Integration of Sustainable Development on Long Island’s Coastal Industries ¹

Sheng Li, (lis@farmingdale.edu)
School of Business, Farmingdale State College, State University of New York,
Farmingdale, 11735, USA

Richard Vogel (vogelrm@farmingdale.edu)
School of Business, Farmingdale State College, State University of New York,
Farmingdale, 11735, USA

Nanda Viswanathan (nanda.viswanathan@farmingdale.edu)
School of Business, Farmingdale State College, State University of New York,
Farmingdale, 11735, USA

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Abstract

Fisheries from commercial fishing to residential and tourist recreational uses in the Long Island, contributing over $10 billion impacts to the regional economics. While Long Island’s commercial fishing industry has been decreasing during the past decade resulting from water pollution, competition, and a lack of infrastructure. Annual landed commercial catch declined by 90% from 1993 to 2013. The pass-through impacts from the connections between the marine based industry and the larger economy (such as the tourism sector), might affect the region’s economic growth. This study focuses upon Long Island’s recreational and commercial fishing industry and its interrelationship with the island’s tourism and recreational sectors as well as its integration of sustainable coastal development with the greater regional economy. Based on the 2013 IMPLAN data, a computable general equilibrium (CGE) model is built to make a quantitative assessment of sectorial contributions and the linkages among current marine and coastal economy. The preliminary results indicate significant connections from commercial fishing, recreational fishing, charter vessels and marinas in coastal businesses and regional economic development.

1. Introduction

Fisheries, both commercial, recreational, and sport fishing has a long historical association with coastal economic activities on Long Island. As home to commercial and sport fishing industries, Long Island holds many world-class events associated with its marine setting every year. In 2013, New York State Fisheries landed over 33 million pounds of finfish, shellfish and crustaceans, with a value of $56.9 million, more than 90 percent of which occurs in Nassau and Suffolk counties of Long Island. If calculate with a standard economic multiplier of 4.52 (LIEDC, Long Island Regional Economic Development Council, 2009), this sector translates more than 250 million annually to the regional economy. Recreational fishing even contributes over $398 million annually to New York State’s output and $4.4 billion to U.S. gross domestic product (Lovell, et al 2013). State fisheries support thousands of jobs and hundreds of Long Island businesses. Fishing-related industries are a hybrid of local service, resource-dependent and traded industries. They act as an economic driver through exporting of fishery products to the State.

2. Fishing and Tourisms

Marine and coastal based activities (e.g. Fishing) have the potential to provide substantial support to the region’s economic growth. The key connections between the coastal and marine based industry and the larger economy are through the greater tourism sector operating in the region. Nunes et al (2009) point out coastal resources and ecosystems can contribute significant economic benefits to regional economies especially in terms of coastal tourism and recreational services. As the second most popular tourist destination in New York State after New York City, over 9 million overnight visitors to Long Island annually generating approximately $5.1 billion in spending in 2013 (Matejka, 2014). Overall, tourism supports more than 70,000 jobs or 5.9 percent of all jobs on Long Island and is responsible for generating nearly $638 million in state

2 The multiplier calculated based on the 2013 IMPAN data.
and local tax dollars. Based on a 4.3 economic multiplier, tourism spending had generated $27.4 billion economic impact on Long Island in 2013.

Table 1 Tourism Economic Impact 2013, New York.

<table>
<thead>
<tr>
<th>Tourism Economic Impact</th>
<th>Direct Sales, 1000</th>
<th>Labor Income, 1000</th>
<th>Employment, 1000</th>
<th>Local Taxes, 1000</th>
<th>State Taxes, 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Island</td>
<td>5,280,732</td>
<td>2,735,970</td>
<td>74,694</td>
<td>349,365</td>
<td>289,460</td>
</tr>
<tr>
<td>New York City</td>
<td>38,687,493</td>
<td>19,998,603</td>
<td>367,473</td>
<td>2,834,011</td>
<td>2,120,631</td>
</tr>
<tr>
<td>NYS</td>
<td>59,245,086</td>
<td>30,342,791</td>
<td>726,731</td>
<td>4,222,385</td>
<td>3,247,483</td>
</tr>
</tbody>
</table>

Date source: Tourism Economic at http://www.tourismeconomics.com/

While Long Island’s commercial fishing industry has been decreasing (Clancy, 2008) during the past decade. New York State’s annual landed commercial catch from 1993 to 2013 declined by 90%, which is 26 million pounds and the population employed in agricultural and natural resource related industries in the area has continued to decline and represents a very small constituent of the overall regional economy (National Marine Fisheries Service, 2014). The commercial fishing industry is fragmenting result from water pollution, competition, and a lack of infrastructure that supports getting products to multiple markets locally and regionally. Correspondingly, recreational fishing in the Long island has been thriving since 1998 and the proportion of recreational and sport fishing increase steadily over two decades (Figure 3).

Figure 1 NMFS Fish Commercial Landings, New York State and U.S, 1993-2013
3. Data and Method

This study focuses upon evolving roles and economic significance of Long Island’s recreational and commercial fishing industry and its interrelationship with the island’s tourism and recreational sectors as well as its integration of “Sustainable Coastal Development” of the greater regional economy. Economic structure and its impact/contribution interaction between fishing industry and tourism and recreational sectors are particularly paid more attention to investigate.
the economic relationship, strength and vitality. A set of strategic policy options will be discussed to integrate and diversify the coastal industries.

Base on the 2013 IMPLAN data, which were gathered from the U.S. Bureau of Economic Analysis, the Bureau of Labor Statistics and other sources to provide a complete set of balanced social accounting matrices for every zip code, county and state in the U.S, a computable general equilibrium (CGE) model will be built to make a quantitative assessment of sectorial contributions and the linkages among current marine and coastal economy. Regional survey data will support to evaluate how changes in marine industry production, recreational and tourist demand. Simulations and policy analysis will be conducted to estimate the impacts and effects on both sectoral and regional employment, income, and output.

4. Preliminary Conclusions

Our preliminary investigation results indicate significant conurbations from commercial fishing, recreational fishing, charter vessels and marinas in coastal businesses and regional economic development. Linkages between these coastal activities and other sectors on Long Island such as the tourism sector, can create more robust, and sustainable development outcome. Fishing industry has been experiencing fragmentation and shrinking during the past decades, which might affect the related industries such as tourism sector and related waterfront sectors in the Long Island.

Reference


