



FACT SHEET

AMERICA'S ATLANTIC OCEAN ECONOMY— TOO IMPORTANT TO JEOPARDIZE

Opening the U.S. Atlantic to oil and gas exploration and development threatens vitally important segments of the U.S. economy as well as the livelihoods of many of the 70 million Americans who live along the East Coast.¹ From Maine's vibrant harbors to Florida's beautiful beaches, coastal communities rely on the Atlantic Ocean for food, jobs, and recreation. Oil and gas exploration and development could devastate the Atlantic Coast.

Offshore drilling poses the risk of oil spills ruining our beaches, contaminating our coastal and ocean waters, and harming important ecosystems and habitats that are critical to regional economies.

To explore for oil and gas deposits, ships tow multiple air-gun arrays that fire intense blasts of compressed air—which rank just behind military explosives as the loudest source of noise in the ocean—every 10 to 12 seconds, 24 hours a day, for months on end. These seismic blasts disrupt and displace marine life like whales, which rely on sound to find food and mate. They can also impair the health of many fish and shellfish species, including those of commercial importance like squid, lobster, and scallops.² Offshore drilling also often requires significant onshore infrastructure, such as pipelines or refineries, that could change the character of seaside communities, exacerbate wetlands loss, and increase the impacts of storm surge and sea level rise.³

In 2016, the U.S. Atlantic Ocean economy contributed more than \$94 billion to U.S. gross domestic product (GDP), as shown in the adjacent table.⁴ Nearly 65 percent of that came from tourism, recreation, and fishing and seafood industries. These businesses largely depend on a clean ocean, clean beaches, and abundant fish and wildlife. Together they employ roughly 1.1 million people, supporting 80 percent of the Atlantic Ocean-based jobs.⁵

THE VALUE OF OUR ATLANTIC OCEAN ECONOMY		
Region	Total contribution to gross domestic product, 2016	Percentage dependent upon a healthy ocean ⁶
NORTHEAST	\$19,253,185,000	60.38%
Maine	\$2,892,799,000	67.53%
New Hampshire	\$1,596,861,000	25.16% ⁷
Massachusetts	\$7,427,258,000	70.95%
Connecticut	\$4,528,330,000	47.49%
Rhode Island	\$2,807,937,000	65.86%
MID-ATLANTIC	\$57,192,282,983	63.50%
New York, Atl. Shoreline	\$26,496,173,361	85.94%
New Jersey	\$9,677,441,000	42.42%
Pennsylvania, Atl. Shor.	\$3,252,143,622	66.51%
Delaware	\$1,259,272,000	68.84%
Maryland	\$8,011,346,000	43.45%
Virginia	\$8,495,907,000	34.46% ⁸
SOUTHEAST	\$17,601,088,868	73.43%
North Carolina	\$2,493,774,000	69.75%
South Carolina	\$4,401,552,000	83.23%
Georgia	\$1,532,593,000	57.23%
Florida, Southeast	\$9,173,169,868	72.43%

Source: National Ocean Economics Program, "Ocean Economy Data," 2016, <http://www.oceaneconomics.org/Market/ocean/oceanEcon.asp>.

BP'S PRICE TAG

- The 2010 BP oil spill from an offshore drilling rig in the Gulf of Mexico contaminated more than 1,300 miles of coastline, at least 400 square miles of the deep ocean floor, and 57,500 square miles of surface water.⁹ An equivalent disaster in the Atlantic could coat beaches from Savannah to Boston.
- The BP spill is estimated to have caused \$17.2 billion worth of damage to the Gulf of Mexico's natural resources.¹⁰ Nearly a decade later, wetlands and other important habitats are still struggling to recover from the impact of the 22,000 tons of oil that washed up on the Gulf shore.¹¹
- The Gulf of Mexico commercial fishing industry was estimated to have lost \$247 million due to initial post-spill fisheries closures.¹² Overall impacts of lost or degraded commercial, recreational, and mariculture fisheries could be as high as \$8.7 billion by 2020, with a potential loss of 22,000 jobs over the same time frame.¹³ An oil spill along the Atlantic could similarly harm ocean health and our coastal economies.¹⁴

Natural ecosystems and shoreline activities that support our coastal communities and states would be harmed by offshore drilling.

- Healthy beaches are important economic engines for coastal states. For instance, Virginia Beach welcomed over 19 million visitors in 2017 who brought \$2.45 billion to the local economy.¹⁵ The Palm Beaches in Florida hosted 7.89 million visitors in 2017 who spent \$4.7 billion and supported more than 70,000 jobs.¹⁶
- Healthy oceans are essential for fishing. Recreational fishermen took nearly 37 million fishing trips along the Atlantic Coast in 2016 and spent more than \$11.2 billion—more than \$3.1 billion on the eastern coast of Florida alone.¹⁷ In that same year, East Coast commercial fishermen landed over 1.3 billion pounds of fish and shellfish worth more than \$2 billion.¹⁸
- Shellfish are big business along the East Coast. In 2016, New England fishermen landed 297.6 million pounds of shellfish, making up 86 percent of total landings revenue in the region.¹⁹ In Maryland and Virginia, the commercial harvest of blue crabs in 2016 totaled more than 64 million pounds, valued at more than \$93 million.²⁰ Young crabs rely on the nearly 80,000 acres of underwater grass beds in the Chesapeake Bay to protect them from predators.²¹
- Tourism, recreation, and the fishing and seafood industries provide nearly 282,000 jobs in the South Atlantic; in North Carolina alone, more than 90 percent of ocean employment comes from these healthy ocean-dependent sectors.²²



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Fish and shellfish sales generate billions of dollars for the Atlantic ocean economy. Blue crabs (left image) and oysters (right image) are two of the many species that rely on a healthy ocean habitat.

- Recreational boating is a favorite activity in the Atlantic. In 2018, it contributed an annual economic impact of \$15.1 billion in the Northeast.²³ Florida ranks first in the nation in recreational boat registrations, with more than 918,000 vessels registered in 2017 (7.7 percent of all registered U.S. vessels).²⁴
- Wetlands help protect homes and businesses from flooding, storm surges, and coastal erosion.²⁵ Coastal wetlands prevented an estimated \$625 million in direct flood damages from Hurricane Sandy in 2016.²⁶ Wetlands in Delaware add over \$1 billion in annual economic value and, in Ocean County, New Jersey, properties located behind wetlands save more than 20 percent on average in annual flood costs compared to properties without wetland protection.²⁷



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East Coast beaches attract millions of visitors annually, generating billions of dollars for local communities.

There's too much at stake to open the Atlantic Ocean to oil and gas drilling operations.

More than 230 municipalities and counties along the Atlantic seaboard have passed resolutions opposing offshore drilling and/or seismic testing for oil and gas to keep their communities safe from natural and economic disaster.²⁸ The majority of Atlantic state governors have officially notified the U.S. Department of Interior of their opposition to oil and gas drilling off their coasts.²⁹ Over 42,000 businesses and 500,000 commercial fishing families have also come together to oppose offshore oil exploration and drilling to protect the robust economy of the Atlantic seaboard.³⁰ The Atlantic Ocean economy is simply too important to jeopardize.



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Wetlands are important breeding and feeding locations for wildlife, and provide valuable flood protection for area homes and businesses.

ENDNOTES

- 1 United States Census 2010, "Interactive Population Map," <https://www.census.gov/2010census/popmap/>. National Oceanic and Atmospheric Administration (NOAA), "NOAA's List of Coastal Counties for the Bureau of Census," https://www.census.gov/geo/landview/lv6help/coastal_cty.pdf, accessed June 19, 2019.
- 2 See, e.g., Aguilar de Soto, N., et al., "Anthropogenic Noise Causes Body Malformations and Delays Development in Marine Larvae," *Scientific Reports* 3 (2013): 2831, <http://www.nature.com/articles/srep02831>. Day, R.D., et al., "Seismic air guns damage rock lobster mechanosensory organs and impair righting reflex," *Proceedings of the Royal Society B: Biological Sciences* (July 2019), <https://royalsocietypublishing.org/doi/10.1098/rspb.2019.1424>. Fewtrell, J.L., and R.D. McCauley, "Impact of Air Gun Noise on the Behavior of Marine Fish and Squid," *Marine Pollution Bulletin* 64, no. 5 (2012): 984-993, <http://www.sciencedirect.com/science/article/pii/S0025326X12000872>. McCauley, R., et al., "Widely Used Marine Seismic Survey Air Gun Operations Negatively Impact Zooplankton," *Nature Ecology & Evolution* 1 (June 22, 2017): 1-8, <http://www.ecomarres.com/downloads/seismic.pdf>. Solé, M., et al., "Ultrastructural Damage of *Loligo vulgaris* and *Illex coindetii* Statocysts After Low Frequency Sound Exposure," *PLoS ONE* 8, no. 10 (October 2013): 1-12, <https://doi.org/10.1371/journal.pone.0078825>. Weilgart, L., "A Review of the Impacts of Seismic Airgun Surveys on Marine Life," submitted to the Convention on Biological Diversity Expert Workshop on Underwater Noise and Its Impacts on Marine and Coastal Biodiversity, February 25-27, 2014, London, <https://www.cbd.int/doc/meetings/mar/mcbem-2014-01/other/mcbem-2014-01-submission-seismic-airgun-en.pdf>. Weilgart, L., "The Impact of Ocean Noise Pollution on Fish and Invertebrates," Oceancare and Dalhousie University, May 1, 2018, https://www.oceancare.org/wp-content/uploads/2017/10/OceanNoise_FishInvertebrates_May2018.pdf.
- 3 Hemmerling, S.A., et al., *Trends in Oil and Gas Infrastructure, Ecosystem Function, and Socioeconomic Wellbeing in Coastal Louisiana*, Water Institute of the Gulf, Synthesis Report Series, September 2016, https://thewaterinstitute.org/assets/docs/reports/10_20_2016_Trends-in-oil-and-gas-infrastructure-ecosystem-function-and-socioeconomic.pdf. Penland, S., et al., *Process classification of coastal land loss between 1932 and 1990 in the Mississippi River deltaic plain, southeastern Louisiana*. US Geological Survey Open File Report 00-418, 2000, <https://pubs.usgs.gov/of/2000/of00-418/ofr00-418.pdf>.
- 4 National Ocean Economics Program (NOEP), "Ocean Economy Data," 2016, <http://www.oceaneconomics.org/Market/ocean/oceanEcon.asp>. Ocean economy data include only ocean related activities and industries compiled from the databases of the Bureau of Labor Statistics and the Bureau of Economic Analysis. Data presented by NOEP from 2005 onward have been generated by NOAA's Office of Coastal Management. The contribution of the ocean economy to state GDP considers the following sectors: construction, living resources (i.e., fishing and seafood industries), minerals, ship and boat building, tourism and recreation, and transportation.
- 5 NOEP, "Ocean Economy Data," 2016, <http://www.oceaneconomics.org/Market/ocean/oceanEcon.asp>. NOEP uses employer reported data and does not capture self-employment, thus actual employment numbers are greater than those presented here. For additional information on self-employed workers, see <https://coast.noaa.gov/digitalcoast/data/enow-nes.html> (note that data regions may differ across platforms).
- 6 NOEP, "Ocean Economy Data," 2016, <http://www.oceaneconomics.org/Market/ocean/oceanEcon.asp>. Percentage of the total state GDP dependent upon a healthy ocean was determined based on the percentage of the GDP contributed by the tourism and recreation and living resources sectors.
- 7 Seventy-five percent of GDP contribution comes from the transportation sector. See NOEP, "Ocean Economy Data," 2016, <http://www.oceaneconomics.org/Market/ocean/oceanEcon.asp>.
- 8 Sixty-two percent of GDP contribution comes from the ship and boat building and transportation sectors. See NOEP, "Ocean Economy Data," 2016, <http://www.oceaneconomics.org/Market/ocean/oceanEcon.asp>.
- 9 Deepwater Horizon Natural Resource Damage Assessment Trustees, *Deepwater Horizon Oil Spill: Final Programmatic Damage Assessment and Restoration Plan and Final Programmatic Environmental Impact Statement*, 2016, chapter 4, pp 28, 30, 57., <http://www.gulfspillrestoration.noaa.gov/restoration-planning/gulf-plan>. MacDonald, I.R., et al., "Natural and Unnatural Oil Slicks in the Gulf of Mexico," *Journal of Geophysical Research: Oceans* 120, no. 12 (2015): 8364-8380, <http://onlinelibrary.wiley.com/doi/10.1002/2015JC011062/full>.
- 10 Bishop, R.C., et al., "Putting a value on injuries to natural assets: The BP oil spill," *Science* 356, no. 6335 (2017): 253-254, <https://science.sciencemag.org/content/356/6335/253>.
- 11 Bouffadel, M.C., et al., "Simulation of the Landfall of the Deepwater Horizon Oil on the Shorelines of the Gulf of Mexico," *Environmental Science & Technology* 48, no. 16 (2014): 9496-9505. <https://pubs.acs.org/doi/abs/10.1021/es5012862>. Flegler, J.W. et al., "What promotes the recovery of salt marsh infauna after oil spills?" *Estuaries and Coasts* 42, no. 1 (2019): 204-217, DOI:10.1007/s12237-018-0443-2. Hamden, L.J., et al., "The impact of the Deepwater Horizon blowout on historic shipwreck-associated sediment microbiomes in the northern Gulf of Mexico," *Scientific Reports* 8 (2018): 9057, <https://www.nature.com/articles/s41598-018-27350-z.pdf>.
- 12 McCrear-Strub, A., et al., "Potential impact of the Deepwater Horizon Oil Spill on Commercial Fisheries in the Gulf of Mexico," *Fisheries* 36, no. 7 (2011): 332-336. <http://www.tandfonline.com/doi/abs/10.1080/03632415.2011.589334>.
- 13 Sumaila, U.R., et al., "Impact of the Deepwater Horizon Well Blowout on the Economics of U.S. Gulf Fisheries," *Canadian Journal of Fisheries and Aquatic Sciences* 69, no. 3 (2012): 499-510. <http://www.nrcresearchpress.com/doi/abs/10.1139/f2011-171-WjqpDP9-nFPY>.
- 14 Environmental Entrepreneurs (E2), "Offshore Wind: Generating economic benefits on the east coast," August 2018, <https://www.e2.org/wp-content/uploads/2018/08/E2-OCS-Report-Final-8.30.18.pdf>.
- 15 Virginia Beach Convention and Visitors Bureau, "Tourism," Virginia Beach Economic Development 2017, <https://www.yesvirginiabeach.com/Key-Industries/Pages/Tourism.aspx>, accessed June 14, 2019.
- 16 Discover the Palm Beaches Florida, "The Palm Beach's tourism industry breaks another visitation record; 4.3 million visitors in first six months of 2018," August 2018, <https://www.thepalmbeaches.com/palm-beaches%E2%80%99-tourism-industry-breaks-another-visitation-record-43-million-visitors-first-six-months>, accessed June 14, 2019.
- 17 National Marine Fisheries Service, *Fisheries Economics of the United States, 2016*, U.S. Department of Commerce, NOAA Tech. Memo. NMFS-F/SPO-187, December 2018, <https://www.fisheries.noaa.gov/resource/document/fisheries-economics-united-states-report-2016>.
- 18 NOAA Fisheries, Fisheries Statistics Division, "Annual Commercial Landings Statistics," 2016, <https://www.st.nmfs.noaa.gov/commercial-fisheries/commercial-landings/annual-landings/index>.
- 19 National Marine Fisheries Service, *Fisheries Economics of the United States, 2016*, U.S. Department of Commerce, NOAA Tech. Memo. NMFS-F/SPO-187, December 2018, <https://www.fisheries.noaa.gov/resource/document/fisheries-economics-united-states-report-2016>.
- 20 NOAA Fisheries, Fisheries Statistics Division, "Annual Commercial Landings Statistics," 2016, <https://www.st.nmfs.noaa.gov/commercial-fisheries/commercial-landings/annual-landings/index>.
- 21 Chesapeake Bay Program, "Facts and Figures: Flora and Fauna," <https://www.chesapeakebay.net/discover/facts>, accessed June 17, 2019.
- 22 NOEP, "Ocean Economy Data," 2016, <http://www.oceaneconomics.org/Market/ocean/oceanEcon.asp>. NOEP uses employer reported data and does not capture self-employment, thus actual employment numbers are greater than those presented here. For additional information on self-employed workers, see <https://coast.noaa.gov/digitalcoast/data/enow-nes.html> (note that data regions may differ across platforms).
- 23 Economic impact includes revenue from manufacturers, suppliers, sales and services, boating activities, and business tax. National Marine Manufacturers Association, *Recreational Boating: An American Pastime and Economic Engine: New Hampshire, Connecticut, Rhode Island, Massachusetts, and Maine*, 2018, <https://www.nmma.org/statistics/publications/economic-impact-infographics>.
- 24 U.S. Office of Homeland Security and U.S. Coast Guard Office of Auxiliary and Boating Safety, "2017 recreational boating statistics," May 2018, <https://www.uscgoating.org/library/accident-statistics/Recreational-Boating-Statistics-2017.pdf>.
- 25 Center for the Blue Economy at the Middlebury Institute of International Studies at Monterey and the Marine Policy Center of the Woods Hole Oceanographic Institution, *Climate change vulnerabilities in the coastal Mid-Atlantic region*, prepared for Mid-Atlantic Regional Council on the Ocean (MARCO) and Monmouth University Urban Coast Institute, May 2018, <http://midatlanticocean.org/wp-content/uploads/2018/05/Climate-Change-Vulnerabilities-in-the-Coastal-Mid-Atlantic-Region.pdf>. U.S. Environmental Protection Agency, "Why are Wetlands Important?" June 2018, <https://www.epa.gov/wetlands/why-are-wetlands-important>, accessed June 10, 2019.
- 26 Narayan, S., et al., "The value of coastal wetlands for flood damage reduction in the Northeastern USA," *Scientific Reports* 7, no. 1 (2017): 9643, <https://www.nature.com/articles/s41598-017-09269-z>.
- 27 Kauffman, G.J., *Socioeconomic Value of Delaware Wetlands*, University of Delaware Water Resources Center, prepared for Delaware Department of Natural Resources and Environmental Control, April 2018, <http://www.wrc.udel.edu/wp-content/uploads/2018/04/SocioeconomicValueofDelawareWetlandsFinalReportApril2018.pdf>. Narayan, S., et al., *Coastal Wetlands and Flood Damage Reduction: Using Risk Industry-based Models to Assess Natural Defenses in the Northeastern US*, Lloyd's Tercentenary Research Foundation, London, October 2016, <https://conservationgateway.org/ConservationPractices/Marine/crr/library/Documents/CoastalWetlandsandFloodDamageReductionReport.pdf>.
- 28 Oceana, "Grassroots Opposition to Offshore Drilling and Exploration in the Atlantic Ocean and Eastern Gulf of Mexico," <https://usa.oceana.org/climate-and-energy/grassroots-opposition-offshore-drilling-and-exploration-atlantic-ocean-and#toc-east-coast-opposition>, accessed June 11, 2019.
- 29 Natural Resources Defense Council, "Where do your elected officials stand on offshore drilling?" <https://www.nrdc.org/where-do-your-elected-officials-stand-on-offshore-drilling>, accessed July 11, 2019.
- 30 For a list of businesses, see Business Alliance for Protecting the Atlantic Coast, <http://protectingtheatlanticcoast.org/>. Oceana, "Grassroots Opposition to Offshore Drilling and Exploration in the Atlantic Ocean and Eastern Gulf of Mexico," <https://usa.oceana.org/climate-and-energy/grassroots-opposition-offshore-drilling-and-exploration-atlantic-ocean-and#toc-east-coast-opposition>, accessed June 11, 2019.