Research Presentation Packet

Grand Marais Harbor Expansion: Economic Impact, Three Scenarios

September 2005

For

Minnesota Department of Natural Resources and
City of Grand Marais, Minnesota

Research Team:

James A. Skurla, Acting Director
Jean Jacobson, Senior Editor
Nitya Malik, Undergraduate Research Assistant
Paul W. Hochsprung, Undergraduate Research Assistant
John W. Daly, Undergraduate Research Assistant
Vickie Almquist-Minko, Executive Administrative Specialist

For copies of this and other research from the Labovitz School research bureau, please see:

www.d.umn.edu/sbe/departments/bber/
Click on "BBER Funded Research" to link to the report.
Introduction

The UMD Labovitz School of Business and Economics’ Bureau of Business and Economic Research (BBER), in conjunction with the Minnesota Department of Natural Resources (DNR), has conducted an economic impact of the Grand Marais Harbor Expansion plan as proposed for the City of Grand Marais, MN. The impact of the harbor expansion on Cook County and Grand Marais includes tourism (as measured by the industry sectors hotel/motel, food and beverage, and attraction and amusement attendance) which is a large part of the economic base of this area. This impact study reports the direct spending, business spending, and household spending across Cook County, MN. (Technical details of these impact results are available in the report.)

Study Area

Grand Marais City; Cook County, MN

Project Overview

The City of Grand Marais, MN currently has a small marina (approx. 22 slips), located near downtown shopping and lodging. The City of Grand Marais has requested an expansion plan for this marina. One of the considerations has been the possibility of a Safe Harbor, as completed by the DNR in other Lake Superior locations. The proposed expansion has been studied here in three sizes: large (250 slips), medium (165 slips), and small (75 slips). The BBER has worked closely with local stakeholders in the project to determine the key assumptions and input variables for the development of the IMPLAN model used in this analysis.

Where We Started

Assumptions to the model have been set based on secondary data from previous marina impact studies as well as estimates from the Minnesota DNR. Several questions provided the starting point for this study:

1) For a small, medium, and large expansion, how many slips, of what sizes, are proposed?

To assign a number of slips of each size the BBER needed to determine the average boat size occupied in the marinas of Lake Superior.

<table>
<thead>
<tr>
<th>Slip Size (ft.)</th>
<th>% of each size</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>17%</td>
</tr>
<tr>
<td>30</td>
<td>25%</td>
</tr>
<tr>
<td>35</td>
<td>27%</td>
</tr>
<tr>
<td>40</td>
<td>15%</td>
</tr>
<tr>
<td>50</td>
<td>10%</td>
</tr>
<tr>
<td>60</td>
<td>5%</td>
</tr>
<tr>
<td>120</td>
<td>1%</td>
</tr>
</tbody>
</table>
2) How many days per year do boaters visit the Grand Marais Marina location?

The BBER calculated the number of boating days that prevail in Grand Marais, MN. The boating season dates of May 10-October 15 is used as a base for calculations. (Note: For this impact, a boater day is defined as a day when a boat occupies a slip in the marina and the occupant is present on a boat.)

<table>
<thead>
<tr>
<th>Boat Length</th>
<th>Number of days per season:</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-28 ft</td>
<td>26.4</td>
</tr>
<tr>
<td>28-40 ft</td>
<td>31.0</td>
</tr>
<tr>
<td>40+ ft</td>
<td>33.7</td>
</tr>
</tbody>
</table>

3) How can we estimate how much marina-related visitor expenditure to predict?

The inputs of our model are based on “Average Trip Spending” data collected from the Recreation Marina Research Center (RMCR). Ten categories of spending were used.

4) How were the three scenarios constructed?

The three scenarios were provided by the Grand Marais Harbor Advisory Committee. The boat size ranges (21-28, 29-40, 40+) were reported in the Great Lakes Commission Economic Impact Study, and slip size estimate were provided by the DNR.

5) How was the weather factor estimated for the average days boated?

The estimate for total boated days was derived from DNR occupancy percentages and adjusted for a weather factor (Source: NOAA). BBER analyzed average precipitation and estimated boating days.
6) How can we estimate what is local spending, and what is non-local spending?

Non-local spending percentages were available from data collected from the neighboring Silver Bay Marina. The data includes total transient and seasonal slip renters for 2004, and points of origin for visitors.

![Percentage Local Spending](chart)

**Methodology**

This economic assessment uses an IMPLAN input-output production based model. Some of the terms and definitions used in reporting the results are as follows:

**Measures**

- **Gross Output** represents the value of local production required to sustain activities.
- **Value Added** represents wages, rents, interest, and profits: Value added is a measure of the impacting industry’s contribution to the local community, and estimate of the region’s Gross Domestic Product.
- **Employment** is fairly self-explanatory. However, note that for the IMPLAN model, part-time individuals are counted as being employed. This means that the employment estimates are in terms of jobs, not in terms of full-time equivalent employees.

**Effects**

- **Direct** – For each dollar outlay from a given industry the direct effect is the amount used for purchase of goods and services from other industry sectors in the model
- **Indirect** – The inter-industry effects of input-output analysis
- **Induced** – The impact of household expenditure in input-output analysis

For more about these measures and effects please see the BBER report, “Grand Marais Harbor Expansion: Economic Impact, Three Scenarios,” June 2005.
Results

Findings: The report shows findings for three scenarios, with operating impact estimates for small, medium, and large expansions of the Grand Marais Marina. (Note: Spending is calculated by expenditures per day, per boat, times days boated.)

Scenario 1: Economic Impact of Small Expansion to the Grand Marais Harbor Marina, 75 Slips

Source: IMPLAN

<table>
<thead>
<tr>
<th>Effects/Measure</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Induced Effect</th>
<th>Total Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Output</td>
<td>$353,192</td>
<td>$43,456</td>
<td>$44,822</td>
<td>$441,470</td>
</tr>
<tr>
<td>Value Added</td>
<td>$207,455</td>
<td>$24,026</td>
<td>$30,185</td>
<td>$261,667</td>
</tr>
<tr>
<td>Employment</td>
<td>6.3</td>
<td>0.6</td>
<td>0.6</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Spending used to generate the impacts include:

| Total Spending   | $455,144 |
| Local Spending   | $101,952 |
| Non-Local Spending | $353,192 |

Scenario 2: Economic Impact of Medium Expansion to the Grand Marais Harbor Marina 165 Slips

Source: IMPLAN

<table>
<thead>
<tr>
<th>Effects/Measure</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Induced Effect</th>
<th>Total Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Output</td>
<td>$777,022</td>
<td>$95,603</td>
<td>$98,608</td>
<td>$971,233</td>
</tr>
<tr>
<td>Value Added</td>
<td>$456,402</td>
<td>$52,858</td>
<td>$66,407</td>
<td>$575,667</td>
</tr>
<tr>
<td>Employment</td>
<td>13.9</td>
<td>1.4</td>
<td>1.2</td>
<td>16.5</td>
</tr>
</tbody>
</table>

Spending used to generate the impacts include:

| Total Spending   | $1,001,317 |
| Local Spending   | $224,295   |
| Non-Local Spending | $777,022 |

Scenario 3: Economic Impact of Large Expansion to the Grand Marais Harbor Marina 250 Slips

Source: IMPLAN

<table>
<thead>
<tr>
<th>Effects/Measure</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Induced Effect</th>
<th>Total Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Output</td>
<td>$1,177,306</td>
<td>$144,853</td>
<td>$149,406</td>
<td>$1,471,565</td>
</tr>
<tr>
<td>Value Added</td>
<td>$691,518</td>
<td>$80,087</td>
<td>$100,617</td>
<td>$872,222</td>
</tr>
<tr>
<td>Employment</td>
<td>21.1</td>
<td>2.1</td>
<td>1.9</td>
<td>25.1</td>
</tr>
</tbody>
</table>

Spending used to generate the impacts include:

| Total Spending   | $1,517,147   |
| Local Spending   | $339,840     |
| Non-Local Spending | $1,177,307 |
Considerations

BBER hopes these impact numbers will assist policy making and help clarify some of the questions about possible economic impacts from proposed changes to the marina facilities. Policy makers will recognize that a full cost benefit study can show aspects of the decision process that an impact study cannot, for instance the opportunity costs of choosing one option over another. The data used in the impact presented here are secondary data (except for observations and estimates provided by the BBER team and the MN Department of Natural Resources). For important decisions that affect regional economics a survey data collection can provide data estimates for information not available from other sources.

BBER would like to acknowledge the generous assistance of DNR personnel, Larry Killien, Harbor Program Coordinator, Tom Peterson, Area Supervisor- MN DNR Trails & Waterways; Dave Oltman, Silver Bay Harbor Master; and Dave Gould, Knife River Harbor Master.