# SEMINAR IN ENVIRONMENTAL ECONOMICS Syllabus and Reading List (updated March 27, 2013)

Economics 724-001 TR 11:00-12:15pm, BE 214 University of Kentucky Spring 2013

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**Course Description**: This seminar in environmental economics benefit-cost analysis, valuation of environmental changes, and selected topics in environmental economics. Central to the seminar is environmental quality as an input to human health, behavior related to health risks, risk perception, and valuing changes in health risks. Prerequisite background for the seminar is a working knowledge of material covered ECO 601 Advanced Microeconomic Theory and a graduate econometrics course. This course and Advanced Health Economics are the two courses that are the basis for the area in Environmental and Health Economics in the Ph.D. program in Economics.

**Text**: Freeman, A. Myrick III. *The Measurement of Environmental and Resource Values* (Washington, DC: Resources for the Future, 2003). All other required readings are available as journal articles or working papers.

**Grades**: Evaluation will be based on a paper (35 points), midterm (20 points), final exam (20 points), class participation (15 points), and homework (10 points.) The midterm exam will be given about February 28. The final exam will be given in the regular classroom at 10:30am on Tuesday, April 30, 2013.

**Readings**: \*Required readings will be announced in class as the class progresses. Pertinent additional readings are given by topic. Required readings that are not in Freeman's book or available on-line will be made available in class. Most articles are available on-line through the University of Kentucky library.

I. ENVIRONMENTAL AND RESOURCE ECONOMICS

\*Cropper, Maureen L. and Wallace E. Oates. "Environmental Economics: A Survey," *Journal of Economic Literature* 30 (June 1992): 675-740.

Stavins, Robert N. "Environmental Economics" Resources for the Future (RFF) Discussion Paper 04-54 (December 2004). Prepared for *The New Palgrave Dictionary of Economics*, 2<sup>nd</sup> ed., Lawrence Blum and Steven Durlauf, eds. (London: Palgrave MacMillan Ltd.) Aldy, Joe and Alan Krupnick. "Introduction to the Frontiers of Environmental and Resource Economics" *Journal of Environmental Economics and Management* 57 (January 2009): 1-4.

Environmental Economics Blog < <u>www.env-econ.net</u> > by Tim Haab and John Whitehead is a good source for economic analysis of environmental news (and some weird humor.)

II. BENEFIT-COST ANALYSIS, REGULATOR BEHAVIOR, AND POLICY PRODUCTS

\*Cropper, Maureen L., William N. Evans, Stephen J. Berardi, Maria M. Ducla-Soares and Paul R. Portney. "The Determinants of Pesticide Regulation: A Statistical Analysis of EPA Decision Making" *Journal of Political Economy* (Feb. 1992): 175-197.

\*Viscusi, W. Kip and James T. Hamilton. "Are Risk Regulators Rational? Evidence from Hazardous Waste Cleanup Decisions" *American Economic Review* 89 (September 1999): 1010-1027.

Robinson, Lisa A. and James K. Hammitt. "Behavioral Economics and Regulatory Analysis" *Risk Analysis* 31 (2011): 1408-1422.

\*Viscusi, W. Kip. "Risk-Risk Analysis" Journal of Risk and Uncertainty 8 (Jan. 1994): 5-17.

\*Gerdtham, Ulf-G. and Magnus Johannesson. "Do Life Saving Regulations Save Lives?" *Journal of Risk and Uncertainty* 24 (May 2002): 231-249.

\*Greenstone, Michael. "Did the Clean Air Act Cause the Remarkable Decline in Sulfur Dioxide Concentrations?" *Journal of Environmental Economics and Management* 47 (May 2004): 585-611.

Chay, Kenneth, Carlos Dobkin and Michael Greenstone. "The Clean Air Act of 1970 and Adult Mortality" *Journal of Risk and Uncertainty* 27 (December 2003): 279-300.

Chay, Kenneth and Michael Greenstone. "The Impact of Air Quality on Infant Mortality: Evidence from Geographic Variation in Pollution Shocks Induced by a Recession" *Quarterly Journal of Economics* 118 (August 2003): 1121-1167.

\*Currie, Janet, Matthew J. Neidell and Johannes Schmieder. "Air Pollution and Infant Health: Lessons from New Jersey" *Journal of Health Economics* 28 (May 2009): 688-703.

Auffhammer, Maximilian, Antonio M. Bento, and Scott E. Lowe. "Measuring the Effects of the Clean Air Act Amendments on Ambient PM<sub>10</sub> Concentrations: The Critical Importance of a Spatially Disaggregated Analysis" *Journal of Environmental Economics and Management* 58 (2009): 15-26.

Almond, Douglas, Lena Edlund, and Mårten Palme. "Chernobyl's Subclinical Legacy: Prenatal Exposure to Radioactive Fallout and School Outcomes in Sweden" *Quarterly Journal of Economics* 124 (November 2009): 1729-1772.

# **III. VALUING ENVIRONMENTAL CHANGES**

\*Freeman Chapters 1, 2, 9, 13, and 14 on resource evaluation

\*Kahn, Matthew E. "Do Greens Drive Hummers or Hybrids? Environmental Ideology as a Determinant of Consumer Choice" *Journal of Environmental Economics and Management* 54 (2007):129–145.

Li, Shanjun, Yanyan Liu and Junjie Zhang. "Lose Some, Save Some: Obesity, Automobile Demand, and Gasoline Consumption" *Journal of Environmental Economics and Management* 61 (2011): 52-66.

Kotchen, Matthew J. "Green Markets and Private Provision of Public Goods" *Journal of Political Economy* 114 (August 2006): 816-834.

Owen, Ann L. and Julio R. Videras. "Culture and Public Goods: The Case of Religion and the Voluntary Provision of Environmental Quality" *Journal of Environmental Economics and Management* 54 (2007): 162-180.

Muller, Nicholas Z. and Robert Mendelsohn. "Measuring the Damages of Air Pollution in the United States" *Journal of Environmental Economics and Management* 54 (2007): 1-14.

\*Muller, Nicholas Z, Robert Mendelsohn, and William Nordhaus. "Environmental Accounting for Pollution in the United States Economy" *American Economic Review* 101 (August 2011): 1649-1675.

Fleurbaey, Marc. "Beyond GDP: The Quest for a Measure of Social Welfare" *Journal of Economic Literature* 47 (December 2009): 1029-1075.

# A. Implicit Markets and Hedonic Prices

\*Freeman Chapters 3, 4, 11, and 12 on topics such as welfare change measures, revealed preferences and valuation, and hedonic models

\*Eichholtz, Piet, Nils Kok, and John M. Quigley. "Doing Well by Doing Good: Green Office Buildings" *American Economic Review* 100 (December 2010): 2492-2509.

Ihlanfeldt, Keith R. and Laura O. Taylor. "Externality Effects of Small-Scale Hazardous Waste Sites: Evidence from Urban Commercial Property Markets" *Journal of Environmental Economics and Management* 47 (January 2004): 117-139.

\*Gayer, Ted, James T. Hamilton, and W. Kip Viscusi. "Private Values of Risk Tradeoffs at Superfund Sites: Housing Market Evidence on Learning about Risk" *Review of Economics and Statistics* 82 (August 2000): 439-51.

Gayer, Ted, James T. Hamilton, and W. Kip Viscusi. "The Market Value of Reducing Cancer Risk: Hedonic Housing Prices with Changing Information" *Southern Economic Journal* 69 (October 2002): 266-289.

Hallstrom, Daniel G. and V. Kerry Smith. "Market Responses to Hurricanes" *Journal of Environmental Economics and Management* 50 (November 2005): 541-561.

Bin, Okmyung and Stephen Polasky. "Effects of Flood Hazards on Property Values: Evidence Before and After Hurricane Floyd" *Land Economics* 80 (November 2004): 490-500.

Kousky, Carolyn. "Learning from Extreme Events: Risk Perceptions after the Flood" *Land Economics* 86 (August 2010): 395-422.

Bin, Okmyung, Thomas W. Crawford, Jamie B. Kruse, and Craig E. Landry. "Viewscapes and Flood Hazard: Coastal Housing Market Response to Amenities and Risk" *Land Economics* 84 (August 2008): 434-448.

Cameron, Trudy Ann. "Directional Heterogeneity in Distance Profiles in Hedonic Property Value Models" *Journal of Environmental Economics and Management* 51 (2006): 26-45.

\*Berger, Mark C., Glenn C. Blomquist, and Klara Sabirianova Peter. "Compensating Differentials in Labor and Housing Markets: Estimates of Quality of Life in Russian Cities" *Journal of Urban Economics* 63 (January 2008): 25-55.

\*Horsch, Eric J. and David J. Lewis. "The Effects of Aquatic Invasive Species on Property Values: Evidence from a Quasi-Experiment" *Land Economics* 85 (August 2009): 391-409.

Hand, Michael S., Jennifer A. Thacher, Daniel W. McCollum, and Robert P. Berrens. "Intra-Regional Amenities, Wages, and Home Prices: The Role of Forests in the Southwest" *Land Economics* 84 (November 2008): 635-651.

Gabriel, Stuart and Stuart S. Rosenthal. "Quality of the Business Environment versus Quality of Life: Do Firms and Households Like the Same Cities?" *Review of Economics and Statistics* 86 (February 2004): 438-444.

\*Cameron, Trudy Ann and Ian T. McConnaha. "Evidence of Environmental Migration" *Land Economics* 82 (May 2006): 273-290.

\*Bieri, David S., Nicolai V. Kuminoff, and Jaren C. Pope. "The Role of Local Amenities in the National Economy" Paper presented at the Department of Agricultural and Resource Economics, University of Maryland on October 24, 2012. http://www.arec.umd.edu/sites/default/files/\_docs/events/BKP\_9\_1\_12.pdf

Albouy, David, Walther Graf, Ryan Kellogg and Hendrik Wolff. "Aversion to Extreme Temperatures, Climate Change, and Quality of Life" University of Washington working paper, February 2010.

Smith, V.K. Smith, Holger Sieg, H. Spencer Banzhaf, and Randall P. Walsh. "General Equilibrium Benefits for Environmental Improvements: Projected Ozone Reductions under EPA's Prospective Analysis for the Los Angeles Air Basin" *Journal of Environmental Economics and Management* 47 (May 2004): 559-584.

Bayer, Patrick, Nathaniel Keohane, and Christopher Timmins. "Migration and Hedonic Valuation: The Case of Air Quality" *Journal of Environmental Economics and Management* 58 (2009): 1-14.

\*Kuminoff, Nicolai, Christopher Parmeter, and Jaren C. Pope. "Which Hedonic Models Can We Trust to Recover the Marginal Willingness to Pay for Environmental Amenities?" *Journal of Environmental Economics and Management* 60 (2010): 145-160.

Kuminoff, Nicolai V. "Decomposing the Structural Identification of Non-Market Values" *Journal of Environmental Economics and Management* 57 (March 2009): 123-139.

\*Locke, Stephen. "A Hedonic Analysis of the Disamenity Related to Communication Antennas" University of Kentucky (February 2013).

Klaiber, H. Allen and Daniel J. Phaneuf. "Valuing Open Space in a Residential Sorting Model of the Twin Cities" *Journal of Environmental Economics and Management* 60 (September 2010): 57-77

Greenstone, Michael and Ted Gayer. "Quasi-Experimental and Experimental Approaches to Environmental Economics" *Journal of Environmental Economics and Management* 57 (January 2009): 21-44.

Chay, Kenneth Y. and Michael Greenstone. "Does Air Quality Matter: Evidence from the Housing Market" *Journal of Political Economy* 113 (April 2005): 376-424.

Greenstone, Michael and Gallagher, Justin, "Does Hazardous Waste Matter? Evidence from the Housing Market and the Superfund Program" *Quarterly Journal of Economics* (August 2008): 951-1003.

\*Bajari, Patrick, Jane Cooley Fruehwirth, Kyoo il Kim, and Christopher Timmins. "A Rational Expectations Approach to Hedonic Price Regressions with Time-Varying Unobserved Product Attributes: The Price of Pollution." *American Economic Review* 102 (August 2012): 1898-1926.

\*Gamper-Rabindran, Shanti, Ralph Mastromonaco, and Christopher Timmins. "Valuing the Benefits of Superfund Remediation: Three Approaches to Measuring Localized Externalities" *NBER Working Paper* 16555 (January 2011).

[midterm]

### B. Contingent Markets and Stated Preferences

\*Freeman Chapters 5-8 on topics such as nonuse values, stated preferences, discounting, and option prices [March 26]

Haab, Timothy C. and Kenneth E. McConnell. *Valuing Environmental and Natural Resources: The Econometrics of Non-Market Valuation* (Northampton, MA: Edward Elgar, 2002)

Carson, Richard T., Jr. "Contingent Valuation, Resources and Environmental" in *International Encyclopedia of Social and Behavioral Sciences*, Neil J. Smelser and Paul B. Baltes, ed., (Amsterdam, Elsevier Science, 2001), vol. 19, 13272-5.

\*Kling, Catherine L., Daniel J. Phaneuf, and Jinhua Zhao. "Form Exxon to BP: Has Some Number Become Better than No Number?" *Journal of Economic Perspectives* 26 (Fall 2012): 3-26. and

\*Carson, Richard T. "Contingent Valuation: A Practical Alternative When Prices Aren't Available" *Journal of Economic Perspectives* 26 (Fall 2012): 27-42. and \*Hausman, Jerry. "Contingent Valuation: From Dubious to Hopeless" " *Journal of Economic Perspectives* 26 (Fall 2012): 43-56. [March 26]

Arrow, Kenneth and Robert Solow (co-chairs), Edward Leamer, Paul Portney, Roy Radner and Howard Schuman. "Report of the NOAA Panel on Contingent Valuation." *Federal Register* Vol. 58, No. 10, (January 15, 1993): 4601-4614.

Tolley, George S. and Robert G. Fabian. "Issues in Improvement of the Valuation of Non-Market Goods" *Resource and Energy Economics* 20 (June 1998): 75-83 and the entire special issue on Nonmarket Valuation.

Blomquist, Glenn C. and John C. Whitehead. "Existence Value, Contingent Valuation, and Natural Resources Damages Assessment" *Growth and Change* 26 (Fall 1995): 573-589.

Whitehead, John C. and Glenn C. Blomquist. "The Use of Contingent Valuation in Benefit-Cost Analysis" in Anna Alberini and James R. Kahn, eds., *Handbook of Contingent Valuation* (Northampton: MA, Edward Elgar Publishing, 2006).

Blomquist, Glenn C. and John C. Whitehead. "Resource Quality Information and Validity of Willingness to Pay in Contingent Valuation" *Resource and Energy Economics* 20 (June 1998): 179-196.

\*Hoehn, John P. and Alan Randall. "The Effect of Resource Quality Information on Resource Injury Perception and Contingent Values" *Resource and Energy Economics* 24 (February 2002): 13-31. [March 26]

Loomis, John. "What's to Know about Hypothetical Bias in Stated Preference Valuation Studies?" *Journal of Economic Surveys* (2011): 1-8.

Cummings, Ronald G. and Laura O. Taylor. "Unbiased Value Estimates of Environmental Goods: A Cheap Talk Design for the Contingent Valuation Method" *American Economic Review* 89 (June 1999): 649-665.

List, John A. "Do Explicit Warnings Eliminate the Hypothetical Bias in Elicitation Procedures? Evidence from Field Auctions for Sportcards" *American Economic Review* 91 (December 2001): 1498-1507.

\*Blumenschein, Karen, Glenn C. Blomquist, Magnus Johannesson, Nancy Horn and Patricia Freeman. "Eliciting Willingness to Pay without Bias: Evidence from a Field Experiment" *The Economic Journal* 118 (January 2008): 114-137. [March 28]

\*Blomquist, Glenn C., Karen Blumenschein and Magnus Johannesson. "Eliciting Willingness to Pay without Bias using Follow-up Certainty Statements: Comparisons between Probably/Definitely Sure and a 10-point Certainty Scale" *Environmental and Resource Economics* 43 (August 2009): 473-502. [March 28]

Whitehead, John C. and Todd L. Cherry. "Willingness to Pay for a Green Energy Program: A Comparison of Ex-Ante and Ex-Post Hypothetical Bias Mitigation Approaches" *Resource and Energy Economics* 29 (November 2007): 247-261.

Ready, Richard C, Ståle Navrud, and W. Richard Dubourg. "How Do Respondents with Uncertain Willingness to Pay Answer CV Questions?" *Land Economics* 77 (August 2001): 315-326.

\*Ready, Richard C., Patricia A. Champ, and Jennifer L. Lawton. "Using Respondent Uncertainty to Mitigate Hypothetical Bias in a Stated Choice Experiment" *Land Economics* 86 (May 2010): 363-381. [March 28]

Provencher, Bill, David J. Lewis, Kathryn Anderson. "Disentangling Preferences and Expectations in Stated Preference Analysis with Respondent Uncertainty: The Case of Invasive Species Prevention" *Journal of Environmental Economics and Management* 64 (September 2012): 169-182.

Berrens, Robert P., Hank Jenkins-Smith, Alok K. Bohara, and Carol L. Silva. "Further Investigation of Voluntary Contribution Contingent Valuation: Fair Share, Time of Contribution, and Respondent Uncertainty" *Journal of Environmental Economics and Management* 44 (July 2002): 144-168.

Alberini, Anna, Kevin Boyle and Michael Welsh. "Analysis of Contingent Valuation Data with Multiple Bids and Response Options Allowing Respondents to Express Uncertainty" *Journal of Environmental Economics and Management* 45 (January 2003): 40-62.

Vossler, Christian A. and Gregory L. Poe. "Analysis of Contingent Valuation Data with Multiple Bids and Response Options Allowing Respondents to Express Uncertainty: A Comment" *Journal of Environmental Economics and Management* 49 (January 2005): 197-200.

Aadland, David and Arthur J. Caplan. "Curbside Recycling: Waste Resource or Waste of Resources?" *Journal of Policy Analysis and Management* 25 (Fall 2006): 855-874.

Aadland, David M., Arthur J. Caplan, and Owen R. Phillips. "A Bayesian Examination of Information and Uncertainty in Contingent Valuation" *Journal of Risk and Uncertainty* 35 October 2007):149-178.

Little, Joseph and Robert Berrens. "Explaining Disparities between Actual and Hypothetical Stated Values: Further Investigation Using Meta-analysis" *Economics Bulletin* 3,6 (2004): 1-13.

\*Vossler, Christian A. and Mary F. Evans. "Bridging the Gap between the Field and the Lab: Environmental Goods, Policy Maker Input, and Consequentiality" *Journal of Environmental Economics and Management* 58 (November 2009): 338-345. [April 2]

\*Herriges, Joseph, Catherine Kling, Chih-Chen Liu, and Justin Tobias. "What Are the Consequences of Consequentiality?" *Journal of Environmental Economics and Management* 59 (2010): 67-81. [April 2]

Barrage, Lint and Min Sok Lee. "A Penny for Your Thoughts: Inducing Truth-telling in Stated Preference Elicitation" *Economics Letters* 106 (2010): 140–142.

Jacquemet, Nicolas, Joule Robert-Vincent, Stephane Luchini, and Jason F. Shogren. "Preference Elicitation under Oath" *Journal of Environmental Economics and Management* 65 (January 2013): 110-132.

Johnston, Robert J. "Is Hypothetical Bias Universal? Validating Contingent Valuation Responses Using a Binding Public Referendum" *Journal of Environmental Economics and Management* 52 (2006): 469-481.

Bateman, Ian J., Brett H. Day, Andrew P. Jones, and Simon Jude. "Reducing Gain-Loss Asymmetry: A Virtual Reality Choice Experiment Valuing Land Usage Change" *Journal of Environmental Economics and Management* 58 (July 2009): 106-118.

Carson, Katherine Silz, Susan M. Chilton and W. George Hutchinson. "Necessary Conditions for Demand Revelation in Double Referenda" *Journal of Environmental Economics and Management* 57 (2009): 219-225.

Lusk, Jayson L. and F. Bailey Norwood. "Bridging the Gap between Laboratory Experiments and Naturally Occurring Markets: An Inferred Valuation Method" *Journal of Environmental Economics and Management* 58 (2009): 236-250.

# IV. VALUING CHANGES IN HEALTH

\*Freeman Chapter 10 "Valuing Longevity and Health" [read on own]

Tolley, George, Donald Kenkel, and Robert Fabian. *Valuing Health for Policy: An Economic Approach* (Chicago: University of Chicago Press, 1994)

A. Environmental Economic Epidemiology

Evans, Mary F. and V. Kerry Smith. "Do New Health Conditions Support Mortality-Air Pollution Effects?" *Journal of Environmental Economics and Management* 50 (2005): 496-518.

Deschênes, Olivier, Michael Greenstone, and Jonathan Guryan. "Climate Change and Birth Weight" *American Economic Review: Papers & Proceedings* 99 (May 2009):211-217. Errata?

Currie, Janet and Johannes F. Schmieder. "Fetal Exposures to Toxic Releases and Infant Health" *American Economic Review: Papers & Proceedings* 99 (May 2009): 177-183.

### B. Value of Life, Value of Statistical Life, Values of Mortality Risks

Arrow, Kenneth J., Partha Dasgupta, Lawrence H. Goulder, Kevin J. Mumford and Kirsten Oleson (2012). "Sustainability and the Measurement of Wealth" *Environment and Development Economics* 17 (June 2012): 317-353.

\*Blomquist, Glenn C. "Value of Life, Economics of" forthcoming in the Economics Section edited by Tom Nechyba of the *International Encyclopedia of the Social and Behavioral Sciences*, 2nd edition, edited by James Wright (Oxford, UK: Elsevier, forthcoming). Available on my web page. [April 4]

Cameron, Trudy Ann. Euthanizing the Value of a Statistical Life" *Review of Environmental Economics and Policy* 4 (Summer 2010): 161-178.

\*Blomquist, Glenn C. "Self Protection and Averting Behavior, Values of Statistical Lives, and Benefit Cost Analysis of Environmental Policy." *Review of Economics of the Household* 2 (March 2004): 89-110. [April 4]

Viscusi, W. Kip and Joseph E. Aldy. "The Value of Statistical Life: A Critical Review of Market Estimates throughout the World" *Journal of Risk and Uncertainty* 27 (August 2003): 5-76.

Mrozek, Janusz R. and Laura O. Taylor. "What Determines the Value of Life? A Meta-Analysis" *Journal of Policy Analysis and Management* 21 (Spring 2002): 253-270.

\*Cropper, Maureen, James K. Hammitt, and Lisa A. Robinson. "Valuing Mortality Risk Reductions: Progress and Challenges" *Annual Review of Resource Economics* 3 (2011): 313-336. [April 4]

Shogren, Jason F. and Tommy Starnland. "Skill and the Value of Life" *Journal of Political Economy* 110 (October 2002): 1168-1173.

\*Kniesner, Thomas J., W. Kip Viscusi, Christopher Woock, and James P. Ziliak. "The Value of Statistical Life: Evidence from Panel Data" *Review of Economics and Statistics* 94 (February 2012): 74-87. [April 4]

Schaffner, Sandra and Hannes Spengler. "Using Job Changes to Evaluate the Bias of Value of Statistical Life Estimates" *Resource and Energy Economics* 32 (January 2010): 15-27.

Scotton, Carol R. and Laura O. Taylor. "Valuing Risk Reductions: Incorporating Risk Heterogeneity into a Revealed Preference Framework" *Resource and Energy Economics* 33 (May 2011): 381-397.

Costa, Dora and Matthew E. Kahn. "Changes in the Value of Life, 1940-1980" *Journal of Risk and Uncertainty* 29 (September 2004):159-180. Also http://www.nber.org/papers/w9396

Costa, Dora L. and Matthew E. Kahn. "The Rising Price of Nonmarket Goods" *American Economic Review* 93 (May 2003): 227-232.

Ashenfelter, Orley and Michael Greenstone. "Using Mandated Speed Limits to Measure the Value of Statistical Life" *Journal of Political Economy* 112 (February 2004): S226-S267. Murphy, Kevin M. and Robert H. Topel. The Value of Health and Longevity" *Journal of Political Economy* 114 (October 2006): 871-904.

Jena, Anupam, Casey Mulligan, Tomas J. Philipson, and Eric Sun. "The Value of Life in General Equilibrium" NBER Working paper 14157 (July 2008).

Nielsen, Jytte Seested, Susan Chilton, Michael Jones-Lee, and Hugh Metcalf. "How Would You Like Your Gain in Life Expectancy to Be Provided? An Experimental Approach" *Journal of Risk and Uncertainty* 41 (December 2010): 195-218.

Bosworth, Ryan, Trudy Ann Cameron, and J.R. DeShazo. "Demand for Environmental Policies to Improve Health: Evaluating Community-Level Policy Scenarios" *Journal of Environmental Economics and Management* 57 (2009): 293-308.

\*Cameron, Trudy A. and J.R. DeShazo. "Demand for Health Risk Reductions" *Journal of Environmental Economics and Management* 65 (January 2013): 87-109. [April 9]

C. Age - Elderly and Children

\*Viscusi, W. Kip. "The Heterogeneity of the Value of Statistical Life: Introduction and Overview" *Journal of Risk and Uncertainty* 40 (February 2010): 1-13.

Johansson, Per-Olov. "On the Definition and Age-Dependency of the Value of a Statistical Life" *Journal of Risk and Uncertainty* 25 (November 2002): 251-263.

Aldy, Joseph E. and W. Kip Viscusi. "Age Differences in the Value of a Statistical Life: Revealed Preference Evidence" *Review of Environmental Economics and Policy* 1 (Summer 2007): 241-260.

Krupnick, Alan. "Mortality-risk Valuation and Age: Stated Preference Evidence" *Review of Environmental Economics and Policy* 1 (Summer 2007): 261-282.

Smith, V. Kerry, Hyun Kim and Donald H. Taylor, Jr. "Do the Near Elderly Value Mortality Risks Differently?" *Review of Economics and Statistics* 86 (February 2004): 423-429.

Kniesner, Thomas J. and W. Kip Viscusi. "Value of a Statistical Life: Relative Position vs. Relative Age" *American Economic Review* 95 (May 2005): 142-146.

Aldy, Joseph E. and W. Kip Viscusi. "Adjusting the Value of a Statistical Life for Age and Cohort Effects" *Review of Economics and Statistics* (August 2008): 573-581.

Alberini, Anna, Maureen Cropper, Alan Krupnick, and Nathalie B. Simon. "Does the Value of a Statistical Life Vary with Age and Health Status? Evidence from the United States and Canada" *Journal of Environmental Economics and Management* 48 (July 2004): 769-792.

Krupnick, Alan et al. "Age, Health and the Willingness to Pay for Mortality Risk Reductions: A Contingent Valuation Survey of Ontario Residents" *Journal of Risk and Uncertainty* 24 (March 2002): 161-186.

Evans, Mary F. and Georg Schaur. "A Quantile Estimation Approach to Identify Income and Age Variation in the Value of Statistical Life" *Journal of Environmental Economics and Management* 59 (2010): 260-270.

Philipson, Tomas J., Gary Becker, Dana Goldman, and Kevin J. Murphy. "Terminal Care and the Value of Life Near Its End" *NBER Working Paper* 15649 (January 2010).

Dickie, Mark and Victoria L. Messman. "Parental Altruism and the Value of Avoiding Acute Illness: Are Kids Worth More than Parents?" *Journal of Environmental Economics and Management* 48 (November 2004): 1146-1174.

\*Dickie, Mark. "Parental Behavior and the Value of Children's Health: A Health Production Approach" *Southern Economic Journal* 71 (April 2005): 855-872. [April 11]

Dickie, Mark and Shelby Gerking. "Altruism and Environmental Risks to Health of Parents and Their Children" *Journal of Environmental Economics and Management* 53 (2007): 323-341.

Agee, Mark D. and Thomas D. Crocker. "Children's Health Benefits of Reducing Environmental Tobacco Smoke Exposure: Evidence from Parents Who Smoke" *Empirical Economics* 32 (April 2007): 217-237.

Hammitt, James K. and Kevin Haninger. "Valuing Fatal Risks to Children and Adults: Effects of Disease, Latency, and Risk Aversion" *Journal of Risk and Uncertainty* 40 (February 2010): 57-83.

\*Blomquist, Glenn C., Mark Dickie and Richard M. O'Conor. "Willingness to Pay for Improving Fatality Risks and Asthma Symptoms: Evidence for Children and Adults of All Ages" *Resource and Energy Economics* 33 (May 2011): 410-425. [April 9]

Davis, Lucas W. "The Effect of Health Risk on Housing Values: Evidence from a Cancer Cluster" *American Economic Review* 94 (December 2004): 1693-1704.

Alberini, Ann and Milan Scasny. Context and the VSL: Evidence from a Stated Preference Study in Italy and the Czech Republic: *Environmental and Resource Economics* 49 (2011): 511-538.

Baker, Rachel, Susan Chilton, Michael Jones-Lee, and Hugh Metcalf. "Valuing Lives Equally: Defensible Premise of Unwarranted Compromise?" *Journal of Risk and Uncertainty* (April 2008): 125-138.

Viscusi, W. Kip, Joel Huber, and Jason Bell. "Assessing Whether There is a Cancer Premium for the Value of a Statistical Life" Vanderbilt University Law and Economics Working Paper 12-34 2012. <u>http://ssrn.com/abstract=2181619</u>

# D. Quality Adjusted Life Years

Subramanian, Uma and Maureen Cropper. "Public Choices Between Life Saving Programs: The Tradeoff Between Qualitative Factors and Lives Saved" *Journal of Risk and Uncertainty* 21 (July 2000): 117-149.

Johannesson, Magnus. *Theory and Methods of Economic Evaluation of Health Care* (Boston: Kluwer Academic Publishers, 1996). Chapter 10 "Cost-Utility Analysis"

Kenkel, Don. "WTP and QALY-Based Approaches to Valuing Health for Policy: Common Ground and Disputed Territory" *Environmental and Resource Economics* 34 (July 2006): 419-437.

\*Hirth, Richard A., Michael E. Chernew, Edward Miller, A. Mark Fendrick, and William G. Weissert. "Willingness to Pay for a Quality-Adjusted Life Year: In Search of a Standard" *Medical Decision Making* 20 (July-September 2000): 332-342. [April 11]

V. HEALTH RISKS, PERCEPTIONS, BEHAVIORAL ECONOMICS AND POLICY

Rabin, Matthew. "Psychology and Economics" *Journal of Economic Literature* 36 (March 1998): 11-46.

DellaVigna, Stefano. "Psychology and Economics: Evidence from the Field" *Journal of Economic Literature* 47 (June 2009): 315-372.

Starmer, Christopher. "Developments in Non-expected Utility Theory: The Hunt for a Descriptive Theory of Choice Under Risk" *Journal of Economic Literature* 38 (June 2000): 332-382.

Viscusi, W. Kip and William N. Evans. "Behavioral Probabilities" *Journal of Risk and Uncertainty* 32 (January 2006): 5-16.

McFadden, Daniel. "Rationality for Economists" *Journal of Risk and Uncertainty* 19 (December 1999): 73-105.

Fehr, Ernst and Jean-Robert Tyran. "Individual Irrationality and Aggregate Outcomes" *Journal* of Economic Perspectives 19 (Fall 2005): 43-66.

Vatn, Arild. "Environmental Valuation and Rationality" *Land Economics* 80 (February 2004): 1-18.

Frey, Bruno S. and Alois Stutzer. "What Can Economists Learn from Happiness Research?" *Journal of Economic Literature* 40 (June 2002): 402-435.

Harrison, Glenn W. and John A. List. "Field Experiments" *Journal of Economic Literature* 42 (December 2004): 1009-1055.

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VI. ENVIRONMENTAL EQUITY: INCIDENCE OF ENVIRONMENTAL POLICY

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### Additional Rules for the Course:

#### **Excused Absences:**

Students need to notify me of absences prior to class when possible. Senate Rule 5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit "reasonable cause for nonattendance" by the professor. Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754). Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

### Verification of Absences:

Students may be asked to verify their absences in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request "appropriate verification" when students claim an excused absence because of illness or death in the family. Appropriate notification of absences due to university-related trips is required prior to the absence.

#### Academic Integrity:

Per university policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the university may be imposed. Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: http://www.uky.edu/Ombud. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited. Part II of Student Rights and Responsibilities (available online http://www.uky.edu/StudentAffairs/Code/part2.html) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or selfexpression. In cases where students feel unsure about the question of plagiarism involving their own work, they are obliged to consult their instructors on the matter before submission. When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgement of the fact, the students are guilty of plagiarism. Plagiarism includes reproducing someone else's work, whether it be a published article, chapter of a book, a paper from a friend or some file, or something similar to this. Plagiarism also includes the practice of

employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be.

Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone. When a student's assignment involves research in outside sources of information, the student must carefully acknowledge exactly what, where and how he/she employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content, and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain (Section 6.3.1). Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

# Accommodations due to disability:

If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address: jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities.