015, p. 1.

Coglianese, Cary, Adam M. Finkel, and Christopher Carrigan (2015). "A Response to Richard Williams and Keith Hall's Review of *Does Regulation Kill Jobs?*" *Risk Analysis,* **35(1):** 176-77.

Ferson, Scott, A. Antonenko, J. O'Rawe, J. Siegrist, J. Mickley, C. Luhmann, K. Sentz, C. Parles, and A.M. Finkel (2015). "Natural Language of Uncertainty: Numeric Hedge Words." *International Journal of Approximate Reasoning,* **57:** 19-39.

Finkel, A.M. (2014c). "The Cost of Nothing Trumps the Value of Everything: The Failure of Regulatory Economics to Keep Pace with Improvements in Quantitative Risk Analysis." *Michigan Journal of Environmental and Administrative Law*, **4(1):** 91-156.

Finkel, A.M. (2014b). "EPA Underestimates, Oversimplifies, Miscommunicates, and Mismanages Cancer Risks by Ignoring Human Susceptibility." *Risk Analysis,***34(10):** 1785-1794, October 2014.

Assmuth, T.W. and A.M. Finkel (2014). "Principles and Ideals Behind the 'Rationality' of Choices in Response to Risk Information." *Risk Analysis,* in review.

Finkel, A.M. (2013b). "Protecting the Cancer Susceptibility Curve." *Environmental Health Perspectives,* **121(8):** p. A238.

Finkel, A.M. (2013a). "I Thought You'd Never Ask: Structuring Regulatory Decisions to Stimulate Demand for Better Science and Economics." (in review, *European Journal of Risk Regulation*).

Finkel, A.M., and Jason W. Sullivan (2011). "A Cost-Benefit Interpretation of the 'Substantially Similar' Hurdle in the Congressional Review Act: Can OSHA Ever Utter the E-Word (Ergonomics) Again?" *Administrative Law Review,* Vol. 63 No. 4, Fall 2011, pp. 707-784.

Finkel, A.M. (2011). "Solution-Focused Risk Assessment: A Proposal for the Fusion of Environmental Analysis and Action." *Human and Ecological Risk Assessment,* **17(4):**754-787 (and 5 concurrent responses/commentaries, pp. 788-812).

Finkel, A.M. (2008b). "Perceiving Others' Perceptions of Risk: Still a Task for Sisyphus." *Annals of the New York Academy of Sciences*: **1128:** 121-137 (volume entitled **Strategies for Risk Communication: Evolution, Evidence, Experience)**.

Finkel, A.M. (2007). "Integrity of Scientific Evaluations by Government Agencies." *International Journal of Occupational and Environmental Health*: **13(1),** pp. 128-130.

Finkel, A.M. (2003). "Too Much of the [National Research Council's] 'Red Book' is Still Ahead of its Time." *Human and Ecological Risk Assessment*, **9(5),** pp. 1253-1271.

Finkel, A.M. (2002). "The Joy Before Cooking: Preparing Ourselves to Write a Risk Research Recipe." *Human and Ecological Risk Assessment*, **8(6),** pp. 1203-1221.

Zeise, L., D. Hattis, M. Andersen, A.J. Bailer, S. Bayard, C. Chen, H. Clewell, R. Conolly, K. Crump, D. Dunson, A. Finkel, H. Haber, A.M. Jarabek, R. Kodell, D. Krewski, D. Thomas, T. Thorslund, and J.T. Wassell (2002). "Improving Risk Assessment: Research Opportunities in Dose- Response Modeling to Improve Risk Assessment," *Human and Ecological Risk Assessment*, **8(6),** pp. 1421-1444.

Finkel, A.M. (1997). "Not to Decide is to Decide: Ignoring Susceptibility is Not 'Good Science.'" *Environmental Toxicology and Pharmacology*, **4,** 219-228.

Finkel, A.M. (1996). "Comparing Risks Thoughtfully." *Risk: Health, Safety & Environment,* **7,** 325-359.

Finkel, A.M. (1995c). "A Second Opinion on an Environmental Misdiagnosis: The Risky Prescriptions of **Breaking the Vicious Circle**." *New York University Environmental Law Journal,* **3,** 295-381. (Reprinted in **Environmental Risk** (International Library of Environmental Law and Policy, John S. Applegate, ed.), Dartmouth Publishing Co, U.K., 2004).

Finkel, A.M. (1995b). "Towards Less Misleading Comparisons of Uncertain Risks: The Example of Aflatoxin and Alar." *Environmental Health Perspectives,* **103(4),** 376-385.

Finkel, A.M. (1995a). "A Quantitative Estimate of the Variations in Human Susceptibility to Cancer and Its Implications for Risk Management." Chapter in S. Olin, et al., eds., **Low-Dose Extrapolation of Cancer Risks: Issues and Perspectives,** International Life Sciences Institute, pp. 297-328.

Finkel, A.M. (1994b). "Risk Assessment Research: Only the Beginning." *Risk Analysis,* **14(6),** 907-911.

Finkel, A.M. (1994a). "Stepping Out of Your Own Shadow: A Didactic Example of How Uncertainty Can Inform and Improve Decision-Making," *Risk Analysis,* **14(5),** 751-761.

Finkel, A.M. (1992b). "Taking Aim at Environmental Risks: Questions of Feasibility and Desirability." *The Geneva Papers on Risk and Insurance*, **17**(64), pp. 343-354, July.

Finkel, A.M. (1991d). "Edifying Presentation of Risk Estimates: Not as Easy as It Seems." *Journal of Policy Analysis and Management*, **10**(2), 296-303.

Finkel, A.M. (1990b). "A Simple Formula for Calculating the 'Mass Density' of a Lognormally-Distributed Characteristic: Applications to Risk Analysis." *Risk Analysis*, **10**(2), 291-301.

Finkel, A.M. (1989). "Is Risk Assessment Really Too 'Conservative'?: Revising the Revisionists." *Columbia Journal of Environmental Law*, **14(2)**, 427-467 (invited). (Reprinted in **Environmental Risk** (International Library of Environmental Law and Policy, John S. Applegate, ed.), Dartmouth Publishing Co, U.K., 2004).

Finkel, A.M., and J.S. Evans (1987). "Evaluating the Benefits of Uncertainty Reduction in Environmental Health Risk Management." *Journal of the Air Pollution Control Association*, **37(10),** 1164-1171.

BOOKS AND BOOK CHAPTERS:

Finkel, A.M. (2020). "Designing a 'Solution-Focused' Governance Paradigm for Synthetic Biology: Toward Improved Risk Assessment and Creative Regulatory Design." Chapter 9 (pp. 183- 222) in Benjamin D. Trump, Christopher L. Cummings, Jennifer Kuzma, and Igor Linkov, eds., **Synthetic Biology 2020: Frontiers in Risk Analysis and Governance,** Springer Nature Switzerland AG.

Wells, Emily, Benjamin D. Trump, Adam M. Finkel, and Igor Linkov (2020). "A Solution-Focused Comparative Risk Assessment of Conventional and Emerging Synthetic Biology Technologies for Fuel Ethanol." Chapter 10 (pp. 223-255) in Benjamin D. Trump, et al., eds, ibid.

Finkel, A.M. (2016b). "Beyond Best-in-Class: Three Secrets to Regulatory Excellence." Chapter 11 (pp. 166-187) in Cary Coglianese, ed., **Achieving Regulatory Excellence**, Brookings Institution Press, Washington, DC, 322 pp.

Coglianese, C., A.M. Finkel, and C. Carrigan, eds. (2014). **Does Regulation Kill Jobs?** University of Pennsylvania Press, 312 pp., ISBN-13: 978-0812245769.

Finkel, A.M. (2014a). "Emitting More Light than Heat: Lessons from Risk Assessment Controversies for the 'Job-Killing Regulations' Debate." Chapter 7 in Coglianese et al., *supra.*

Finkel, A.M. (2012). "Harvesting the Ripe Fruit: Why is it So Hard to be Well-Informed at the Moment of Decision?" Chapter 3C (pp. 57-66) in **The Value of Information: Methodological Frontiers and New Applications in Environment and Health**, R. Laxminarayan and M.K. Macauley, eds., Springer Science & Business Media, Dordrecht, The Netherlands.

Coglianese, C., A.M. Finkel, and D. Zaring (2009), eds. **Import Safety: Regulatory Governance in the Global Economy.** University of Pennsylvania Press, ISBN 978-0-8122-4222-5, 224 pp.

Finkel, A.M. (2009). "Model Averages, Model Amalgams, and Model Choice." Chapter 4D in **Uncertainty Modeling in Dose Response: Bench Testing Environmental Toxicity**, John Wiley & Sons, Statistics in Practice series, Roger M. Cooke, ed., pp. 185-193.

Finkel, A.M. (2008a). "Protecting People in Spite of—Or Thanks To—the 'Veil of Ignorance'." Chapter 17 (pp. 290-342) in **Genomics and Environmental Regulation: Science, Ethics, and Law**, Johns Hopkins Univ. Press (Richard Sharp, Gary E. Marchant, and Jamie Grodsky, eds.).

Hassenzahl, D., and A.M. Finkel (2008). *Risk Assessment for Environmental and Occupational Health.* Chapter in K. Heggenhougen and S. Quah, eds., **International Encyclopedia of Public Health** (pp. 590-600) Elsevier Inc., London, U.K.

Finkel, A.M. and P.B. Ryan (2007). *Risk in the Workplace: Where Analysis Began and Problems Remain Unsolved.* Chapter 9 in **Risk Assessment for Environmental Health,** Association of Schools of Public Health (M.G. Robson and W.A. Toscano, eds.), John Wiley & Sons Inc., pp. 187-237.

A. Patwardhan, S. Semenov, S. Schneider, I. Burton, C. Magadza, M. Oppenheimer, B. Pittock, A. Rahman, J. Smith, A. Suarez, F. Yamin, K. Keller, A Todorov, A. Finkel, D. MacMynowski, M. Mastrandrea, M. Fuessel, J. Corfee-Morlot, R. Sukumar, J-P. van Ypersele, J. Zillman (2007). *Assessing Key Vulnerabilities and the Risk from Climate Change*, Chapter 19 in the **Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report**, Working group II: Impacts, Adaptation and Vulnerability.

Finkel, A.M., and D. Golding, eds. (1994). **Worst Things First? The Debate Over Risk-Based National Environmental Priorities.** Johns Hopkins University Press, October 1994, 384 pp.

Finkel, A.M. (workshop chairperson), N. Dean, A. Jensen, G. Loewengart, T. Mohin, R. Moolenaar, K. Shapiro, J. Wiltse, and D. Richardson (1993). "Human Health Impact Assessment," Chapter 4 in **A Conceptual Framework for Life-Cycle Impact Assessment,** pp. 47-64, Society of Environmental Toxicology and Chemistry, Pensacola, Florida.

Finkel, A.M. (1990a). **Confronting Uncertainty in Risk Management: A Guide for Decision-Makers.** Resources for the Future, Center for Risk Management monograph, 87 pp.

Washington, DC.

Ortiz Monasterio, F., C. Cortinas de Nava, M. Maffey Garcia, with A.M. Finkel (1987). **Manejo de los Desechos Industriales Peligrosos en México (Management of Hazardous Industrial Wastes in Mexico).** Universo Veintiuno, A.C., Mexico, D.F., Mexico.

Zinberg, D., with A. Finkel (1985). "The Legacy of Success: Changing Relationships in University-Based Scientific Research in the U.S." In **Science as a Commodity,** Michael Gibbons and Bjorn Wittrock, eds., Longman Group Ltd., U.K., 1985.

ADDITIONAL PUBLICATIONS (selected)**:**

Finkel, A.M. (2020c). "What are *You* So Afraid Of?" Op-ed in *Inside Sources,* October 30, available at https://www.insidesources.com/what-are-you-so-afraid-of/.

Finkel, A.M. (2020b). "Una Elección para Prolongar la Vida de los Trabajadores." Op-ed in *El Nuevo Herald* (Miami, FL), August 27, page 10A.

Finkel, A.M. (2020a). "An Election to Prolong the Lives of American Workers." Op-ed in *The Concord (NH) Monitor,* August 28, page A8.

Finkel, A.M., Sarah Doucette, and Claire Lupton (2020). "Landfill Bill is an Economic and Environmental Win-Win." Column in *Manchester (N.H.) Union Leader,* April 9, available at https://www.unionleader.com/opinion/op-eds/sarah-doucette-adam-finkel-and-claire-lupton-landfill-bill-is-an-economic-and-environmental-win/article_68ba8167-f3d1-50f5-a6ae-a1f26fb1ccfa.html

Finkel, A.M. (2019b). "Through the 'Anti-Racism' Looking Glass." Essay available at https://medium.com/@adamfinkel424/through-the-anti-racism-looking-glass-6d1fbbb137b9.

Finkel, A.M. (2018b). "Stop Concocting Unscientific Excuses for Ignoring Brain Injuries from Football." *Chicago Sun-Times,* October 19, available at https://chicago.suntimes.com/2018/10/19/18443165/stop-concocting-unscientific-excuses-for-ignoring-brain-injuries-from-football.

Finkel, A.M. (2018a). "Doubting the Health Harms of Air Pollution: Not a 'Mistake,' but not 'Just Science' either. Blogpost (https://medium.com/@adamfinkel424/doubting-the-health-harms-of-air-pollution-not-a-mistake-but-not-just-science-either-10a2697ddb2f).

Finkel, A.M. (2017). "It Takes 'Alternative Math' to Claim that Redistribution is Futile." Essay in "The Regulatory Review," March 16; https://www.theregreview.org/2017/03/16/finkel-alternative-math-claim-redistribution-futile/

Finkel, A.M. (2016a). "Succeeding with the Cards You Are Dealt." Essay in the collection "Is OSHA A Failed Agency—Or an Unheralded Success?", *The Environmental Forum,* Sept./Oct.

issue, pp. 44-51, available at http://www.eli.org/sites/default/files/forum/eli_forum_article-2016-08-the_debate_2016_sept.pdf.

Harrington, Winston, Elena Safirova, Conrad Coleman, Sébastien Houde, and Adam M. Finkel (2013). "Distributional Consequences of Public Policies: An Example from the Management of Urban Vehicular Travel." Available at https://scholarship.law.upenn.edu/faculty_scholarship/1299/

Finkel, A.M. (2014). "Regulatory Transparency Should be a Two-way Street." Essay in www.RegBlog.org, May 12, 2014.

Siegrist, Jack, Scott Ferson, and Adam M. Finkel (2013). "*Ravnoprochnost*: Avoiding Unnecessary Uncertainty in Cost–Benefit Calculations."

Finkel, A.M. (2013). "Updating OSHA Inspection Policies." Essay in www.RegBlog.org, April 4, 2013.

Finkel, A.M. (2012). "Communicating Uncertainty." Invited commentary in *Issues in Science and Technology,* Fall 2012, pp. 12-16.

Finkel, A.M. (2012). "A Missed Opportunity: The Ostrich Approach to Indoor Radon Exposure." Essay in www.RegBlog.org, May 7, 2012.

Finkel, A.M. (2011). "Is Humane Cost-Benefit Analysis Possible?" (book review of *Regulating From Nowhere: Environmental Law and the Search for Objectivity,* by Douglas A. Kysar). *Journal of Occupational and Environmental Medicine,* **53(1):** 101-102, January.

Finkel, A.M. (2010). "Increased Toxicity and Carcinogenicity of *n*-Propyl Bromide (1-Bromopropane) Relative to Perchloroethylene." Report to the Philadelphia Department of Public Health, June 17, available at http://www.phila.gov/health/AirManagement/AirManageBoards.html.

Finkel, A.M. (2010). "Evaluation of Perchloroethylene Risks and the Philadelphia Dry-Cleaning Proposal." Report to the Philadelphia Department of Public Health, January 13, available at http://www.phila.gov/health/AirManagement/AirManageBoards.html.

Montague, P. and A.M. Finkel (2007). "Two Friends Debate Risk Assessment and Precaution." *Rachel's Democracy and Health News,* #920, August 16. Available at http://www.rachel.org/?q=en/newsletters/rachels_news/print/920#Two-Friends-Debate-Risk-Assessment-and-Precaution.

Finkel, A.M. (2005). Review of "Risk and Reason" (by Cass Sunstein). *Journal of Industrial Ecology,* **9(4)**, Fall 2005, pp. 243-247.

Finkel, A.M. (2003). "The Other Side of Toxicogenomics." *The Environmental Forum,* **20(3),** pp. 15-17.

Zumwalde, R., J.M. Dement, W.H. Kojola, D.E. Venturin, S. Hacker, T. Calzavara, A.E. Crane, and A.M. Finkel (2001). "Synthetic Fibers in the Workplace: Where Less Fiber is Healthier." American Industrial Hygiene Association Press monograph, #444-EQ-01, 51 pp.

Finkel, A.M. (2000). "It's 'Bad Science' Not to Decide." *The Environmental Forum,* **17(6),** pp. 57-58.

Finkel, A.M. (1999). "A Roll of the Dice on Rulemaking Reform." *The Environmental Forum,* **16(3),** p. 33.

Finkel, A.M. (1997). "Occupational Cancer Risks: No Victory Yet." *Risk Policy Report* (letter) March 21, pp. 39-40.

Finkel, A.M. (1997). "Disconnect Brain and Repeat After Me: 'Risk Assessment is Too Conservative.'" In **Preventive Strategies for Living in a Chemical World,** E. Bingham and D. P. Rall, eds., *Annals of the New York Academy of Sciences*, **837,** 397-417.

Finkel. A.M. (1996). "Myths, Chicanery, and Blundering on the Risk Assessment Front." *American Industrial Hygiene Association Journal,* **57,** 793-798, September.

Finkel, A.M. (1996). "Who's Really Crying Wolf?" (book review of **But is it True? A Citizen's Guide to Environmental Health and Safety Issues**, by A. Wildavsky). *American Scientist*, **84(5),** pp. 491-493, September/October.

Finkel, A.M. (1996). "Risk Management" (response to article by D. Hattis). *Environment,* **38(9),** pp. 3-4, November.

Finkel, A.M. (1996). "Who's Exaggerating?" *Discover*, May 1996, pp. 48-54. Subsequently adapted as "Regulatory Reform: An Uncalculated Risk," *Harper's*, August 1996, pp. 20-24, and as "A Return to Alchemy," *The Environmental Forum,* Sept./Oct., pp. 14-19.

Belzer, R.B., A.M. Finkel, S. Lewis, J.C. Murdoch, and J.R. Ravetz (1995). "Roundtable: Rethinking Risk Regulation." *Issues in Science and Technology,* **11(4),** 53-60.

Finkel, A.M. (1994). "Rodent Tests Continue to Save Human Lives." *Insight on the News* (*Washington Times* magazine), **50,** 20-22, December 12.

Finkel, A.M. (1994). "Comparing Risks Thoughtfully." Appendix in U.S. Office of Technology Assessment report *Risks to Students in School* (OTA-ENV-633, September 1995).

Finkel, A.M. (1993a). "Issues in Risk Assessment" (book review). *Environment,* **35**(8), 26-27, October.

Finkel, A.M. (1993b). "Into the Frying Pan." *Environmental Science and Technology,* (guest editorial), **27**(4), p. 587, April.

Finkel, A.M. and D. Golding (1993). "Alternative Paradigms: Comparative Risk is not the Only Model." *EPA Journal,* **19**(1), pp. 50-52, January-March.

Finkel, A.M. (1992a). "Alar: The Aftermath." *Science*, **255**, pp. 664-5 (correspondence), February 7.

Golding, D., and A. Finkel (1991). **Environmental Equity and Risk Communication at the Environmental Protection Agency.** Report to EPA, Office of Air and Radiation, August 9, 56 pp. plus appendices.

Finkel, A.M. (1991c). "Do We Know Enough to Take a Risk-Based Approach?" *EPA Journal*, **17**(2), p. 38, March/April 1991.

Finkel, A.M. (1991b). "Risk Reduction Policy (Are We Ready for `Worst-First' Environmental Protection?)" *Environment*, **33**(5), 2-4.

Finkel, A.M. (1991a). Foreword to **The Economic and Environmental Implications of the Hazardous Waste Trade on West Africa** (Daniel Duah, author, Institute for Risk Research, University of Waterloo, Ontario, Canada).

Portney, P.R., K.N. Probst, and A.M. Finkel (1991). "The EPA at Thirty- Something." *Environmental Law* (Northwestern School of Law), **21**(4), 1461-1475.

Finkel, A.M. (1989). "Has Risk Assessment Become too 'Conservative'?" *Resources*, **96**,11-13.

Salmento, J.S., E.S. Rubin, and A.M. Finkel (1989). "A Review of @RISK" (Software Review). *Risk Analysis*, **9(2)**, 255-257.

Finkel, A.M. (1989). "Some Observations in Defense of the Rodent Bioassay (A Response to Lave *et al.*)." *Nature* (submitted).

Bailar, J.C. III, A.M. Finkel, E.K. Silbergeld, and D. Hattis (1989). "Cancer- Causing Substances in Food, Drugs, and Cosmetics" (Correspondence). *New England Journal of Medicine*, **320**(14), 935-936.

Hoerger, F.D., *et al.* (1989). **Presentation of Risk Assessments of Carcinogens.** Report of the "Ad Hoc Study Group on Risk Assessment Presentation," 31 pp. plus appendices, Washington, D.C., July 1989.

Finkel, A.M. (1988b). "Dioxin: Are We Safer Now Than Before?" Guest Editorial in *Risk Analysis*, **8(2)**, 161-165.

Finkel, A.M. (1988a). *Computing Uncertainty in Carcinogenic Potency: A "Bootstrap" Approach Incorporating Bayesian Prior Information.* Report to EPA, Office of Policy, Planning, and Evaluation, July 14.

DiMauro, J., Kimball, K., Rancourt, K., and Finkel, A. (1987). "Ozone Concentrations on the Summit of Mount Washington." *Mount Washington Observatory Bulletin*, **28(1)**, 9-10.

Ozkaynak, H., and A. Finkel (1986). "Potencies and Unit Risk Values for Suspected Human Carcinogens as Inputs to Health Risk Assessment." Report prepared for Energy and Environmental Systems Division, Argonne National Laboratory, December 18.

Finkel, A., and staff of Subcommittee on Investigations and Oversight and Subcommittee on Energy Research and Production (1983). **The Extent and Impact of Mercury and Other Pollutants at DOE's Oak Ridge Complex, Oak Ridge, Tennessee.** Report to 98th Congress, #98-558, Nov. 17.

Finkel, A. (1983). "Economic and Regulatory Incentives for Hazardous Waste Reduction in Massachusetts." Prepared for the Massachusetts Department of Environmental Management (DEM); presented 10/83 at 1st annual DEM conference on source reduction, Boxboro, Mass.

CONFERENCE PAPERS AND TESTIMONY (selected; does not include presentations as an OSHA official, 1995-2004):

1. 12/20: "Stated-Preference Estimates of the Welfare Effects of Risk Reduction and of Economic Cost: From De Minimis Risk (and Cost!) through Intolerable." Presentation at the Annual Meeting of the Society for Risk Analysis, Dec. 17.

2. 12/20: "Don't Let your Students Grow up to be Risk Analysts?" Roundtable session developed for Annual Meeting of the Society for Risk Analysis (other speakers were Terje Aven, Alison Cullen, Tony Cox, Chris Frey, Jonathan Levy, Greg Paoli, Dennis Paustenbach, Joseph Rodricks), Dec. 17.

3. 12/20: "The 2020 Covid Pandemic: The Occupational Wake-Up Call We're Still Sleeping Through." Presentation at the Annual Meeting of the Society for Risk Analysis, Dec. 14.

4. 12/20: "Take Your Gaze from Your Navel and Decide: Making Uncertainty Analysis Useful (Again)." Invited presentation (remotely) at Institute for Risk and Uncertainty, University of Liverpool, U.K., Dec. 2.

5. 3/20: "Make Risk assessment Great Again: We Can Protect both Lives and Dollars—Just Not the Way We're Doing it Now." Invited presentation at Environmental Health and the Law Conference, Case Western Reserve Law School, March 27 (remotely during Covid-19 crisis).

6. 12/19: "Towards a Disutility Function for Risk: Asking (not Telling) Citizens How Probabilities of Grave Harm Affect Them." Presentation at the Annual Meeting of the Society for Risk Analysis, Arlington VA, Dec. 9.

7. 12/19: "Make Risk Assessment Great Again: Slow the March towards 'Magic Thresholds,' 'Astigmatic Review,' and 'Hormetic Paternalism." Presentation at the Annual Meeting of

the Society for Risk Analysis, Arlington VA, Dec. 9.

8. 10/19: "Reviving Risk-Based Regulation from its Ashes." Invited presentation at Exposure, Epidemiology, and Risk Program, Harvard T.H. Chan School of Public Health, Boston MA, Oct. 24.

9. 9/19: "The Pebble Remains in the Master's Hand: Two Careers Spent Learning (Still) from John Evans." Invited presentation (with George Gray) at Harvard University Center for the Environment, Risk Assessment, Economic Evaluation, and Decisions Workshop Honoring John S. Evans, Cambridge MA, Sept. 27.

10. 7/19: " 'Knowledge is Good,' But How Good is It?" Invited presentation at Workshop on the Value of Information, George Washington University Milken School of Public Health, Washington, DC, July 25. Also presented Jan. 7, 2020 at the National Council for Science and the Environment Annual Conference, Washington DC.

11. 6/19: " 'New TSCA' after Three Years: Too Much Like 'Classic TSCA'." Invited presentation at Environmental Law Institute Conference: "TSCA Three Years Later," Washington, DC, June 24.

12. 3/19: "Mismanaging Chemical Risks: EPA's Failure to Protect Workers." Invited testimony before the U.S. House Energy and Commerce Committee, Environment and Climate Change Subcommittee, March 13. Available at https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/03.13.19_Witness%20Testimony_Finkel.pdf

13. 12/18: "Two Far-reaching Changes to How We Quantify and Balance Risks and Regulatory Costs." Presentation at the Annual Meeting of the Society for Risk Analysis, New Orleans, LA, Dec. 5. Also presented March 14 at the annual meeting of the Society for Benefit-Cost Analysis, Washington DC.

14. 11/18: "Chronic Traumatic Encephalopathy in the NFL Workplace: Risk Assessment Needed to Dispel Manufactured Doubt." Presentation at the annual meeting of the American Public Health Association, San Diego, CA, Nov. 14.

15. 11/18: "The New TSCA Law: Too Much Like 'TSCA Classic'." Invited presentation at the annual meeting of the American Public Health Association, San Diego, CA, Nov. 13.

16. 5/18: "Using Humane Cost-Benefit Analysis to Pick Emerging-Technology 'Winners'." Sixth Annual Conference on Governance of Emerging Technologies, Arizona State University, May 18.

17. 5/18: "Taking the Reins: How Decision-Makers Can Stop being Hijacked by Uncertainty." Lecture at Wharton Risk Management and Decision Processes Center, May 1.

18. 5/17: "Worker Protection Aspects of TSCA Risk Assessments." Invited webinar, UCSF Rapid Response Network, May 10.

19. 3/17: "Work as a Social Determinant of Health." Invited participant in *American Journal of Public Health* podcast, available at https://soundcloud.com/alfredomorabia/ajph-podcast-32018-work-as-a-social-determinant-of-health-english.

20. 2/17: "Beyond Best-in-Class." Panel discussion on "How Regulators Can Excel," Penn Law School, February 15.

21. 1/17: "OSHA Under Trump: What to Expect in 2017 and Beyond." Invited webcast, Bloomberg Bureau of National Affairs, Jan. 18.

22. 12/16: "Innovative Experiments to Explore the Possible Mis-estimation of the Net Benefits of Health and Safety Regulations." Presented at the 36th Annual Meeting of the Society for Risk Analysis, San Diego, CA, Dec. 13.

23. 10/16: "Governance Options for Reducing Concussion-Related Occupational Disease in Professional Football." Invited presentation at Penn Law School, Philadelphia, PA, Oct. 20; versions also presented 12/16 at the Annual Meeting of the Society for Risk Analysis, 1/12/17 at the University of Michigan School of Public Health, and 5/18/17 at the Fifth Annual Conference on the Governance of Emerging Technologies, Phoenix AZ.

24. 9/16: "Toxic Politics: The 'Freedom' to Experience Occupational Disease." Invited presentation ("TEDx talk") at the Harvard T.H. Chan School of Public Health, Alumni Weekend, Boston, MA, Sept. 24. Also presented at Johns Hopkins Bloomberg School of Public Health, 4/25/18.

25. 6/16: "Accounting for Small Business: The Challenge of Measuring the Cost of Regulation." Invited presentation at the U.S. Small Business Administration, Office of Advocacy, 40th Anniversary Symposium, Washington, DC, June 22.

26. 5/16: "Disinfecting Cost-Benefit Analysis of Hidden Value-Laden Constraints." Invited presentation at the Fourth Annual Conference on Governance of Emerging Technologies, Tempe, AZ, May 25. *Also as an invited presentation* at the Hastings Center, Garrison, NY, May 11.

27. 3/16: "Risksplaining: A Counter-Productive Cottage Industry." Invited presentation at Dow Chemical Co., Global Crisis Communications Network, Midland, MI, March 14.

28. 3/16: "Solution-Focused Risk/Benefit Assessment for Gain-of-Function Experiments." Invited presentation at Second NAS Symposium on Gain-of-Function Research, Washington, DC, March 10.

29. 12/15: "Aged in the Bottle: It's Time to Uncork the Supreme Court's 1980 Gift to Risk Analysis and Public Protections." Presented at the Society for Risk Analysis annual meeting, Arlington, VA, Dec. 9 (at session I organized and chaired on the 35th anniversary of the *Benzene* decision). Also presented as a Webinar for the American Industrial Hygiene

Association, June 30, 2016.

30. 12/15: "Beyond 'Best-in-Class': Three Secrets to Regulatory Excellence." Presented at the Society for Risk Analysis annual meeting, Arlington, VA, Dec. 9.

31. 11/15: "A Portfolio of Regulatory Responses to Confront Corporate (Mis)conduct." Invited presentation at the Center for the Study of Business Ethics, Regulation, and Crime, University of Maryland, College Park, MD, Nov. 17.

32. 11/15: "What Does it Mean to 'Overestimate Risk,' and is Risk Assessment Really Guilty as Charged?" Invited presentation to the Environmental Health Sciences Dept., University of Michigan School of Public Health, Ann Arbor, MI, Nov. 4.

33. 10/15: "Ignoring Thresholds and Interindividual Susceptibility in Cancer Dose-Response: Errors of Opposite Sign and Different Merit?" Invited presentation to the Society for Risk Analysis, New England Chapter, Cambridge, MA, Oct. 8.

34. 10/15: "The Failures of Regulatory Economics to Understand and Communicate Uncertainty." Invited presentation to the Regulatory Policy Program, Harvard Kennedy School of Government, Cambridge, MA, Oct. 8.

35. 10/15: "Public Service and Conscience: An HKS MPP Turns 'Vindicated Whistleblower'." Invited presentation to Harvard Kennedy School students, Cambridge, MA, Oct. 7.

36. 6/15: "Risk Assessment: A Message to the Hijackers and Deniers." Invited presentation at the New Jersey Department of Environmental Protection, Trenton, NJ, June 16.

37. 6/15: "The Neglected Skill of Making Wise Decisions: Where Risk, Uncertainty, and Values Converge." Invited talk at "TEDx George School," Newtown, PA, June 13. Available at https://www.youtube.com/watch?v=qGGZAgjkA0E.

38. 5/15: "Two Complementary Governance Approaches to Maximizing Net Societal benefit from Synthetic Biology." Presented at the Third Annual Conference on Governance of Emerging Technologies, Scottsdale, AZ, May 27. *Also as an invited presentation* at the Petrie-Flom Center for Bioethics (with George Church), Harvard Law School, Cambridge, MA, Oct. 8, 2015.

39. 3/15: "Doing Risk-Based Regulation 'The Whole 8.23 Metres': Not for the Faint of Heart." Invited presentation to the Alberta Energy Regulator Leadership Forum, Calgary, Alberta, CA, March 10.

40. 12/14: "A Structured Plan for Seeking Consensus on Inference Options for Occupational Risk Assessment." Presented at the Society for Risk Analysis annual meeting, Dec. 8, Denver, CO.

41. 10/14: "Tighter Controls on Environmental/Occupational Carcinogens in the Wake of the

President's Cancer Policy Report?: Not Without More Work." Invited presentation at a Webinar convened by the Collaborative on Health and the Environment, October 20.

42. 10/14: "Towards Confidence Bounds for IRIS Values that Do Not Perpetuate the Underestimation of Risk and False Security about Safety." Invited presentation at the EPA IRIS Workshop, Arlington, VA, October 16.

43. 7/14: "Deflating the Hoax of Risk Assessment Inflation." Invited presentation at the Mercatus Center, George Mason University, Arlington, VA, July 15.

44. 3/14: "Finding Comfort in the Cause: At Home in a Sea of Uncertainty." Invited presentation at the Daniel Goodman Memorial Symposium, Bozeman, MT, March 20.

45. 3/14: "Channeling Synthetic Biology Through 'Solution-Focused Risk Assessment." Invited presentation at the National Academy of Sciences Forum on Synthetic Biology, Palo Alto, CA, March 13. *Also presented* at 2014 Conference on Governing Emerging Technologies, Arizona State University, Tempe, AZ, May 28, and at the Society for Risk Analysis annual meeting, Dec. 10, Denver, CO.

46. 1/14: "Sheep in Wolves' Clothing (and Vice Versa): Can Statistical Forecasting Help OSHA Target for Inspection those Sites Presenting Grave Risks to U.S. Workers?" Invited presentation at the Robert Wood Johnson Foundation, Public Health Law Research Program, annual meeting, Atlanta, GA, January 16. *Also presented* January 17 at EPA Region IV, March 7 at EPA Headquarters, April 3 at OSHA Headquarters, May 21 at Organization Resource Counselors, and September 30 at the IBM Analytical Solution Center (all in Washington, DC).

47. 9/13: "Embracing Uncertainty in Science-Policy Decisions." Invited presentation at National Academy of Sciences Sackler Symposium on "The Science of Science Communication," Washington, DC, Sept. 23.

48. 9/13: "Lessons from Risk Assessment Controversies for the 'Job-Killing Regulations' Debate." Invited briefing for Congressional staff, Rayburn House Office Building, Washington, DC, Sept. 16.

49. 6/13: "Distinguishing Bogus Risk-Risk Tradeoffs from Real Ones in Alternatives Assessment." Invited Webcast in *Addressing Trade-Offs in the Alternatives Assessment Process*, Webinar #113, University of Massachusetts-Lowell, Center for Sustainable Production, June 11.

50. 5/13: "Designing a 'Solution-Focused' Governance Paradigm for Synthetic Biology." Invited presentation at First Annual Conference on Governance of Emerging Technologies: Law, Policy and Ethics, Chandler, AZ, May 20.

51. 1/13: "The National Academy 'Silver Book' and Risk-Based Occupational Exposure Limits." Invited presentation at 38th annual meeting of the Yuma Pacific-Southwest Section,

American Industrial Hygiene Association, San Diego, CA, Jan. 24.

52. 1/13: "Ensure that 'Smart Disclosures' in Lieu of Regulation are Complete and Accurate." Invited presentation in the "Critical Opportunities in Public Health Law" session at the Robert Wood Johnson Foundation Public Health Law Research Annual Meeting, New Orleans, LA, January 18.

53. 12/12. "Towards A Theory of Regulatory Cost Perception, Part 1: Main Results From A Survey Of Life-Saving Tradeoffs With Uncertainty In Regulatory Costs And Interindividual Variation In Cost Burden." Presented at the Annual Meeting of the Society for Risk Analysis, San Francisco, CA, Dec. 11.

54. 12/12: Panelist in Roundtable session "Smarter Regulation through Nudges, Information, and Incentives," SRA Annual Meeting, San Francisco, CA, Dec. 10.

55. 11/12: "Putting Away Childish Things: The Science and Economics of Chemical Risk Management Reform." Invited presentation at Georgetown University, School of Nursing and Health Studies, conference on *Translating Science Into Practice: Collaborating to Communicate the Science About Chemical Exposures*, Washington, DC, Nov. 9.

56. 11/12: "Shedding Light rather than Heat on the 'Job-Killing' Aspects of Regulations." Invited presentation at the Annual Research Conference, Association for Public Policy Analysis & Management (APPAM), Baltimore, MD, Nov. 9.

57. 4/12: "Risk-Based Decision-making Can Handle Ethical and Social Concerns." Invited presentation before the National Academy of Sciences committee on Ethical and Societal Implications of Advances in Militarily Significant Technologies, Washington, DC, April 12.

58. 3/12: "We Need Risk-Based Occupational Exposure Limits: To Defibrillate the OSHA PELs (Or Not)." Invited presentation at the 33rd Annual NY/NJ Education and Research Center Annual Meeting, Mt. Sinai Hospital, New York, NY, March 30.

59. 3/12: "Could a Burden be a Blessing?: The Science and Economics of Regulation." Invited presentation at the 2012 National Association for Business Economics annual meeting, March 26, Arlington, VA.

60. 3/12: "(Unsuccessful) Attempts to Forge Government-Industry Partnerships that are Neither Unduly Coercive nor Unduly Meaningless." Invited presentation at "Soft Law Governance Workshop," Center for Law, Science, and Innovation, Arizona State University, Tempe, AZ, March 5.

61. 1/12: "I Thought You'd Never Ask: Stimulating Demand for Better Science and Economics in Environmental Regulation." Invited presentation at workshop on "Improving Science-Based Regulation," Regulatory Studies Center, George Washington University, Jan. 13.

62. 12/11: "None of the Occupational Exposure Limits Reveal Risk Information: A Quantitative

'Nudge' Could Save Lives" (with D. Hattis, B. Altemose). Presentation at the annual meeting of the Society for Risk Analysis, Charleston, SC, Dec. 7.

63. 11/11: "A Proposed New Approach to Using Risk and Cost Information to Make Sustainable Choices." Invited keynote presentation at 2011 Environmental Health Collaborative Summit, National Institute of Environmental Health Sciences, Research Triangle Park, NC, Nov. 7.

64. 10/11: "A Unified Theory of Precaution in Environmental and Occupational Health Regulation." Invited presentation at the Drexel University School of Public Health, Philadelphia, PA, Oct. 17.

65. 9/11: "The Risk Toolbox: What Are We Good At?" and "Thinking Differently about Risk and Sustainability." Invited panelist in two sessions at the conference "Risk, Uncertainty, and Sustainable Innovation," University of Michigan School of Public Health, Ann Arbor, MI, Sept. 20-21.

66. 9/11: "Regulatory Process Is Regulatory Design." Invited commentary on papers by Lori Bennear, Susan Moffitt and Jason and Susan Yackee, presented at the workshop "Regulatory Breakdown? The Crisis of Confidence in U.S. Regulation, Penn Program on Regulation, Philadelphia PA, September 15-16.

67. 7/11: "With Friends Like These…: Impediments to Saving Lives and Money through Improved Methods of Risk Assessment." Invited presentation at the UNM Cancer Center, University of New Mexico, Albuquerque NM, July 25.

68. 6/11: "Balancing Stakeholder Input to the Federal Regulatory Process." Invited testimony before the House Small Business Committee, Hearing on "Lifting the Weight of Regulations: Growing Jobs by Reducing Regulatory Burdens," Washington DC, June 15. Hearing documents available at http://smallbusiness.house.gov/Calendar/EventSingle.aspx?EventID=245311; video excerpts available at https://www.law.upenn.edu/live/news/1958-video-adam-finkel-testifies-before-the-house-small .

69. 6/11: "The Final Victory over Ignorance (Just Kidding…)." Invited presentation at the American Meteorological Society Summer Policy Colloquium, Washington DC, June 9.

70. 5/11: "Science-Based, Economics-Based, or Baseless: When Will We Set Risk-Based Occupational Exposure Limits?" Invited plenary presentation at the American Industrial Hygiene Conference and Exposition, Portland, OR, May 16.

71. 4/11: "A Three-Part Proposal to Resurrect the OSHA PELs." Invited presentation at the Lehigh Valley AIHA Annual Conference, Belvidere, NJ, April 9.

72. 2/11: "Creation of an Omnibus Datafile to Help OSHA and other Regulatory Agencies 'Profile' Firms for On-site Inspections." Invited presentation at "Injury Science Day," University of Pennsylvania Medical School, Philadelphia, PA, Feb. 28. *Also presented* Jan. 26 at the quarterly meeting of the Occupational Safety and Health State Plans Association, Indianapolis, IN.

73. 9/10: "Occupational Cancer and the President's Cancer Panel." Invited presentation at "Greening the Workplace: Problems and Possibilities," New Solutions Journal, Brooklyn, NY, Sept. 25.

74. 9/10: "Humane Risk Assessment and the Art of Solution-Focused Thinking." Invited presentation at Cost-Benefit Analysis and Issue Advocacy Workshop, Institute for Policy Integrity, New York University School of Law, Sept. 15.

75. 3/10: "Beyond Misleading Underestimation of Carcinogenic Potency." Invited presentation at Texas Commission on Environmental Quality conference "Beyond *Science and Decisions*: From Issue Identification to Dose-Response Assessment," Austin, TX, March 17.

76. 3/10: "Solution-Focused Risk Assessment: Smarter Analysis in Service of Action." Invited presentation at NYU Environmental Law Journal symposium on "Changes to the Regulatory State," New York, March 12.

77. 3/10: "The Right to No: OSHA and Exposure Limit Information." Testimony at OSHA rulemaking hearing on proposed changes to the Hazard Communication standard (29 CFR 1910.1200), Washington, DC, March 5.

78. 12/09: "The Weaker Link: Towards Analyses of Regulatory Cost that Emulate the Rigor of Risk Analyses." Presentation at the 2009 annual meeting of the Society for Risk Analysis, Baltimore, MD, Dec. 7.

79. 12/09: "Import Safety: Regulatory Governance in the Global Economy." Presentation at the 2009 annual meeting of the Society for Risk Analysis, Baltimore, MD, Dec. 8.

80. 11/09: "Resolved: Rejecting Cost-Benefit Analysis is an Anti-Environmentalist Position." Invited presentation at "Cost-Benefit Analysis and Issue Advocacy" workshop, Institute for Policy Integrity, New York University Law School, New York, NY, Nov. 10.

81. 10/09: "Perchloroethylene Health Risks from Co-Commercial and Co-Residential Dry Cleaning Exposures." Invited presentation before the Air Pollution Control Board, Philadelphia, PA, October 21.

82. 10/09: "Not Just TSCA Reform: Chemical Risk Management Reform." Invited presentation at The Future of U.S. Chemicals Policy Conference (Environmental Working Group and American Chemistry Council), Washington, DC, October 6.

83. 8/09: "Out of Sight, Out of Mind: The Statistical Whitewashing of Chronic Occupational Disease." Invited presentation at the Joint Statistical Meetings, Washington, DC, August 3.

84. 6/09: "Solution-Focused Risk Assessment: Reversing the 'Red Book' Paradigm." Invited presentation at "New Ideas for Risk Regulation" conference, Resources for the Future, Washington, DC, June 22.

85. 5/09: "Things Done and Left Undone in Centralized Regulatory Review." Invited presentation at "Reforming OIRA: The Future of Regulatory Review" symposium, Center for Progressive Reform, Washington, DC, May 22.

86. 4/09: "The Ethical and Empirical Imperative to Increase the 'Value of a Statistical Life' for High Individual Risks." Invited presentation at Workshop on Estimating the Benefits of Reducing Hazardous Air Pollutants, U.S. Environmental Protection Agency, Washington DC, April 30-May 1.

87. 4/09: "Value-of-information Analysis: A Powerful Tool for Setting Priorities." Invited presentation at "Decision Analysis: Supporting Federal, State, and Local Environmental Decision Makers" workshop, U.S. EPA, Cincinnati, OH, April 1.

88. 12/08: "Solution-Focused Risk Assessment: Quickening the Pace, Accomplishing Missions, Expanding Opportunities." Presentation at the Annual Meeting of the Society for Risk Analysis, Boston, MA, Dec. 8.

89. 9/08: "There is No War on Occupational Cancer." Invited presentation before the President's Cancer Panel, East Brunswick, NJ.

90. 7/08: "Personal, Organizational, and Scientific Loyalty: Is 'Government Scientist' a Contradiction in Terms?" Invited presentation at Fourth National CSPI (Center for Science in the Public Interest) Integrity in Science Conference, Washington, DC.

91. 4/08: "Be it Ever So Decadent: Can OSHA be Reborn?" Invited presentation at "OSHA Turns 38" workshop, New York City Central Labor Council/NYCOSH, April 29.

92. 4/08: "Individualized Public Health: A Dialogue Between Environmental Risk Assessment and Clinical Medicine." Third Annual Allan Arbeter Lecture in Pediatrics, Albert Einstein Medical Center, Philadelphia, Pa., April 28.

93. 4/08: "Risk Regulation in 3-D: Observations on the Interplay among Risks, Uncertainties, Values, and Solutions." Invited presentation at 2008 Toxicology and Risk Assessment Conference (EPA/NIOSH), Cincinnati, Ohio, April 15.

94. 4/08: "We Are all to Blame for the Archaic PELs: A Proposal to Get Back on Track," Invited presentation at the 29th Annual Scientific Meeting, New York/New Jersey Education and Research Center, New York, NY, April 11.

95. 3/08: "Tolerable Decisions: Beyond Population Risk to a Sensible Approach to Benefits, Costs, Values, and Solutions," Invited Presentation at "*Workshop on Tolerable Risk Evaluation: A Step Towards Developing Tolerable Risk Guidelines For Dams And Levees*," U.S. Army Corps of Engineers, Alexandria, Virginia, March 18.

96. 3/08: "A Science-Based, Precautionary, Solution-Focused Environmentalism: Our Only Way Out." Invited keynote at New Jersey Environmental Lobby Conference on the Precautionary

Principle, Seton Hall University, South Orange, NJ, March 3.

97. 12/07: "Distinguishing Legitimate Risk-Risk Tradeoffs from Straw Men." Presentation at the Annual Meeting of the Society for Risk Analysis, San Antonio, TX, Dec. 11.

98. 12/07: "Is OSHA's Performance a Secret? An Update on the Legal Battle for 30 Years of Industrial Hygiene Data." Invited keynote at the 27th Annual Northeast Industrial Hygiene Conference and Exhibition, New Brunswick, NJ, Dec. 7.

99. 10/07: "Limitations of Model Averaging." Invited discussant at Workshop on Uncertainty Modeling in Dose-Response: Dealing with Simple Bioassay Data, Resources for the Future, Washington, DC, Oct. 23.

100. 10/07: "Investigation of Beryllium Sensitization among OSHA Inspectors." Invited presentation at Third International Conference on Beryllium Disease, Philadelphia, PA, Oct. 17.

101. 10/07: "Modernizing Risk Assessment in Light of Uncertainty and Interindividual Variability." Invited presentation at the Statistics Dept., Miami University, Oxford, OH, Oct. 11. *Also presented* Oct. 12 at the National Institute for Occupational Safety and Health (NIOSH), Cincinnati, OH, Oct. 30 at the Risk Regulation Seminar Series, University of Pennsylvania, and Nov. 15 at Yale Interdisciplinary Center for Bioethics, New Haven, CT.

102. 10/07: "130 Million Neglected: The Fall of Workplace Safety and Health in the U.S." Sigma Xi Distinguished Lecture, Miami University, Oxford, OH, Oct. 11.

103. 6/07 (w/ R. Neff, Johns Hopkins Bloomberg School of Public Health): "Proactive Warnings: A Neglected Tool to Reduce Recurrent Fatal Workplace Accidents." Presentation at the 2007 American Industrial Hygiene Conference and Exhibition, Philadelphia, PA, June 7.

104. 6/07: "(No) Risk Management Insights (Yet) From OSHA's Air Sampling Database." Presentation at the 2007 American Industrial Hygiene Conference and Exhibition, Philadelphia, PA, June 7.

105. 6/07: "Default is Not in our Stars, but in Ourselves: The 'Known Unknown' of Human Cancer Susceptibility." Invited presentation before the NAS/NRC Standing Committee on Risk Analysis Issues and Reviews, Washington, DC, June 5.

106. 11/06: "Preliminary Insights from the OSHA Air Sampling Database." Presentation at the 134th Annual Meeting of the American Public Health Association, Boston, MA, Nov. 6.

107. 10/06: "Worst Things Last: The Irrelevance of Risk Analysis to Occupational Health." Harvard Center for Risk Analysis, Boston, MA, Oct. 16.

108. 10/06: "Both Sides Now: Misguided Attacks on Risk Assessment and Cost-Benefit Analysis." Sigma Xi Distinguished Lecture, Iowa State University, Ames, IA, Oct. 12 (*also presented* March 6, 2007, as the Sigma Xi Distinguished Lecture at Auburn University).

109. 5/06: "Why Risk Communication often Fails the Cost-Benefit Test: 'Tis No Gift to be Simple." Invited presentation at "Strategies for Risk Communication: Evolution, Evidence, and Experience," symposium sponsored by the National Science Foundation and the Society for Risk Analysis, Montauk, New York, May 16.

110. 4/06: "The Misuse and Non-Use of Quantitative Uncertainty Analysis in the Federal Regulatory System." Invited presentation at the FDA Science Forum, Washington, DC, April 20.

111. 4/06: "The Odyssey of a 'Vindicated Whistleblower: Protecting Our Workplaces for the Public's Health." Invited presentation at the Zuckerman College of Public Health, Tucson, Arizona, April 3. *Also presented* March 7, 2007 at the School of Public Policy, Georgia Tech University, and Nov 8, 2007 as the Sigma Xi Distinguished Lecture, University of New Mexico, Albuquerque, NM.

112. 3/06: "Environmental Justice and Worker Health." Invited presentation at the Kroc Institute for International Peace Studies, University of Notre Dame, South Bend, IN, March 7.

113. 12/05: "Perceptions of Food Contaminant Risks and Their Impact on Risk Management Decisions." Invited presentation at the Institute of Medicine, workshop "Challenges in Managing Food-Derived Risk," Dec. 13.

114. 12/05: "EPA's Risk Assessment Task Force: The Sound meets the Fury." Presentation at the annual meeting of the American Public Health Association (APHA), Dec. 14.

115. 12/05: "Beryllium Sensitization within OSHA's own Workforce." Presentation at the APHA annual meeting, Dec. 12. *Also presented* 3/27/06, invited presentation at St. John's University Law School. Queens, NY.

116. 12/05: "Matching the Sophistication of Risk and Cost Information to the Decision Rule: Sometimes the Decision is the Weaker Link." Presentation at the annual meeting of the Society for Risk Analysis (SRA), Dec. 6.

117. 12/05: "Kilo-Disparities": Prevailing Concentrations of Carcinogenic Air Pollutants in U.S. Workplaces and the Ambient Environment." Presentation at the SRA annual meeting, Dec. 5.

118. 12/05: Uncertainty and Variability on the Cost Side of Cost-Benefit: What Would Happen if We Stopped Ignoring It? Presentation at SRA annual meeting (with Troy Tucker, Scott Ferson), Dec 6.

119. 11/05: " 'Nothing But' is 'Not Even': Why Can't Scientists and Journalists Think More Like Each Other?" Invited presentation in the Scientist-Journalist Dialogues series, Rutgers School of Public Communication, Nov 18.

120. 9/05: "Not Part of the Solution: The Unfulfilled Potential of the Academic Risk Centers." Invited presentation at the Inaugural Symposium, Center for Risk Science and Communication, University of Michigan, Ann Arbor, Michigan, Sept. 15.

121. 7/05: "Four Observations about the Interplay of Uncertainty and Decision-Making." Invited presentation at a conference on *Probabilistic Risk Assessment (PRA): Bridging Components Along the Exposure-Dose-Response Continuum* (EPA and Society of Toxicology),

Washington, DC, July 26.

122. 1/05: "Heroic Analyses for Tragic Choices: Modernizing Risk Assessment for Human Variability." Invited presentation at Genetic Susceptibility to Environmental Toxins Workshop, Arizona State University, Tempe, AZ, Jan. 13.

123. 12/04: "EPA's 2004 Risk Assessment Manifesto: A Critical Analysis of a Forthright Document." Presentation at the SRA annual meeting, Palm Springs, CA.

124. 11/04: "Epidemiology Begins (And, Apparently, Ends) at Home: Chronic Beryllium Disease and OSHA." Presentation at the annual meeting of the American Public Health Association, Washington, DC.

125. 7/04: "How (We Let Them) Get Away with It: Junk Science in Occupational and Environmental Risk Analysis." Invited presentation at the 2004 annual conference on Integrity in Science, Center for Science in the Public Interest, Washington, DC, July 12.

126. 6/04: "Google in Your Pocket, Dead Dinosaur Meat in your Tank: Energy Policy and Health Effects, 1979-2029." Invited presentation at the 25th Reunion (Class of 1979), Harvard College, Cambridge, MA, June 7.

127. 3/04: "Guidelines for Choosing Models that Encourage Research, Reveal the Inevitable Value Judgments, and Promote Sensible Decisions." Invited presentation before the National Academy of Sciences Committee on Environmental Decision Making: Principles and Criteria for Models, Washington, DC, March 19.

128. 3/94: "The Best Defense... : Putting Risk Assessment to Work at EPA." Testimony before the Subcommittee on Technology, Environment, and Aviation, Committee on Science, Space, and Technology, U.S. House of Representatives, March 9.

129. 2/94: "Some Small Steps for Congress, Some Giant Leaps—Backwards—For Risk Assessment?" Testimony before the Subcommittee on Environment, Energy, and Natural Resources and the Subcommittee on Legislation and National Security, Committee on Government Operations, U.S. House of Representatives, Feb. 1.

130. 1/94: "'Best Estimates' of Risk are the Worst Idea Yet." Panelist at an Environmental Law Institute seminar on risk-related legislation, Washington, D.C., Jan. 25.

131. 11/93: "Risk Assessment Research: Only the Beginning." Testimony before the Subcommittee on Technology, Environment, and Aviation, Committee on Science, Space, and Technology, U.S. House of Representatives, Nov. 16.

132. 10/93: "Risk Assessment is Not the Problem." Keynote speech at the Innovative Remedial Technologies Conference, Albany, New York, Oct. 13 [*also presented* Oct. 24 at the Society of Environmental Journalists annual conference, Durham, N.C.]

133. 5/93: "How Good is the Science Underlying Environmental Regulation?" Panelist at the U.S. General Accounting Office's Annual Technical Conference, College Park, Maryland, May 6.

134. 11/92: "Fulfilling the Responsibility to Set Acceptably Low Levels of Risk." Invited

presentation before the Maine Board of Environmental Protection, Augusta.

135. 11/92: "Healing the Rift Between Risk Management and Risk Assessment." Presentation at *Toxicology and Regulatory Law Conference,* University of California Toxic Substances Research and Teaching Program, Asilomar, California.

136. 9/92: "The Allure of Mechanistic Research for Carcinogens." Testimony at the public meeting to review the future of the National Toxicology Program, Washington, D.C., Sept. 11.

137. 6/92: "Improving the EPA's Risk Assessment Guidance for Superfund Cleanups." Presentation at the Annual Meeting of the Hazardous Waste Advisory Council, Boston, Mass.

138. 3/92: "Improving Science-Based Decisionmaking at EPA: Comments on the SAB Report *Safeguarding the Future.*" Testimony before the Committee on Science, Space, and Technology, U.S. House of Representatives, March 19.

139. 2/92: "Moving Prudently beyond the 'Delaney Era' in Pesticide Regulation." Testimony before the Committee on Agriculture, Subcommittee on Department Operations, Research, and Foreign Agriculture, U.S. House of Representatives, February 26.

140. 2/92: "A Unified Approach to Protecting both Individuals and Populations." Panelist at the National Academy of Sciences (Committee on Risk Assessment Methodology) Workshop on Single-Scenario Exposure Assessment, Washington, D.C., Feb. 10-11.

141. 2/92: "Human Health Impacts of the Production, Use, and Disposal of Consumer Products." Invited presentation at the EPA/SETAC Workshop on Product Life-Cycle Impact Assessment (and chairman of Health Effects Workgroup), Destin, Florida, Feb. 1-6.

142. 12/91: "Risk Management in the '90s: Setting Environmental Priorities." Invited presentation at the 1991 National Orientation Conference, American Legislative Exchange Council, Arlington, Va., Dec. 6.

143. 11/91: "Productive and Counterproductive Paths towards the Goal of Reducing Uncertainty in Risk Assessment." Testimony before the Federal Coordinating Council on Science, Engineering, and Technology (Committee on Life Sciences and Health), Washington, D.C.

144. 11/91: "Making Decisions about Unleaded Gasoline in Light of Equivocal Epidemiologic and Toxicologic Evidence." Invited panelist at the International Symposium on the Health Effects of Gasoline, Miami, Florida, Nov. 8.

145. 10/91: "Cognition and Puzzles of Environmental Choice." Invited panelist at the annual meeting of the Association for Public Policy Analysis and Management, Bethesda, Maryland.

146. 9/91: "Utilization of Risk Information in Decision-Making: A Decision Analyst's View." Presentation at *A Workshop on Improving Risk Characterization* (and co-organizer of workshop, sponsored by American Industrial Health Council, U.S. EPA, and RFF), Washington, D.C., Sept. 26-27.

147. 7/91: "Recommendations for Increasing the Scope and Effectiveness of EPA's Health and

Ecological Research Programs." Testimony before the Committee on Environment and Public Works, U.S. Senate, July 16.

148. 5/91: "Five Recommendations for Helping Risk Assessment Live Up to Our Expectations." Testimony before the Committee on Science, Space, and Technology, Subcommittee on Environment, U.S. House of Representatives, May 21.

149. 10/90: "Rational Risk Reduction: Can We Live With(out) It?" Presented at the 1990 Annual Meeting of the Society for Risk Analysis (SRA), New Orleans [and organizer of session: other speakers included R. Loehr, A. Koines, V. Arroyo].

150. 9/90: "Making Sense of Risk: Advice to Citizen-Decisionmakers." Invited presentation before the Maine Board of Environmental Protection, Augusta.

151. 7/90: "What Risk Assessment Can Do, Cannot Do, and Should Do in Shaping National Energy Policies." Testimony before DOE Secretary James Watkins at a hearing on the National Energy Strategy, Bethesda, Maryland, July 6.

152. 6/90: "Untruths and Half-Truths About Cancer and Risk Assessment." Lecture sponsored by the Louisiana Department of Environmental Quality, Baton Rouge.

153. 2/90: "The 'Porch Potato' and Air Toxics Risk Assessment." Presentation at private briefing for Members, U.S. Senate, Feb. 7.

154. 1/90: "How Scientific Complexity Thwarts Efficient Environmental Protection." Invited paper at "The Keystone Center National Environmental Decisionmaking Forum," Airlie, VA.

155. 6/89: "Air Toxics Legislation and the Reliability of Risk Assessment." Testimony before the House Energy and Commerce Committee, Subcommittee on Health and Environment, June 22.

156. 1/89: "Risk Assessment 'Conservatism' Reevaluated in Light of Uncertainty and Human Variability." Presented at the 1989 Annual Meeting of the American Association for the Advancement of Science (AAAS), San Francisco. [and organizer of symposium at AAAS meeting: other speakers included W. Farland, K. Crump, J. Bailar, R. Sielken].

157. 11/88: "Comments on EPA's Proposed Reevaluation of the Carcinogenic Potency of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin." Testimony before the EPA Science Advisory Board Review Panel on Dioxin, Nov. 29.

158. 10/88: "Uncertainties in Human Input Parameters in New Risk Assessment Models." Presented at the 1988 Annual Meeting of SRA, Washington, D.C. [and organizer of session: other speakers included K. Crump, C. Portier, T. McKone].

159. 8/88: "Research Needs Linking Oncogenes to Quantitative Risk Assessment." Presentation invited by the Electric Power Research Institute (EPRI), Palo Alto, California.

160. 6/88: "Stepping Out of Your Own Shadow: The Benefits of Uncertainty and Value-of-Information Analyses." Presented at the Gordon Research Conference on Risk Assessment of Chemical Substances, Wolfeboro, New Hampshire.

161. 5/88: "Appraising the Value Expected from Further Reduction of Uncertainties." Presented at *Symposium of Human Cancer Risk Assessment Based on Experimental Data*, Wrightsville Beach, North Carolina [and member of planning group which organized this conference].

162. 4/88: "Moderating the 'Risk Transition' in the Industrializing World." Luncheon speech at the Global Development Conference (World Academy of Development and Cooperation), Herndon, VA.

163. 6/87 [with E. Reichard, J. Evans]: "Applications of Value-of-Information Analysis to Superfund Control Decisions." Presented at the 80th Annual Meeting of the Air Pollution Control Association (APCA), New York, (87-41.1).

164. 6/86 [with D. Fingleton, H. Ozkaynak, B. Burbank, and F. Cadena]: "Assessing Exposure to Toxic Substances from Land Disposal of Hazardous Wastes." Presented at the 79th Annual Meeting of APCA, Dallas, TX. Work supported by the DOE, Office of Environmental Analysis.

165. 10/85 [with J. Evans]: "Towards Cost-Effective Methods for Reducing Uncertainty in Environmental Health Decisions." Presented at the annual meeting of SRA, Arlington, VA.

166. 7/85: "Setting Appropriate Levels of Carcinogen Protection in Light of Human Susceptibilities and Perceptions." Invited paper presented at International Student Pugwash Conference, Princeton, N.J.

167. 6/85: "Modeling the Implications of Lognormal Distributions of Human Susceptibility to Carcinogens." Presented at the 78th Annual Meeting of the Air Pollution Control Association, Detroit, Michigan (85-33.7).

168. 10/81 [with R. Golob]: "Policy Implications of the Chemical Control Corp. Hazardous Waste Site Incident." Presented at the Second National Conference on the Management of Uncontrolled Hazardous Waste Sites, Washington, D.C.