

# Michael L. DeKay

Curriculum Vitae  
November 2009

## Office

Department of Psychology  
The Ohio State University  
224 Lazenby Hall  
1827 Neil Avenue  
Columbus, OH 43210  
614-292-1837  
614-688-3984 (fax)  
de kay.3@osu.edu  
<http://faculty.psy.ohio-state.edu/dekay>  
<http://web.me.com/mikedekay/DeKayOSU/Home.html>

## Home

82 Montrose Way  
Columbus, OH 43214  
614-263-6468

## Education

- 1994      Ph.D. University of Colorado, Boulder, CO,  
Social Psychology.  
Dissertation: *How sure is sure enough? Outcome evaluations and action thresholds in binary decisions.*  
Advisor: Gary H. McClelland.
- 1992      M.A. University of Colorado, Boulder, CO,  
Social Psychology.
- 1988      University of Oregon, Eugene, OR,  
Coursework in psychology.
- 1987      M.S. Cornell University, Ithaca, NY,  
Organic Chemistry.
- 1985      B.S. California Institute of Technology, Pasadena, CA,  
Chemistry (with honors).

## Employment

2007–present Associate Professor, Quantitative Psychology Program, Department of Psychology, The Ohio State University, Columbus, OH.

### *Research*

Judgment and decision making, including risk perception, precautionary reasoning, information distortion in risky decisions, and the perceived fungibility of outcomes in repeated-play decisions.

### *Teaching*

Psychology of judgment and decision making.

2006–2007 Associate Research Professor, Department of Engineering and Public Policy (EPP), Carnegie Mellon University, Pittsburgh, PA.

Courtesy appointment, Department of Social and Decision Sciences (SDS), Carnegie Mellon University, Pittsburgh, PA.

*Research*

Judgment and decision making in environmental and medical domains, including risk perception, risk communication, risk ranking, precautionary reasoning, information distortion in risky decisions, and the perceived fungibility of outcomes in repeated-play decisions.

*Teaching*

Applied data analysis.

1996–2006 Associate Professor (2003–2006) and Assistant Professor (1996–2003), Department of Engineering and Public Policy and H. John Heinz III School of Public Policy and Management (Heinz), Carnegie Mellon University, Pittsburgh, PA.

*Research*

Judgment and decision making, as described above.

*Teaching*

Research methods and statistics, decision making, and interdisciplinary projects.

1994–1996 Health Services Research Specialist, Veterans Affairs Medical Center, Philadelphia, PA  
Post-Doctoral Fellow, Operations and Information Management Department, The Wharton School, University of Pennsylvania, Philadelphia, PA  
Senior Fellow, Leonard Davis Institute for Health Economics, University of Pennsylvania, Philadelphia, PA.

Medical decision making, including the defensive use of diagnostic tests, cost-effectiveness of strategies for genetic testing, normative and descriptive models of organ allocation, nurse involvement in euthanasia, and individual versus aggregate risk in medical practice and policy.

1989–1994 Research and Teaching Assistant, Social Psychology, Department of Psychology, University of Colorado.

*Research*

Decision thresholds, responses to natural hazards, the accuracy and value of forecasts, person perception, person memory, social aspects of environmental issues, and environmental valuation.

*Teaching*

Undergraduate research methods and statistics.

1991–1994 Free-lance statistics and graphics consultant, Boulder, CO.

- 1987–1989 Research Assistant, Cognitive Psychology, Department of Psychology, University of Oregon.  
Processes of handwritten character differentiation.
- 1987 Research Assistant, Cognitive Psychology, Department of Psychology, Cornell University.  
Representational momentum in memory for pitch.
- 1986 Research Fellow and Teaching Assistant, Department of Chemistry, Cornell University.  
*Research*  
Organic synthesis and mechanistic enzymology.  
*Teaching*  
Undergraduate organic chemistry laboratory.
- 1985 Undergraduate Research Assistant, Department of Chemistry, California Institute of Technology.  
Artificial liposomes and lambda phage DNA injection.
- 1984 Research Intern, Chemistry, Kodak Research Laboratories, Rochester, NY.  
Organic synthesis for photography and bioassay systems.
- 1983 Laboratory Technician, Chemistry, Mississippi Forest Products Laboratory, Mississippi State University, Starkville, MS.  
Organic synthesis and high performance liquid chromatography.

## Publications

\*Student or recent student as first author.

### *Peer-Reviewed Journal Articles*

- DeKay, M. L.**, Patiño-Echeverri, D., & Fischbeck, P. S. (2009). Better safe than sorry: Precautionary reasoning and implied dominance in risky decisions. *Journal of Behavioral Decision Making*, 22, 338–361.
- DeKay, M. L.** (2009). Physicians' anticipated regret and diagnostic testing: Comment on Hozo and Djulbegovic, 2008. *Medical Decision Making*, 29, 317–319.
- DeKay, M. L.**, Patiño-Echeverri, D., & Fischbeck, P. S. (2009). Distortion of probability and outcome information in risky decisions. *Organizational Behavior and Human Decision Processes*, 109, 79–92.
- \*Attari, S. Z., Schoen, M., Davidson, C. I., **DeKay, M. L.**, Bruine de Bruin, W., Dawes, R., & Small, M. J. (2009). Preferences for change: Do individuals prefer voluntary action, soft regulations, or hard regulations to decrease fossil fuel consumption? *Ecological Economics*, 68, 1701–1710.
- \*Willis, H. H., & **DeKay, M. L.** (2007). The roles of group membership, beliefs, and norms in ecological risk perception. *Risk Analysis*, 27, 1365–1380.

- Bronfman, N. C., Cifuentes, L. A., **DeKay, M. L.**, & Willis, H. H. (2007). Accounting for variation in the explanatory power of the psychometric paradigm: The effects of aggregation and focus. *Journal of Risk Research*, *10*, 527–554.
- DeKay, M. L.**, Hershey, J. C., Spranca, M. D., Ubel, P. A., & Asch, D. A. (2006). Are medical treatments for individuals and groups like single-play and multiple-play gambles? *Judgment and Decision Making*, *1*, 134–145.
- DeKay, M. L.**, & Kim, T. G. (2005). When things don't add up: The role of perceived fungibility in repeated-play decisions. *Psychological Science*, *16*, 667–672.
- \*Willis, H. H., **DeKay, M. L.**, Fischhoff, B., & Morgan, M. G. (2005). Aggregate, disaggregate, and hybrid analyses of ecological risk perceptions. *Risk Analysis*, *25*, 405–428.
- \*Willis, H. H., **DeKay, M. L.**, Morgan, M. G., Florig, H. K., & Fischbeck, P. S. (2004). Ecological risk ranking: Development and evaluation of a method for improving public participation in environmental decision making. *Risk Analysis*, *24*, 363–378.
- DeKay, M. L.**, Small, M. J., Fischbeck, P. S., Farrow, R. S., Cullen, A., Kadane, J. B., Lave, L. B., Morgan, M. G., & Takemura, K. (2002). Risk-based decision analysis in support of precautionary policies. *Journal of Risk Research*, *5*, 391–417. Reprinted in R. E. Löfstedt & Å. Boholm (Eds.), (2009), *The Earthscan reader on risk* (pp. 221–248), London: Earthscan.
- DeKay, M. L.**, Greeno, C. G., & Houck, P. R. (2002). Searching for a two-factor model of marriage duration: Commentary on Gottman and Levenson. *Family Process*, *41*, 97–103.
- Florig, H. K., Morgan, M. G., Morgan, K. M., Jenni, K. E., Fischhoff, B., Fischbeck, P. S., & **DeKay, M. L.** (2001). A deliberative method for ranking risks (I): Overview and test bed development. *Risk Analysis*, *21*, 913–921.
- \*Morgan, K. M., **DeKay, M. L.**, Fischbeck, P. S., Fischhoff, B., Morgan, M. G., & Florig, H. K. (2001). A deliberative method for ranking risks (II): Evaluation of validity and agreement among risk managers. *Risk Analysis*, *21*, 923–937.
- Morgan, M. G., Florig, H. K., **DeKay, M. L.**, & Fischbeck, P. S. (2000). Categorizing risks for risk ranking. *Risk Analysis*, *20*, 49–58.
- DeKay, M. L.**, Nickerson, C. A. E., Ubel, P. A., Hershey, J. C., Spranca, M. D., & Asch, D. A. (2000). Further explorations of medical decisions for individuals and groups. *Medical Decision Making*, *20*, 39–44.
- Ubel, P. A., Spranca, M. D., **DeKay, M. L.**, Hershey, J. C., & Asch, D. A. (1998). Public preferences for prevention versus cure: What if an ounce of prevention is worth only an ounce of cure? *Medical Decision Making*, *18*, 141–148.
- Asch, D. A., Hershey, J. C., **DeKay, M. L.**, Pauly, M. V., Patton, J. P., Jedrzejewski, M. K., Frei, F., Giardine, R., Kant, J. A., & Mennuti, M. T. (1998). Carrier screening for cystic fibrosis: Costs and clinical outcomes. *Medical Decision Making*, *18*, 202–212.
- DeKay, M. L.**, & Asch, D. A. (1998). Is the defensive use of diagnostic tests good for patients, or bad? *Medical Decision Making*, *18*, 19–28.

- DeKay, M. L.**, & Asch, D. A. (1998). Offensive testing—the balancing act, the evil twin, and the pure play. *Medical Decision Making*, *18*, 35–36.
- Asch, D. A., & **DeKay, M. L.** (1997). Euthanasia among U.S. critical care nurses: Practices, attitudes, and social and professional correlates. *Medical Care*, *35*, 890–900.
- Ubel, P. A., **DeKay, M. L.**, Baron, J., & Asch, D. A. (1996). Public preferences for efficiency and racial equity in kidney transplant allocation decisions. *Transplantation Proceedings*, *28*, 2997–3002.
- DeKay, M. L.** (1996). The difference between Blackstone-like error ratios and probabilistic standards of proof. *Law & Social Inquiry*, *21*, 95–132. Summarized in Mazur, D. J. (1998). Recent developments: Judgmental psychology, law, and ethics. *Medical Decision Making*, *18*, 246.
- Ubel, P. A., **DeKay, M. L.**, Baron, J., & Asch, D. A. (1996). Cost-effectiveness analysis in a setting of budget constraints: Is it equitable? *New England Journal of Medicine*, *334*, 1174–1177. Outstanding Paper by a Young Investigator (award to Peter A. Ubel), Society for Medical Decision Making.
- DeKay, M. L.**, & McClelland, G. H. (1996). Probability and utility components of endangered species preservation programs. *Journal of Experimental Psychology: Applied*, *2*, 60–83.
- Park, B., **DeKay, M. L.**, & Kraus, S. (1994). Aggregating social behavior into person models: Perceiver-induced consistency. *Journal of Personality and Social Psychology*, *66*, 437–459.
- DeKay, M. L.**, & McClelland, G. H. (1993). Predicting loss of life in cases of dam failure and flash flood. *Risk Analysis*, *13*, 193–205.
- DeKay, M. L.**, & Freyd, J. J. (1991). The effect of drawing method on the discriminability of characters. *Visible Language*, *25*, 377–414.
- Freyd, J. J., Kelly, M. H., & **DeKay, M. L.** (1990). Representational momentum in memory for pitch. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *16*, 1107–1117.

*Peer-Reviewed Book Chapters, Proceedings, and Reports*

- DeKay, M. L.**, Small, M. J., Fischbeck, P. S., Farrow, R. S., Cullen, A., Kadane, J. B., Lave, L. B., Morgan, M. G., & Takemura, K. (2009). Risk-based decision analysis in support of precautionary policies. In R. E. Löfstedt & Å. Boholm (Eds.), *The Earthscan reader on risk* (pp. 221–248). London: Earthscan. Reprinted from DeKay et al. (2002).
- National Research Council. (2008). *Public participation in environmental assessment and decision making*. Panel on Public Participation in Environmental Assessment and Decision Making, T. Dietz & P. C. Stern (Eds.). Washington, DC: National Academies Press.

\*Schoen, M. E., Small, M., **DeKay, M. L.**, Casman, E., & Kroll, C. (2007). Effect of climate change on design-period low flows in the Mid-Atlantic US. In K. C. Kabbes (Ed.), *Proceedings of the world environmental and water resources congress: Restoring our natural habitat* [CD-ROM]. Reston, VA: American Society of Civil Engineers.

**DeKay, M. L.**, Fischbeck, P. S., Florig, H. K., Morgan, M. G., Morgan, K. M., Fischhoff, B., & Jenni, K. E. (2005). Judgment-based risk ranking for food safety. In S. A. Hoffmann & M. R. Taylor (Eds.), *Toward safer food: Perspectives on risk and priority setting* (pp. 198–226). Washington, DC: Resources for the Future.

**DeKay, M. L.**, Florig, H. K., Fischbeck, P. S., Morgan, M. G., Morgan, K. M., Fischhoff, B., & Jenni, K. E. (2001). The use of public risk ranking in regulatory development. In P. S. Fischbeck & R. S. Farrow (Eds.), *Improving regulation: Cases in environment, health, and safety* (pp. 208–230). Washington, DC: Resources for the Future.

#### *Other Publications and Reports*

\*Attari, S. Z., Davidson, C. I., **DeKay, M. L.**, Bruine de Bruin, W., & Dawes, R. (2009). *Decreasing demand: Attempting to facilitate energy conservation by changing individual behavior*. Pittsburgh, PA: Carnegie Mellon University, Center for Risk Perception and Communication. Available at <http://sds.hss.cmu.edu/risk/articles/DecreasingDemand.pdf>

**DeKay, M. L.** (2003). Interdisciplinarity is norm at Carnegie Mellon [Invited essay]. *Observer*, 16(4), 17, 45. (*Observer* is a monthly publication of the Association for Psychological Science, formerly the American Psychological Society.)

**DeKay, M. L.** (2002). Thoughts on extreme events [Invited essay]. In T. R. Stewart & A. Bostrom, *Extreme event decision making* [Workshop report] (pp. 38–40). Albany, NY: University at Albany, Center for Policy Research.

\*Morgan, K. M., **DeKay, M. L.**, & Fischbeck, P. S. (1999). A multi-attribute approach to risk prioritization. *Risk Policy Report*, 6(6), 38–40.

**DeKay, M. L.** (1995). How sure is sure enough? Outcome evaluations and action thresholds in binary decisions (Doctoral dissertation, University of Colorado, Boulder, 1994). *Dissertation Abstracts International-B*, 56(2), 1148. (University Microfilms No. AAC 9518612).

**DeKay, M. L.**, & McClelland, G. H. (1991). *Setting decision thresholds for dam failure warnings: A practical theory-based approach* (Tech. Rep. No. 328). Boulder: University of Colorado, Center for Research on Judgment and Policy.

#### *Manuscripts Submitted for Publication*

\*Attari, S., **DeKay, M. L.**, Davidson, C. I., & Bruine de Bruin, W. Public perceptions of energy consumption and savings. Under review.

**DeKay, M. L.** Are medical outcomes fungible? A survey of voters, medical administrators, and physicians. Under review.

**DeKay, M. L.**, & Stone, E. R. Leader-driven distortions of probabilities and payoffs affect choices between risky prospects. Revision in progress.

- \*Xu, J., Florig, H. K., & **DeKay, M. L.** Evaluating an analytic-deliberative process for ranking environmental risks in China. Under review.

*Manuscripts in Preparation*

- Crow, J., & **DeKay, M. L.** Have it *this* way: The effect of defaults in multiattribute choice.  
**DeKay, M. L.** The effects of anticipated regret on decisions about diagnostic testing.

**Conference and University Presentations**

- \*Student or recent student as first author.

- \*Attari, S. Z., **DeKay, M. L.**, Davidson, C. I., & Bruine de Bruin, W. (2009, November). *Lay perceptions of energy consumption*. Poster to be presented at the annual meeting of the Society for Judgment and Decision Making, Boston, MA.

- \*Miller, S. A., & **DeKay, M. L.** (2009, November). *Predecisional distortion in multiple domains of risky choice*. Poster to be presented at the annual meeting of the Society for Judgment and Decision Making, Boston, MA.

- \*Attari, S. Z., Schoen, M., Davidson, C. I., **DeKay, M. L.**, Bruine de Bruin, W., Dawes, R., & Small, M. J. (2009, June). *Preferences for change: Do individuals prefer voluntary action, soft regulations, or hard regulations to decrease fossil fuel consumption?* Oral presentation at the bi-annual meeting of the United States Society for Ecological Economics, Washington, DC.

- Dietz, T., Stern, P. C., Bingham, G., Chess, C., **DeKay, M. L.**, Fox, J. M., Lewis, S. C., Markus, G. B., North, D. W., & Renn, O. (2008, December). *Public participation in environmental assessment and decision making: A National Research Council report*. Oral presentation at the annual meeting of the Society for Risk Analysis, Boston, MA.

- DeKay, M. L.**, Stone, E. R., & Sorenson, C. M. (2008, November). *The cost of payoff and probability distortions in risky monetary gambles*. Oral presentation at the annual meeting of the Society for Judgment and Decision Making, Chicago, IL.

- DeKay, M. L.**, & Stone, E. R. (2007, November). *Distortion of payoffs and probabilities in mixed monetary gambles*. Poster presentation at the annual meeting of the Society for Judgment and Decision Making, Long Beach, CA.

- \*Attari, S., Schoen, M., Davidson, C., Loewenstein, G., **DeKay, M. L.**, Bruine de Bruin, W., Dawes, R., & Small, M. (2007, November). *Preferences for change: Which do individuals prefer? Voluntary actions, soft regulations, or hard regulations*. Poster presentation at the American Council for an Energy-Efficient Economy's Behavior, Energy, and Climate Change Conference, Sacramento, CA.

- \*Schoen, M., Small, M., **DeKay, M. L.**, Casman, E., & Kroll, C. (2007, July). *Effect of climate change on design-period low flows in the Mid-Atlantic US*. Poster presentation at the bi-annual meeting of the Association of Environmental Engineering and Science Processors, Blacksburg, VA.

- DeKay, M. L.** (2007, February). *True warnings and false alarms*. Invited oral presentation at the Department of Psychology, Kansas State University, Manhattan, KS.

- DeKay, M. L.** (2007, February). *Distortion of outcome and probability information in risky decisions*. Invited oral presentation at the Department of Psychology, Kansas State University, Manhattan, KS.
- DeKay, M. L.** (2007, January). *Distortion of outcome and probability information in risky decisions*. Invited oral presentation at the Department of Psychology, Ohio University, Athens, OH.
- DeKay, M. L.** (2007, January). *Distortion of outcome and probability information in risky decisions*. Invited oral presentation at the Department of Psychology, The Ohio State University, Columbus, OH.
- DeKay, M. L., & Holbrook, M. B.** (2005, November). *The remarkable persistence of certainty and possibility effects in repeated-play monetary and nonmonetary decisions*. Oral presentation at the annual meeting of the Society for Judgment and Decision Making, Toronto, ON, Canada.
- \***Schoen, M., Small, M., DeKay, M. L., Casman, E., & Kroll, C.** (2005, July). *Potential effect of climate change on design-period low flows in the Mid-Atlantic US*. Oral presentation at the American Society of Civil Engineers Watershed Management Conference, Williamsburg, VA.
- DeKay, M. L., & Kim, T. G.** (2004, November). *When things don't add up: The role of perceived fungibility in repeated-play decisions*. Oral presentation at the annual meeting of the Society for Judgment and Decision Making, Minneapolis, MN.
- \***Murshid, N., DeKay, M. L., & Davis, O. A.** (2004, April). *The basic components of economic freedom*. Oral paper presentation at the 29th annual Conference of the Association of Private Enterprise Education. Nassau, Bahamas.
- DeKay, M. L., Fischbeck, P. S., Patiño-Echeverri, D., & Hartman, J. A.** (2003, November). *Information distortion and utility reversals in precautionary reasoning*. Poster presentation at the annual meeting of the Society for Judgment and Decision Making, Vancouver, BC, Canada.
- DeKay, M. L., Kim, T. G., & Tuma, N. C.** (2003, November). *Perceived fungibility and repeated-play decisions*. Poster presentation at the annual meeting of the Society for Judgment and Decision Making, Vancouver, BC, Canada.
- \***Willis, H. H., & DeKay, M. L.** (2002, December). *The roles of group membership and worldview in ecological risk perception*. Oral presentation at the annual meeting of the Society for Risk Analysis, New Orleans, LA.
- DeKay, M. L., Fischbeck, P. S., & Patiño-Echeverri, D.** (2003, September). *Reversals in assessments of outcome utilities: The result of precautionary reasoning?* Oral presentation at the Department of Philosophy, Carnegie Mellon University, Pittsburgh, PA.

- DeKay, M. L.**, Morgan, G. M., Fischbeck, P. S., Fischhoff, B., Florig, H.K., Morgan, K. M., Willis, H. H., & Palmgren, C. R. [presented by M. S. Small]. (2002, October). *Conducting risk-ranking exercises as if the results really mattered*. Oral presentation at the NATO Workshop on Comparative Risk Assessment and Environmental Decision Making, Rome, Italy.
- DeKay, M. L.** (2002, October). *Conducting risk-ranking exercises as if the results really mattered*. Invited oral presentation at the Department of Psychology, The Ohio State University, Columbus, OH.
- \*Willis, H. H., **DeKay, M. L.**, Fischbeck, P. S., Fischhoff, B., Florig, H. K., Morgan, G. M., & Palmgren, C. R. (2001, December). *Ecological risk ranking: Evaluation of a method to improve the quality of public participation in environmental decision making*. Oral presentation at the annual meeting of the Society for Risk Analysis, Seattle, WA.
- \*Willis, H. H., & **DeKay, M. L.** (2001, November). *The roles of group membership and worldview in ecological risk perception*. Poster presentation at the annual meeting of the Society for Judgment and Decision Making, Orlando, FL.
- DeKay, M. L.**, Morgan, M. G., Fischbeck, P. S., Fischhoff, B., Florig, H.K., Morgan, K. M., Willis, H. H., & Palmgren, C. R. (2001, November). *Conducting risk-ranking exercises as if the results really mattered*. Oral presentation at the 17th annual meeting of the Brunswik Society, Orlando, FL.
- \*Willis, H. H., **DeKay, M. L.**, & Fischbeck, P. S. (2001, November). *Risk perception, risk communication, and public participation in environmental decision making*. Half-day short course presented at the 22nd annual meeting of the Society of Environmental Toxicology and Chemistry, Baltimore, MD.
- \*Willis, H. H., **DeKay, M. L.**, Fischbeck, P. S., Fischhoff, B., Florig, H. K., Morgan, G. M., & Palmgren, C. R. (2001, November). *Ecological risk ranking: Evaluation of a method to improve the quality of public participation in environmental decision making*. Oral presentation at the annual meeting of the Institute for Operations Research and the Management Sciences, Miami, FL.
- DeKay, M. L.** (2001, June). *Psychological theories of equity*. Oral presentation at the sixth annual meeting of the Center for Integrated Study of the Human Dimensions of Global Change, Pittsburgh, PA.
- DeKay, M. L.**, & Knudsen, B. B. (2000, December). *Reversals in assessments of outcome utilities: The result of precautionary decision making?* Oral presentation at the annual meeting of the Society for Risk Analysis, Arlington, VA.
- Fischbeck, P. S., **DeKay, M. L.**, Fischhoff, B., Morgan, M. G., Florig, H. K., Palmgren, C. R., & Willis, H. H. (2000, December). *Evaluating a risk-ranking methodology*. Oral presentation at the annual meeting of the Society for Risk Analysis, Arlington, VA.
- \*Willis, H. H., **DeKay, M. L.**, Fischbeck, P. S., Fischhoff, B., Florig, H. K., Morgan, M. G., & Palmgren, C. R. (2000, December). *Extension of the Carnegie Mellon risk-ranking test bed to include environmental and ecological factors*. Oral presentation at the annual meeting of the Society for Risk Analysis, Arlington, VA.

- DeKay, M. L.**, & Willis, H. H. (2000, November). *Public perceptions of environmental risks*. Oral presentation at the annual meeting of the Society for Judgment and Decision Making, New Orleans, LA.
- \*Morgan, K. M., Fischbeck, P. S., & **DeKay, M. L.** (1999, November). *Assessing a multi-attribute model for ranking risks*. Oral paper presentation at the annual meeting of the Institute for Operations Research and the Management Sciences, Philadelphia, PA. First place, Decision Analysis Society Student Paper Competition (award to Kara M. Morgan).
- \*Morgan, K. M., **DeKay, M. L.**, Fischbeck, P. S., Morgan, M. G., Florig, H. K., & Fischhoff, B. (1998, November). *Development of a method for risk ranking*. Poster presentation at the annual meeting of the Society for Judgment and Decision Making, Dallas, TX.
- \*Morgan, K. M., **DeKay, M. L.**, Fischbeck, P. S., Morgan, M. G., Florig, H. K., & Fischhoff, B. (1998, October). *Development of a method for risk ranking*. Oral presentation at the 20th annual research conference of the Association for Public Policy Analysis and Management, Washington, DC.
- \*Morgan, K. M., Fischbeck, P. S., & **DeKay, M. L.** (1998, October). *Using a multi-attribute utility model to rank environmental and health risks*. Oral presentation at the annual meeting of the Institute for Operations Research and the Management Sciences, Seattle, WA.
- Florig, K., Morgan, M. G., Fischhoff, B., & **DeKay, M. L.** (1997, December). *Grouping risks into categories for risk ranking*. Oral presentation at the annual meeting of the Society for Risk Analysis, Washington, DC.
- \*Morgan, K., **DeKay, M. L.**, Morgan, M. G., Fischhoff, B., Florig, K., & Jenni, K. (1997, December). *Refining and evaluating a method for risk ranking*. Oral presentation at the annual meeting of the Society for Risk Analysis, Washington, DC.
- Morgan, M. G., Fischhoff, B., Florig, K., Jenni, K., Morgan, K., **DeKay, M. L.**, & Fischbeck, P. (1997, December). *A method for ranking risks*. Oral presentation at the annual meeting of the Society for Risk Analysis, Washington, DC.
- DeKay, M. L.**, McClelland, G. H., Asch, D. A., & Ubel, P. A. (1997, November). *Public values and organ allocation policy*. Oral paper presentation at the 19th annual research conference of the Association for Public Policy and Management, Washington, DC.
- DeKay, M. L.**, Hershey, J. C., Spranca, M. D., Ubel, P. A., & Asch, D. A. (1997, October). *More (or less) on the distinction between individuals and groups*. Plenary oral presentation at the annual meeting of the Society for Medical Decision Making, Houston, TX. Abstract: *Medical Decision Making*, 17, 543.
- DeKay, M. L.**, Morgan, M. G., Fischhoff, B., Florig, K., Jenni, K., Morgan, K., & Fischbeck, P. (1997, October). *Developing and refining a method for ranking risks to health and uncertainty*. Poster presentation at the annual meeting of the Society for Medical Decision Making, Houston, TX. Abstract: *Medical Decision Making*, 17, 518.

- DeKay, M. L.** (1997, June). *The role of public preferences in organ allocation policy*. Invited oral presentation and workshop, University-Community Leaders and Individuals with Disabilities (UCLID) Dialogue on Health-Related Quality of Life, Pittsburgh, PA.
- DeKay, M. L.** (1996, October). *Measures of value and the value of measures: A discussion of social indicators and contingent valuation*. Invited discussant at the 18th annual research conference of the Association for Public Policy and Management, Pittsburgh, PA.
- DeKay, M. L.** (1996, May). *Prioritizing candidates for organ transplant: Expected utility and public policy*. Invited oral presentation at the Department of Psychology, Colorado State University, Fort Collins, CO.
- DeKay, M. L.** (1996, April). *Applications of expected utility theory in public policy: Prioritizing endangered species preservation programs and prioritizing candidates for organ transplant*. Invited oral presentation at the Department of Engineering and Public Policy, Carnegie Mellon University, Pittsburgh, PA.
- DeKay, M. L.** (1996, April). *Prioritizing candidates for organ transplant: Expected utility and public policy*. Invited oral presentation at the Georgetown University Medical Center, Washington, DC.
- DeKay, M. L.** (1996, March). *Prioritizing candidates for organ transplant: Expected utility and public policy*. Invited oral presentation at the Department of Psychology, Ohio University, Athens, OH.
- DeKay, M. L.** (1996, March). *Prioritizing candidates for organ transplant: Expected utility and public policy*. Invited oral presentation at the Department of Psychology, York University, York, ON, Canada.
- DeKay, M. L.** (1996, February). *Prioritizing candidates for organ transplant: Expected utility and public policy*. Invited oral presentation at the Department of Psychology, University of North Carolina, Charlotte, NC.
- DeKay, M. L.** (1996, February). *Applications of expected utility theory in public policy: Prioritizing endangered species preservation programs and prioritizing candidates for organ transplant*. Invited oral presentation at the Irving B. Harris School of Public Policy Studies, University of Chicago, Chicago, IL.
- DeKay, M. L.** (1996, January). *Applications of expected utility theory in public policy: Prioritizing endangered species preservation programs and prioritizing candidates for organ transplant*. Invited oral presentation at the Graduate School of Business, University of Chicago, Chicago, IL.
- DeKay, M. L., McClelland, G. H., Goolsby, B. A., Asch, D. A., & Ubel, P. A.** (1995, November). *Applications of expected utility theory in public policy: Ranking endangered species and ranking candidates for organ transplants*. Oral presentation at the annual meeting of the Society for Judgment and Decision Making, Los Angeles, CA.
- DeKay, M. L., & Asch, D. A.** (1995, November). *Medical malpractice and decision analysis: The defensive use of diagnostic tests*. Poster presentation at the annual meeting of the Society for Judgment and Decision Making, Los Angeles, CA.

- DeKay, M. L.,** Spranca, M., Ubel, P. A., Hershey, J. C., & Asch, D. A. (1995, November). *Treatment of individuals versus treatment of groups: Further explorations of Redelmeier and Tversky (1990)*. Poster presentation at the annual meeting of the Society for Judgment and Decision Making, Los Angeles, CA.
- DeKay, M. L.,** & Asch, D. A. (1995, October). *Medical malpractice and decision analysis: The defensive use of diagnostic tests*. Oral presentation at the annual meeting of the Society for Medical Decision Making, Tempe, AZ. Abstract: *Medical Decision Making, 15*, 423.
- DeKay, M. L.,** Spranca, M., Ubel, P. A., Hershey, J. C., & Asch, D. A. (1995, October). *Treatment of individuals versus treatment of groups: Failure to replicate Redelmeier and Tversky (1990)*. Plenary oral presentation at the annual meeting of the Society for Medical Decision Making, Tempe, AZ. First place, Lee B. Lusted Student Prize Competition. Abstract: *Medical Decision Making, 15*, 423.
- DeKay, M. L.** (1994, March). *How sure is sure enough? Outcome evaluations and action thresholds*. Invited oral presentation at the Department of Psychology, University of Oregon, Eugene, OR.
- DeKay, M. L.** (1994, March). *Perceiver-induced consistency in impression formation*. Invited oral presentation at the Department of Psychology, New Mexico State University, Las Cruces, NM.
- DeKay, M. L.** (1994, March). *How sure is sure enough? Outcome evaluations and action thresholds*. Invited oral presentation at the Department of Psychology, New Mexico State University, Las Cruces, NM.
- DeKay, M. L.,** & McClelland, G. H. (1993, November). *Errors in estimating outcome utilities: The flip side of outcome bias*. Poster presentation at the annual meeting of the Society for Judgment and Decision Making, Washington, DC.
- DeKay, M. L.** (1993, November). *G as a measure of self-insight: Data from three studies of species preference*. Oral presentation at the ninth annual International Invitational Meeting of the Brunswik Society, Washington, DC. Brunswik Society New Investigator Award.
- DeKay, M. L.,** & McClelland, G. H. (1993, July). *Setting action thresholds for low-probability high-consequence events*. Oral presentation at the 18th annual Hazards Research and Applications Workshop, Boulder, CO.
- DeKay, M. L.** (1992, November). *Signal detection theory and the value of probabilistic forecasts*. Poster presentation at the annual meeting of the Society for Judgment and Decision Making, St. Louis, MO.
- DeKay, M. L.,** & McClelland, G. H. (1992, July). *Setting decision thresholds for dam failure warnings*. Oral presentation at the 17th annual Hazards Research and Applications Workshop, Boulder, CO.
- DeKay, M. L.,** & McClelland, G. H. (1992, July). *Optimal decision thresholds for dam failure warnings*. Poster presentation at the 17th annual Hazards Research and Applications Workshop, Boulder, CO.

**DeKay, M. L., & McClelland, G. H.** (1992, July). *Estimating loss of life from dam failure and flash flood events*. Poster presentation at the 17th annual Hazards Research and Applications Workshop, Boulder, CO.

**DeKay, M. L., & McClelland, G. H.** (1991, November). *Predicting concern for endangered species*. Poster presentation at the annual meeting of the Society for Judgment and Decision Making, San Francisco, CA.

McClelland, G. H., **DeKay, M. L., & Beckett, E.** (1990, July). *Decision analysis for early warning systems*. Oral presentation at the 15th annual Hazards Research and Applications Workshop, Boulder, CO.

## Grants

### External Funding

*Sustainable consumption, globalization, and information: Impacts and opportunities*. (2006–2007, \$100,000). National Science Foundation grant CTS-0628232. PI: H. Scott Matthews. Co-PIs: Cliff I. Davidson and Michael L. DeKay.

*Integrating risk analysis and risk communication*. (2004–2007, \$600,000). National Science Foundation grant SES-0433152. PI: Baruch Fischhoff. Co-PIs: Elizabeth A. Casman, Julie S. Downs, and H. Keith Florig. Co-Investigators: Michael L. DeKay and four others.

*Consortium for Atlantic regional assessment (CARA): Proposed assessment in the mid- and upper-Atlantic region (MUAR)*. (2002–2005, \$2,249,930, Carnegie Mellon subcontract \$300,000). Environmental Protection Agency grant R-830533-01-0. PIs: Ann Fisher, Mitchell Small, James Opaluch, and Carl Hershner. Co-PIs: Michael L. DeKay and numerous others.

*Single-play and repeated-play decisions with fungible and non-fungible outcomes*. (2002–2005, \$125,000). National Science Foundation grant SES-0218318. PI: Michael L. DeKay.

*Better safe than sorry: Precautionary reasoning, utility reversals, and the creation of dominance*. (2001–2004, \$190,000). National Science Foundation grant SES-0112005. PI: Michael L. DeKay. Co-PI: Paul S. Fischbeck.

*Continued development of methods for characterizing and ranking health, safety, and environmental risks*. (1999–2002, \$437,495). National Science Foundation grant SES-9975200 (\$201,991) and Environmental Protection Agency grant R8279200-1-0 (\$235,504). PI: M. Granger Morgan. Co-PIs: Michael L. DeKay and Paul S. Fischbeck.

### Internal Funding

*Reversals in assessments of outcome utilities in binary decisions: Extending previous research to assess the role of precautionary reasoning*. (2000–2001, \$10,000). Carnegie Mellon University, Center for the Study and Improvement of Regulation. PI: Michael L. DeKay.

*Assessment of preferences for organ allocation policies*. (1997–1999, \$6,789). Carnegie Mellon University Faculty Development Fund. PI: Michael L. DeKay.

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*Standards of proof in decisions about hazards.* (1992–1994, \$3,700). University of Colorado, Natural Hazards Center (as part of National Science Foundation grant BCS–9213479 to the Natural Hazards Center). PI: Michael L. DeKay. Faculty Sponsor: Gary H. McClelland.

*Valuing endangered species: An initial look at the value of genetic diversity.* (1991–1993, \$10,000). University of Colorado, Global Change and Environmental Quality Program. PI: Michael L. DeKay. Faculty Sponsors: Gary H. McClelland and William D. Schulze.

### Courses

#### *Decision Making*

The Ohio State University

Psychology of Judgment and Decision Making.

Ph.D. level; Psychology, Spring, 2009.

Psychology of Judgment and Decision Making.

Undergraduate level; Psychology, Fall 2007, Winter, Spring, Fall 2008–2009.

Carnegie Mellon University

Environmental Decision Making.

Undergraduate/Masters level; Heinz, Spring 1997; EPP/Heinz, Fall 1998–1999, 2001, 2005.

Medical Decision Making.

Undergraduate level; EPP, Spring 1998.

#### *Research Methods and Statistics*

Carnegie Mellon University

Applied Data Analysis.

Ph.D. level; EPP, Spring 1999; EPP/Heinz, Spring 2002–2006.

Survey Design and Analysis.

Masters/Ph.D. level; Heinz, Spring 1999–2000; Heinz/EPP, Spring 2002–2006.

Intermediate Empirical Methods for Public Policy and Management.

Masters level; Heinz, Fall 2002, 2004–2005.

Data Analysis for Managers.

Masters level; Heinz, Fall 1998–1999, Spring 2001–2002.

#### *Interdisciplinary Projects*

These Carnegie Mellon University courses were cross-listed with the Department of Social and Decision Sciences (SDS).

Wireless Communications for Emergency Response in Allegheny County.

Undergraduate/Masters level; EPP/SDS/Heinz, Fall 2004.

Followed by an independent study project.

Masters level; Heinz, Spring 2005.

Implementing Tissue Engineering: Financial and Regulatory Guidance.

Undergraduate/Masters level; EPP/SDS/Heinz, Fall 2002.

Students received EPP's Stephen Omer Lee Award for the best project course in 2002.

Transition to a Hydrogen-Based Energy System: The Next Ten Years.

Undergraduate/Masters level; EPP/SDS/Heinz, Fall 2000.

Organ Transplantation: Donation, Demand, and Allocation.

Undergraduate/Masters level; EPP/SDS/Heinz, Fall 1997.

Nine Mile Run: A Study of the Reclamation and Sustainable Redevelopment of a Brownfield Site.

Undergraduate/Masters level; EPP/SDS/Heinz, Spring 1997.

Students received EPP's Stephen Omer Lee Award for the best project course in 1997.

### Graduate Student Advisees

#### *Chair or Co-chair of Ph.D. Dissertation Committee*

Rajiv Sharma, Ph.D. (2006, co-chair with M. Granger Morgan). *Understanding and improving the flow of Islamic students into technical education in Andhra Pradesh, India*. Carnegie Mellon University, EPP.

Henry H. Willis, Ph.D. (2002). *Development and evaluation of a method for incorporating public participation in ecological risk prioritization*. Carnegie Mellon University, EPP.

Kara M. Morgan, Ph.D. (1999, co-chair with Paul S. Fischbeck). *Development and evaluation of a method for risk ranking*. Carnegie Mellon University, EPP.

#### *Member of Ph.D. Dissertation Committee*

Shahzeen Z. Attari, Ph.D. (2009). *Global climate change and human behavior: Decreasing energy consumption*. Carnegie Mellon University, Department of Civil and Environmental Engineering and EPP.

Mary E. Schoen, Ph.D. (2008). *Bayesian hierarchical model for flow-class dependant distributions of bacterial concentrations in surface waters*. Carnegie Mellon University, EPP.

Shalini P. Vajjhala, Ph.D. (2005). *Mapping alternatives: Facilitating citizen participation in development planning and environmental decision making*. Carnegie Mellon University, EPP.

Tai Gyu Kim, Ph.D. (2005). *A longitudinal study of employee participation in organizational change*. Carnegie Mellon University, Tepper School of Business.

David E. Stickers, Ph.D. (2004). *Risk regulation of transportation fuels: An analysis of stakeholder behavior and regulatory outcomes*. Carnegie Mellon University, EPP.

Daniel C. Kovacs, Ph.D. (2003). *Individual's perceptions of relationships among chemicals, the environment, and themselves*. Carnegie Mellon University, EPP.

Mei Wang, Ph.D. (2003). *Prospect theory, framing, and risk preferences: A U.S.-China comparison*. Carnegie Mellon University, SDS.

Deborah A. Lange, Ph.D. (2001). *Strategies for brownfield development based on empirical analysis*. Carnegie Mellon University, Department of Civil and Environmental Engineering.

John R. Schultz, Ph.D. (1999). *The risk of accidents and spills at offshore production platforms: A statistical analysis of risk factors and the development of predictive models*. Carnegie Mellon University, EPP.

James N. Follin, Ph.D. (1998). *Communicating environmental risk: Understanding the factors which affect the success of an environmental impact statement*. Carnegie Mellon University, EPP.

*Member of Ph.D. Qualifier Committee or Masters Thesis Committee*

Shahzeen Z. Attari (2007). *Decreasing demand: Facilitating energy conservation by changing individual behavior*. Carnegie Mellon University, EPP.

Linda H. Moya (2006). *Is an improving grade sequence preferable to a better grade?* Carnegie Mellon University, Heinz.

Mary Schoen (2005). *Statistical model for low-flow water quality: Impacts of climate change on total maximum daily loads*. Carnegie Mellon University, EPP.

Nancy Paulsen, M.Phil. (2000). *Cost-effectiveness of genetic screening: Averting the risk of bladder cancer*. Carnegie Mellon University, Heinz.

Jianyu Zhang (1998). *Concerns and priorities of stakeholders in brownfields decision making*. Carnegie Mellon University, EPP.

Kara M. Morgan (1997). *Evaluation of alternative methods for reporting mortality data for risk ranking*. Carnegie Mellon University, EPP.

*Advisor for Other Ph.D. Research Projects*

Seth A. Miller (2008–present). *Information distortion in risky decisions*. The Ohio State University, Psychology.

Clare M. Sorenson (2007–present). *Information distortion in risky decisions*. The Ohio State University, Psychology.

Joshua R. Furgeson (2004–2005). *Are medical outcomes fungible? A national survey of physicians, medical administrators, and the public*. Carnegie Mellon University, Heinz.

Tai Gyu Kim (2003–2005). *Single-play and repeated-play decisions with fungible and non-fungible outcomes* [several studies]. Carnegie Mellon University, Tepper School of Business.

Dalia Patiño-Echeverri (2001–2005). *Better safe than sorry: Precautionary reasoning, utility reversals, and the creation of dominance* [several studies]. Carnegie Mellon University, EPP.

Nicolás C. Bronfman (2004). *Explanatory power of the psychometric paradigm: Aggregate and disaggregate analyses*. Carnegie Mellon University, EPP (visiting student from Pontificia Universidad Católica de Chile, Santiago, Chile).

*Advisor for Other Masters Research Projects*

Rebecca DerGarabedian and Ashley Van Ness (2005). *Wireless communications for emergency response in Allegheny County*. Carnegie Mellon University, Heinz.

Virna V. Gutiérrez (2004). *The influence of information delivery on risk ranking by lay people*. Carnegie Mellon University, EPP (visiting student from Pontificia Universidad Católica de Chile, Santiago, Chile).

**University Service**

*Committees*

The Ohio State University

Graduate Admissions Committee (Psychology, 2008–2010).

Health Psychology Search Committee (Psychology, 2008–2010).

Speaker Committee (Psychology, 2007–2008).

Carnegie Mellon University

Ryan Award for Meritorious Teaching Selection Committee (University, 2004–2007).

Green Practices Energy Subcommittee (University, 2003–2006).

Master of Science in Public Policy and Management Committee (Heinz, 2002–2005).

Faculty Senate Representative (University, 2001–2003).

Analysis Abilities and Software Tools Committee (EPP, 2002).

Master of Public Management Committee (Heinz, 2001–2002).

Masters Committee (Heinz, 1996–2001).

Biomedical and Health Engineering Committee (Carnegie Institute of Technology, 1999).

*Advisory Board Member for Interdisciplinary Project Courses*

Carnegie Mellon University

Essential Services for Aging Artists (Heinz, Spring 2006).

S.T.O.R.E.: Strategy, Timing, Opportunity...Reaching the Equator (Heinz, Spring 2006).

Small Loans, Big Changes: Analyzing FINCA's Framework for Client Poverty Analysis Using Survey Data (Heinz, Fall 2005).

Choosing Green Power (Heinz, Fall 2004).

City Theatre: A Contemporary New Place for Contemporary New Plays (Heinz, Fall 2004).

Strategic Marketing Research and Decision Making in Festival Settings (Heinz, Fall 2002–Spring 2003).

Improving the Usefulness of the Toxic Release Inventory (EPP/SDS/Heinz, Fall 1998).

## **Professional Activities**

### *National Panel Participation*

National Research Council Panel on Public Participation in Environmental Assessment and Decision Making (2003–2008).

### *Workshop Participation*

Forecast Integration: Doing Something about the Weather, Monterey, CA. Sponsored by the National Science Foundation (2007).

Extreme Event Decision Making, Arlington, VA. Sponsored by the National Science Foundation (2001).

Experts' Workshop on Comparative Environmental Risk Assessment and Management (CERAM), Emmitsburg, MD. Sponsored by the American Chemistry Council (2000).

### *Organizations*

American Psychological Association (1994–2003).

Association for Psychological Science (formerly American Psychological Society) (1994–present).

Association for Public Policy and Management (1997–1998).

Brunswik Society (1993–present).

New Investigator Award Committee (2001).

Society for Conservation Biology (1998–2001).

Society for Judgment and Decision Making (1992–present).

Student Poster Awards Judge (2000–2002, 2006–2009).

Program Committee (2004–2005).

Society for Medical Decision Making (1995–present).

Scientific Program Committee (reviewed abstracts, 1997–2002, 2006).

Session Co-chair at Annual Meeting (1997).

Society for Risk Analysis (1998–present).

Reviewer for Best Paper Competition (2003).

### *Reviews*

*American Journal of Managed Care* (1998).

*Basic and Applied Social Psychology* (2004–2005).

Environmental Protection Agency.

Peer Review Panel for Decision Making and Valuation for Environmental Policy (2002).

*Environmental Science & Technology* (1998–1999, 2001, 2005).

*Health Psychology* (2004).

*Human and Ecological Risk Assessment* (2007).

John Wiley & Sons (book, 2003).

*Journal of Applied Social Psychology* (1993).  
*Journal of Behavioral Decision Making* (2007).  
*Journal of Experimental Psychology: Applied* (1998–1999).  
*Journal of Experimental Social Psychology* (1992).  
*Journal of General Internal Medicine* (1998).  
*Journal of Policy Analysis and Management* (2005).  
*Journal of Risk Research* (2005–2006).  
*Judgment and Decision Making* (2007).  
*Jurimetrics Journal* (1997).  
*Medical Decision Making* (1995, 1997–2002, 2005, 2007–2009).  
    Editorial board (1998–2000).  
National Science Foundation.  
    Peer Review Panel for Decision, Risk, and Management Sciences (2009–2010).  
    Grant proposals (1999, 2003, 2005–2006, 2008).  
    CAREER proposals (2002, 2006).  
    Peer Review Panel for Multidisciplinary Research into Critical Infrastructure and Related  
    Systems—Mitigation, Preparedness, Response, and Recovery Regarding Disasters  
    and Other Extreme Events (2003).  
*Natural Hazards Review* (2002).  
National Research Council (book chapter, 2004).  
Oxford University Press (book proposal, 1998).  
*Psychological Science* (2005).  
*Risk Analysis* (2000, 2002–2004, 2006, 2009).  
*Visible Language* (1992).

## **Honors**

Marcia Wade Teaching Award, for outstanding teaching performance at the Heinz School of Public Policy and Management, Carnegie Mellon University (2006).  
Profile featured in the American Psychological Society's *Observer* series on psychologists in nontraditional academic departments (invited essay on my research and experiences) (2003).  
First place, Lee B. Lusted Student Prize Competition, for research presented at the annual meeting of the Society for Medical Decision Making (1995).  
Graduate Student Research and Creative Work Award, University of Colorado (1994).  
Brunswick Society New Investigator Award, for research presented at the annual meeting of the Brunswick Society (1993).  
Doctoral Fellowship Award in Psychology, University of Colorado (1989–1990, 1992–1993, 1993–1994).

**Michael L. DeKay**

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Graduate Fellowship in Chemistry, Cornell University (1985–1986).

Honors Graduate, California Institute of Technology (1985).

Kodak Scholarship in Chemistry, California Institute of Technology (1983–1985).

*Awards to Students and Co-authors for Collaborative Research*

Grand Challenge Student Paper Award, NSF-AEESP (Association of Environmental Engineering and Science Professors), awarded to Shahzeen Z. Attari for a 2009 *Environmental Economics* paper by Attari, Schoen, Davidson, DeKay, Bruine de Bruin, Dawes, & Small (2009).

First place, Decision Analysis Society Student Paper Competition, awarded to Kara M. Morgan for a paper by Morgan, Fischbeck, and DeKay (1999).

Outstanding Paper by a Young Investigator, Society for Medical Decision Making, awarded to Peter A. Ubel for a 1996 *New England Journal of Medicine* paper by Ubel, DeKay, Baron, and Asch (1997).