

PAUL CHRISTEN (CHRIS) DOCKINS

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EDUCATION

1996	Ph.D., Duke University Economics
1993	M.A., Duke University Economics
1988	B.A., Mercer University Economics; Speech and Dramatic Arts <i>summa cum laude</i>

PRIMARY EMPLOYMENT

2011-Present	Senior Economist National Center for Environmental Economics, US EPA Responsibilities include identifying major, critical technical economics issues; original research and analysis to support and inform Agency decisions.
2006 – 2011	Director , Science Policy and Analysis Division National Center for Environmental Economics, US EPA In addition to original analysis and research, directed and oversaw the work of environmental scientists and policy analysts that links economics with environmental health, risk assessment, and agricultural policy.
2002 – 2006	Economist, Executive Director of EPA Economics Forum National Center for Environmental Economics, US EPA Founded and directed standing intra-agency economics work group to identify and resolve crosscutting technical issues.
1996 – 2002	Economist National Center for Environmental Economics, US EPA

TEACHING EMPLOYMENT

2014 - present	Adjunct Faculty , University of Maryland Master of Applied Economics Program
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2007 – present **Adjunct Faculty**, Johns Hopkins University
Advanced Academic Programs

HONORS AND AWARDS

- 2018 **US EPA Gold Medal for Exceptional Service**
Awarded for contributing economic analysis as part of the Subservice Intrusion Hazardous Rating System Team revising Superfund site evaluation practices.
- 2018 **Best Overall Risk Assessment-related Abstract**
Society of Toxicology, Risk Assessment Specialty Section for “Broad Application of a Probabilistic Dose-Response Framework to Improve Chemical Risk Assessment” (co-author)
- 2017 **Spring 2017 Teaching Award**
Awarded by University of Maryland, Applied Economics Program for teaching Environmental Economics
- 2017 **EPA Bronze Medal for Commendable Service** – Nine awards from 1998-2017
- 2007 **EPA Silver Medal for Superior Service** – Four awards from 2004-2007.
- 2002 **US EPA Gold Medal for Exceptional Service**
Awarded for contributing economic analysis as part of the Arsenic Technical Review Team evaluating drinking water standards.

PUBLICATIONS

PEER-REVIEWED JOURNAL ARTICLES AND BOOK CHAPTERS

“What’s in a Name? A Search for Alternatives to ‘VSL’,” with N Simon, K Maguire, S Newbold, A Krupnick, and L Taylor. *Review of Environmental Economics and Policy*. 2019.

“Preterm Birth and Economic Benefits of Reduced Maternal Exposure to Fine Particulate Matter,” with J Kim and D Axelrad. *Environmental Research*. 2018.

“Broad Application of a Probabilistic Dose-Response Framework to Improve Chemical Risk Assessment,” with W Chiu, K Shao, D Axelrad, D Chimeddulam, and A Shapiro. Submitted to *Environmental Health Perspectives*. 2018.

“Defining the Baseline” with Charles Griffiths, in *Teaching Benefit-Cost Analysis*, Scott Farrow, editor. Cambridge University Press. 2018.

“Valuing Ecological Improvements in the Chesapeake Bay and the Importance of Ancillary Benefits,” with C Moore, D Guignet, K Maguire, and N Simon, *Journal of Benefit-Cost Analysis*, 2017.

“Estimating the health benefits of environmental regulations,” with A McGartland, R Revesz, D Axelrad, P Sutton, and T Woodruff. *Science*, 2017.

“Framework for Human Health Risk Assessment to Inform Decision Making,” with J Fitzpatrick, R Schoeny, K Gallagher, K Deener, M Firestone, W Jordan, M McDonough, D Murphy, M Olson, and K Raffaele, *International Journal of Risk Assessment and Risk Management*, 2017.

“Lessons from risk assessment, economics, and risk management at EPA,” with W Wheeler, in *Benefit–Cost Analyses for Security Policies: Does Increased Safety Have to Reduce Efficiency?* C Mansfield and VK Smith, editors (Edward Elgar 2015)

“Guidelines for Preparing Economic Analyses,” with Nathalie Simon in *Environmental and Natural Resources Economics*, T Haab and J Whitehead, editors (Greenwood 2014).

“Meeting Report: Estimating the Benefits of Reduced Hazardous Air Pollutants – Summary of 2009 Workshop and Future Consideration,” with M Gwinn, J Craig, D Axelrad, R Cook, N Fann, R Fegley, D Guinnup, G Helfand, B Hubbell, S Mazure, T Palma, R Smith, J Vandenberg, and B Sonawane. *Environmental Health Perspectives*, 2011.

“Cancer Premiums and Latency Effects: A Risk Tradeoff Approach for Valuing Reductions in Fatal Cancer Risks,” with G Van Houtven and M Sullivan. *Journal of Risk and Uncertainty*, 2008.

"Risk Assessment for Benefits Analysis: Framework for Analysis of a Thyroid-Disrupting Chemical" with D Axelrad, K Baetcke, C Griffiths, R Hill, P Murphy, N Owens, N Simon, and L Teuschler. *Journal of Toxicology and Environmental Health*, 68(11-12), 2007.

"Linking Economics and Risk Assessment" with C Griffiths, N Owens, N Simon, and D Axelrad. *Journal of Toxicology and Environmental Health*, 67(8-10): 611-620, 2004.

“What to Do at Low Doses: A Bounding Approach for Economic Analysis,” with C Griffiths, D Axelrad, N Owens, and N Simon. *Risk Analysis*, v22(4) 2002.

“Valuation of Childhood Risk Reduction: The Importance of Age, Risk Preferences and Perspective,” with R Jenkins, N Owens, N Simon, and L Wiggins. *Risk Analysis*, v22(2) 2002.

“Assessing Conservatism in Individual Risk Estimates,” with WK Viscusi and J Hamilton in *Calculating Risks?* (MIT Press, Cambridge MA, 1999)

“Conservative vs. Mean Risk Assessments: Implications for Superfund Policies,” with WK Viscusi and J Hamilton. *Journal of Environmental Economics and Management*, 1997.

OTHER MANUSCRIPTS AND SELECT REPORTS

“Preterm Birth and Economic Benefits of Reduced Maternal Exposure to Fine Particulate Matter,” with J Kim and D Axelrad. NCEE Working Paper #2018-03. 2018.

“Muddying the Water? An Analysis of Non-Constant Baselines in Stated Preference Surveys,” with C Moore, K Maguire, D Guignet, and N Simon. NCEE Working Paper #2018-02. 2018.

“What’s in a Name? A Systematic Search for Alternatives to “VSL”,” with N Simon, K Maguire, S Newbold, L Taylor, A Krupnick. NCEE Working Paper #2018-01. 2018.

“Valuing mortality risk reductions for policy: a meta-analytic approach,” with K Maguire, C Moore, S Newbold, and N Simon. Prepared for the Science Advisory Board, Environmental Economics Advisory Committee. US EPA. 2016.

“A Stated Preference Study of the Chesapeake Bay and Watershed Lakes,” with C Moore, D Guignet, K Maguire, and N Simon. NCEE Working Paper #15-06. 2015.

Framework for Human Health Risk Assessment to Inform Decision Making, EPA-100/R-14/001. US EPA. 2014 (contributing author).

“Valuing Mortality Risk Reductions for Environmental Policy: A White Paper,” with K Maguire, C Moore, S Newbold, and N Simon, prepared for EPA Science Advisory Board review, 2011.

“Discounting Future Costs and Benefits,” Chapter 6 in EPA’s *Guidelines for Preparing Economic Analysis*, 2010 (lead author).

“Presentation of Analysis and Results,” Chapter 11 in EPA’s *Guidelines for Preparing Economic Analyses*, 2010 (lead author).

“Analyzing Benefits,” Chapter 7 in EPA’s *Guidelines for Preparing Economic Analyses*, 2010 (contributing author).

"Valuing Mortality Risk Reductions for Environmental Policy Using Stated Preference Data," working paper, presented at Southern Economic Association, 2008.

“Willingness to Pay for Environmental Health Risk Reductions when there are Varying Degrees of Life Expectancy: A White Paper,” with K Maguire and N Simon, prepared for review by the Science Advisory Board, Environmental Economics Advisory Committee, 2006.

“Value of Statistical Life Analysis and Environmental Policy: A White Paper,” with K Maguire and N Simon, prepared for review by the Science Advisory Board, Environmental Economics Advisory Committee, 2004.

“Social Benefits and Costs,” Appendix 1 of *2003-2008 EPA Strategic Plan*, editor and co-author, US EPA, 2003.

Children’s Health Valuation Handbook (co-author) US EPA. 2003.

“Valuation of Cancer Risk in Children and Adults in Minnesota,” (with N Simon). Workshop Paper, November 2003.

Guidelines for Preparing Economic Analyses, US EPA 240-R-00-003. 2000. Lead author, editor, and project co-leader (with Brett Snyder)

“Valuing Fatal Cancer Risk Reductions,” (with B Snyder and M Williams) prepared for the Science Advisory Board, Environmental Economics Advisory Committee, 2000.

SELECTED CONFERENCE PRESENTATIONS

“Quantifying non-cancer risks for benefits analysis,” *Southern Economic Association*. November 2019.

“Valuing changes in health and health risks, including chronic consequences,” *International Food Safety Regulatory Economics Working Group*. March 2019.

“Regulatory Impact Analysis for Risk-Reduction Policies,” with Charles Griffiths. Workshop prepared for *Society for Risk Analysis*. December 2018.

“Estimating Changes in the Fatality Risk Premium,” *Society for Benefit-Cost Analysis*. March 2018.

“Preterm Birth and Potential Economic Benefits of Reduced Maternal Exposure to Fine Particulate Matter,” with J Kim and D Axelrad, prepared for *National Institute of Environmental Health Science 50th Anniversary FEST*. December 2016.

“Benefit-Cost Analysis and Risk Assessment,” prepared by invitation for *Food Standards Australia New Zealand (FSANZ) Integrating Risk Assessment and Economics* conference. February 2016.

“Chemicals Management and Aligning Risk Assessment and Economic Analysis,” prepared by invitation for *OECD Best Practices in Economic Analysis to Support Chemicals Management* conference, February, 2015.

“Advancing Methods for Benefits Analysis,” prepared for *Society for Risk Analysis* annual meeting. December 2015. (poster)

“Recent Efforts for Aligning Risk Assessment and Economic Analysis at EPA,” prepared for *Society for Risk Analysis* annual meeting. December 2013.

“Economic Considerations for Sustainability” prepared for the *National Research Council Committee on Scientific Tools and Approaches for Sustainability*. December 2013.

“Publication Bias in the Hedonic Wage Literature” prepared for *Agricultural and Applied Economics Association*. August 2013.

“Key Principles and Practices for Performing Benefit-Cost Analysis at EPA” prepared for *Ozone Transport Commission* annual meeting. September 2012.

“EPA Risk Assessment and Risk Management: Applications to Homeland Security Policy Analysis” prepared for *Estimating the Benefits of Homeland Security Policies Conference* (RTI). October 2010.

“Economic Frameworks for Environmental Policy” presented by invitation at (1) Qinghua University; (2) Chinese Academy for Environmental Planning; and (3) State Environmental Protection Administration, Beijing, China. May 2008.

“Benefit-Cost Analysis for Drinking Water Regulation” presented by invitation at (1) Qinghua University; (2) Chinese Academy for Environmental Planning; and (3) State Environmental Protection Administration, Beijing, China. May 2008.

“Valuing Cancer Risk Reductions for Adults and Children” presented at the *Society for Risk Analysis* annual meeting, December, 2007.

“Risk Assessment to Benefit-Cost Analysis to Decision Making” prepared for *Society for Risk Analysis* annual meeting, December, 2007.

“Assessing the Benefits of Drinking Water Rules: Case Study” prepared for *Society for Risk Analysis* annual meeting, December, 2007.

“Economic Analysis and Cessation Lag” for *Society for Risk Analysis* annual meeting, December, 2006.

“Valuing Health Risks: A Practitioner’s Perspective,” *Valuing Health Outcomes: An Assessment of Approaches*, Resources for the Future, 2003.

“Risk Assessment and Economics for Managing Chemical Risks: The US EPA Approach,” presented by invitation at *AIST International Symposium on Risk Management Technology for Chemical Substances for a Safe, Secure Life*, Tokyo, Japan, 2003.