



National Shoreline Management Study

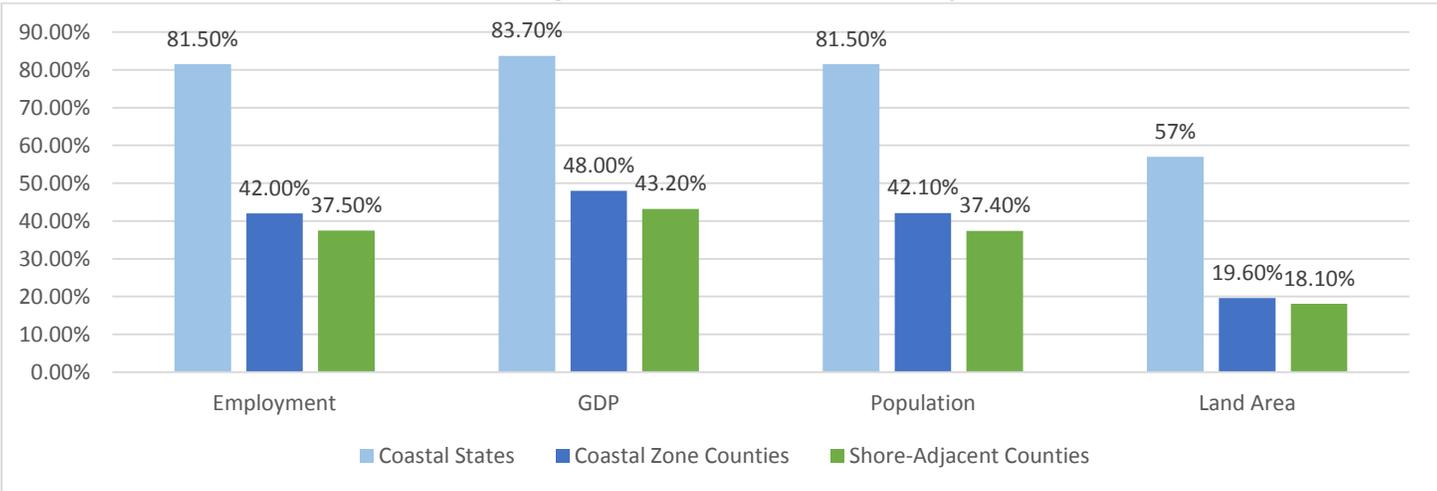
Eroding U.S. Shorelines - A Call for Resilience Planning

The congressionally-authorized National Shoreline Management Study (NSMS) is the first undertaking in nearly a half-century to document the physical, economic, environmental, and social impacts of shoreline change across each region of the U.S. Under the leadership of the *Institute for Water Resources* of the U.S. Army Corps of Engineers, NSMS provides coastal scientists, government policymakers, and stakeholders with information about the coastal regions most in need of resilience planning.

While Congress has funded NSMS since 2001, appropriations in recent years have declined. This decrease in support has come just as there is a public awakening to the dangers of increased coastal flooding. The congressionally-mandated Comprehensive Study following SuperStorm Sandy shows the critical role that Federal leadership and funding plays to help States, local government, businesses and other key stakeholders engage in planning that addresses potential future risks and allows for a fundamental shift away from costly and near-sighted disaster-driven responses.

Continual erosion of the U.S. shoreline presents a considerable financial and safety risk to coastal infrastructure, economies, and populations. Individual regions face unique challenges and require solutions reflective of that. The following graphs and charts underscore the importance of the coastal economy to the national economy.

Coastal Region’s Share of U.S. Economy 2014



Growth Rates in the Coastal Economy 2010-2014

Region	Employment (millions)			GDP (\$Trillion, 2009)			Population (millions)		
	2010	2014	Annual Change	2010	2014	Annual Change	2010	2014	Annual Change
United States	127.8	136.6	1.72%	\$14.6	\$15.8	1.9%	309.3	318.9	0.77%
Coastal States	104.1	111.3	1.73%	\$12.3	\$13.2	2.0%	252.1	259.8	0.76%
Coastal Zone Counties	53.6	57.3	1.72%	\$7.0	\$7.6	1.9%	129.9	134.2	0.84%
Shoreline Adjacent Counties	47.8	51.2	1.78%	\$6.3	\$6.8	2.0%	115.5	119.3	0.82%



Mid-Atlantic

The Mid-Atlantic coastal region is sediment-rich, but highly susceptible to coastal storms and sea level rise. Given the population density and potential social and economic effects of changes in ocean circulation and sea level, the Mid-Atlantic coast of the U.S. may be one of the most vulnerable regions in the world to rising sea levels.

Superstorm Sandy demonstrated that beach renourishment projects were effective at reducing storm damage. Similarly, it emphasized the potential efficacy of regionally-defined resilience strategies that take advantage of area-specific geographic and natural elements.

Government agencies should continue to seek ways to move from site-specific reactive management to more comprehensive regionally-based shore management to increase resilience and long-term sustainability.

Maryland's Ocean Economy

- Generated \$6.7 billion or 2% of the state's GDP.
- Provided \$3.3 billion in wages and salaries.
- Provided 90,729 jobs.
- 65,329 jobs (72%) of the state's ocean economy employment were in coastal tourism and recreation.
- Tourism and recreation contributed \$2.9 billion (42.4%) to the state's ocean GDP.
- Marine transportation added \$3.5 billion (52%) in GDP.

Maryland's Coastal Counties



Maryland's Ocean Resources

- In 2014, commercial fisheries landings were 49.4 million pounds, valued at \$90.2 million. Over 59% of the value came from blue crab fishery, at 17% from the eastern oyster harvest.
- Since 1991, the landed weight of commercial seafood overall declined 43.9%. The blue crab fishery in particular declined over 50% since 1991 in landed weight.

Maryland's Coastal Economy

	Employment	Wages (\$billion)	GDP (\$billion)
State	2,552,623	\$141.4	\$348.6
Shore-adjacent	1,302,030	\$68	\$174.2
Shore-adjacent % of State	51%	48.1%	50%

State and Coastal Growth, 2007-2014			
	Employment	Wages	GDP
All Counties	0.21%	0.67%	6.55%
Shore-adjacent Counties	-0.20%	0.11%	6.84%