Informing Responsible Offshore Wind Development in the Gulf of Maine

Inventorying Socioeconomic Data of Maine Fishing Communities

Presentation to the Maine Offshore Wind Research Consortium
July 22nd, 2024

Maine Governor's Energy Office (GEO)
with Karp Strategies and Colby College

AGENDA

1. Goals of Today's Meeting
2. Project Background and Overview
3. Methodology
4. Data & Resources to Support Future Socioeconomic Impact Analyses
5. Key Takeaways
6. Recommended Next Steps

GOALS OF THE MEETING

Provide a high-level overview of the project and describe our research and data collection methodology

Present our key findings and recommendations before we finalize the public-facing report

Gather the **Consortium Advisory Board's feedback** on our work, including any additional considerations to incorporate either in the final report or in future research efforts

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Project Background and Overview

BACKGROUND

A year ago, Maine released the **Maine Offshore Wind Roadmap**, which lays out a plan to responsibly advance offshore wind (OSW).

The State established the **Maine Offshore Wind Research Consortium** and funded **initial research projects** intended to further understand the benefits of OSW while preserving Maine's vibrant maritime heritage and fishing industry.

One of the high priority research projects is **an inventory of baseline data on socioeconomics of Maine fishing communities.**

Before the Consortium and GEO dedicates more time and resources for further studies, it is critical that we understand **what data currently exists**, where are **gaps in our collective research**, and what are **best practices** for this socioeconomic analysis.

PROJECT OVERVIEW

Project Team: Karp Strategies and Colby College

Timeline

February 2024 – August 2024

Project Objectives

- Create a **comprehensive inventory of existing socioeconomic data** (jobs, industry data, supply chain) around Maine fishing communities and the potential positive and negative impacts of OSW.
- Identify gaps in data and best practices in order to develop **recommendations on where and how Maine GEO and others should prioritize future studies.**

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Methodology

METHODOLOGY

01 Industry Desktop Research

Reviewed over **25 existing reports** and research relevant to Maine's fishing communities and OSW

02 Participatory Data Collection

Gathered data and additional resources through **20 interviews with stakeholders**, selected with input from the Consortium

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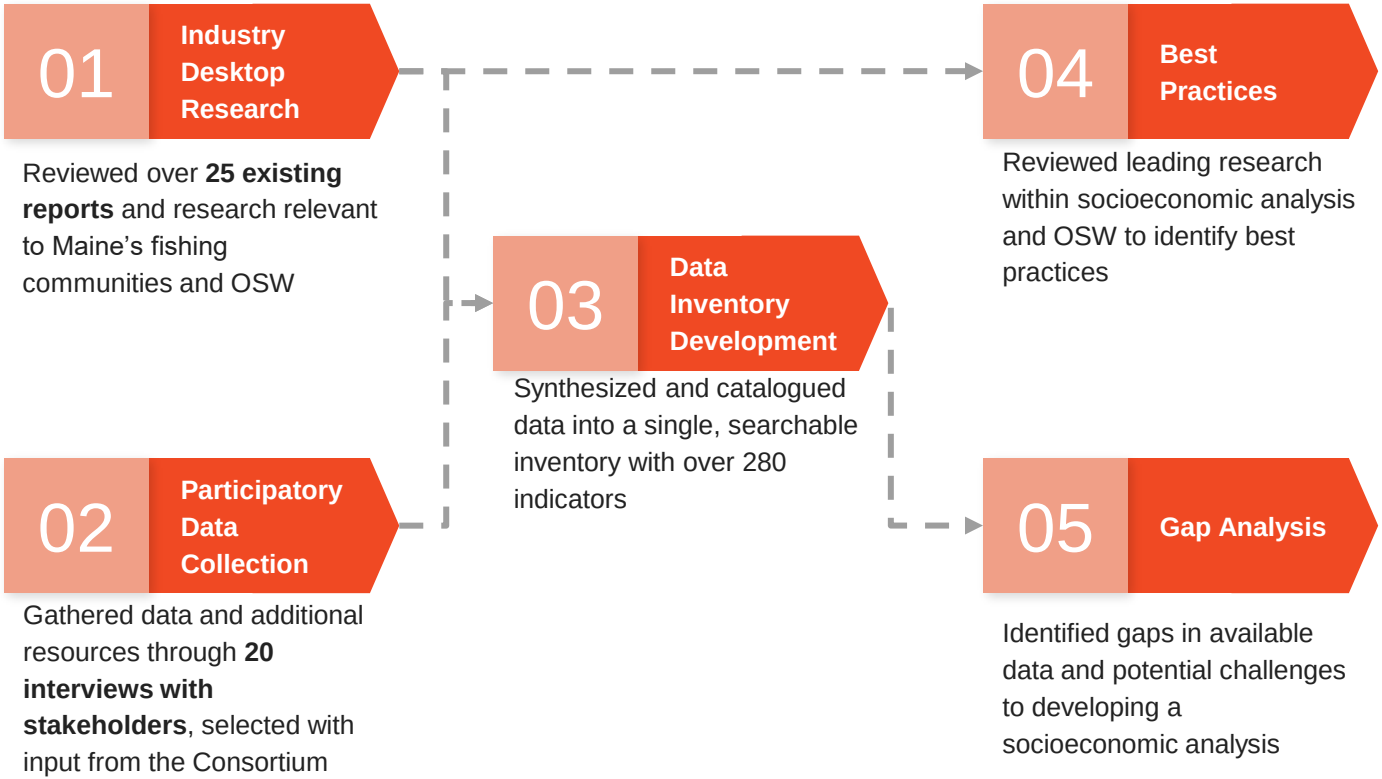
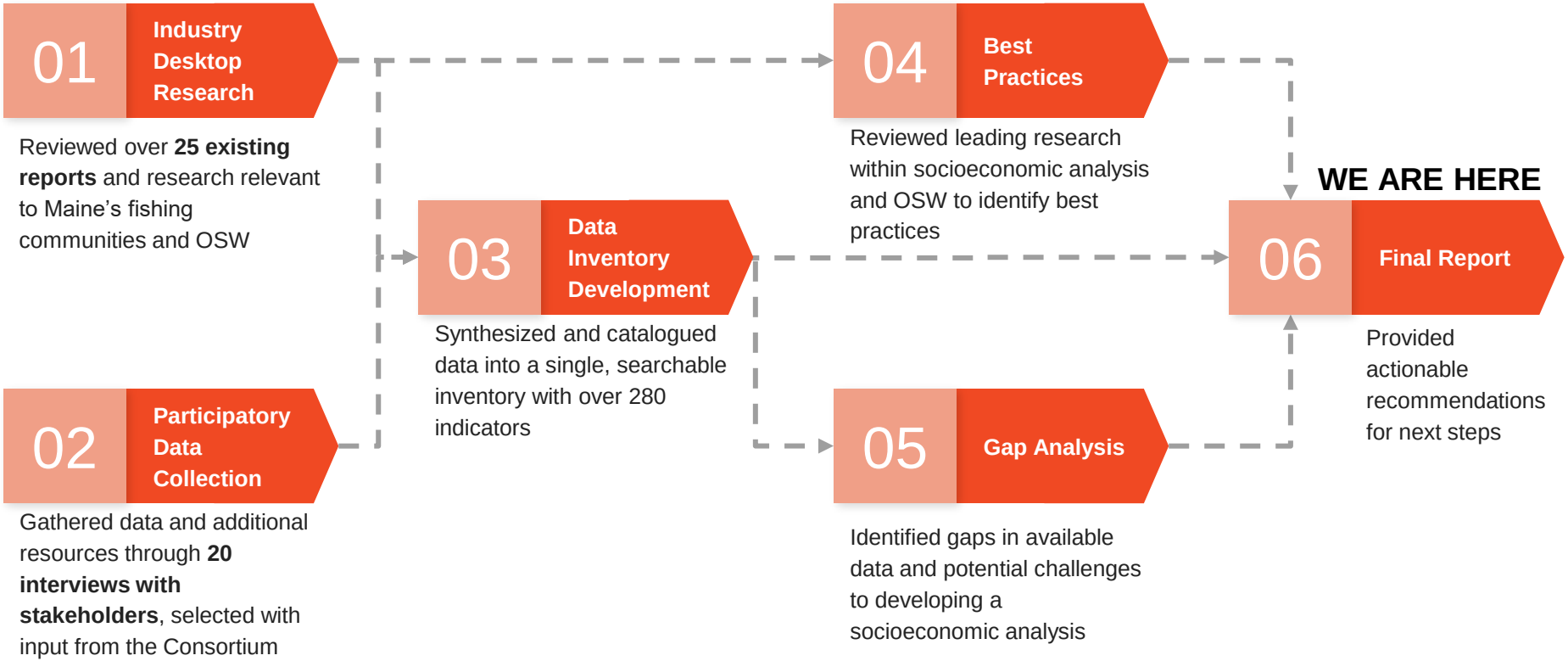
03 Data Inventory Development

Synthesized and catalogued data into a single, searchable inventory with over 280 indicators

METHODOLOGY



METHODOLOGY



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Data and Resources to Support Future Socioeconomic Impact Analyses

DATA AND RESOURCES TO SUPPORT FUTURE SOCIOECONOMIC IMPACT ANALYSES

1 Socioeconomic Data Inventory

Purpose: Provide a single resource to facilitate the tracking and utilization of relevant data that could be used in a future socioeconomic analysis

Process: Collaboratively developed through desktop research, Consortium survey, and 20 stakeholder interviews

Result: A searchable inventory of national and state data sources with key metadata such as publisher, date of last update, geographic scale, and collection methodology

DATA INVENTORY

Data Category	Data points	Data Set / Report	Publishing Organization	First Release	Most Recent Release	Update Frequency	Geographic Specificity	Publicly available?	Link or data location	Data Collection Methodology	Are there any challenges in accessing the datasets? Are there any gaps present in this data source? Any other noteworthy items?
Geographic	Administrative boundaries (state senate districts, school districts, county, municipal boundaries, wildlife management districts, etc.)	Multiple Sources (hosted on Maine GeoLibrary)	Multiple Departments & Agencies	NA (multiple datasets)	2022	As required	As required	Yes	link	Administrative boundary delineation.	None
Geographic	Coastal communities snapshot	NOAA Social Indicators Project	NOAA	2009	2020	Yearly	Census Designated Place (CDP)	Yes	link	Examining different aspects of social vulnerability for coastal communities using several indices.	While this dataset provides various parameters to understand a municipality's dependence and association with fishing, it does not identify fishing communities.
Geographic	Boat launch location	Boating Facilities Program	Maine Department of Agriculture, Conservation, & Forestry (Bureau of Parks & Lands)	2014	2021	As required	As required	Yes	link	Recorded by the Boating Facilities Division	Only includes state-managed and state-assisted boating facilities.
Geographic	High-resolution aerial imagery	Maine Orthoimagery	Maine Department of Environmental Protection	2019	2022	As required	State	Yes	link	Satellite imagery	
Geographic	Fishing activity/ Fishing footprints	Northeast Social Sciences	NOAA	1996	2018	Yearly	As required	Yes	link	Statistically assessed based on Electronic Vessel Trip Reports.	None
Geographic	Aquaculture license and lease areas	Maine Aquaculture Harvest, Lease, and License (LPA) Data	Maine Department of Marine Resources	2007	2021	Yearly	As required	Yes	link	Monitoring surveys, digitization of aerial photography, and self reported data.	
Geographic	Lobster zone lines and management areas	Maine Lobster Management	Maine Department of Marine Resources	NA	2022	As per changes in the fisheries regulations	As required	Yes	link	Monitoring surveys, digitization of aerial photography, and self reported data.	No historic data; data only represents most recent boundaries.
Geographic	Scallop zones and management areas	Scallop Monitoring Program	Maine Department of Marine Resources	2017	2022	As per changes in the fisheries regulations	As required	Yes	link	Monitoring surveys, digitization of aerial photography, and self reported data.	
Geographic	Eelgrass meadows	Bureau of Marine Science	Maine Department of Marine Resources	1997	2013	NA	As required	Yes	link	Monitoring surveys, digitization of aerial photography, and self reported data.	
Geographic	Redfish exemption area	Northeast Multispecies	NOAA	NA	2020	As required	As required	Yes	link	Monitoring surveys, digitization of aerial photography, and self reported data.	
Geographic	Summer flounder small-mesh exemption area	Northeast Multispecies	NOAA	NA	2020	As required	As required	Yes	link	Monitoring surveys, digitization of aerial photography, and self reported data.	
Geographic	Scallop dredge exemption area	Northeast Multispecies	NOAA	NA	2020	As required	As required	Yes	link	Monitoring surveys, digitization of aerial photography, and self reported data.	
Geographic	Northeast groundfish closure area	Northeast Multispecies	NOAA	NA	2020	As required	As required	Yes	link	Monitoring surveys, digitization of aerial photography, and self reported data.	None
Geographic	Northeast groundfish stock area	Northeast Multispecies	NOAA	NA	2020	As required	As required	Yes	link	Monitoring surveys, digitization of aerial photography, and self reported data.	
Geographic	Silver hake stock area	Northeast Multispecies	NOAA	NA	2020	As required	As required	Yes	link	Monitoring surveys, digitization of aerial photography, and self reported data.	
Geographic	Habitat management areas	Northeast Multispecies	NOAA	NA	2023	As required	As required	Yes	link	Monitoring surveys, digitization of aerial photography, and self reported data.	
Geographic	Dedicated Habitat Research Areas	Northeast Multispecies	NOAA	NA	2023	As required	As required	Yes	link	Monitoring surveys, digitization of aerial photography, and self reported data.	
Geographic	Maine Regional Planning Organizations	Maine Planning Assistance Program	Maine Department of Agriculture, Conservation, & Forestry	NA	2022	As required	Based on administrative boundaries	Yes	link	Based on locations of the organizations.	
Social	Population	American Community Survey, Decennial Census	US Census	2000	2022	Yearly	State, County, County Subdivision, Place, ZIP, MSA, Census Track, Census Block Group, Census block	Yes	link	Sample-based estimates and official counts, both using surveys.	

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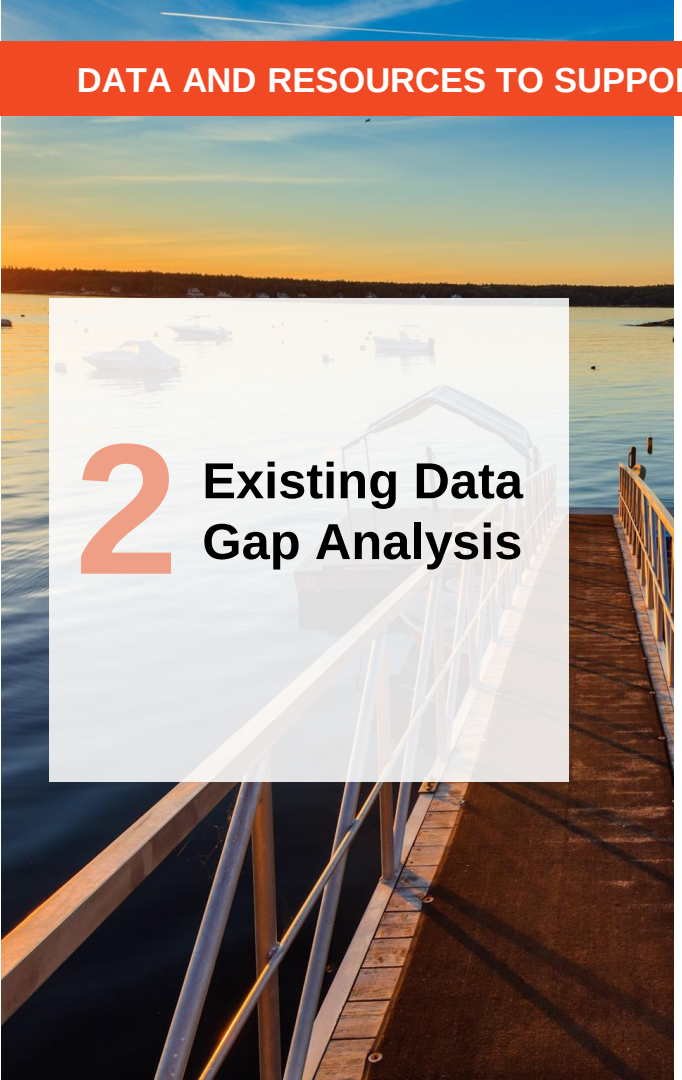

2 Existing Data Gap Analysis

Purpose: Highlight missing pieces and barriers to the completion of a robust socioeconomic analysis for Maine fishing communities

Process: Consolidated inputs from desktop research and 20 interviews with industry, government, nonprofit and community stakeholders

Result: Data limitations including demographics, fisheries, geographic scales, and supply chain; limited missing data including safety, waterfront access, and equity

3 Best Practices of Socioeconomic Impact Analysis

Purpose: Distill current best practices and methodologies for achieving a comprehensive socioeconomic analysis of OSW development on fishing communities.

Process: Synthesized 20 government, industry, and academic reports regarding OSW and socioeconomic analysis

Result: A menu of quantitative and qualitative methods for socioeconomic analyses, including their opportunities and limitations

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Key Takeaways

KEY TAKEAWAYS

1. There is a solid foundation of existing socioeconomic data metrics. However, **many data points that the fishing communities and key stakeholders are interested in have not been included** in previous socioeconomic studies.
2. There is **no existing industry socioeconomic analysis framework** that comprehensively addresses this specific subject. There is a **lack of resources and academic research correlating OSW development and operations with socioeconomic elements**.
3. There is a need to **link offshore fishing actions with onshore impacts.**
4. There is **an existing gap in fisheries-specific supply chain information and specific business data.**

KEY TAKEAWAYS

1. There is a solid foundation of existing socioeconomic data metrics. However, **many data points that the fishing communities and key stakeholders are interested in have not been included** in previous socioeconomic studies.

Findings:

Despite a wide range of available quantitative metrics that span multiple fields of study, current sources do not include many of the socioeconomic indicators that are critical to understanding fishing communities but independent of any potential OSW activities, such as:

- Mental health stressors,
- Physical health conditions,
- Residential gentrification risk,
- Capacity of fishing infrastructure, etc

KEY TAKEAWAYS

1. There is a solid foundation of existing socioeconomic data metrics. However, **many data points that the fishing communities and key stakeholders are interested in have not been included** in previous socioeconomic studies.

Findings:

There is also a lack of qualitative data, which is critical to capturing local knowledge and lived experiences, such as:

- Local ecological knowledge
- Considerations to alternative fishing locations
- Cultural aspects of fisheries

KEY TAKEAWAYS

2. There is **no existing industry "best practice" or socioeconomic analysis framework** that comprehensively addresses this subject. There is a **lack of resources and academic research correlating OSW development and operations with socioeconomic elements**.

Findings:

- There are a wide range of economic impact methodologies that have been used in Maine and across geographies, but our research did not identify a precedent framework for incorporating the human element of a socioeconomic analysis into an OSW model.

KEY TAKEAWAYS

2. There is **no existing industry "best practice" or socioeconomic analysis framework** that comprehensively addresses this subject. There is a **lack of resources and academic research correlating OSW development and operations with socioeconomic elements**.

Findings:

As OSW is an emerging industry in Maine and in the United States, there is not an adequate supply of empiric academic and scientific research linking OSW and the fishing industry, as compared to socioeconomic analyses in more established industries.

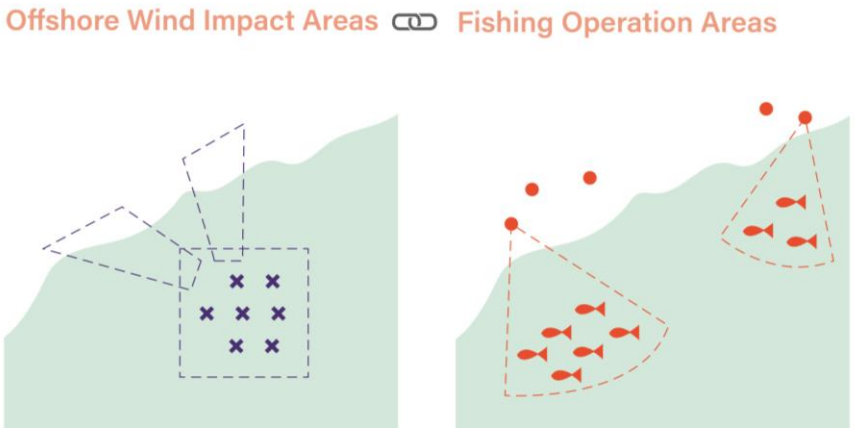
KEY TAKEAWAYS

3. In order to successfully execute an accurate socioeconomic analysis, there is a **need to link offshore fishing actions with onshore impacts.**

Findings:

This requires first defining fishing operation areas (geographic areas in the water currently used for fishing) that would be impacted by the construction and operation of OSW, including:

- Within Wind Energy Areas (WEAs)
- Intersecting OSW Vessel Routes
- Intersecting OSW Cables



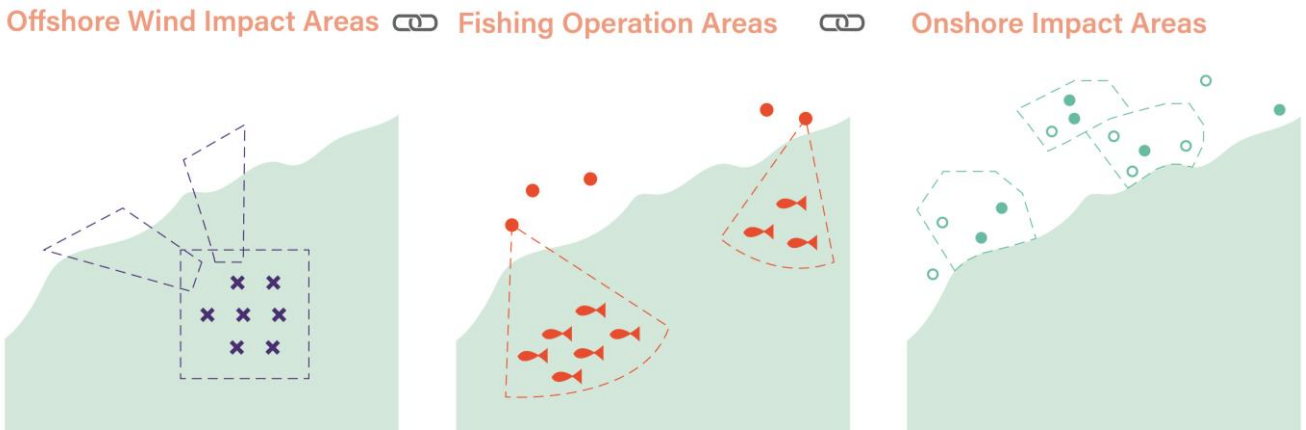
KEY TAKEAWAYS

3. In order to successfully execute an accurate socioeconomic analysis, there is a **need to link offshore fishing actions with onshore impacts.**

Findings:

Then, critically, linking those offshore areas to onshore impact areas, including:

- Home locations of the fishing workforce
- Fishing-related businesses locations
- Key fishing-related infrastructure



KEY TAKEAWAYS

4. There is **a remaining gap between specific business data and fisheries-specific supply chain information.** This makes it difficult to accurately assess impacts to the fishing economy based on major and minor species that exist in a particular offshore impact area.

Findings:

- While there is a great foundation of research to define the fishing industry supply chain, drilling down to business-level data is critical to fully understand potential workforce and fishery-specific industry impacts.
- The fishing industry does not follow state lines, and future analysis will need to make decisions around how to consider out-of-state fisheries and supply chain businesses that may be affected by changes in Maine.

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Recommended Next Steps

RECOMMENDED NEXT STEPS

Using the final report as its foundation, we recommend Maine GEO, the Consortium and other collaborators work with key stakeholders to invest in the following actions:

Technical Research and Data Collection:

- Engage in a socioeconomic indicator prioritization exercise involving fisheries, potentially impacted communities, and industry experts to evaluate competing interests and determine the most critical data indicators for future impact analysis.

- Prioritize data collection efforts to fill existing gaps, particularly qualitative metrics, based on the prioritization exercise.

- Work with industry leaders to develop a methodology to link offshore fishing operations to corresponding onshore impacts.

RECOMMENDED NEXT STEPS

Socioeconomic Impact Framework Development:

- Prioritize defining the Maine fishing industry more precisely to include fisheries-specific business and workforce information.

- Fund additional research and leverage the data inventory and resources developed in this study to create a mixed-method socioeconomic impact assessment methodology tailored to Maine's fishing and offshore wind industries.

RECOMMENDED NEXT STEPS

Management and Operational Recommendations (Ongoing):

- Continue inter-organization convening and coordination, building on Maine GEO and the Consortium's work to ensure effective data sharing and cross-sector collaboration and develop the mixed-method socioeconomic impact assessment framework.

- Broaden outreach and education to increase awareness among fishing and offshore wind stakeholders about this project's efforts and encourage utilization of the Data Inventory and other resources.

- Advocate for additional funding and research to fill data gaps and develop a longitudinal study of socioeconomic indicators, ensuring all the aforementioned steps are well-supported.

Thank you!

Please direct any questions to:

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