

The global ocean economy is projected to double in size by 2030. The National Oceanic and Atmospheric Administration (NOAA) is uniquely positioned to support the nation's competitiveness in these areas and grow the U.S. economy. The OCEAN ECONOMY SATELLITE ACCOUNT (OESA) will produce the data needed by businesses, industry organizations, and government agencies to measure and grow the U.S. ocean economy.

OESA provides time-series data that businesses and industry groups can use to:

- Make investment decisions
- Identify new and growing markets

OESA measures all U.S. economic activity directly dependent on the oceans, coasts and Great Lakes, including activities that:

- Use ocean resources as an input (for example, commercial fishing)
- Produce products and services for use in the marine environment (for example, ship building)
- Depend on the ocean because of geographic proximity (for example,
beachfront hotels, and warehouses that serve seaports)


## OESA Main Group

## Construction

Electricity Generation
Government
Living Resources
Minerals
Research and Education
Professional and Technical Services
Ship and Boat Building
Transportation
Tourism and Recreation


## APPROACH

NOAA, in partnership with the Bureau of Economic Analysis (BEA), is developing the OESA using the data and infrastructure that measure the nation's gross domestic product. NOAA is working with experts from around the world to ensure consistency with the emerging international consensus on how to define and measure the ocean economy. The U.S. "ocean" economy also includes marine activity in the Great Lakes, the Chesapeake Bay, Puget Sound, and international seaports such as Portland, Oregon, and Baton Rouge, Louisiana, that are located miles from the coast.

## STATUS AND NEXT STEPS

- 2016-2018: Define ocean economy; produce national-level experimental statistics for 2014-2016.
- 2019: Vet experimental statistics; produce national-level prototype statistics for 2014-2017.
- 2020: Generate refined national-level statistics for 2014-2018; initiate research for state- level statistics.
- 2021: Generate refined national and state-level statistics for 2014-2019; develop web- based tools to facilitate the use and interpretation of data.
- 2022 and future years: Refine national and state-level statistics and produce new data for an additional year.


## oesa

## OCEAN ECONOMY

SATELLITE ACCOUNT
For additional information, please contact oceaneconomy@noaa.gov

## Ocean Economy Satellite Account - Experimental Results by Sector

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## Ocean Economy Satellite Account - Experimental Results Construction

The Ocean Economy Satellite Account (OESA) produces the economic data needed by businesses, industry organizations, and government agencies to measure and grow the U.S. ocean economy. For more information on economic terms, see www.bea.gov/help/glossary.

## Estimating Ocean-Dependence

| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Federal Government Construction | New conservation and development structures - federal | 43\% purchases by government | The ocean portion of these items is estimated by dividing the sum of the ocean and coastal related activities, such as beach nourishment, harbor dredging, and federal beach reclamation, by the U.S. total for these activities (Data Source: U.S. Army Corps of Engineers Analysis of Dredging Costs, Study of Developed Shorelines Master Database) |
|  | Conservation \& development facilities repair \& maintenance construction federal | <1\% purchases by government |  |
| State and Local Government Construction | New conservation and development structures - state \& local | 34\% purchases by government | The ocean portion of these items is estimated by dividing the sum of the ocean and coastal related activities, such as habitat restoration and beach reclamation, by the U.S. total for these activities (Data Source: NOAA Habitat Restoration Expenditures, Chesapeake Bay Program Expenditures, Everglades Restoration USACE Budget, CWPPRA Expenditures, Study of Developed Shorelines Master Database) |
|  | Conservation \& development facilities repair \& maintenance construction state \& local | <1\% purchases by government |  |
| Marine Construction Planning and Designing | Landscape Architectural Services | To be determined | To be determined |

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## Ocean Economy Satellite Account - Experimental Results

## Electricity Generation

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Estimating Ocean-Dependence

| Activity | Item Description | Ocean <br> Portion | Method Used to Estimate the Ocean Portion |
| :--- | :--- | :--- | :--- |
| Electric Power Generation | Electric power generation 1 | 5\% of non- <br> final demand <br> sales to other <br> businesses | The ocean portion of this item is estimated by <br> dividing the total megawatt hour (Mwh) generation in <br> plants in shore-adjacent Zip Codes areas by the <br> U.S. total megawatt hour (Data Source: Energy <br> Information Administration Annual Electric <br> Generation by Facility) |
| Nuclear Electric Power <br> Generation | Nuclear electric power generation | To be <br> determined | To be determined |
| Other Electric Power <br> Generation | Other electric power generation | To be <br> determined | To be determined |
| Electric Power Distribution | Electric power distribution | To be <br> determined | To be determined |

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## Ocean Economy Satellite Account - Experimental Results Government

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## Estimating Ocean-Dependence

| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Federal Government Defense | Federal defense government services | $\begin{gathered} 1 \% \text { of } \\ \text { purchases by } \\ \text { government } \end{gathered}$ | The ocean portion of this item is estimated by dividing the sum of ship depot maintenance and defense activities by the U.S. total for this item (Data Source: BEA Input-Output Accounts) |
| Federal Government Defense Indirect | Ammunition, except small arms | To be determined | To be determined |
|  | Other ordnance and accessories manufacturing |  |  |
|  | U.S. Coast Guard, Navy, and Marine auxiliary controls and accessories |  |  |
| Federal Government Nondefense | Federal nondefense government services | $3 \%$ of purchases by government | The ocean portion of this item is estimated by dividing the sum of federal non-defense activities (not accounted for elsewhere) by the U.S. total for this item (Data Source: FOCAR Report 2015, BEA InputOutput Accounts) |
| State and Local Government | State and local public highway government services | To be determined | To be determined |
|  | State and local agriculture and natural resources |  |  |
|  | State and local parks and recreation |  |  |
|  | State and local other general government services |  |  |

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## Ocean Economy Satellite Account - Experimental Results Living Resources

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## Estimating Ocean-Dependence

| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Commercial Fishing | Commercial fishing and aquaculture | 99\% of sales to consumers, exports, and imports; $72 \%$ of non-final demand sales to other businesses | The ocean portion of this item is based on the commercial fishing and aquaculture data included in the model, almost all of which are marine fresh/frozen fish directly off the boats or wild shellfish harvest (Data Source: BEA Input-Output Accounts, NOAA Fisheries Commercial Fisheries Landing Statistics, Fisheries of the U.S. 2015 report); <br> The ocean portion of the "non-final demand sales to other businesses" of this item is also scaled back to avoid double counting the values of fish that consumed by seafood process activities (Data Source: BEA Input-Output Accounts) |
| Aquaculture Equipment | Farm machinery and equipment manufacturing | To be determined | To be determined |
| Marine Pharmaceuticals | Pharmaceutical preparation manufacturing | To be determined | To be determined |
|  | Pharmaceutical preparation manufacturing - Research and Development |  |  |
| Other Living Resources Products | Animal and marine feed and fertilizer byproducts | 50\% of sales to consumers and non-final demand sales to other businesses | The ocean portion of this item is estimated by dividing the Fish Meal and Oil Production values by the total output value for Animal and Marine Feed and Fertilizer By-product industry (Data Source: BEA Industry Account and Fisheries of the Fisheries of the U.S. 2015 report) |


| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Seafood Processing | Prepared fresh fish and other fresh seafood | 95\% of sales to consumers; 99\% of exports; $90 \%$ of imports; $54 \%$ of non-final demand sales to other businesses | The ocean portion of seafood imports is estimated by dividing the sum of marine fish imports from commercial harvests and aquaculture by the total seafood imports (Data Source: Fisheries of the U.S. 2015 report and USDA Aquaculture Census); <br> Almost all commercial fish exports in the U.S. are ocean related, since most of the commercial fishing in the U.S. are ocean related (Data Source: NOAA Fisheries Commercial Fisheries Landing Statistics, Fisheries of the U.S. 2015 report); <br> The ocean portion of the seafood domestic production is estimated by dividing the sum of marine species production values by the total production values (Data Source: NOAA Fisheries Commercial Fisheries Landing Statistics, Fisheries of the U.S. 2015 report); <br> The ocean portion of the seafood domestic consumption is estimated by the sum of ocean-related domestic production and imports, deducted by ocean-related exports (Data Source: Fisheries of the U.S. 2015 report) |
|  | Fresh and frozen seafood processing |  |  |
|  | Prepared frozen fish, shellfish, and other prepared frozen seafood - not elsewhere classified |  |  |
|  | Canned and cured fish and other seafood, including soup (except frozen seafoods) | 94\% of sales to consumers; 99\% of exports; $90 \%$ of imports |  |
|  | Seafood product preparation and packaging | 95\% of sales to consumers; 99\% of exports; 90\% of imports; $55 \%$ of non-final demand sales to other businesses |  |
| Fish and Seafood Markets | Wholesale trade, general line grocery and packaged frozen food | To be determined | To be determined |
|  | Wholesale trade - fish and seafood | $90 \%$ of sales to consumers | The ocean portion for seafood market is estimated as the sum of the domestic production (almost all are oceanrelated) and imports of the ocean-related species from either commercial harvest or aquaculture (Data Source: NOAA Fisheries Commercial Fisheries Landing Statistics, Fisheries of the U.S. 2015 report, USDA Aquaculture Census). |
|  | Retail Trade - fish and seafood markets |  |  |
|  | Retail Trade Margin, warehouse clubs and supercenters | To be determined | To be determined |

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## Ocean Economy Satellite Account - Experimental Results Minerals

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## Estimating Ocean-Dependence

| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Oil \& Gas Extraction and Production | Drilling, spudding, or tailing oil, gas, dry, or service wells construction | 7\% of private investment | The ocean portion of these items is estimated by dividing the costs of the rotary wells drilled offshore by the U.S. total for all the wells, which includes the onshore wells (Data Source: Baker Hughes North America Rig Count, Average Day Rates for Offshore vs Onshore Drilling) |
|  | Crude petroleum and natural gas - not specified by kind | 5\% of non-final demand sales to other businesses | The ocean portion of these items is estimated by dividing the offshore production by the U.S. total production for all these activities (National Ocean Economics Program, Energy Information Administration); <br> These partials are also scaled back to avoid double counting the values of these activities that consumed by the other marine activities (Data Source: BEA InputOutput Accounts) |
|  | Natural gas |  |  |
|  | Crude petroleum, including lease condensate (vols. corrected to 60 deg. F) shipped | $21 \%$ of nonfinal demand sales to other businesses |  |
| Oil \& Gas <br> Field <br> Operations | Oil and gas field exploration services | 7\% of private investment | The ocean portion of these items is estimated by dividing the costs of the rotary wells drilled offshore by the U.S. total for all the wells, which includes the onshore wells (Data Source: Baker Hughes North America Rig Count, Average Day Rates for Offshore vs Onshore Drilling) |
|  | Pumping oil and gas wells but not operating leases |  |  |
|  | All other oil and gas field services - construction |  |  |
|  | Oil and gas repair and maintenance |  |  |


| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Sand \& Gravel | Construction sand and gravel <br> industrial sand | $20 \%$ of nonfinal demand sales to other businesses | The ocean portion of these items is estimated by dividing these activities taken place in the shoreadjacent counties by the U.S. total for these activities (Data Source: BLS Quarterly Census of Employment and Wages); <br> These partials are also scaled back to avoid double counting the values of these activities that consumed by the other marine activities (Data Source: BEA InputOutput Accounts) |
| Mining and Oil \& Gas Field Machinery | Rotary and other oil and gas field drilling machinery and equipment, and their parts | 7\% of private investment | The ocean portion of these items is estimated by dividing the costs of the rotary wells drilled offshore by the U.S. total for all the wells, which includes the onshore wells (Data Source: Baker Hughes North America Rig Count, Average Day Rates for Offshore vs Onshore Drilling) |
|  | Oil and gas field production machinery and equipment (except pumps), and their parts |  |  |
|  | Portable drilling rigs and parts |  |  |
|  | Oil/gas field derricks/substructures/accessories |  |  |
|  | Mining and oil and gas field machinery manufacturing |  |  |
|  | Oil-well and oil-field pumps, except boiler feed |  |  |
|  | Used oil well, oil refinery, and pipeline machinery | To be determined | To be determined |
| Minerals Production Support Services | Engineering services | To be determined | To be determined |
|  | Geophysical surveying and mapping services |  |  |
|  | Surveying and mapping (except geophysical) services |  |  |
| Pipelines | Petroleum pipelines repair \& maintenance construction private | To be determined | To be determined |
|  | Crude petroleum pipelines |  |  |
|  | Natural gas pipelines |  |  |
|  | Refined petroleum pipelines |  |  |
|  | Pipelines - not elsewhere classified |  |  |

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## Ocean Economy Satellite Account - Experimental Results Research and Education

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## Estimating Ocean-Dependence

| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Federal Government Research - Externally Funded | For sale auxiliary scientific research and development (tax exempt) - federal government defense | To be determined | To be determined |
|  | For sale auxiliary scientific research and development (tax exempt) - federal government non-defense |  |  |
| Federal Government Research - Internally Funded | Own account scientific research and development (tax exempt) - federal government defense | $1 \%$ of purchases by government | The ocean portion of this item is estimated by dividing the sum of federal defense-related marine research expenditures by the U.S. total for this item (Data Source: FOCAR Report 2015, BEA InputOutput Accounts) |
|  | Own account scientific research and development (tax exempt) - federal government non-Defense | $10 \%$ of purchases by government | The ocean portion of this item is estimated by dividing the sum of federal non-defense marine research expenditures by the U.S. total for this item (Data Source: FOCAR Report 2015, BEA InputOutput Accounts) |
| State \& Local Government Research - Externally Funded | For sale auxiliary scientific research and development (tax exempt) - state and local government | To be determined | To be determined |
| State \& Local Government Research - Internally Funded | Own account scientific research and development (tax exempt) - state and local government | To be determined | To be determined |


| Activity | Item Description | Ocean <br> Portion | Method Used to Estimate the <br> Ocean Portion |
| :--- | :--- | :--- | :--- |
| Marine Academic <br> Research - Externally <br> Funded | For sale academic scientific research and development <br> (tax exempt) - scientific R\&D services, federal <br> government, state and local government funded | To be <br> determined | To be determined |


| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Research |  | determined |  |
| Marine Education, Elementary \& Secondary | Expenses of elementary and secondary education services (tax exempt) | To be determined | To be determined |
|  | Government sales of elementary and secondary education services (tax exempt) |  |  |
| Marine Education, Post Secondary | Expenses of professional and management development schools (tax exempt) | To be determined | To be determined |
|  | Outright sale of original works of intellectual property Professional and management development schools (taxable) |  |  |
|  | Licensing of rights to use intellectual property of all other misc. schools \& instruction (taxable) |  |  |
|  | Other technical \& trade schools (taxable) |  |  |
|  | Apprenticeship training schools (taxable) |  |  |

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## Ocean Economy Satellite Account - Experimental Results

## Professional and Technical Services

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Estimating Ocean-Dependence

| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Marine Environmental Services | Environmental consulting services | To be determined | To be determined |
|  | Remediation services |  |  |
|  | All other miscellaneous waste management services |  |  |
| Marine Information Systems | Application software publishing, and related technical support services | To be determined | To be determined |
|  | Outright sale of audiovisual works |  |  |
|  | Paging, mobile dispatch, and specialized wireless services |  |  |
|  | Satellite telecommunications services |  |  |
|  | Data management, processing, storage, and information and document transformation services |  |  |
|  | Internet publishing \& broadcasting |  |  |
|  | Custom computer programming |  |  |
|  | Computer systems design services |  |  |
| Marine Professional Services | Wholesale trade, wholesale trade agents and brokers | To be determined | To be determined |
|  | Offices of lawyers (taxable) |  |  |
|  | Drafting services |  |  |
|  | Administrative management and general management consulting services |  |  |


| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
|  | Human resources and personnel management consulting |  |  |
|  | Marketing consulting services |  |  |
|  | Process, physical distribution, and logistics consulting services |  |  |
|  | Other professional, scientific, and technical services |  |  |
|  | Office administrative services |  |  |
|  | Employment placement agencies |  |  |
|  | Auxiliary employment services |  |  |
|  | Temporary help services |  |  |
|  | Co-employment staffing services/employee leasing |  |  |
|  | Repossession services |  |  |
|  | Convention and trade show organizers |  |  |
|  | Expenses of business, professional, labor associations (tax exempt) |  |  |
|  | All other professional, scientific, and technical services and other management consulting services |  |  |
| Marine Publishing and Printing Services | Commercial photography services | To be determined | To be determined |
|  | Periodicals, magazine, directory, books publishing |  |  |
|  | Own account motion picture film and TV program originals |  |  |
|  | Scientific and technical recording chart and chart paper printing (lithographic) |  |  |
|  | Bookbinding, printing plates, and prepress and postpress services |  |  |

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## Ocean Economy Satellite Account - Experimental Results Ship and Boat Building

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## Estimating Ocean-Dependence

| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Boat Building and Repair | Boat building - not specified by kind | 33\% of sales to consumers, government, and private investment | The ocean portion of these items is estimated by dividing the boat registration located in coastal states by the U.S. total for all the registrations of that type (Source: U.S. Coast Guard Boat Registrations by State) |
|  | Outboard motorboats, including commercial and military (except sailboats and lifeboats) | $33 \%$ of sales to consumers and private investment |  |
|  | Inboard cabin cruisers, including commercial and military (except sailboats and lifeboats) | $70 \%$ of sales to consumers and private investment; <br> $100 \%$ of purchases by government |  |
|  | Inboard motorboats, including commercial \& military (except sailboats \& lifeboats) | $33 \%$ of sales to consumers |  |
|  | Inboard-outdrive runabouts, fish boats, \& other inboard-outdrive boats | $33 \%$ of sales to consumers |  |
|  | Inboard-outdrive boats, including commercial \& military (except sailboat \& lifeboat) - not specified by kind | 97\% of sales to consumers |  |
|  | Canoes and all other boats (excluding hovercrafts) <br> - not elsewhere classified | $33 \%$ of sales to consumers |  |
|  | Hovercraft | 100\% of private investment |  |
|  | Sailboats - all sizes (excluding military and commercial) | $65 \%$ of sales to consumers and private investment |  |
|  | Boat repair, recreational | $33 \%$ of sales to consumers |  |


| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Ship Building and Repair | Non-propelled ships, new construction | 7\% of private investment | The ocean portion of this item is estimated by dividing the ocean-going barges registration by the U.S. total for all the registrations of barges (Source: U.S. Coast Guard Boat Registrations by State) |
|  | Military self-propelled ships (including combat ships, troop transport vessels, fleet auxiliaries, \& svc craft) - new construction | 100\% of purchases by government | The ocean portion of these items is estimated by dividing the vessel (not defined as boats) registration located in coastal states by the U.S. total for all the registrations of that type (Source: U.S. Coast Guard Boat Registrations by State) |
|  | Nonmilitary self-propelled yachts, 65 ft or more in length (requires a professional crew as specified by the Coast Guard) | $100 \%$ of sales to consumers, exports, imports, and private investment |  |
|  | Nonmilitary self-propelled ferryboats - new construction | $95 \%$ of purchases by government and private investment |  |
|  | Other nonmilitary ships (including container and trailer ships, dry bulk carriers, and tankers) | 100\% of exports, imports, purchases by government, and private investment |  |
|  | Self-propelled nonmilitary - commercial fishing trawlers \& vessels, tugboats, \& support vessels for offshore drilling \& mining | $100 \%$ of exports, imports, and private investment |  |
|  | Ship repair, military | 100\% of purchases by government |  |
|  | Ship repair, nonmilitary | 95\% of purchases by government and private investment |  |
|  | Ship building and repair, not specified by kind | $95 \%$ of purchases by government and private investment |  |
|  | Commercial ships and barges rental and leasing, without crew | 85\% of non-final demand sales to other businesses | The ocean portion of these items is estimated by assuming rentals are in same proportion as ownership; This partial is also scaled back to avoid double counting the values of these activities that consumed by the other marine activities (Data Source: BEA Input-Output Accounts) |


| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
|  | Federal defense government services | 1\% of purchases by government | The ocean portion of this item is estimated by dividing the ship depot maintenance by the total defense gross output (Source: 2016 ICE budget) |
| Textile Inputs | Sails | 66\% of sales to consumers | The ocean portion of these items is estimated by dividing the boat registration and registrants located in coastal states by the U.S. total for all registrations, weighted by the doubled costs for larger, more expensive, and more sails used in ocean sail boats. (Source: U.S. Coast Guard Boat Registrations by State) |
|  | Hard \& soft fiber rope, cordage and twine manmade or cotton | To be determined | To be determined |
|  | Paddings and upholstery filling, batting, and wadding except automotive (excluding foam rubber and plastics) |  |  |
| Propulsion System Inputs | Marine propulsion gear transmissions and drives | To be determined | To be determined |
|  | Speed changer, industrial high-speed drive, and gear manufacturing |  |  |
| Boat Trailers | Automobile and light truck boat trailers $26,000 \mathrm{lb}$ or less gross vehicle weight | To be determined | To be determined |
| Used Vessels | Used vessels and pleasure boats | To be determined | To be determined |

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## Ocean Economy Satellite Account - Experimental Results Transportation

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## Estimating Ocean-Dependence

| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Marine Passenger <br> Transportation | Water passenger transportation - deep sea | $100 \%$ of sales to consumers and non-final demand sales to other businesses | By definition, these items are entirely oceanrelated (Data Source: BEA Input-Output Accounts) |
|  | Water passenger transportation - coastal and Great Lakes |  |  |
|  | Water passenger transportation - inland waterways | To be determined | To be determined |
| Deep Sea <br> Freight <br> Transportation | Water freight - non-margin | 57\% of exports | The ocean portion of this item is estimated by dividing the sum of these activities taken place in deep sea, coastal, and Great Lakes areas by the U.S. total for these activities, which include inland water transportation (Data Source: BLS Quarterly Census for Employment and Wages) |
|  | Water freight - margin | $57 \%$ of sales to consumers and non-final demand sales to other businesses |  |
| Marine Transportation Services | Port and harbor operations | 78\% of non-final demand sales to other businesses | The ocean portion of these times is estimated by dividing these activities in the shoreline counties by the U.S. total for these items (Data Source: BLS Quarterly Census for Employment and Wages); <br> These partials are also scaled back to avoid double counting the values of these services that purchased by the other marine passenger and freight transportation activities (Data Source: BEA Input-Output Accounts) |
|  | Marine cargo handling | 88\% of non-final demand sales to other businesses |  |
|  | Navigational services to shipping | $74 \%$ of non-final demand sales to other businesses |  |
|  | Other support activities for water transportation | 96\% of non-final demand sales to other businesses |  |


| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Warehousing and Storage | General warehousing and storage | 8\% of non-final demand sales to other businesses | The ocean portion of these items is estimated by dividing the sum of the tonnages of goods imported and exported through water transportation by the U.S. total tonnage of goods transported by all means (Data Source: Freight Analysis Framework Data); <br> These partials are also scaled back to avoid double counting the values of these services that purchased by the other marine passenger and freight transportation activities (Data Source: BEA Input-Output Accounts) |
|  | Refrigerated warehousing and storage | 8\% of non-final demand sales to other businesses |  |
|  | Farm product warehousing and storage | 8\% of non-final demand sales to other businesses |  |
|  | Auxiliary warehousing and storage Services | To be determined | To be determined |
| Transportation Support Services | Freight forwarding | To be determined | To be determined |
|  | Arrangement of freight and cargo |  |  |
|  | Packing and crating services |  |  |
|  | Courier services (except air) |  |  |
|  | All other support activities for transportation |  |  |
| Search \& Navigation Equipment | Search, detection, navigation, and guidance systems | To be determined | To be determined |
|  | Aeronautical, nautical, and navigational instruments not sending or receiving radio signals |  |  |
|  | Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing |  |  |

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## Ocean Economy Satellite Account - Experimental Results <br> Tourism and Recreation

The Ocean Economy Satellite Account (OESA) produces the economic data needed by businesses, industry organizations, and government agencies to measure and grow the U.S. ocean economy (including the Great Lakes). For more information on Bureau of Economic Analysis terminology, see www.bea.gov/help/glossary.

## Estimating Ocean-Dependence

| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Boat Dealers | Retail Trade, Boat Dealers | To be determined | To be determined |
| Scenic Water Transportation | Scenic and sightseeing transportation - water | 70\% of sales to consumers | The ocean portion of these items is estimated by dividing the activities that take place in the |
| RV Parks and Campgrounds | Recreational and vacation camps | $5 \%$ of exports and sales to consumers | shore-adjacent Zip Codes by the U.S. total for these activities (Data Source: Census ZIP |
|  | Recreational vehicle parks and campgrounds |  | Codes Business Patterns data) |
| Amusement and Recreation Services | Amusement parks and arcades (receipts) | 21\% of sales to consumers | The ocean portion of these items is estimated by dividing the outdoor recreation-related portion of these activities that take place in the shore-adjacent Zip Codes by the U.S. total for these activities (Data Source: Statista Reports, Census ZIP Codes Business Patterns data) |
|  | Participant Sports | 1\% of sales to consumers |  |
|  | All other amusement and recreation (taxable) | 10\% of sales to consumers |  |
|  | Performing arts companies (taxable) | 4\% of sales to consumers | The ocean portion of these items is estimated by dividing the outdoor recreation-related portion of these activities that take place in the shore-adjacent Zip Codes by the U.S. total for these activities (Data Source: Ticket Sales Data from various sources, Census ZIP Codes Business Patterns data) |
|  | Admissions and other receipts for sports teams and clubs | 12\% of sales to consumers |  |
|  | Sports \& recreation instruction schools (taxable and tax exempt) | To be determined | To be determined |
|  | Culture Institutes | To be determined | To be determined |
| Tourism and Travel | Taxicab services which include taxi dispatchers | $3 \%$ of sales to consumers | The ocean portion of these items is estimated by dividing the leisure travel portion of these |


| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
| Services | Air transportation - domestic passenger transport | 7\% of sales to consumers | items that take place in the shore-adjacent counties by the U.S. total for these activities (Data Source: BEA Input-Output Accounts, DK Shifflet's Demand for Travel Commodities by Type of Visitors data, CIC Research's Survey of International Air Travelers, and BLS Quarterly Census of Employment and Wages) |
|  | Air Transportation, Passenger Transport International | 7\% of exports |  |
|  | Passenger car rental (including vans and SUVs) | 9\% of sales to consumers |  |
|  | Utility Trailer and RV Rental | 7\% of sales to consumers |  |
|  | Amtrak and Urban Transit Systems | 2\% of sales to consumers |  |
|  | Interurban and Rural Bus Transportation | 4\% of sales to consumers |  |
|  | Parking lots and garages | 7\% of sales to consumers |  |
|  | Local Charter and Bus Service | $3 \%$ of sales to consumers |  |
|  | Travel agencies | 18\% of sales to consumers |  |
|  | Scenic and sightseeing transportation - land | $34 \%$ of sales to consumers | The ocean portion of these items is estimated by dividing these activities that take place in the shore-adjacent Zip Code areas (almost all are recreational-related) by the U.S. total for these activities (Data Source: Census ZIP Codes Business Patterns) |
|  | Scenic and sightseeing transportation - other | $32 \%$ of sales to consumers |  |
|  | Tour operators | $56 \%$ of sales to consumers |  |
|  | Diesel, semi-diesel, and dual-fuel engines (except automobile, highway truck, bus, and tank) | $34 \%$ of sales to consumers, non-final demand sales to other businesses, and private investment |  |
|  | Piston-type natural gas engines, including LPG (liquefied petroleum gas) engines (excluding gas turbines) | $34 \%$ of sales to consumers and purchases by government |  |
|  | Convention and visitors bureaus | 20\% of sales to consumers | The ocean portion of these items is estimated by dividing these activities that take place in the shore-adjacent counties areas (almost all are recreational-related) by the U.S. total for these activities (Data Source: BLS Quarterly Census of Employment and Wages) |
| Hotels and Lodging Places | Guestroom or unit rentals of hotels and motels | 28\% of sales to consumers | The ocean portion of these items is estimated by dividing the leisure travel portion of these activities that take place in the shore-adjacent |
|  | Rental of public rooms (e.g., conference/convention meeting rooms) of | 28\% of non-final demand |  |


| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
|  | hotels and motels for short-term business use | sales to other businesses | counties by the U.S. total for these activities (Data Source: Data Source: BEA Input-Output Accounts, DK Shifflet's Demand for Travel Commodities by Type of Visitors data, CIC Research's Survey of International Air Travelers, and BLS Quarterly Census of Employment and Wages) |
|  | Rental of public rooms (e.g., conference/convention meeting rooms) of hotels and motels for short-term social use | 28\% of non-final demand sales to other businesses |  |
|  | Bed and breakfast inns | 33\% of sales to consumers | The ocean portion of these items is estimated by dividing these activities that take place in the shore-adjacent Zip Code areas by the U.S. total for these activities (Data Source: Outdoor Recreation Satellite Account, Census ZIP Codes Business Patterns) |
|  | All other travel accommodation | 19\% of sales to consumers |  |
| Real Estate and Property Management | Nonfarm residential rents paid | 6\% of sales to consumers | The ocean portion of these items is estimated by dividing the short-term vacation rentals portion of these activities that take place in the shore-adjacent Zip Code areas by the U.S. total for these activities (Data Source: National Association of Realtors, Census ZIP Codes Business Patterns) |
|  | Property management | 7\% of sales to consumers |  |
|  | Other revenue of real estate agents and managers |  |  |
| Eating and Drinking Places | Meal and alcoholic/nonalcoholic beverage charges of full-service restaurants | 4\% of sales to consumers | The ocean portion of these items is estimated by dividing the leisure travel portion of these activities that take place in the shore-adjacent counties by the U.S. total for these activities (Data Source: Data Source: BEA Input-Output Accounts, DK Shifflet's Demand for Travel Commodities by Type of Visitors data, CIC Research's Survey of International Air Travelers, BLS Quarterly Census of Employment and Wages) |
|  | Meals and alcoholic/nonalcoholic beverages of limited-service eating places | $3 \%$ of sales to consumers |  |
|  | Caterers and food contractors- meals and alcoholic/nonalcoholic beverages | 4\% of sales to consumers |  |
|  | Mobile food services - food | $3 \%$ of sales to consumers |  |
|  | Meals, alcoholic/nonalcoholic beverages and tips at drinking places | 4\% of sales to consumers |  |
|  | Meals, alcoholic/nonalcoholic beverages, and tips at hotels/motels | $3 \%$ of sales to consumers |  |
|  | Food, alcoholic/nonalcoholic beverages sales by performing arts companies | 4\% of sales to consumers |  |


| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
|  | Food, alcoholic/nonalcoholic beverages sales by sports teams and clubs | $12 \%$ of sales to consumers |  |
| Sporting Goods Manufacturing , Sales, and Rental | Fishing line and fish netting, commercial and recreational, man-made fiber | 70\% of sales to consumers | The ocean portion of these items is estimated by dividing the outdoor recreation-related portion of these activities that take place in the shore-adjacent Zip Code areas by the U.S. total for these activities (Data Source: BLS Consumer Expenditures Survey, Census ZIP Codes Business Patterns) |
|  | Fishing tackle and equipment | 70\% of sales to consumers |  |
|  | Inland marine insurance (property and casualty) | 100\% of sales to consumers |  |
|  | Water sports equipment | 20\% of sales to consumers |  |
|  | Recreational goods and equipment rental | 6\% of sales to consumers |  |
|  | Rental and leasing of equipment at participant sports centers (taxable) | 13\% sales to consumers |  |
|  | First aid, snake bite, and burn kits, including household and industrial kits | 13\% of sales to consumers |  |
|  | Retail trade margin, gift, novelty, and souvenir stores | 11\% of sales to consumers |  |
|  | Garments >=50\% plastic or rubber, including raincoats and rubber pants | 5\% of sales to consumers | The ocean portion of these items is estimated by dividing the outdoor recreation-related portion of these activities that take place in the shore-adjacent Zip Code areas by the U.S. total for these activities (Data Source: National Human Activity Pattern Survey, BEA InputOutput Accounts, Census ZIP Codes Business Patterns) |
|  | Cut and sew outerwear - all genders | 2\% of sales to consumers |  |
|  | Rubber and plastics footwear | 44\% of sales to consumers |  |
|  | Household and institutional pesticides, creams, oils, and other chemical preparations, including essential oils, waxes, waterproofing compounds \& rubber processing preparations | $\sim 1 \%$ of sales to consumers | The ocean portion of these items is estimated by dividing the outdoor recreation-related portion of these activities that take place in the shore-adjacent Zip Code areas by the U.S. total for these activities (Data Source: NDP's Retail Market Research \& Business Solutions data, Census ZIP Codes Business Patterns) |
|  | Camping tents, fabricated sleeping bags, cooking equipment, vacuum and insulated bottles, jugs, and chests (except those made principally of foam plastics), and other camping tools | 20~26\% of sales to consumers |  |
|  | Eye and face protection equipment, including face shields, masks, and welding helmets, | 1~3\% of sales to consumers |  |


| Activity | Item Description | Ocean Portion | Method Used to Estimate the Ocean Portion |
| :---: | :---: | :---: | :---: |
|  | and other personal safety equipment, including life preservers (buoys, jackets, and vests) (except cork life preservers), and auto racing and motorcycle helmets |  |  |
|  | Urethane, polyurethane, and other foam products, including medical, clothing, fillers, diapers, etc. | 1~2\% of sales to consumers |  |
|  | Still cameras, watches, and clocks, and other water sports equipment, including | 5~9\% of sales to consumers |  |
|  | Dried and dehydrated fruits and vegetables, and other miscellaneous food products | 1~25\% of sales to consumers |  |
|  | Consumer audio and video equipment, other measuring and controlling device, and other commercial, geophysical, meteorological and general purpose instruments | ~2\% of sales to consumers |  |
|  | Carnival and amusement park equipment (ferris wheels, merry-go-rounds, etc.), excluding electric equipment, and coinoperated equipment | To be determined | To be determined |
|  | Sporting and athletic goods manufacturing Other Miscellaneous Receipts |  |  |
|  | Games, toys, and children's vehicles, not specified by kind |  |  |

Contact OceanEconomy@noaa.gov for any comments or inquiries.


[^0]:    ${ }^{1}$ Might include coastal thermoelectric coal and natural gas plants using ocean and Great Lakes water for cooling.

