

ECONOMICS 581: ADVANCED ENVIRONMENTAL ECONOMICS READING LIST
POSSIBLE PAPER TOPICS

This document lists some possible topics for the class paper. The topic heading is listed in red. It is organized by the lecture chapters, though not all chapters will have topics identified. It is also a work in progress, as I will add to it as new topics come to mind. Within each topic, I will try to list some example papers to get you started, but you are welcome to come up with others.

Part A: Economics and the Environment

Chapter 1: Introduction to the Theory of Externalities

Chapter 2: Introduction to the Theory of Environmental Policy

Chapter 3: Imperfect Information

Chapter 4: Issues in Competitive Output Markets

A. *Standards*

B. *Tradeable Permit*

C. *Nonconvexities*

D. *Long Run Optimality*

➤ **Long run efficiency for tradeable permits:**

- [*Kling, Catherine and Jinhua Zhao \(2000\), "On the long-run efficiency of auctioned vs. free permits," *Economics Letters* 69: 235-8.](#)

Chapter 5: Imperfectly Competitive Output Markets

Chapter 6: General Equilibrium Considerations

Chapter 7: Nonpoint Source Pollution

➤ **Nonpoint source pollution:**

- Griffin, R. and D. Bromley (1982), "Agricultural Runoff as Nonpoint Externality: A Theoretical Development," *American Journal of Agricultural Economics*, 64: 547-552.

- Horan, R. D., J. S. Shortle and D. G. Abler (1998), “Ambient Taxes when polluters have multiple choices,” *Journal of Environmental Economics and Management*, **36**: 186-99.
- Khanna, M., W. Yang, R. Farnsworth, and H. Onal. (2003). Cost-effective targeting of land retirement to improve water quality with endogenous sediment deposition coefficients. *American Journal of Agricultural Economics* 85(3): 538-553.
- Shortle, J. and D. Abler, (1997) “Nonpoint Pollution,” *The International Yearbook of Environmental and Resource Economics 1997/1998*, edited by H. Folmer and T. Tietenberg, Elgar Publishing.

Chapter 8: Stock Pollutants and Climate Change

A. Stock Pollutants

➤ **Taxing Stock Pollutants**

- [Ko, I., H. Lapan, and T. Sandler \(1992\), “Controlling Stock Externalities: Flexible versus Inflexible Pigovian Corrections,” *European Economic Review*, **36**\(6\): 1263-76.](#)

B. Climate Change

➤ **Hybrid Mechanisms**

- Grull, G., and L. Taschini (2011), “Cap-and-trade properties under different hybrid scheme designs,” *Journal of Environmental Economics and Management*, **61**(1): 107-118.

➤ **Voluntary Programs**

- Arora, S. and T. Cason (1995), “An experiment in voluntary environmental regulation: Participation in EPA’s 33/50 program” *Journal of Environmental Economics Management*, **28**: 271–286
- Arora, S. and S. Gangopadhyay (1995), “Toward a theoretical model of voluntary overcompliance,” *J. Econom. Behavior Organiz.* **28**: 289–309.
- Segerson, K. and T. J. Miceli (1998), “Voluntary Environmental Agreements: Good or Bad News for Environmental Protection?” *Journal of Environmental Economics and Management*, **36**(2): 109-130
- Alberini, A. and K. Segerson (2002), “Assessing Voluntary Programs to Improve Environmental Quality,” *Environmental And Resource Economics*, **22**(1-2): 157-184.
- Khanna, M. (2001), “Economic Analysis of Non-Mandatory Approaches to Environmental Protection,” *Journal of Economic Surveys*, 15 (3): 291-324.

➤ Information Programs

Part B: Nonmarket Valuation

Chapter 9: The Theory of Welfare Measurement

- A. *Price Changes*
- B. *Quantity/Quality Changes*
- C. *WTP vs. WTA*
- D. *Measuring Welfare Under Uncertainty*

Chapter 10: Recreation Demand

- A. *The Basic Model*
- B. *Single Site Models*
- C. *Multiple Site Models*
 - 1. *Demand Systems*
 - 2. *Random Utility Maximization (RUM) Models*

➤ Nonlinear Income Effects

- Dagsvik, J.K., Karlstrom, A. (2005). "Compensating variation and Hicksian choice probabilities in random utility models that are nonlinear in income." *Review of Economic Studies* **72**(January): 57-76.
- Herriges, J., Kling, C. (1999). "Nonlinear income effects in random utility models." *Review of Economics and Statistics* **81**(1): 62-72.

3. *Corner Solution Models*

4. *Issues*

a. Defining the Choice Set

➤ Site Aggregation

- Feather, P. (1994). "Sampling and aggregation issues in random utility model estimation." *American Journal of Agricultural Economics* **76**(4): 772-780.
- Parsons, G., Needelman, M. (1992). "Site aggregation in a random utility model of recreation." *Land Economics* **68**(4): 418-433.

- Haener, M.K., P.C. Boxall, W. L. Adamowicz, and D. H. Kuhnke (2004), “Aggregation bias in recreation site choice models: Resolving the resolution problem,” *Land Economics*, **80** (4): 561-574.

➤ **Specifying the Choice Set**

- Haab, T.C., Hicks, R.L. (1997). “Accounting for choice set endogeneity in random models of recreation demand.” *Journal of Environmental Economics and Management* **34**:127-147.
- Parsons, G.R., Hauber, A.B. (1998). “Spatial boundaries and choice set definition in a random utility model of recreation demand.” *Land Economics* **74** (February): 32-48.
- Parsons, G., Massey, D.M., Tomasi, T. (2000). “Familiar and favorite sites in a random utility model of beach recreation.” *Marine Resource Economics* **14**: 299-315.

b. Matters of Time

➤ **The Dynamics of Choice**

- Adamowicz, W. (1994). “Habit formation and variety seeking in a discrete choice model of recreation demand.” *Journal of Agricultural and Resource Economics* **19**: 19-31.
- Provencher, B., Bishop, R. (1997). “An estimable dynamic model of recreation behavior with an application to Great Lakes angling.” *Journal of Environmental Economics and Management* **33**(2): 107-127.

➤ **The Value of Time in Recreation Demand Models**

- Bockstael, N., Strand, I., Hanemann, W.M. (1987). “Time and the recreational demand model.” *American Journal of Agricultural Economics* **69**(2): 293-302.
- Feather, P., Shaw, W.D. (1999). “Estimating the cost of leisure time for recreation demand models.” *Journal of Environmental Economics and Management* **38**: 49-65.
- Larson, D., Shaikh, S. (2001). “Empirical specification considerations for two-constraint models of recreation demand.” *American Journal of Agricultural Economics* **83**(May): 428 -440.
- McConnell, K. (1992). “On-site time in the demand for recreation.” *American Journal of Agricultural Economics* **74**(4): 918-924.

- McConnell, K.E. (1999). "Household labor market choices and the demand for recreation." *Land Economics* **75**(3): 467-477.
- McConnell, K., and I. Strand (1981). "Measuring the cost of time in the demand for recreation." *American Journal of Agricultural Economics*, **63**: 153-56.

➤ **Modeling Multi-Destination Trips**

- Loomis, J., Y. Shizuka, and D. Larson (2000), "Testing Significance of Multi-Destination and Multi-Purpose Trip Effects in a Travel Cost Method Demand Model for Whale Watching Trips," *Agricultural and Resource Economics Review*, 183-191.
- Horowitz, J. (1980) "A utility maximizing model of the demand for multi-destination non-work travel," *Transportation Research Part B: Methodological*, **14**(4): 369-386.

➤ **Modeling Multi-Day Trips**

- Lupi, F., and J. P. Hoehn (1998) "The Effect of Trip Lengths on Travel Cost Parameters in Recreation Demand," Working paper, Michigan State University

➤ **General Equilibrium Concerns in Recreation Demand**

- Phaneuf, D.J., Carbone, J., and J. A. Herriges (2009), "Non-Price Equilibria for Non-Marketed Goods," *Journal of Environmental Economics and Management*, **57** (1): 45-64.
- Timmins, C., and J. Murdock (2007), "A Revealed Preference Approach to the Measurement of Congestion in Travel Cost Models," *Journal of Environmental Economics and Management* **53**: 230-249.

Chapter 11: Hedonic Models and Property Values

A. *Theoretical Foundations*

B. *Issues in Estimation*

C. *Equilibrium Sorting Models*

Chapter 12: Contingent Valuation Methods

➤ **Scope Tests:**

- Heberlein, T.A., M. A. Wilson, R. C. Bishop, and N. C. Schaeffer (2005), "Rethinking the scope test as a criterion for validity in contingent

valuation,” *Journal of Environmental Economics and Management* **50**(1): 1-22.

- R. Carson, and R. Mitchell (1993), “The Issue of Scope in Contingent Valuation Studies,” *American Journal of Agricultural Economics*, **75**(5): 1263-1267

➤ **Incentive Compatibility:**

- Carson, Richard T., and Theodore Groves (2007). “Incentive and Informational Properties of Preference Questions,” *Environmental and Resource Economics* **37**: 181-210.
- Liu, C., J. Herriges, C. Kling, and J. Tobias (2010), “What are the Consequences of Consequentiality?” *Journal of Environmental Economics and Management*, **59** (1): 67-81.

➤ **Cheap Talk:**

- Cummings, R. G. and L. O. Taylor (1999), “Unbiased Value Estimates for Environmental Goods: A Cheap Talk Design for the Contingent Valuation Method,” *The American Economic Review*, **89**(3): 649-665.

➤ **Alternative Elicitation Methods:**

- Welsh and Poe, 1998 M.P. Welsh and G.L. Poe, Elicitation effects in contingent valuation: comparisons to a multiple bounded discrete choice approach, *Journal of Environmental Economics and Management* **36** (1998), pp. 170–185.
- Alberini, A., K. Boyle, and M. Welsh (2003), “Analysis of contingent valuation data with multiple bids and response options allowing respondents to express uncertainty,” *Journal of Environmental Economics and Management*, **45**(1): 40-62.
- Whitehead, J. (2002), “Incentive Incompatibility and Starting-Point Bias in Iterative Valuation Questions,” *Land Economics* **78**(2):285-297.

➤ **Cognitive Difficulties:**

- DeShazo, J.R., and G. Fermo (2002), “Designing Choice Sets for Stated Preference Methods: The Effects of Complexity on Choice Consistency,” *Journal of Environmental Economics and Management*, **44**(1): 123-143.

➤ **Accounting for Respondent Uncertainty:**

- Li, C.Z., and L. Mattsson (1995), ``Discrete Choice Under Preference Uncertainty: An Improved Structural Model for Contingent Valuation,' *Journal of Environmental Economics and Management*, **28**: 256-269.
- Loomis, J., and E. Ekstrand (1998), ``Alternative Approaches for Incorporating Respondent Uncertainty when Estimating Willingness to Pay: The Case of the Mexican Spotted Owl," *Ecological Economics*, **27**: 29-41.
- Ready, R.C., J. C. Whitehead, and G. C. Blomquist (1995), ``Contingent Valuation When Respondents are Ambivalent," *Journal of Environmental Economics and Management*, **29**: 181-196.

➤ **The Value of Statistical Life**

- Viscusi, K. and J. E. Aldy (2003), "The Value of a Statistical Life: A Critical Review of Market Estimates Throughout the World," *Journal Of Risk And Uncertainty*, **27** (1): 5-76.
- Alberini, A., M. Cropper, A. Krupnick, and N. B. Simon (2004), "Does The Value Of A Statistical Life Vary With Age And Health Status? Evidence From The US and Canada" *Journal of Environmental Economics and Management* **48**: 769–792.

Chapter 13: Combining Stated and Revealed Preferences