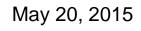
Measuring the Effects of Catch Shares: Identifying Indicators and Establishing Baselines along the West and Northeast Coasts

Michael Downs, PhD., Marcus Hartley, Stev Weidlich, and Don Schug, PhD.









#### **Project Overview**



- Two U.S. Catch Share Programs
  - Northeast Multispecies Sector Program (established 2010)
  - West Coast Shorebased Individual Fishing Quota System (established 2011)
- Objective Information for Decision-making
  - Development of 14 indicators: ecological, economic, social, and administrative effects of both programs
- Easily Accessible Information for All Interested Parties





## **Project Goals**

- Provide a set of neutral, scientific indicators that can be used by fisheries managers, fishermen, and other interested parties.
- Develop and conduct scientific methods of data compilation and analysis to track the indicators.
  - Inclusive, collaborative, transparent, and credible
- Communicate the indicators in an objective, accessible fashion







# **Key Questions**

# - Economic and Social Questions

- Has the financial viability of the fishery changed?
- Has the number of active vessels in the fishery changed?
- Have opportunities or barriers to entering the fishery changed?
- Are fishing vessels participating in a different mix of fisheries?
- Has the cost of fishery management to the private sector changed?
- Have social and economic effects on local communities changed?

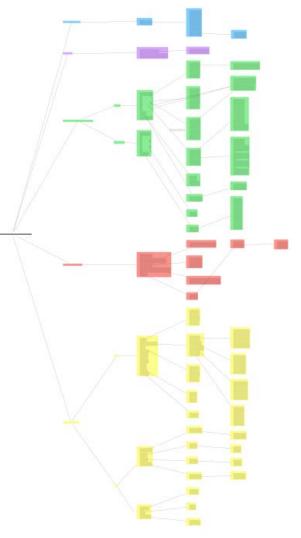






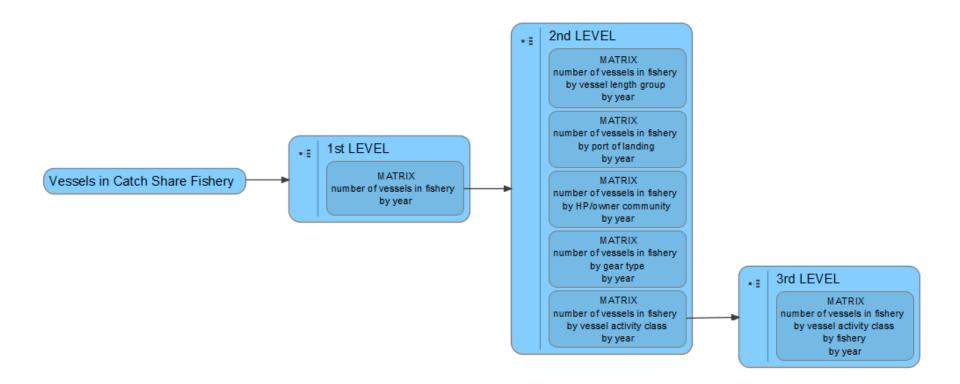
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- Vessels in Catch Share Fishery
- Fishing Portfolio
- Financial Viability of Harvesting and Processing Sectors
- -Quota Share Distribution and Value
- Fishing Community Impacts
  - People
  - Places





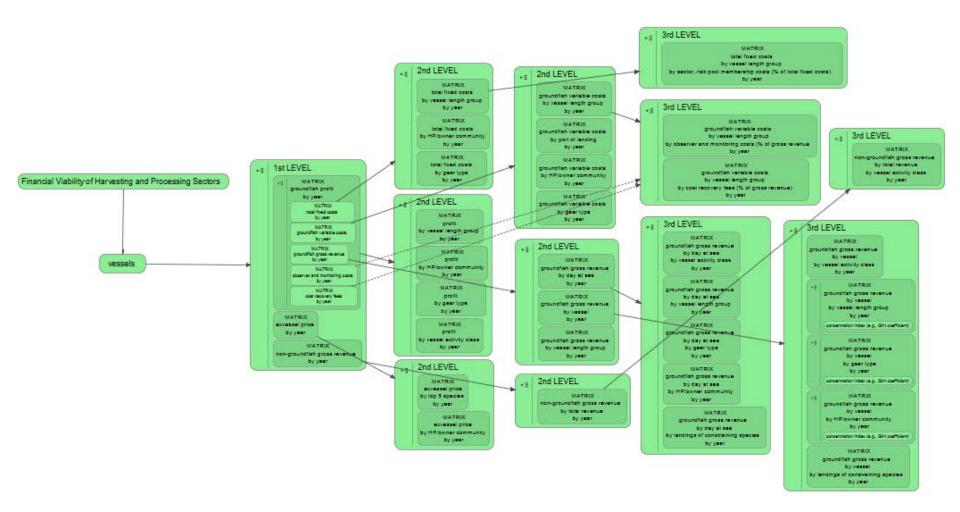














- Public availability of data?
- Data accuracy?
- Source reliance?
- Confidentiality?
- Geographic coverage?
- Replicability?
- Time depth?
- Diminishing returns?







# **Social Indicators**

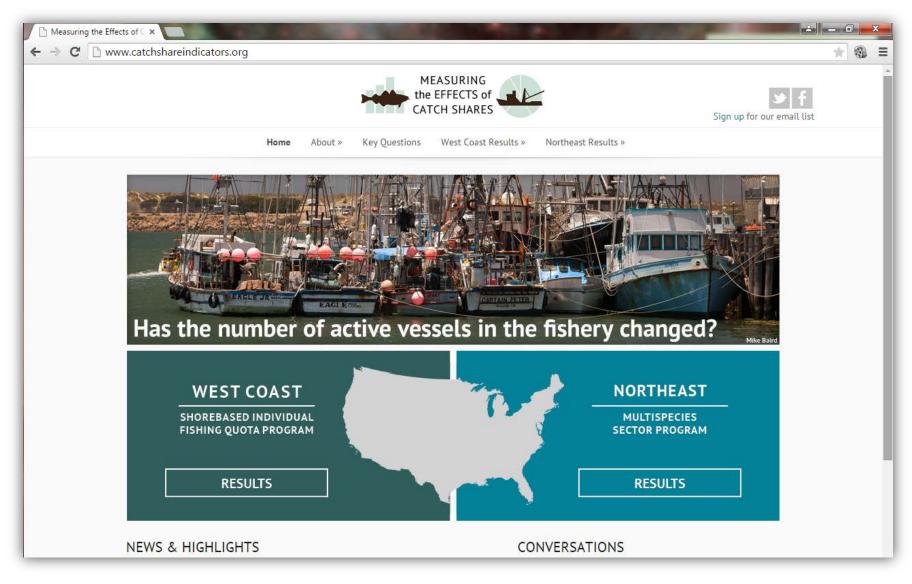
- Have social and economic effects on local communities changed?
  - Landings and Revenues by State and Port Group
  - Vessel Activity by State and Port Group
  - Crew Employment and Compensation
  - Fishing Support Service Employment
  - Seafood Processor Employment
  - Fishing Vessel and Crew Safety







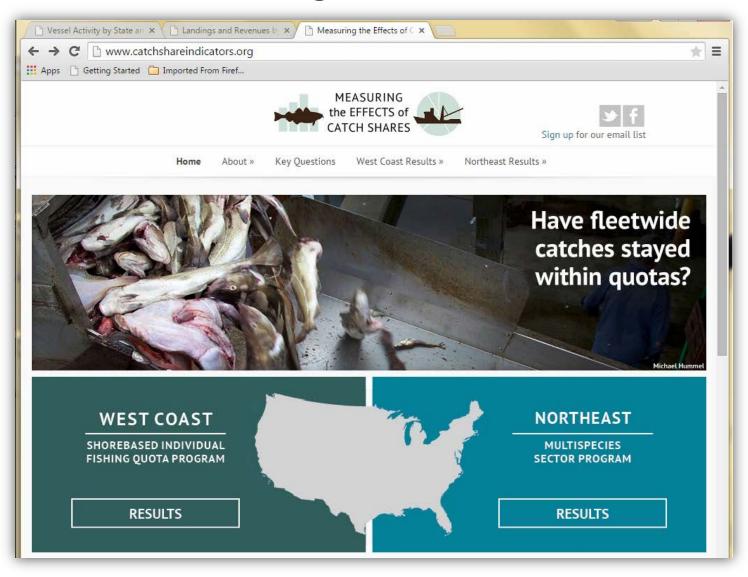
#### **Catchshareindicators.org Website Portal**







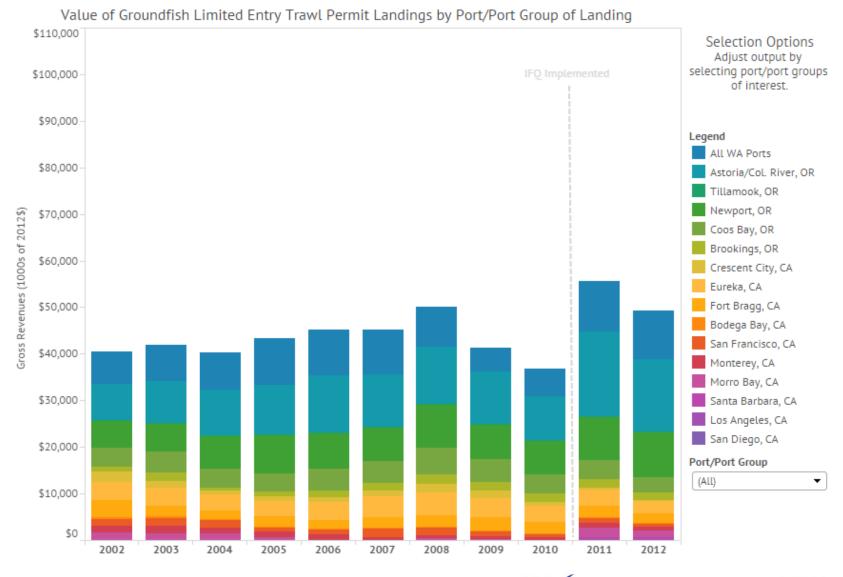
#### **Catchshareindicators.org Website Portal**







#### **Results: Revenues and Landings (West Coast)**



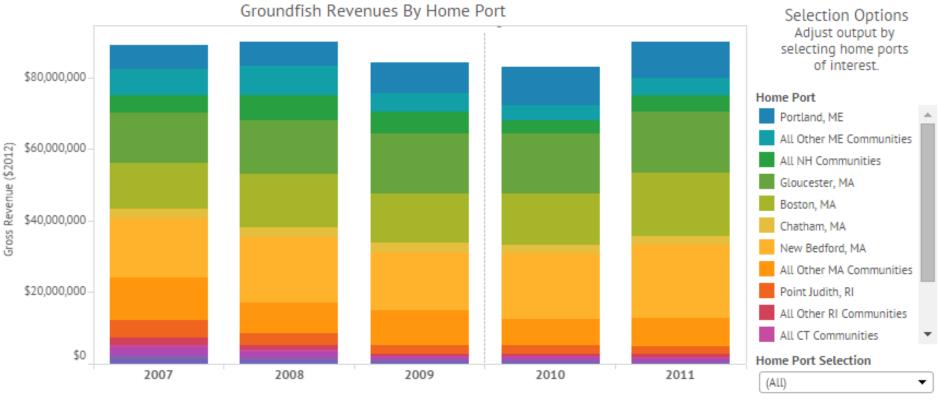
Measuring the Effects of Catch Shares

May 22, 2015





## **Results: Revenues and Landings (Northeast)**

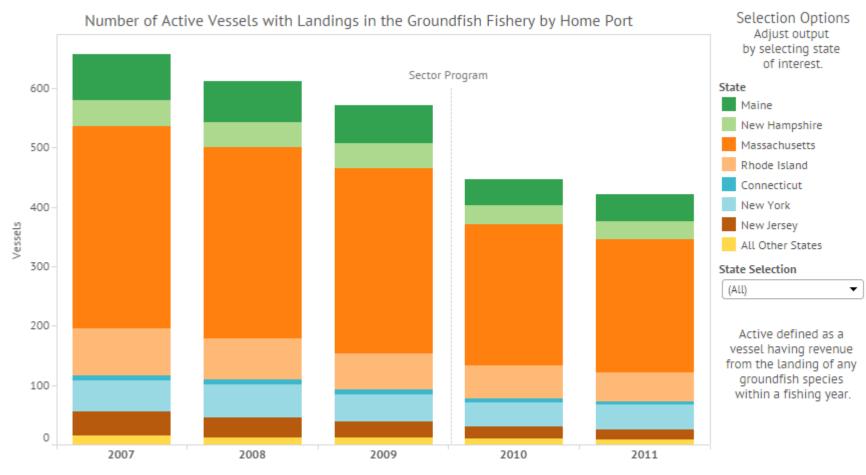


Fishing Year





# **Results: Vessel Activity (Northeast)**



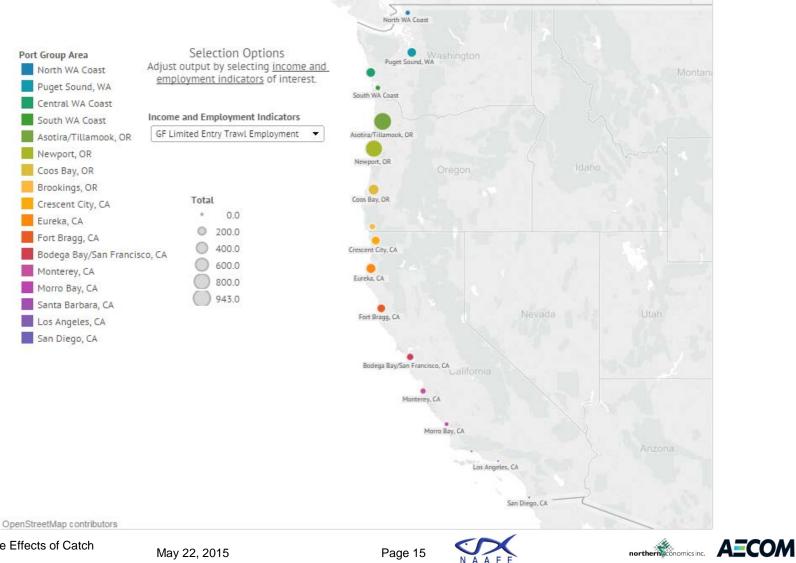
Fishing Year





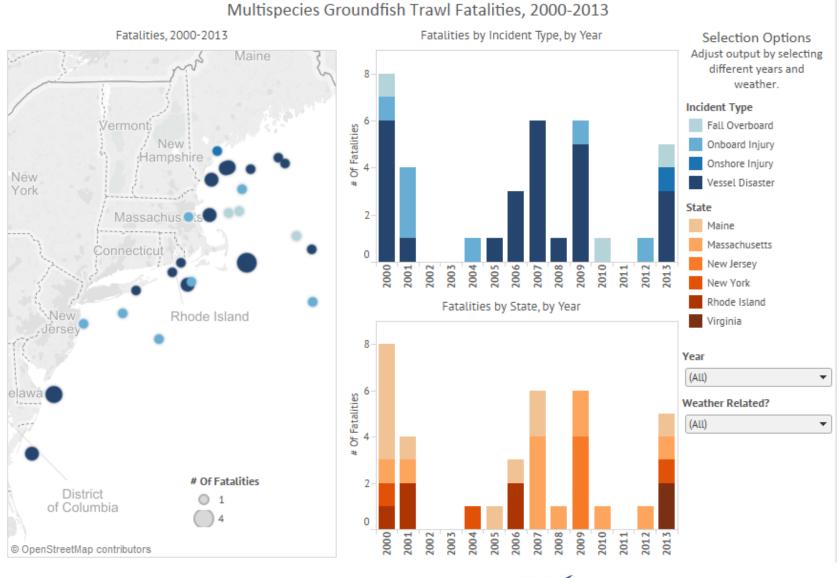
#### **Results: Crew Employment (West Coast)**

Employment and Income in the Limited Entry Trawl Fishery and Other Groundfish Fisheries, by Port Group, November 2000-October 2001



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#### **Results: Fishing Vessel and Crew Safety (Northeast)**



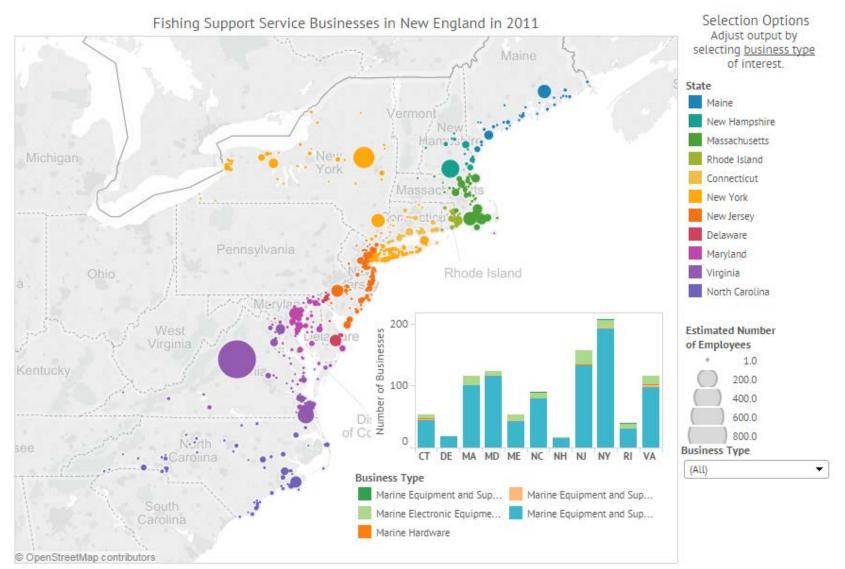
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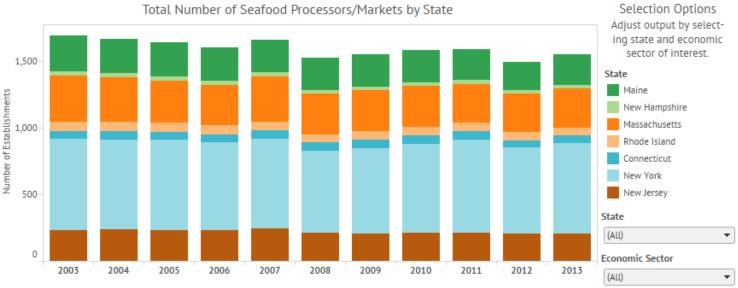
#### **Results: Fishing Support Services (Northeast)**



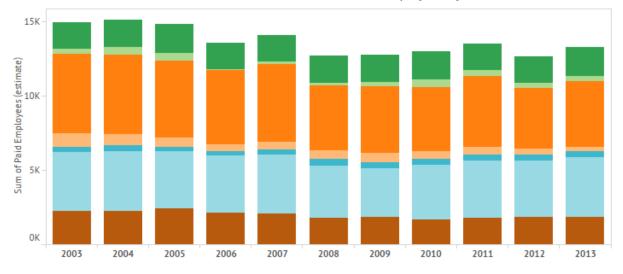




#### **Results: Seafood Processor Employment (Northeast)**



Total Number of Seafood Processor/Market Employees by State



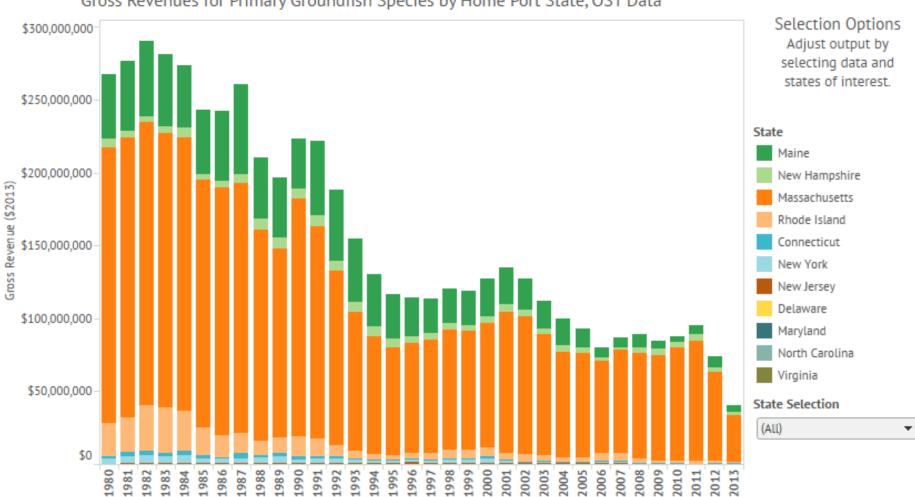
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#### **Findings: Extended Baseline**



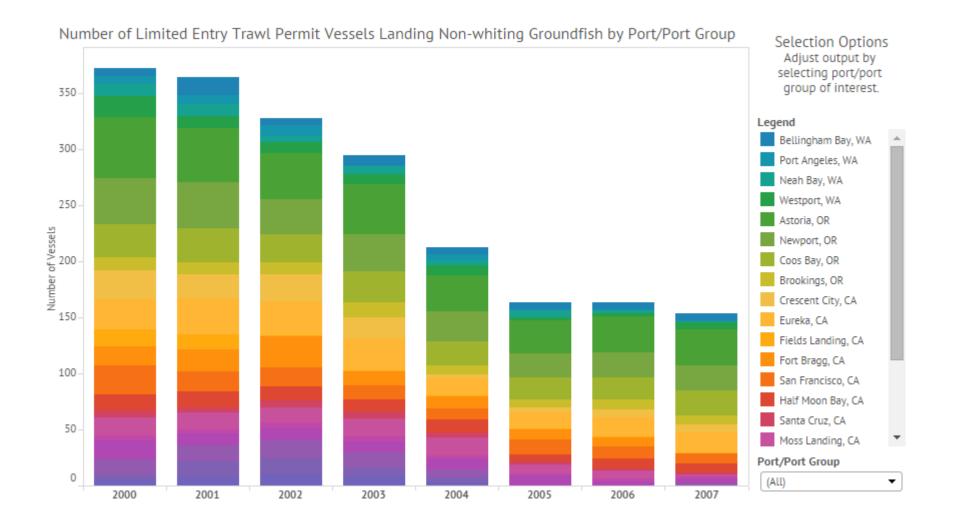
Gross Revenues for Primary Groundfish Species by Home Port State, OST Data

Measuring the Effects of Catch Shares





# **Findings: Data Availability**



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# **Findings: Masked Community Effects**



Shares

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# **Next Steps**

- Updates through Fishing Year
  2013
- Refinement of indicators based on data availability
- Refinement of data visualizations based on data availability
- Specialized data requests and obtaining "publically available" unpublished data
- Ethnographic fieldwork, including interviews with key stakeholders







Measuring the Effects of Catch Shares

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# Thank You

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