

Final Report
Economic Value of Recreational Boating in Ohio
Lake Erie Protection Fund agreement SG 133-00

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The purpose of this project was to explore estimation of the economic value of recreational boating using travel cost and contingent value methodologies on the statewide recreational boater expenditure database collected in 1998. This exploration preceded a Sea Grant research project that began March 1, 2001 to complete the analysis. The database was initially collected for estimating the economic impacts of recreational boating in Ohio under a project jointly funded by the Division of Watercraft, ODNR, the Boating Associations of Ohio, Ohio Sea Grant and the Lake Erie Protection Fund.

A series of alternative travel cost models were estimated using the complete database and various subsets of the data, in particular, separating boaters by the type of water used. A travel cost model relates the number of recreational boater trips to the cost of making a trip. In the survey, boaters were asked to indicate the number of trips to four types of water: Lake Erie, the Ohio River, inland lakes and reservoirs, and inland rivers and streams.

Only the full set of the data provided results worthy of further exploration for trips to Lake Erie. This model incorporates two decisions: whether to go to Lake Erie or to an alternative type of water and the number of trips to Lake Erie. The decision of whether to go to Lake Erie or an alternative type of water appears to have a statistically significant relationship with travel cost where distance to Lake Erie is estimated using **zip file**, a software package which estimates the road distance between two points. But not the number of trips. When the database is limited to only boaters who make one or more trips to Lake Erie or go exclusively to Lake Erie, the models lose explanatory power, suggesting that distance to Lake Erie from home, i.e., the cost of traveling to and from Lake Erie, is not a significant determinant of the number of trips. This preliminary result will be tested in the Sea Grant project work.

Travel cost models for the other three types of water were also not successful. Detailed data on travel distances to sites was not obtained, and could not be estimated with **zip file** because information on specific sites used by boaters was not obtained.

The exploratory models estimated with the financial support of this project have led to the development of a plan of work to complete the analysis. First, the estimation of a travel cost model for trips to Lake Erie using all respondents for which there is complete data will be refined and estimated using a censored regression model, i.e., a model which appropriately incorporates the decision by boaters to make zero trips to Lake Erie. Second, models will be specified and estimated using the information from

the contingent value question that asked respondents how they would change the number of Ohio trips made if trip costs increased by 5, 10 or 15 percent or decreased by 5 percent. Each respondent answered this question for one of the alternative cost changes. These contingent responses will be used in a first difference type of travel cost model where the change in trips is related to the change in trip cost, both in dollar terms and in percentages.

The final product will be a paper that reports the results of this work. The paper will focus on how recreational boaters respond to changes in trip costs, and to the extent possible, estimates of how recreational boater value their sport, i.e., the economic value of recreational boating over and above the economic costs or expenditures on boating.