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The NEFSC Social Sciences Branch

Products and Expertise for Sustainable Fisheries

NEFMC Scientific and Statistical Committee, Social Sciences Subcommittee

Webinar

March 10, 2026

NEFSC SSB: What we do



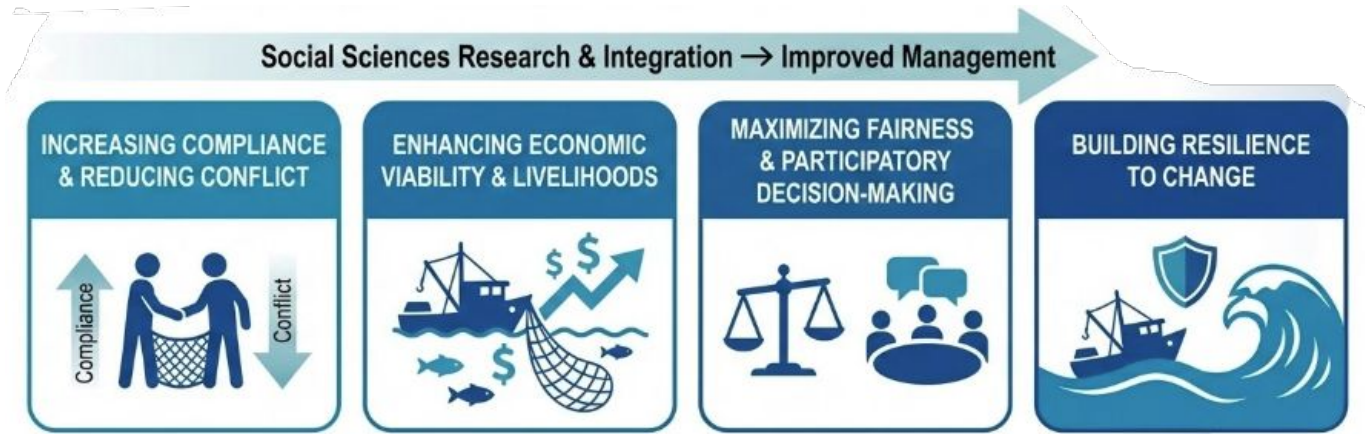
We enhance benefits to the Nation by conducting social science research and using our expertise to understand the connection between people and the ocean.

Main activities:

- Data Collection
- Product Development and Maintenance
- Management Support
- Primary Research

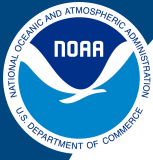
Social Sciences Value Proposition

Managing fisheries requires not only assessing fish stocks but also understanding human behavior and maximizing benefits to human communities.



Objectives of this Presentation

- Provide an overview of the main data, indicators, tools, and metrics in SSB portfolio.
 - Answer clarifying questions.
- **Discuss approaches to incorporate or maximize utilization of this information into fisheries management and the council process.**



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Data Collection

Commercial Fishing Vessel Crew Survey

Surveys of individuals who work as crew on commercial fishing vessels operating in the New England and Mid-Atlantic regions of the United States.

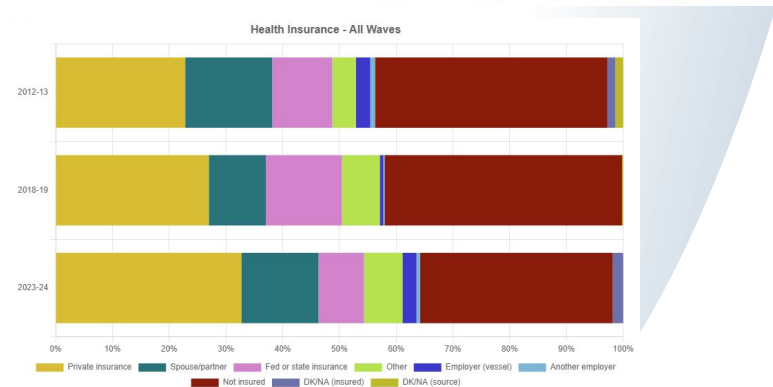
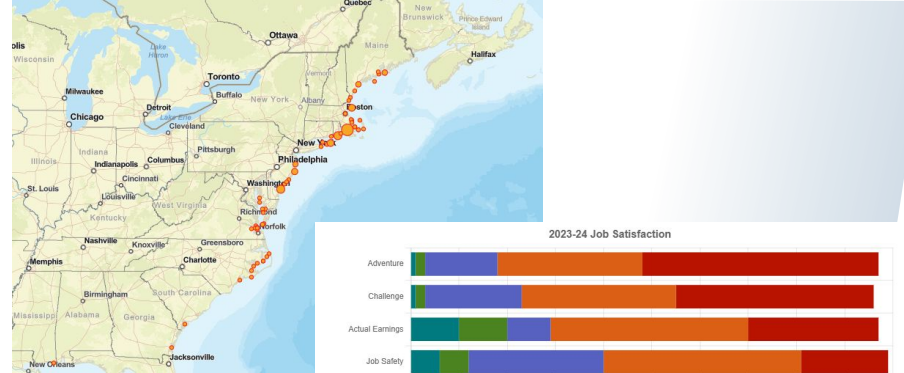
Three waves of data (2012/13, 2018/19, 2023/24); 4th wave implementation Spring 2026.

The survey includes questions on:

- Demographic background
- Personal and family histories in commercial fishing
- Characteristics of their fishing experiences
- Job Satisfaction
- Health Insurance
- Perceptions about fisheries management and the future of the industry

POC: Matt Cutler matthew.cutler@noaa.gov

[Crew Survey Visualization Tool](#)



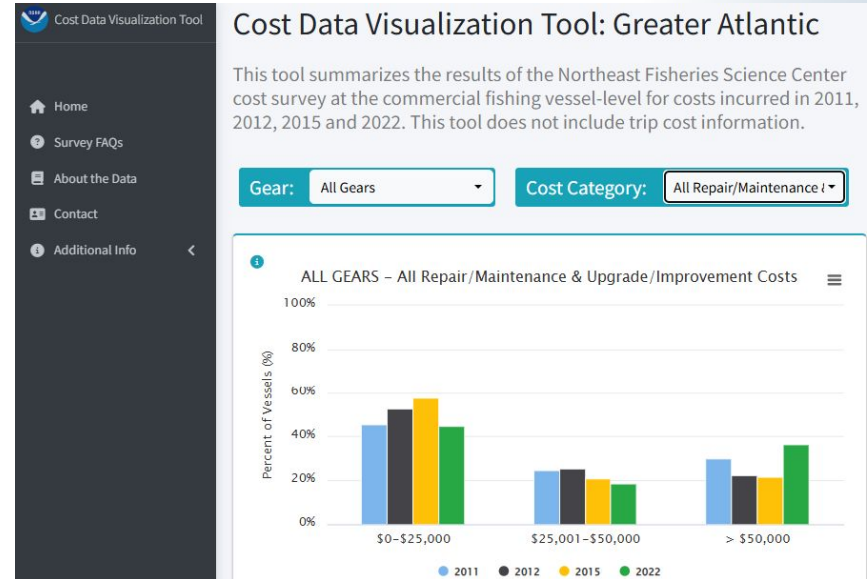
Greater Atlantic Region Commercial Fishing Business Cost Survey

- Only source of non-trip cost data in the Greater Atlantic Region.
- Crucial for calculating returns metrics such as profit.
- Voluntary survey implemented intermittently since the early 2000s.
- Data accessible on Oracle and through the [Cost Data Visualization Tool](#).
 - Query major and sub-cost categories by gear type for responding vessels.

POCs: Samantha Werner

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Greg Ardini gregory.ardini@noaa.gov




Recreational Fishing Economic Surveys

Surveys to collect data from anglers that is used in the Recreational Demand Models for species:


- Fluke, Scup, Black Sea Bass (2010, 2022)
- Gulf of Maine Cod and Haddock (2009, 2014, 2019, 2025)
- Striped Bass (2016)

POC: Min-Yang Lee min-yang.lee@noaa.gov

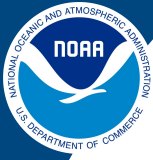
North Atlantic Recreational Fishing Survey 2025



Improve your fishing experiences!



Sponsored by NOAA Fisheries (National Marine Fisheries Service), Northeast Fisheries Science Center
This survey is voluntary and all responses are confidential.
Questions? Email Scott Steinback at Scott.Steinback@noaa.gov
OMB Control Number 0648-0783 expires ?



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Indicators, Metrics, and Tools

Commercial Fishing Port Activity

Assess level of fishing activity at a given port of landing using:

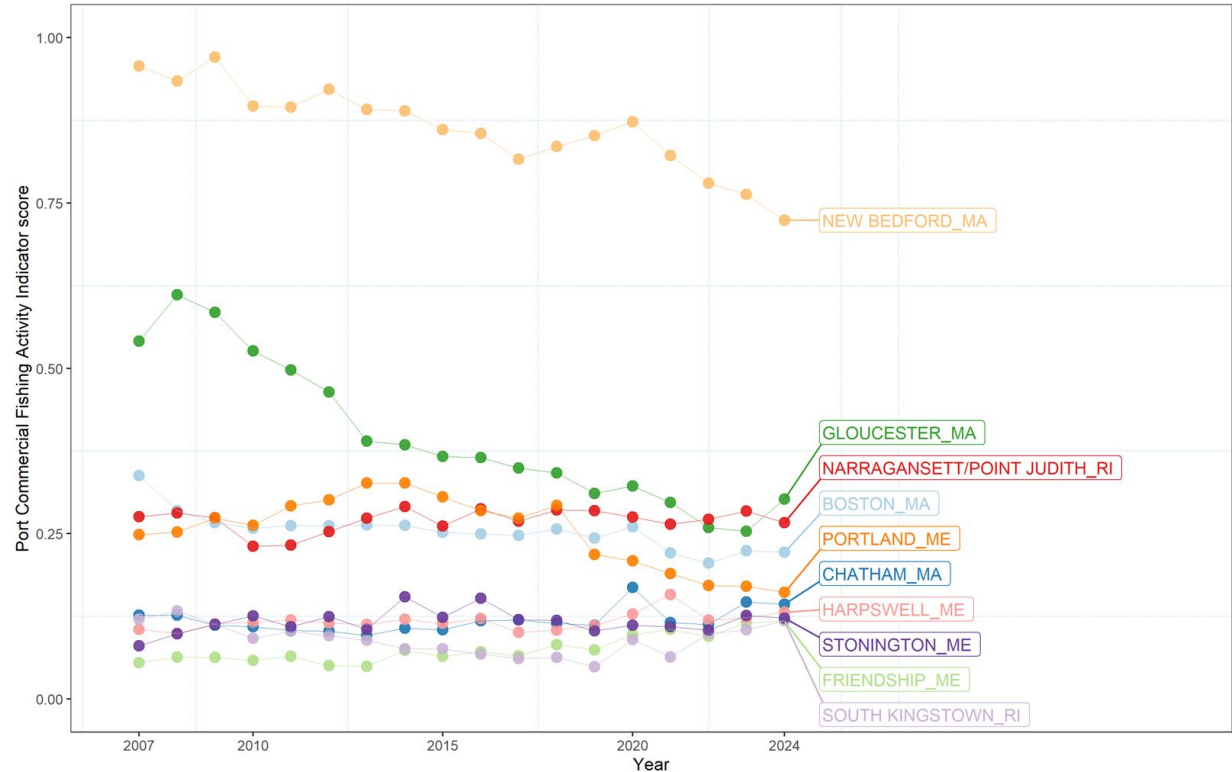
- *Dealers (count)*
- *Commercial fishing permits (count)*
- *Weight of landed fish (lbs)*
- *Revenue of landed fish (\$)*

This data was previously used in the CSVI Engagement Indicator.

Here we have normalized all data (min-max scaling) and average scores for each port.

New metrics allow for clearer interpretability and temporal comparisons.

POC: Bobby Murphy
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Environmental Variability Risk Indicators

Indicators of community (and fleet) risk to environmental variability based on species contributions to landings value and their respective scores (CVA; Hare et al. 2016) for:

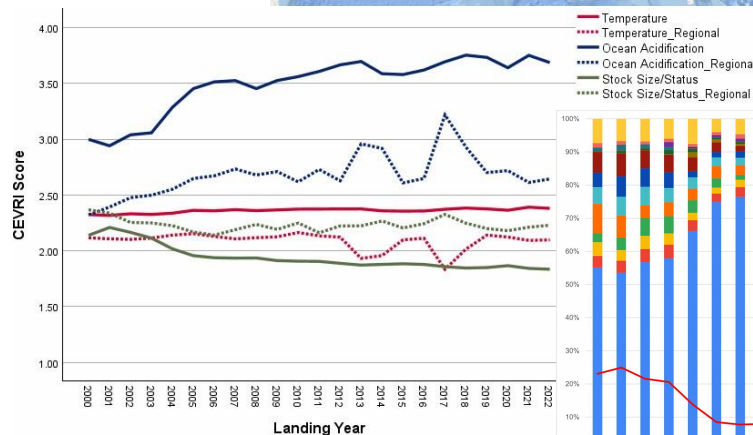
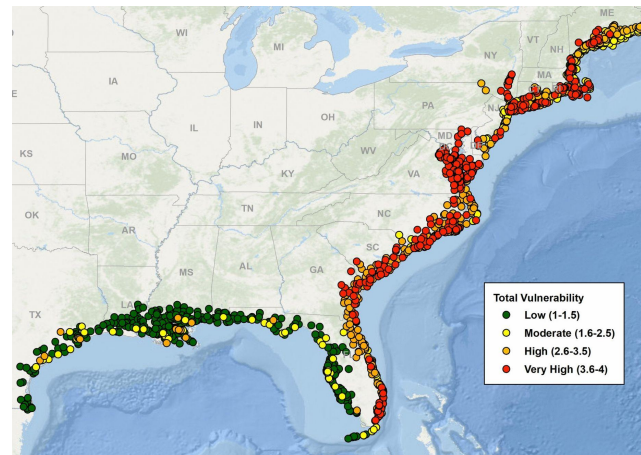
- Sensitivity to ocean acidification
- Sensitivity to temperature
- Sensitivity to stock size/status
- Total Sensitivity (all sens. attributes)
- Total Vulnerability (sens. + exposure)

Analyses of spatial and temporal trends in environmental variability risk.

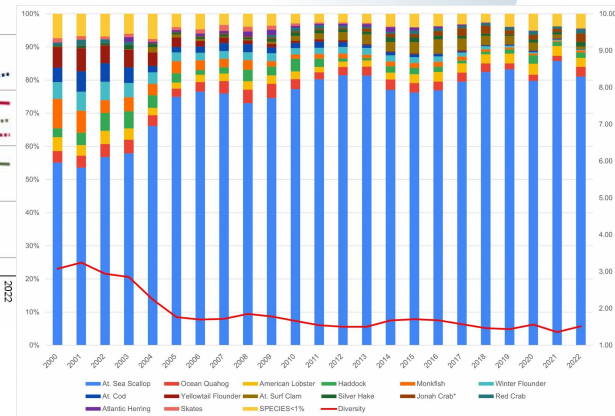
Implications of landings diversity for risk.

[Seara et al. \(2025\)](#); Visualization tool under development.

POC: Tarsila Seara tarsila.seara@noaa.gov



New Bedford MA



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Commercial Fishing Performance Measures

Show trends in key indicators of economic performance for commercial fishing activity in the Northeast region for species managed by the NEFMC and MAFMC.

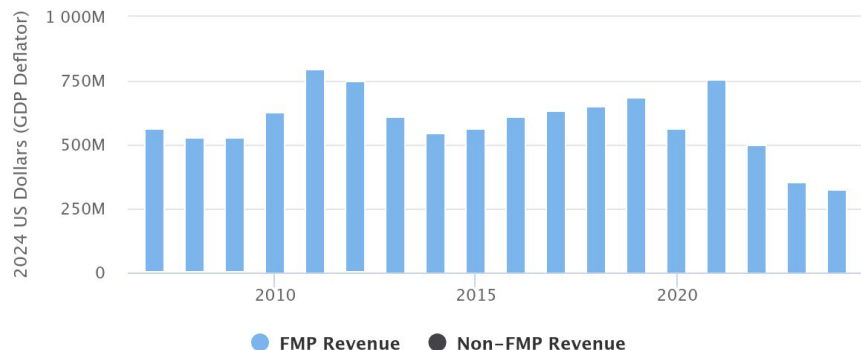
Metrics include:

- Revenue
- Average prices
- Revenue per vessel
- Number of vessels
- Revenue per trip
- Number of trips
- Revenue per days at sea
- Number of days at sea
- Gini Coefficient

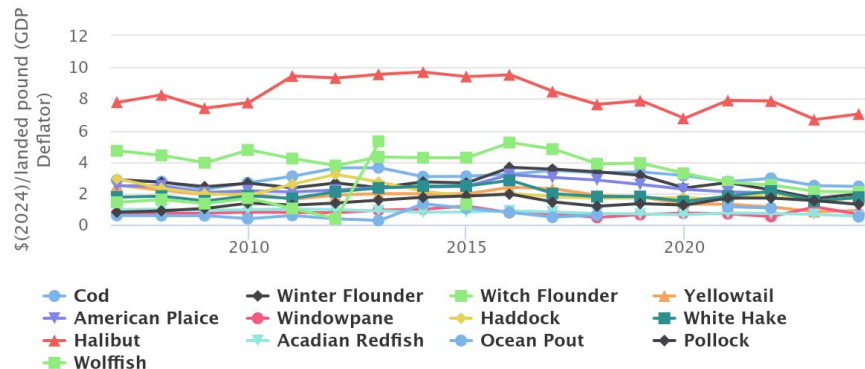
[Performance Measures Website](#)

POC: Chad Demarest chad.demarest@noaa.gov

Atlantic Sea Scallop – Revenue



Ne Multispecies – Large Mesh – Average Prices



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2022 Vessel Profit Snapshots

Utilizes the most recent (2022) Commercial Fishing Business Cost Survey data to calculate various fleet metrics:

- Cost distributions
- Operating profit
- Total profit
- Profit margins

Snapshots will be updated following the next cost survey implementation in FY27.

[Profit Snapshots site](#)

POC: Greg Ardini
gregory.ardini@noaa.gov

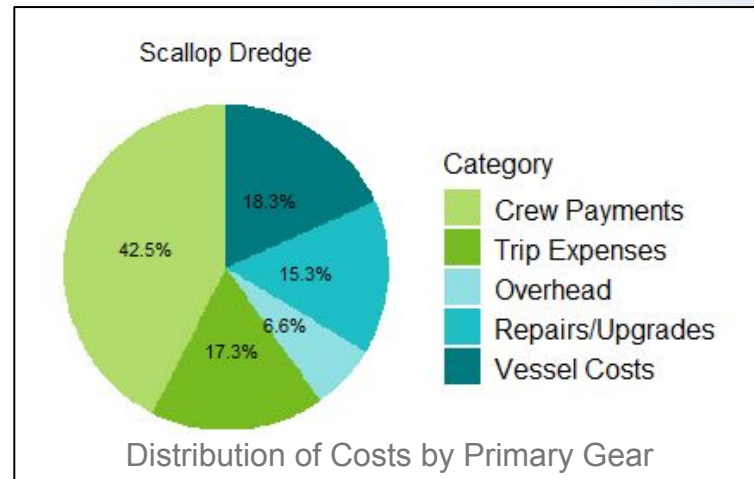


Table 10.4: Total Profit Margins by Primary Fishery

Fishery	Response	Sample	Response (%)	Median Revenue	Median Total Profit	Total Profit Margin
Groundfish	7	52	13%	\$513,837	\$21,800	4.2%



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Economic Models

- Economic trip cost model
 - Model using observer trip cost data to estimate trip costs for the entire fleet - Currently the only method to estimate net-returns.

POC: Samantha Werner samantha.werner@noaa.gov

- Quota change model
 - Used to estimate socioeconomic impacts of groundfish quota setting for the commercial sector groundfish fishery.

POC: Greg Ardini gregory.ardini@noaa.gov

- Recreational Decision Support Tool
 - Used to support Groundfish (2013) and Summer Flounder, Scup, Black Sea Bass (2022).
 - Cloud based since 2022 to further empower stakeholders and managers.

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SSB Metrics Catalog

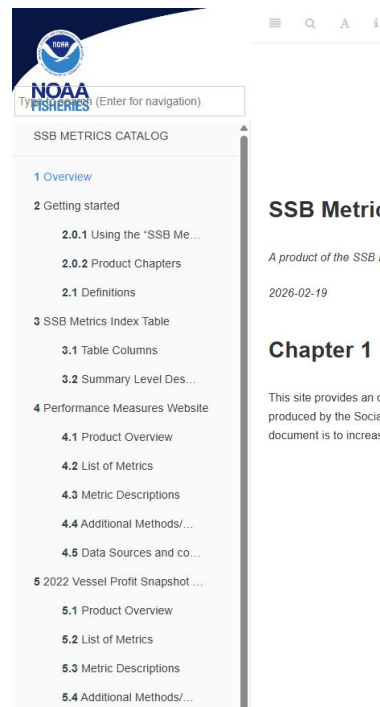
Provide an overview of all metrics generated within SSB to be used internally and by Council staff and potential collaborators.

Key features:

- Index overview table:
 - Review all metrics, their unit of measurement, time series, coverage and the product in which they are contained.
- Product Pages:
 - In depth overview of each individual product, methods, output data, POC, additional decision rules, and metadata.

First comprehensive release to be pushed by end of FY26.

[SSB Metrics Catalog Pilot](#)



SSB Metrics Catalog

A product of the SSB Data Working Group

2026-02-19

Chapter 1 Overview

This site provides an overview of the metrics, and the methods and code used to generate them, produced by the Social Sciences Branch of the Northeast Fisheries Science Center. The intent of this document is to increase access, transferability, and reproducibility of SSB-created works.



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Discussion Points

- How/where is SSB data, indicators, tools, and metrics currently utilized?
 - Are there ways to improve or maximize its utilization for management and council purposes?
- What are opportunities for new uses?
 - What is needed for this data to be used/considered?

