



Valuing the Coast: Economic Impacts of Connecticut's Recreational Shellfishing Sector

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Introduction

Like any other sector of the Connecticut economy, recreational shellfishing includes the purchasing of goods and services from other sectors, as well as hiring of local labor.

Its economic impact cascades throughout the state's economy.

This study estimates the total economic impact of the recreational shellfish harvest through the use of an economic model of the Connecticut economy.

Methodology

This study uses IMPLAN (IMpact analysis for PLANning: Minnesota IMPLAN Group, Inc.) software to evaluate the economic impacts of Connecticut's recreational shellfishing sector:

- aiming to capture the scope of the recreational shellfishing sector
- its linkages to the rest of the state economy
- its contribution to statewide economic output and jobs
- means to capture not only the direct impact of maritime industries but also the indirect and induced impacts that occur when maritime industry's dollars work their way through the economy



Measure of Impact

The study will develop three indicators of the economic importance or impacts of maritime industries:

- (1) Total impact on economic output, the value of which is measured by sales in Connecticut
- (2) Total impact on employment, which includes full-time and part-time jobs generated in Connecticut
- (3) Total impact on value added, which measures the value added to raw materials

Used state data from 2012



Sector Selection

This study uses the U.S. Department of Commerce (DOC) classification of sectors of the economy.

This classification divides the economy into 440 sectors.

Six primary economic sectors cover most economic activities that would be involved in recreational shellfishing were selected for the analysis.

These activities include the consumption of food and beverage; ice; gasoline for boat and car; purchase, replacement and maintenance of harvest equipment; marina services, and boat repair and maintenance.

Sector Selection

Sector 324 Retail Store-Food and beverage (food stores, package stores, food markets)

Sector 326: Retail Store-Gasoline Station (gasoline stations, gasoline stations with convenience stores, marine service stations)

Sector 328 Sporting goods, hobby, book, music (rakes, baskets, gauges, sporting equipment)

Sector 330: Retail Stores-Miscellaneous (boating equipment, clothing)

Sector 409 Amusement parks, arcades, and gambling industries (boating clubs with marinas, marinas, sailing clubs with marinas, yacht clubs with marinas)

Sector 418: Personal and household goods repair and maintenance (boat, pleasure, repair and maintenance services without retailing new boats; outboard motor repair shops; sporting equipment repair and maintenance without retailing new sports equipment)

Assumptions

- Permit is sold as individual specific, which means one permit can only be used by one specific person.
- The average number of trips to shellfishing is 10 per person in a year.
- The cost for a single trip to shellfishing is 23 dollars for each person, including gas (\$10), food (\$8), and ice (\$5). Permit cost is not included.
- 70% of all permit holders use a boat to get to shellfish grounds after arriving the coast/water with an average of 4 hours in boat (\$25/hour).
- The ownership costs of all boat users include marina service (50%) and boat maintenance service (50%).
- There is 10% replacement of equipment with a cost of \$100.

Total Output Impacts

The total output impact is \$1,576,874

Output	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Retail Store – Food and beverage (sector 324)	\$ 147,069	\$ 40,996	\$ 83,189	\$ 271,253
Retail Store – Gasoline (sector 326)	\$ 97,785	\$ 30,652	\$ 48,245	\$ 176,682
Tool Replacement and Maintenance (sector 328)	\$ 2,536	\$ 891	\$ 1,339	\$ 4,766
Retail Store – Ice (sector 330)	\$ 140,810	\$ 51,291	\$ 72,808	\$ 264,909
Marina Services (sector 409)	\$ 228,165	\$ 88,385	\$ 121,102	\$ 437,652
Boat maintenance services (sector 418)	\$ 228,165	\$ 94,777	\$ 98,670	\$ 421,612
	\$ 844,530	\$ 306,992	\$ 425,353	\$ 1,576,874

Total Value Added Impact

The total value added impact is \$997,719

- Money earned by the residents of the state, which they can then spend buying goods and services, inducing further economic activity in the state

Value Added	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Retail Store – Food and beverage (sector 324)	\$ 110,415	\$ 27,998	\$ 55,984	\$ 194,397
Retail Store – Gasoline (sector 326)	\$ 70,088	\$ 20,932	\$ 32,472	\$ 123,492
Tool Replacement and Maintenance (sector 328)	\$ 1,723	\$ 609	\$ 901	\$ 3,232
Retail Store – Ice (sector 330)	\$ 93,841	\$ 35,008	\$ 48,999	\$ 177,848
Marina Services (sector 409)	\$ 135,323	\$ 57,994	\$ 81,497	\$ 274,814
Boat maintenance services (sector 418)	\$ 94,757	\$ 62,770	\$ 66,409	\$ 223,936
	\$ 506,147	\$ 205,311	\$ 286,262	\$ 997,719

Total Employment Impact

The total employment impact is 16.3 jobs

- Marine services is the sector contributing the most employment.
- 70% of recreational shellfish permit holders use a boat to access shellfishing grounds.
- May seem low but makes sense since recreational shellfishing is only an occasional activity and the employment impact will be for only part of a person's time.

Employment	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Retail Store – Food and beverage (sector 324)	2.3	0.3	0.6	3.2
Retail Store – Gasoline (sector 326)	0.7	0.2	0.3	1.2
Tool Replacement and Maintenance (sector 328)	0.0	0.0	0.0	0.1
Retail Store – Ice (sector 330)	3.0	0.3	0.5	3.8
Marina Services (sector 409)	4.1	0.6	0.8	5.5
Boat maintenance services (sector 418)	1.3	0.6	0.7	2.5
	11.4	2.0	2.9	16.3



Conclusions

Recreational shellfishing has an almost \$1.6 million economic impact on the economy.

It highlights the importance of shellfishing not only from a cultural and recreational perspective, but also from an economic perspective.

We will be doing an economic impact study of commercial shellfishing and recreational fishing next.