

STUDY PERFORMANCE REPORT

State: Michigan

Project No.: F-53-R-15

Study No.: 489

Title: Comparison of Mail and Creel Survey
Estimates for Recreational Fishing on the
Great Lakes

Period Covered: April 1, 1998 - September 30, 1999

Study Objective: To examine the feasibility of using a mail and/or telephone survey to provide estimates of effort, targeted effort, harvest, and targeted harvest by month and Statistical Reporting District for selected species from Michigan's waters of the Great Lakes.

Summary: Comparison of mail and creel survey estimates was not completed due to several complicating factors. Progress towards this included: 1) design and implementation of a follow-up postcard survey; 2) checking and fixing problems with databases; and 3) re-estimation of harvest and effort from historical creel census data.

Job 7. Title: Compare mail and creel survey estimates, and evaluate results.

Findings: Our work in this area is not complete and was hampered by four factors. First the postdoctoral researcher working on this project took another position. Second, this task depends critically on the quality of creel survey harvest and effort estimates. Recommended methods for estimating harvest and effort from the creel survey have changed and new estimates needed to be generated. This proved more difficult than we originally expected. Third, the low response rate from the screening postcard survey that generated the panel could compromise the validity of mail survey estimates. We sought to investigate this issue with a follow up survey of non respondents. Responses to this survey were still being received in January 1999. Finally, we discovered significant problems in data that were entered by hourly help. The postdoctoral researcher involved in this project has agreed to continue to work with us to complete analyses and a final report over the next year.

Progress during the past year has included:

- 1) Design and implementation of a follow-up postcard survey to investigate the relative fishing activity of respondents and non-respondents to the original screening postcard survey. Data have been entered.
- 2) Rechecking all data, and reentering data or fixing problems that were encountered.
- 3) Further development and application of computer programs to re-estimate harvest and effort from historical creel survey data and to allow efficient generation of estimates in the future. We have done extensive error checking, and comparison of new and old creel survey estimates. This work is nearing completion. This work was complicated because there are many special cases with regard to how data were handled in the past. When discrepancies were found their root cause needed to be categorized as coming from causes that included: (1)

differences in estimation procedures, (2) differences in data handling, and (3) potential errors in program implementation.

Job 8 Title: Prepare annual report.

Findings: This report was prepared.

Prepared by: James Bence

Date: September 30, 1999