



National Shoreline Management Study

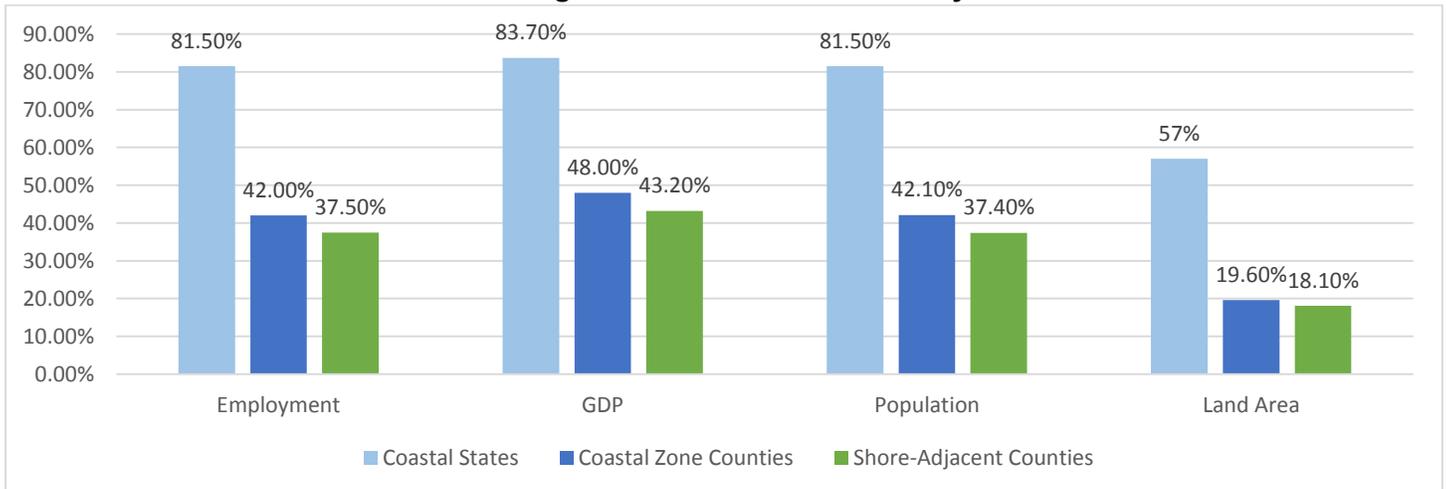
Eroding U.S. Shorelines - A Call for Resilience Planning

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.

New Jersey's Ocean Economy

- Generated \$8 billion or 1.5% of the state's GDP.
- Provided \$4.3 billion in wages and salaries.
- Provided 122,324 jobs.
- 84,703 jobs (69.2%) of the state's ocean economy employment were in coastal tourism and recreation.
- Tourism and recreation contributed \$3.2 billion (40.5%) to the state's ocean GDP.

New Jersey's Coastal Counties



New Jersey's Ocean Resources

- In 2014, commercial fisheries landings were 124.1 million pounds, valued at \$151.9 million
- Sea scallops brought in 57.9% (\$88 million) of the landed value. Clams accounted for 15.9% of the landed value. 34.5% of the landed weight was Menhaden (42.8 million pounds).

New Jersey's Coastal Economy

| | Employment | Wages (\$billion) | GDP (\$billion) |
|---------------------------|------------|-------------------|-----------------|
| State | 3,841,854 | \$232.8 | \$549.1 |
| Shore-adjacent | 2,555,763 | \$146.4 | \$360.6 |
| Shore-adjacent % of State | 66.5% | 62.9% | 65.7% |

| State and Coastal Growth, 2007-2014 | | | |
|-------------------------------------|------------|--------|--------|
| | Employment | Wages | GDP |
| All Counties | -3.02% | -4.51% | 0.16% |
| Shore-adjacent Counties | -4.78% | -8.08% | -2.30% |