



Economic Impact of the NOAA Fleet in Oregon

Final Report



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Cover Photo: All cover photos are from NOAA.

List of Abbreviations

BEA	Bureau of Economic Analysis
BLS	Bureau of Labor Statistics
EIA	Economic Impact Analysis
ERG	Eastern Research Group, Inc.
FTE	Full-Time Equivalent
GDP	Gross Domestic Product
IMPLAN	Impact Analysis for Planning
I-O	Input-Output
MOC-P	Marine Operations Center – Pacific
MRIO	Multi-Regional Input-Output analysis
NAICS	North American Industry Classification System
NOAA	National Oceanic and Atmospheric Administration
SAM	Social Accounting Matrix

I. Introduction

In 2011, following significant local investments in port infrastructure and marketing efforts, Newport, Oregon outcompeted three cities to become the home port for the National Oceanic and Atmospheric Administration (NOAA) Marine Operations Center – Pacific (MOC-P). The MOC-P houses critical training and ship operations for a fleet of two NOAA research ships. It also carries out administrative, maintenance, engineering, and logistical work for NOAA’s entire Pacific fleet. NOAA’s presence in the Newport area has stimulated significant local, regional, and state-wide economic activity. The fleet regularly partners with Newport and Oregon businesses to meet demand for myriad supplies and technical services needed to maintain daily fleet operations. The NOAA fleet’s presence creates attractive business opportunities that draw financial investment and new residents into the area. It also creates collaborative opportunities to enhance research, education, and science programs and initiatives in the Lincoln County area.

NOAA signed a 20-year lease with the Port of Newport. However, as the lease expiration date of 2031 quickly approaches, NOAA is evaluating its current and future needs for the Pacific fleet, and whether relocation of the fleet in 2031 would be appropriate. In this report, we quantitatively evaluate the economic impact that a departure of the MOC-P and its fleet (often referred to simply as “the fleet” or “NOAA fleet” henceforth within this report) would have on Lincoln County and the state of Oregon as a whole. We find that relocation of the fleet may lead to a loss of nearly 900 Oregon jobs and a contraction in total state economic output of nearly \$273 million. Total losses to state and local tax revenue are estimated to reach close to \$8 million across Oregon. Our findings are supported by qualitative information shared by key NOAA staff and partners during interviews conducted to gather information on key inputs into our quantitative economic analysis.



Figure 1. NOAA Ship *Rainier* (Source: NOAA).

II. Methods

ERG conducted a multi-regional Economic Impact Analysis (EIA) of losses in revenue, employment, and wages within industries that would be impacted by the departure of the NOAA fleet. EIAs measure the economic effect of an event on the economy in a specified geographic area. ERG conducted this analysis in IMPLAN, an Input-Output (I-O) modeling software. Some key terms related to IMPLAN include:

- **Employment** refers to the number of individuals hired for a salary or compensation to work within a sector. IMPLAN follows job definitions from the Bureau of Economic Analysis (BEA), which include full-time, part-time, and seasonal positions. IMPLAN jobs are not Full-time Equivalent (FTE) positions.
- **Labor income** represents the total value of income from employment.
- **Value added** is the increase in a product or service’s market value at each stage of production.
- **Economic output** refers to the total value of all goods and services produced in an economy.
- **Direct effects** from IMPLAN show the immediate impact of a change on its own sector.

- **Indirect effects** describe the effect of direct impacts to a sector on the economic sectors that support that sector (e.g., if a ship purchases fuel, the addition of a ship into the economy would have an indirect impact by boosting the industry supplying the fuel).
- **Induced effects** show how changes in labor income due to direct and indirect effects result in additional economic impacts (e.g., staff who work on the ship and get paid then spend that money within the local economy, which boosts any industry from which they make purchases such as grocery, restaurants, and retail).

Both indirect and induced effects are calculated using inter-sector data to determine how the effects of an economic event in one economic sector will affect other sectors.

More about IMPLAN

Basic overview of IMPLAN: The primary purpose of IMPLAN is to show how a change to the economy (e.g., an infusion of money, a new infrastructure project, the loss of a big business or entity) will impact all other industries in that economy within a selected region based on established relationships on how money ripples through the economy between industries.

More detailed overview of IMPLAN: IMPLAN is a powerful modeling tool that utilizes the following:

- **Extensive economic and demographic databases:** IMPLAN draws from a variety of raw data sources including the U.S. Census Bureau, U.S. Bureau of Economic Analysis (BEA), U.S. Bureau of Labor Statistics (BLS), and more.
- **Economic multipliers:** Multipliers measure the connectedness of industries to the wider local economy. They describe how a change in one sector impacts the overall economy (e.g., for every \$1 spent in a sector, an additional \$0.5 of economic output is generated locally). IMPLAN uses indirect multipliers, “Type I” multipliers, induced multipliers, and “Type SAM” (where SAM stands for Social Accounting Matrix) multipliers. Type I and SAM multipliers describe the total effect to all industries in a region per direct effect, considering input purchases only and input purchases, payments of wages and taxes, and other transactions, respectively.

IMPLAN conducts an input-output (I-O) analysis, an economic modeling method that examines inter-industry relationships within an economy. IMPLAN captures monetary market transactions between industries, transactions between industries and institutions, and transactions between institutions. The I-O model makes the following assumptions:

- **Constant returns to scale:** Same quantity of inputs is needed per unit of output.
- **No supply constraints:** No restrictions to employment and raw materials.
- **Fixed input structure:** No input substitution in response to a change in output.
- **Industry technology assumption:** An industry uses the same technology to produce each of its outputs.
- **Constant make matrix:** Regardless of production levels, an industry will always produce the same mix of commodities.
- **Static model:** Relationships each year are static (do not change) unless another data year is selected for use in the model.

[IMPLAN's website](#) provides more information about the model.

ERG considered two geographic “regions” for the purpose of this analysis: Lincoln County and all other counties located in the state of Oregon. In a Multi-Regional Input-Output (MRIO) analysis, direct effects incurred in one region can also trigger indirect effects (i.e., suppliers of the NOAA Fleet may be outside of Lincoln County but still within Oregon) and induced effects (i.e., employees of the fleet may spend some of their money in Oregon counties outside of Lincoln County) in economically linked regions.

Though impacts to certain counties outside of Lincoln County but within Oregon may be more affected than others by departure of MOC-P, data are not available that allow us to assign direct impacts outside of Lincoln County to specific counties within Oregon. We expect that many areas in Oregon will be affected by indirect or induced impacts from MOC-P departure due to interlinkages in trade and supply chains.

ERG used data from GovWin IQ, a database containing information about existing federal government contracts and associated spending, in combination with data obtained from interviews with key NOAA staff and

partners to inform estimates of spending by the NOAA fleet.¹ We performed the following steps to prepare GovWin IQ data for use in our IMPLAN analysis:

- **Extraction of spending data:** We used GovWin IQ to extract spending data for contracts related to NOAA’s operations in Newport, OR.
- **Data cleaning and analysis:**
 - Extracted data were manually evaluated for relevance to NOAA MOC-P operations. Spending data unrelated to NOAA MOC-P operations were removed from the dataset.
 - Some GovWin IQ data points indicated that contract spending took place across multiple locations. Since GovWin IQ did not specify how spending was allocated across multiple locations, we assumed spending to be allocated uniformly. So, for example, if ten locations (Newport being one of them) were listed as having contract spending associated with them, we divided spending by ten, allocating one tenth of contract spending to Newport.
 - We used estimates provided by NOAA staff on the distribution of MOC-P spending in Lincoln County, outside of Lincoln County but within Oregon, and outside of Oregon to allocate contract spending identified in the GovWin IQ data between Lincoln County and Oregon less Lincoln County.
- **Allocation of spending to industry sectors:** Spending data from GovWin IQ are identified as falling within specific industry sectors using the North American Industry Classification System (NAICS) codes. IMPLAN, however, requires the use of IMPLAN indices, a different industry classification system, to run analyses within IMPLAN. We converted the associated NAICS codes in the GovWin IQ data to IMPLAN indices using a NAICS to IMPLAN indices crosswalk guide published by IMPLAN.²
- **Spending data were entered into IMPLAN** as expected losses in revenue to associated industries in the event of the NOAA fleet’s departure from Lincoln County.

At the time of the analysis, data were not available for all IMPLAN indices for which we observed NOAA Fleet spending. The absence of data may be due to data suppression or a lack of reliable data sources. We were not able to estimate economic impacts for industries for which IMPLAN did not have data. NOAA fleet spending for which data were not available in IMPLAN comprised approximately 3.8% of total contract spending associated with the NOAA fleet in Lincoln County.

¹ Disclaimer: While ERG strives to present the most accurate information possible, we cannot always guarantee the accuracy of perceptions shared by interview participants. Wherever possible, we rely on recorded data.

² In three instances, a direct corresponding industry did not exist between NAICS codes and IMPLAN indices according to IMPLAN’s crosswalk guide. In these instances, ERG used best professional judgement to match the NAICS codes to the most relevant IMPLAN index. We chose to match the NAICS as follows:

- NAICS 238290 “Other Building Equipment Contractors” and 236220 “Commercial and Institutional Building Construction” were matched to IMPLAN Index 55 “Construction of new commercial structures, including farm structures”.
- NAICS 811219 “Other Electronic and Precision Equipment Repair and Maintenance” was matched to IMPLAN Index 514 “Electronic and precision equipment repair and maintenance”.

ERG obtained data from the Oregon Employment Department detailing employment with the NOAA fleet and wages paid to those employees. These numbers were entered into IMPLAN as losses in employment and wages within IMPLAN Index 468 “Marketing research & all other miscellaneous professional, scientific, & technical services,” which corresponds to NAICS 541990, “All Other Professional, Scientific, and Technical Services” and is the industry classification listed in the data Oregon Employment Department provided.



Figure 2. Aerial view of the NOAA fleet headquarters in Newport, Oregon (Source: NOAA).

III. Economic Impact Analysis Results

III.A Summary of Total Annual Impacts

Results of the Economic Impact Analysis are summarized across the state of Oregon (including Lincoln County) in Table 1. Departure of the NOAA Fleet from Lincoln County is estimated to result in a loss of 899 jobs within Oregon. Total output in the state is expected to contract by nearly \$273 million annually and value added (also called Gross Domestic Product [GDP]) is expected to decrease by \$107 million annually. Annual contractions in employment, labor income, value added, and output make up 0.034, 0.035, 0.036, and 0.051 percent of state totals, respectively. The most affected industries in Oregon include:

- **Marketing research and all other miscellaneous professional, scientific, and technical services:** Includes a variety of professional services ranging from language translation to polling services to patent marketing services. Notably, this sector captures several areas where we expect NOAA to be heavily involved in including marine forecasting services, marine surveyor services, and services related to meteorology and weather.
- **Other real estate:** Covers nonresidential real estate and related services.
- **Employment services:** Comprised of business establishments that help with permanent and temporary employee placement, labor contractors, and employee leasing services.
- **Ship building and repairing:** Covers all ship building and repair services. This sector also includes submarine and unmanned watercraft manufacturing.
- **Blank magnetic and optical recording:** This sector covers manufacture of technologies used to store information, especially media. Computer software tapes and disks and computer hard drives are captured within this sector.

Table 1. Total annual state losses in employment, labor income, value added, and output in the event of fleet departure from Oregon.

Impact	Employment	Labor Income (\$)	Value Added (\$)	Output (\$)
Direct Impacts	191	26,938,838	43,116,179	149,539,817
Indirect Impacts	502	27,885,768	43,123,072	87,838,943
Induced Impacts	205	11,020,145	20,806,294	35,308,337
Total Impacts	899	65,844,750	107,045,546	272,687,097

Total annual outputs within the industry sectors “Marketing research and all other miscellaneous professional, scientific, and technical services”, “Blank magnetic and optical recording”, and “Ship building and repair” are expected to contract at the highest rates (5.12%, 3.01%, and 2.79%, respectively). The “Marketing research and all other miscellaneous professional, scientific, and technical services” and “Ship building and repair” sectors are expected to incur the greatest share of direct impacts from fleet departure (\$131.5 million and \$8.6 million, respectively). Indirect impacts have the greatest effect on the industry sectors “Employment services” (\$14.3 million) and “Other real estate” (\$11.4 million). Induced impacts are generally small across industries. The greatest shares of induced impacts are incurred by the “Owner-occupied dwellings” (\$5.4 million) and “Hospitals” (\$3 million) sectors, which capture economic activity related to residential real estate, such as repair and maintenance, and hospitals offering psychiatric and medical services.

Total annual losses to state and local tax revenues are estimated to reach over \$8.6 million across Oregon, with nearly \$4.9 million in expected losses to tax revenues at the state level and nearly \$3.8 million at the Sub County Special Districts level. The effects of economic impacts on tax revenues are presented in greater detail at the state³ and county levels below in sections III.B and III.C.

III.B County Annual Impacts

Section III.B reports economic impacts to the Lincoln County. Economic impacts to the remainder of the state are included separately in section III.C. Summary results of the EIA are presented for Lincoln County in Table 2. Departure of the NOAA fleet is expected to result in an annual loss of 620 jobs and contractions in output and value added of over \$211.2 million and \$72.6 million, respectively, within Lincoln County. This equates to a loss of roughly 2.3 percent of all jobs in Lincoln County, 4.6 percent of county output, and 3 percent of Lincoln County’s GDP. For comparison, COVID-19 had a substantial economic impact on Lincoln County, leading to a GDP contraction of approximately 1% according to BEA data, about one third of the expected impact to the county’s GDP from MOC-P departure.⁴

Table 2. Annual losses in employment, labor income, value added, and output to Lincoln County, OR, in the event of fleet departure from Lincoln County.

Impact	Employment	Labor Income (\$)	Value Added (\$)	Output (\$)
Direct Impacts	149	22,638,941	37,671,935	138,302,812
Indirect Impacts	354	15,104,628	23,751,643	53,644,363
Induced Impacts	118	5,662,015	11,228,765	19,318,642
Total Impacts	620	43,405,584	72,652,344	211,265,818

Economic impacts to output in Lincoln County are characterized by substantial direct impacts (as opposed to indirect or induced) incurred within the “Marketing research and all other miscellaneous professional, scientific, and technical services” industry sector. Direct impacts to the “Marketing research and all other miscellaneous professional, scientific, and technical services” industry sector account for over \$131 million in expected annual

³ Where “state” refers to all Oregon counties less Lincoln County, to prevent double counting of economic impacts within Lincoln County.

⁴ U.S. Bureau of Economic Analysis, "[CAGDP9 Real GDP by county and metropolitan area](#)" (accessed Thursday, May 30, 2024).

contractions in output in Lincoln County and account for approximately 95 percent of total expected losses to output from direct impacts of fleet departure. Direct impacts on employment in the sector account for 115 lost jobs. Indirect and induced impacts from fleet departure are lower in magnitude than direct impacts. The greatest shares of indirect impacts to output are incurred by the “Employment services” and “Other real estate” sectors, which each incur \$10.2 million in losses to output annually, respectively. The same sectors account for 106 and 47 jobs lost, respectively. Induced impacts are generally small across industries when compared to indirect and direct impacts. The greatest shares of induced impacts to output are incurred by the industry sectors “Owner-occupied dwellings” (\$3.4 million) and “Hospitals” (\$2.1 million).

Direct, indirect, and induced annual impacts to the “Marketing research and all other miscellaneous professional, scientific, and technical services” sector result in essentially a complete contraction of the sector within Lincoln County. We expect that the estimation of a full contraction of the sector is related to the designation of all NOAA activities under a single sector. In reality, some of NOAA’s economic activities would likely fall under another economic sector, however, we do not have data to characterize this nuance. The resulting complete contraction estimate may be better interpreted as an indication of near complete contraction of the sector as some additional services may remain in Lincoln County in the event of the fleet’s departure. Other industries within the county also experience major contractions in total annual output, including ship building and repairing” (95%), “Other computer related services, including facilities management” (32%), “Employment Services” (26%), “Internet publishing and broadcasting and web search portals” (24%), “Water transportation” (22%), and “Office administrative services” (18%).

Table 3 presents estimated annual losses in state and local tax revenues in Lincoln County resulting from fleet relocation outside of Lincoln County. Departure of the NOAA fleet from Lincoln County is estimated to result in over \$5.8 million in losses to tax revenue across governments. Nearly \$3.2 million of those losses are expected to be incurred at the state level, whereas approximately \$2.6 million in tax revenue losses will be incurred at the local level.

Table 3. Annual losses in tax revenues in Lincoln County, OR, in the event of fleet departure from Lincoln County.

Impact	Sub County General (\$)	Sub County Special Districts (\$)	County (\$)	State (\$)	Total (\$)
Direct Impacts	446,606	628,624	283,998	1,677,323	3,036,550
Indirect Impacts	240,112	337,971	152,687	1,024,001	1,754,772
Induced Impacts	176,437	248,346	112,197	501,179	1,038,159
Total Impacts	863,155	1,214,941	548,882	3,202,503	5,829,480

III.C State Annual Impacts

Section III.C.III.B reports economic impacts to the state of Oregon, less Lincoln County. For convenience, we refer to these impacts as “Oregon” or “state” impacts within this section. Economic impacts to Lincoln County are included separately in section III.B. Summary results of the EIA are presented for Oregon in Table 4. Departure of the NOAA fleet is expected to result in a loss of 278 jobs and contractions in annual output and value added of approximately \$61.4 million and \$34.4 million across the state, respectively. Annual employment, output, and value added losses each make approximately 0.01 percent of state employment and state GDP.

Table 4. Annual losses in employment, labor income, value added, and output to Oregon (less Lincoln County) in the event of fleet departure from the state.

Impact	Employment	Labor Income (\$)	Value Added (\$)	Output (\$)
Direct Impacts	42	4,299,896	5,444,244	11,237,005
Indirect Impacts	148	12,781,140	19,371,429	34,194,580
Induced Impacts	87	5,358,129	9,577,529	15,989,695

Impact	Employment	Labor Income (\$)	Value Added (\$)	Output (\$)
Total Impacts	278	22,439,166	34,393,202	61,421,280

The greatest shares of direct impacts to output are incurred annually by the “Ship building and repairing” sector (\$5.8 million), the “Other computer related services including facilities management sector” (\$2.5 million), and the “Architectural, engineering, and related services sector” (\$1.2 million). Direct impacts to employment in the same sectors account for 19, 9, and 7 lost jobs, respectively. Unlike economic impacts at the county level, which are primarily made up of direct impacts, economic impacts at the state level primarily consist of indirect and induced impacts. The following five sectors incur the highest losses to output from indirect impacts:

- **Management of companies and enterprises** (\$6.9 million)
 - This sector captures financial holding companies as well as office management.
- **Employment services** (\$4.3 million)
- **Marketing research and all other miscellaneous professional, scientific, and technical services** (\$3.2 million)
- **Data processing, hosting, and related services** (\$3.2 million)
 - Includes data entry and processing services as well as data hosting, scanning, streaming, and facilities support services.
- **Other real estate** (\$1.2 million)

Indirect impacts to “Employment services”, “Management of companies and enterprises”, and “Marketing research and all other miscellaneous professional, scientific, and technical services” sectors account for 33, 23, and 11 lost jobs, respectively. Induced impacts are generally smaller in magnitude than indirect impacts and are distributed across many industries. The greatest shares of induced impacts on output are incurred annually by the “Owner-occupied dwellings” and “Hospitals” sectors, which experience estimated losses in output of \$2 million and \$913.9 thousand annually, respectively.

Table 5 describes annual estimated losses in state and local tax revenues in Oregon resulting from fleet relocation outside of the state. Departure of the NOAA fleet from the state of Oregon is estimated to result in over \$2.8 million in losses to tax revenue across governments *in addition to tax impacts at the Lincoln County level*. Approximately \$1.7 million of those losses are expected to be incurred at the state level, whereas nearly \$1.2 million in tax revenue losses will be incurred at the local level.

Table 5. Annual losses in tax revenues in Oregon (less Lincoln County) in the event of fleet departure from the state.

Impact	Sub County General (\$)	Sub County Special Districts (\$)	County (\$)	State (\$)	Total (\$)
Direct Impacts	43,932	71,559	27,973	266,012	409,476
Indirect Impacts	180,919	294,691	118,110	919,058	1,512,777
Induced Impacts	126,482	206,021	81,673	479,315	893,491
Total Impacts	351,333	572,271	227,756	1,664,385	2,815,744

IV. Conclusion

The results of the economic impact analysis highlight the economic importance of the NOAA fleet not just to Lincoln County, but to the entire state of Oregon. Our results demonstrate that relocation of the fleet would result in an annual loss of nearly 900 Oregon jobs, with 620 of those jobs lost with Lincoln County. Additionally, annual state economic output is expected to contract by nearly \$273 million. Total annual losses to state and local tax revenues are estimated to reach close to \$8 million across Oregon.

The “Marketing research and all other miscellaneous professional, scientific, and technical services” sector is expected to bear by far the greatest portion of direct impacts from fleet relocation. This outcome is expected given that the sector encompasses all NOAA fleet employees and wages paid to them. Additionally, many contracts that the NOAA fleet holds with local vendors are classified as spending within the “Marketing research and all other miscellaneous professional, scientific, and technical services” sector according to GovWin IQ data. Other industry areas that are expected to incur substantial direct impacts from fleet relocation generally encompass vendors that NOAA holds contracts with to support NOAA operations in Newport.

Many of the key NOAA staff and partners we interviewed to inform our estimates of inputs into our IMPLAN analysis offered qualitative descriptions of the economic value of the fleet. While we cannot guarantee the accuracy of the qualitative information shared by interviewees, we generally find that it both supports our findings and further illustrates the importance of the fleet to Lincoln County and Oregon. Interviewees highlighted that the fleet provides economic benefits at both the County and State level, purchasing many local goods and services while also bringing in skilled technicians from other areas of Oregon or nearby states for work orders. Some interview participants specifically mentioned that the Portland, OR, area supplies a large portion of the technically skilled contractors hired by MOC-P. NOAA fleet employees generally bring in good incomes (\$45 to \$150 thousand, compared to the Oregon median salary of \$58 thousand).⁵ Staff often relocate to the area, renting or buying homes and bringing their families along with them. Spouses of NOAA fleet staff sometimes seek employment within the community as well, generating further income and economic output. Interviewees expressed concern about the effect that the fleet’s departure would have on other economic sectors. Finally, interviewees highlighted the long-term value of the NOAA fleet in helping maintain the vitality of the local science and research hub. Interviewees posited that the departure of the NOAA fleet could lead to a decline in the area’s small but vibrant research community due to a loss of local technical services. With the fleet’s continued presence, multiple interviewees shared that they envision the Newport area to continue to develop as a stronger research hub.

Though the future of the fleet’s location is yet unclear, the IMPLAN findings demonstrate the current benefit of the NOAA fleet to Lincoln County and the larger state of Oregon. Qualitative information shared by key NOAA staff and partners supports the quantitative findings. In the short-term, departure of the NOAA fleet would lead to economic contractions and loss of tax revenues both locally and at the state level, although there could be the possibility of replacing these losses if a new entity were to lease the vacated NOAA facility. Finally, relocation of the fleet could threaten the long-term vitality of industries that rely on the services provided and community fostered by the NOAA fleet, such as commercial fishing and scientific research. It is unclear if departure of the

Spotlight on Real Estate: ERG’s analysis and interview findings both identify real estate as a major sector affected by fleet relocation. One interviewee described the process of attracting the NOAA fleet to Newport as a herculean effort and shared that any future scenario in which the fleet departs from Newport would be “a big blow to the effort that went into getting them to the port”. Our analysis finds that relocation of the fleet would lead to a decline of nearly \$15 million per year for the non-residential real estate sector. Residential real estate sectors are estimated to decline by over \$5 million per year.

⁵ U.S. Census Bureau. (2022). Lincoln County, Oregon, QuickFacts.

fleet could lead other federal agency partners currently operating in or near Lincoln County to consider relocating their facilities.

About ERG

Established in 1984, [Eastern Research Group, Inc. \(ERG\)](#) is an interdisciplinary consulting firm with more than 450 staff members. With a mission to support social good, ERG focus on helping clients protect water quality, air quality, and human health while building a strong and environmentally sustainable economy.

ERG provides a wide range of services, including support related to [climate and resilience solutions](#), [economic and policy analysis](#), [environmental and climate justice solutions](#), [water quality and resource management](#), [organizational effectiveness](#), and [grant program support](#). ERG has conducted more than 120 strategic planning projects and 50 economic impact and feasibility projects—including those focused on the resilience of coastal and blue economies—for government agencies, nonprofits, and foundations in the United States and worldwide over the past 15 years.

ERG is involved at the forefront of coastal and marine economic analysis and data set development, having led the development of the Bureau of Economic Analysis [Marine Economy Satellite Account](#) and authoring nine National Shoreline Management Studies for the U.S. Army Corp of Engineers that characterize the shoreline economy of each region and describe the socioeconomic impacts of shoreline change on the coastal and ocean economy. ERG recently completed development of the [National Oceanic and Atmospheric Administration Economics: National Ocean Watch Data Set for U.S. Territories and Commonwealths](#) and worked with the Oregon Business Development Department to develop a [Comprehensive Market Analysis and Opportunities Assessment](#) to assess current growth trends and potential opportunities emerging in the blue economy sector.

ERG also supported U.S. and international blue economy–focused organizations in developing strategic plans for market growth and investment. For example, ERG assisted the Builders Initiative in reviewing the [Landscape of Fisheries and Aquaculture Workforce Development Opportunities](#) in North America, with a focus on the U.S. West Coast. In addition, ERG helped develop a strategic plan for the Blue Challenge Initiative, a multisectoral, multi-country initiative that encourages capital flow to sustainable fishing and tourism. The plan outlined impact investment opportunities and provided an overview of economic development opportunities to strengthen a sustainable blue economy sector.

ERG’s work blends quantitative, economic analyses with rich qualitative data from interviews and focus groups and emphasizes ongoing collaboration and co-creation of products with our partners. ERG takes a cooperative, multidisciplinary approach, resulting in robust and actionable products that inform decision-making and programs.



- ❖ *National leader on the ocean economy, including five years developing the National Oceanic and Atmospheric Administration (NOAA) and Bureau of Economic Analysis [Marine Economy Satellite Account](#).*
 - ❖ *Implemented over 50 economic impact and feasibility projects over the past 10 years focused on the blue economy and resilience of coastal and blue economies for NOAA, the U.S. Army Corps of Engineers, and state and local governments.*
 - ❖ *Developed recommendations for creating a strategy to drive ocean-related workforce opportunities by strengthening training and education on aquaculture and fisheries.*
-