



National Coastal Population Report

Population Trends from 1970 to 2020



Dear Reader,

This National Coastal Population Report continues the commitment by NOAA's National Ocean Service to describe the nation's coastal population, as a complement to the decadal Census conducted by the U.S. Census Bureau. One of our nation's ongoing challenges is to manage ecologically sensitive coastal areas such that future generations of Americans will continue to reap the immeasurable economic, cultural, recreational, and aesthetic benefits provided by our coastal resources. At the core of this management challenge are both the large numbers and high densities of residents and visitors at the coast.

This concentration of people impacts the integrity of coastal ecosystems, and at the same time, the lives and livelihoods of some of these residents and visitors can be at risk from natural processes at the coast – such as hurricanes, erosion, and sea level rise. This report explores this dynamic relationship by presenting both the population in Coastal Watershed Counties and in Coastal Shoreline Counties. Joined by our federal and state coastal management partners, we hope this reporting framework will both increase awareness and enhance policy discussions, by promoting a deeper understanding of our nation's coastal population.

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March 2013

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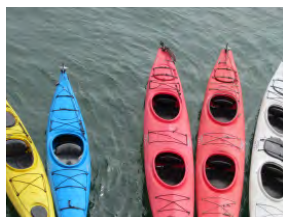
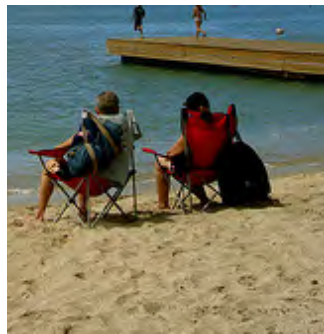


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Our Nation's Coastal Population

Our nation's bountiful coastal resources have influenced American history and culture, and have drawn a substantial portion of our country's population to the coast. The concentration of people and economic activity at the coast places pressures on ecologically sensitive coastal ecosystems and also leaves residents and visitors vulnerable to coastal hazards, such as hurricanes, erosion, and sea level rise. One focus of this management challenge is to understand who lives at the coast and how this population is changing. However, this is not a simple matter as federal agencies, researchers, and non-governmental organizations define "the coast" in various ways.

To increase consistency in how we describe our nation's coastal population, this report presents the nation's coastal population in two different lights. One is the population that lives in Coastal Watershed Counties, or those counties where a substantial portion of their land area intersect coastal watersheds, and consequently represent where land use changes and water quality impacts most directly impact coastal ecosystems. NOAA has historically reported population for Coastal Watershed Counties, and continues this framework in this report. For the first time, NOAA also presents the population that lives in a subset of Coastal Watershed Counties, the Coastal Shoreline Counties, or those counties directly adjacent to the open ocean, major estuaries, and the Great Lakes. The Coastal Shoreline Counties, due to their proximity to these waters, bear the most direct effects of coastal hazards and host the majority of economic production associated with coastal and ocean resources.



Channel Islands National Marine Sanctuary and the Channel Islands National Park, CA. Credit: Claire Johnson

How to Use this Document

This report offers two independent sections that present basic demographic status and trends information for Coastal Shoreline Counties and for Coastal Watershed Counties, allowing the coastal management community the opportunity to choose the appropriate statistics for their needs.

Appendices A and B provide maps of Coastal Shoreline Counties and Coastal Watershed Counties, respectively. The Coastal Shoreline Counties are a subset of Coastal Watershed Counties, and Appendix C provides a simple comparison between these two groups of counties.

Section 1: People who live in Coastal Shoreline Counties

This section describes basic demographic status and trends of the U.S. population that resides in 452 Coastal Shoreline Counties (see map in Appendix A). These counties are directly adjacent to the open ocean, major estuaries, and the Great Lakes, and due to their proximity to these waters, bear the most direct effects of coastal hazards and host the majority of economic production associated with coastal and ocean resources. This group of coastal residents could generally be considered "the U.S. population most directly affected by the coast."

When are these statistics most applicable?

Providing context for coastal community resilience, coastal hazards, and other ocean resource-dependent issues.

Section 2: People who live in Coastal Watershed Counties

This section describes basic demographic status and trends of the U.S. population that resides in 769 Coastal Watershed Counties. A substantial portion of the land area of these counties intersect coastal watersheds, and consequently represent where land use changes and water quality impacts can most directly impact coastal ecosystems. This group of coastal residents could generally be considered "the U.S. population that most directly affects the coast."

When are these statistics most applicable?

Providing context for land use changes in coastal watersheds and local watershed impacts of human activities to coastal and estuarine water quality.

POPULATION DENSITY IS GROWING AT THE COAST

Regardless of how the **coast** is defined, it is **substantially more crowded** than the U.S. as a whole, and population density in coastal areas will continue to increase in the future.

In 2010: Out of the 3 million mi² of land in the US

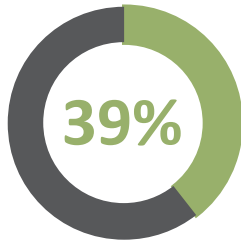


or 275,351 mi² comprise
Coastal Shoreline Counties

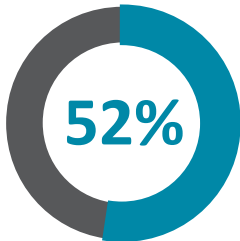


or 511,971 mi² comprise
Coastal Watershed Counties

In 2010: Out of the 313 million people living in the US

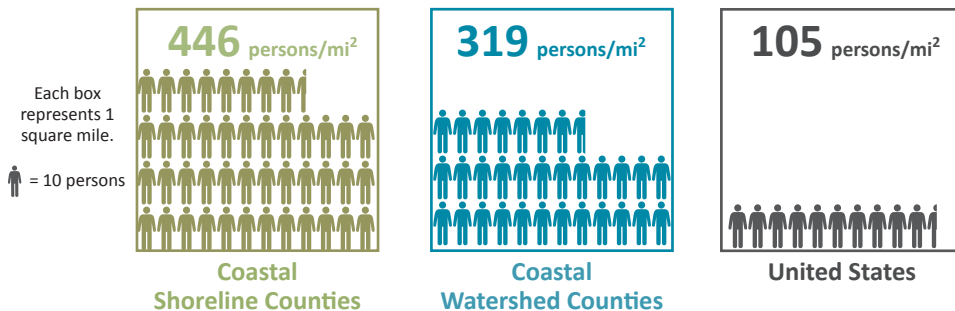


or 123.3 million people lived in
Coastal Shoreline Counties



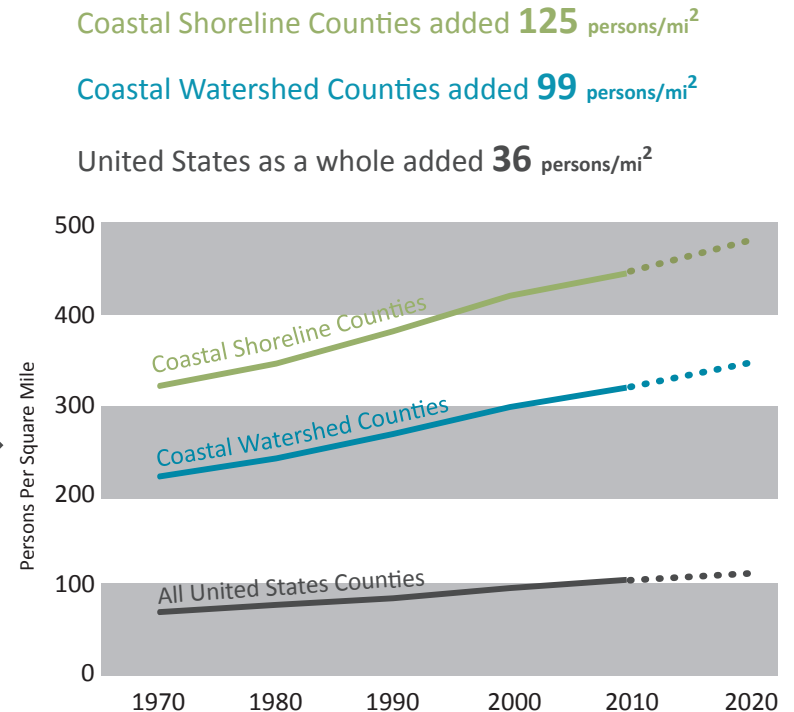
or 163.8 million people lived in
Coastal Watershed Counties

In 2010: A small amount of land and a large number of people means high density



Within the limited space of the nation's coast, population density far exceeds the nation as a whole, and this trend will continue into the future. This situation presents coastal managers with the challenge of protecting both coastal ecosystems from a growing population and protecting a growing population from coastal hazards.

In Just 40 Years: 1970-2010



Note: Land area and density values exclude Alaska. Population values include Alaska and US Territories.

Source: U.S. Census Bureau, 2011b; NOAA, 2012; Crowell et al., 2010

Coastal Shoreline Counties

Population

123.3 million

Coastal Shoreline County population in 2010.

39%

Percent of the U.S. population that resides in Coastal Shoreline Counties in 2010.

34.8 million

Coastal Shoreline County population change from 1970 to 2010, a 39% increase. (U.S. average 52%)

10 million

Projected population change in Coastal Shoreline Counties from 2010 to 2020, an 8% increase. (U.S. average 10%)



Humpback Whale National Marine Sanctuary. Credit: Fiona Langenberger

Figure 3 | Population Change in Coastal Shoreline Counties: 1970-2010

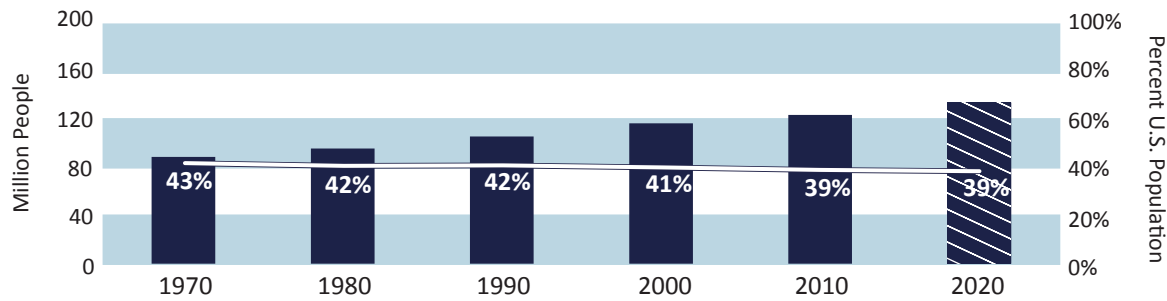
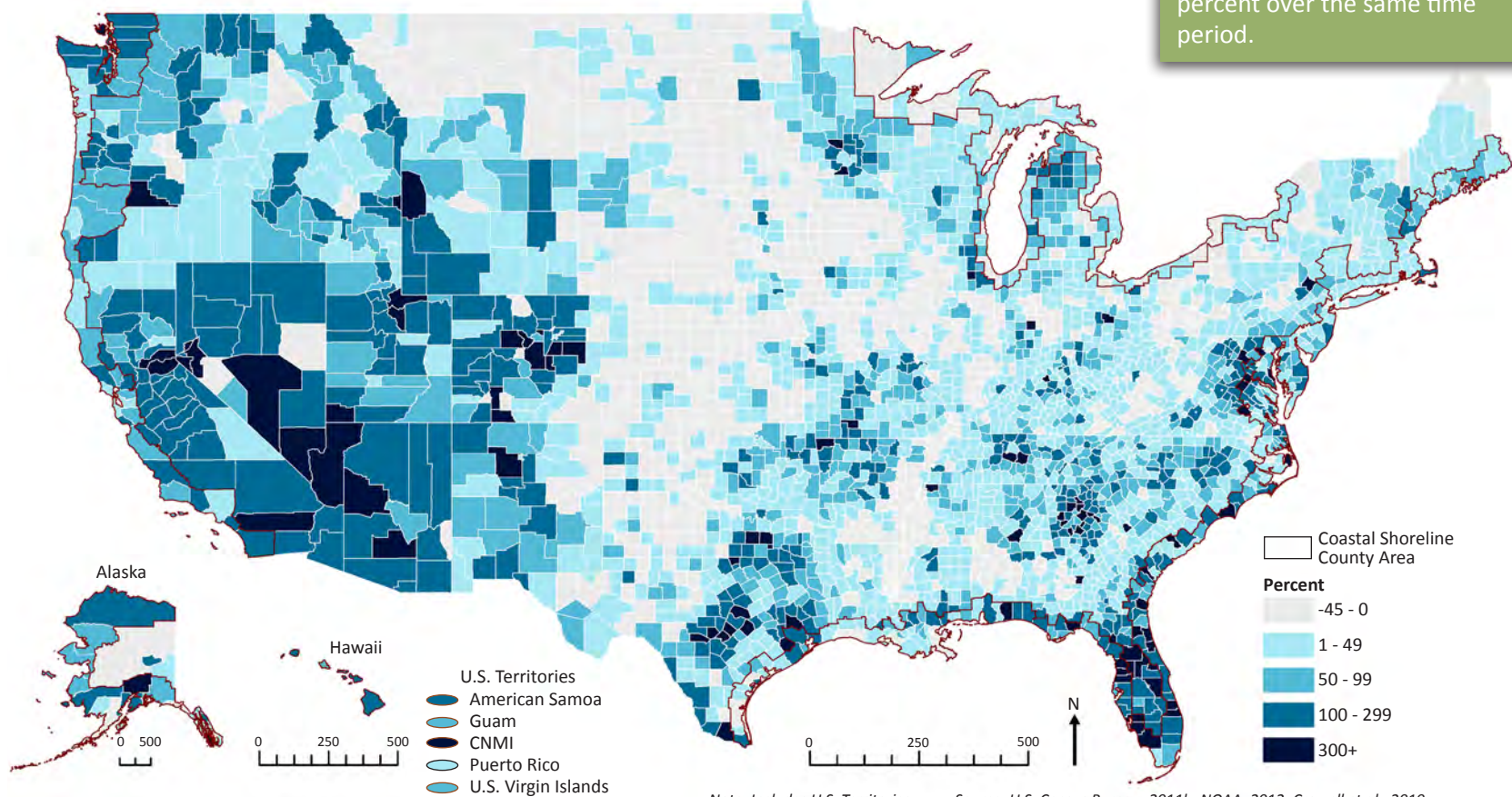


Figure 4 | Percent Population Change in U.S. Counties, Highlighting Coastal Shoreline Counties: 1970-2010



The Bottom Line

In 2010, 123.3 million people, or 39 percent of the nation's population lived in Coastal Shoreline Counties. Population growth in these counties occurred at a lower rate than the nation as a whole from 1970 to 2010. The population in Coastal Shoreline Counties increased by 34.8 million people, a 39 percent increase, while the nation's entire population increased by 52 percent over the same time period.

Coastal Shoreline Counties

446 pers/mi²

Population density of Coastal Shoreline Counties in 2010 (excluding Alaska).
(U.S. average 105 pers/mi² excluding Alaska)

37 pers/mi²

Projected population density increase in Coastal Shoreline Counties from 2010 to 2020 (excluding Alaska).

89%

Percent increase in the 65 and older population from 1970 to 2010 in Coastal Shoreline Counties. (U.S. average 100%)

-4%

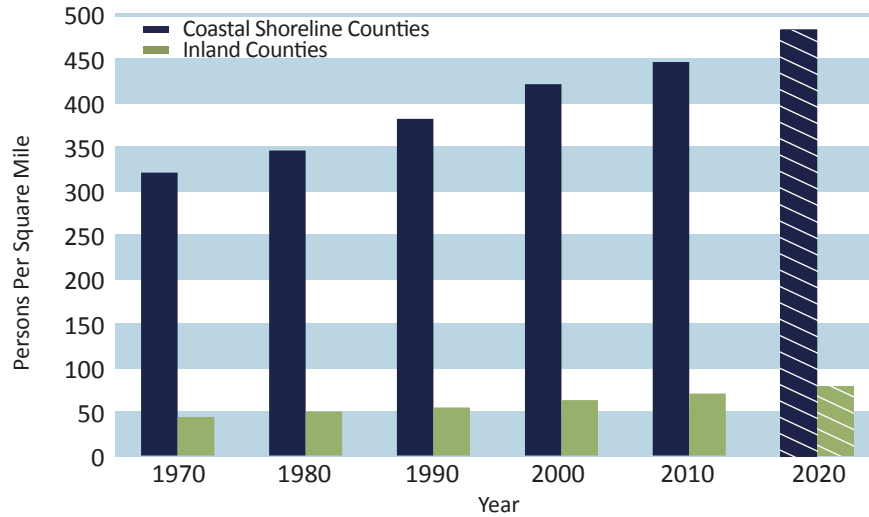
Percent change in persons younger than 18 from 1970 to 2010 in Coastal Shoreline Counties. (U.S. average 6%)



Chatham, MA. Credit: Louis Cafiero

Population Density

Figure 5 | Population Density Change in Coastal Shoreline Counties and Inland Counties from 1970 to 2020



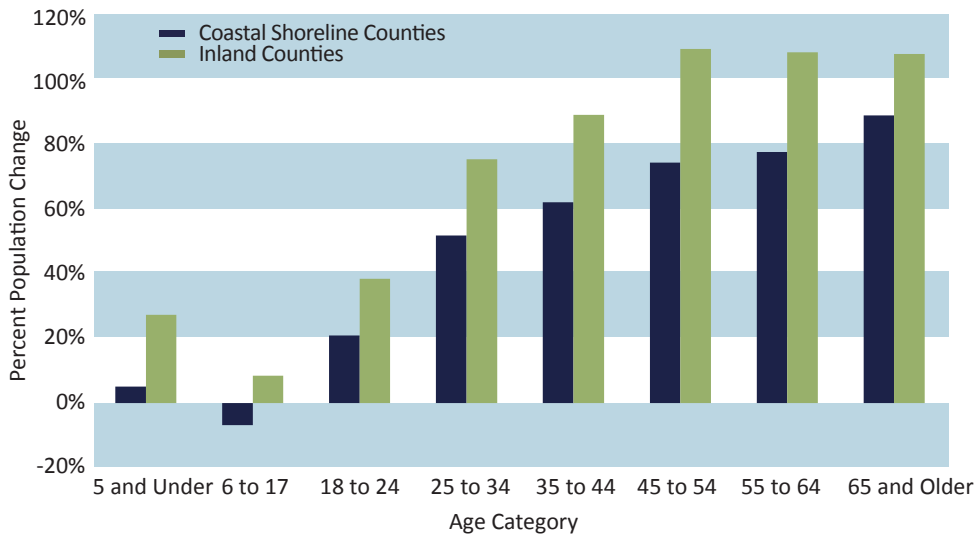
Note: Density values include U.S. Territories and exclude Alaska.
Source: U.S. Census Bureau, 2011b; NOAA, 2012; Crowell et al., 2010

The Bottom Line

In 2010, 39 percent of the U.S. population lived in Coastal Shoreline Counties (less than 10 percent of the total land area excluding Alaska). The population density of Coastal Shoreline Counties is over six times greater than the corresponding inland counties.

Age

Figure 6 | Percent Population Change of Coastal Shoreline Counties and Inland Counties by Age from 1970 to 2010



Note: U.S. Territories not included.
Source: U.S. Census Bureau, 2011b; NOAA, 2012; Crowell et al., 2010

The Bottom Line

In 2010, age distribution within Coastal Shoreline Counties and inland counties differed only slightly and the share of the U.S. population living in Coastal Shoreline Counties by age category was consistent with the share of total population. However, from 1970 to 2010, the growth rate among the age categories differed substantially, demonstrating an aging population in both Coastal Shoreline Counties and inland counties, with inland counties growing faster within each age category.

Coastal Shoreline Counties

64%

Share of the U.S. Asian Alone population living in Coastal Shoreline Counties.

(Share of total U.S. Population 39%)

47%

Share of the U.S. Black or African American Alone population living in Coastal Shoreline Counties.

(Share of total U.S. Population 39%)

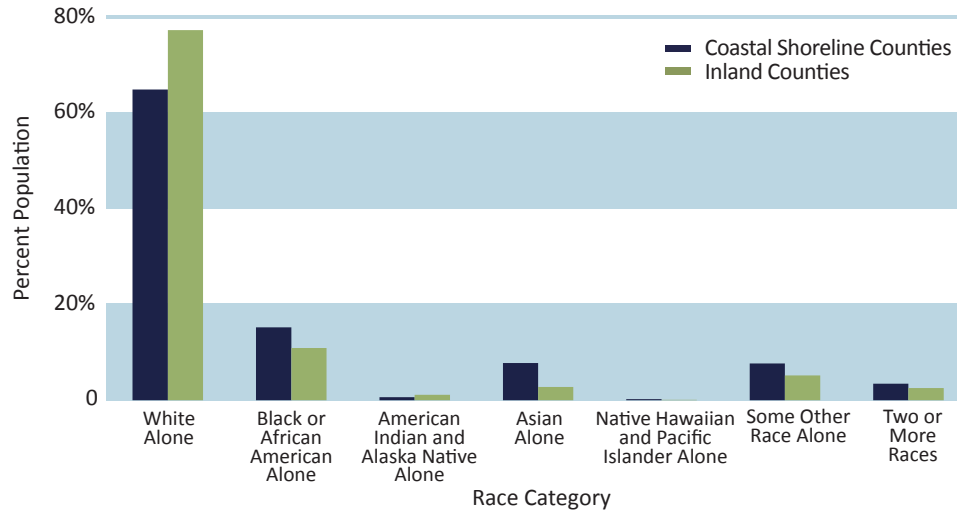
211%

Percent increase in Hispanic or Latino population from 1980 to 2010 in Coastal Shoreline Counties.

(U.S. average 220%)

Race

Figure 7 | Percent Population of Coastal Shoreline Counties and Inland Counties by Race in 2010



Note: The U.S. Census Bureau uses the word "Alone" following certain race categories to distinguish those populations that chose a single race to characterize themselves.

U.S. Territories not included.

Source: U.S. Census Bureau, 2011b; NOAA, 2012; Crowell et al., 2010

Table 1 | Share of the U.S. Population by Race in Coastal Shoreline Counties in 2010

Race Category	Percent U.S. Population
Total Population	39%
White Alone	35%
Black or African American Alone	47%
American Indian and Alaska Native Alone	27%
Asian Alone	64%
Native Hawaiian and Pacific Islander Alone	60%
Some Other Race Alone	49%
Two or More Races	47%

The Bottom Line

In 2010, minority population groups residing in Coastal Shoreline Counties represented a combined 35 percent of the Coastal Shoreline County population. This is higher than the combined share of the total U.S. population at 28 percent.

Hispanic Origin

Figure 8 | Percent Population of Coastal Shoreline Counties and Inland Counties by Hispanic or Latino Origin in 2010

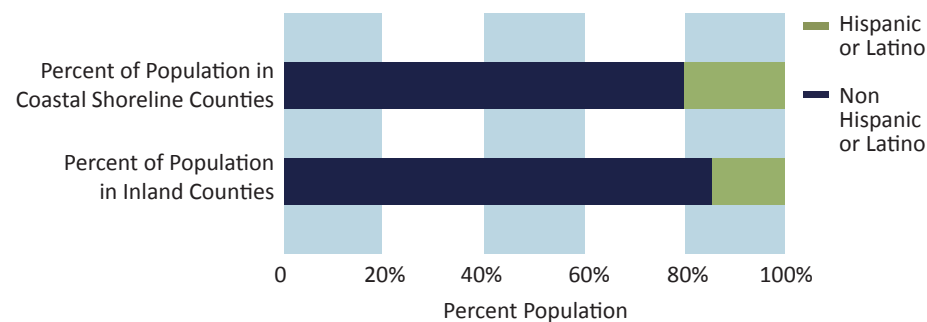


Table 2 | Share of the U.S. Population by Hispanic or Latino Origin in Coastal Shoreline Counties in 2010

Ethnicity Category	Percent U.S. Population
Total Population	39%
Hispanic or Latino	49%
Non Hispanic or Latino	37%

Note: U.S. Territories not included. Source: U.S. Census Bureau, 2011b; NOAA, 2012; Crowell et al., 2010



Miami, FL. Credit: B. O'Grady

Coastal Shoreline Counties

38%

Percent of the population in Coastal Shoreline Counties that hold a higher education degree in 2010 (for those 25 years and over).

(U.S. average 35%)

13%

Percent of the population in Coastal Shoreline Counties living below the poverty line in 2010.

(U.S. average 13%)

47%

Share of the U.S. households making over \$100,000 that are in Coastal Shoreline Counties.

(Share of total U.S. Households 39%)



Santa Cruz, CA. Credit: K. Crossett

Education Attainment

Figure 9 | Percent Population of Coastal Shoreline Counties and Inland Counties by Education Attainment for Those 25 Years and Over in 2010

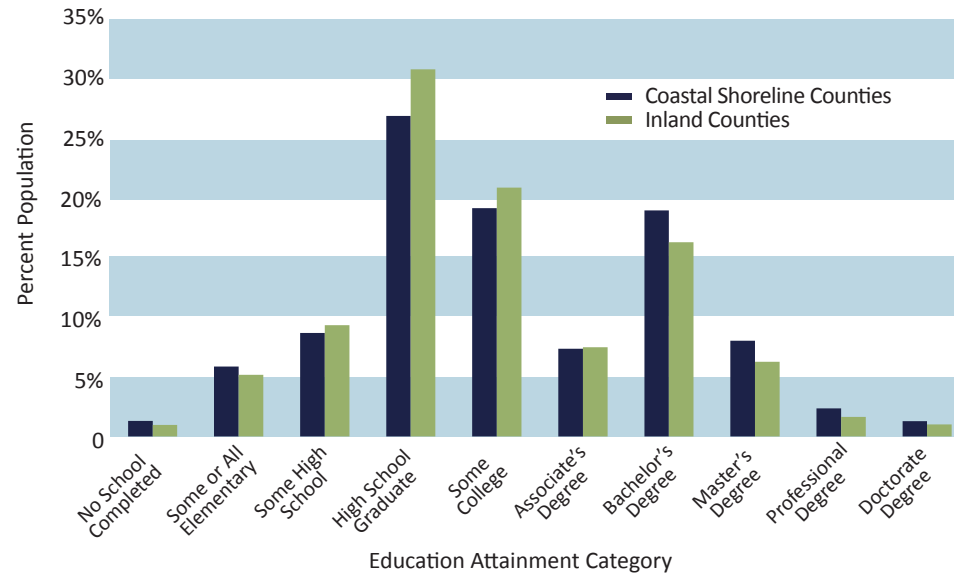


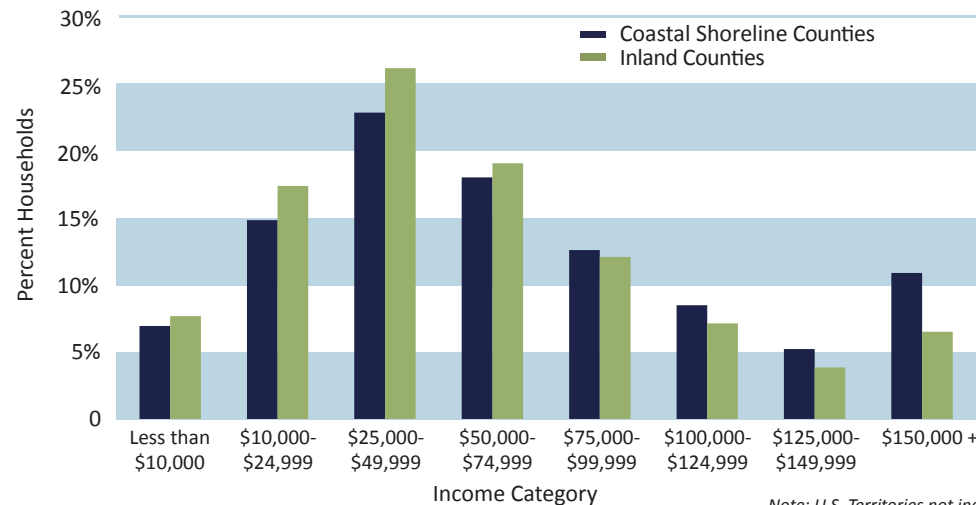
Table 3 | Share of the U.S. Population by Education Attainment for Those 25 Years and Over in Coastal Shoreline Counties in 2010

Education Attainment Category	Percent U.S. Population
Total Population	39%
No School Completed	48%
Some or All Elementary	43%
Some High School	39%
High School Graduate	37%
Some College	38%
Associate's Degree	40%
Bachelor's Degree	44%
Master's Degree	46%
Professional School Degree	49%
Doctorate Degree	46%

Note: Puerto Rico included. Remaining U.S. Territories excluded.
Source: U.S. Census Bureau, 2012a; NOAA, 2012; Crowell et al., 2010

Household Income

Figure 10 | Percent Households of Coastal Shoreline Counties and Inland Counties by Income in 2010



Note: U.S. Territories not included. Source: U.S. Census Bureau, 2011b; NOAA, 2012; Crowell et al., 2010

Table 4 | Share of the U.S. Households by Household Income in Coastal Shoreline Counties in 2010

Income Category	Percent U.S. Households
Total Households	39%
Less than \$10,000	37%
\$10,000 to \$24,999	35%
\$25,000 to \$49,999	36%
\$50,000 to \$74,999	38%
\$75,000 to \$99,999	40%
\$100,000 to \$124,999	43%
\$125,000 to \$149,999	46%
\$150,000 +	52%

Coastal Shoreline Counties

49.4 million

Number of housing units in Coastal Shoreline Counties in 2010, 39% of the U.S. total.

18%

Percent increase in seasonal housing units in Coastal Shoreline Counties from 2000 to 2010. Total housing units in Coastal Shoreline Counties increased 8%.

42%

Share of all U.S. seasonal homes located in Coastal Shoreline Counties in 2010.

1355

Number of building permits issued per day in Coastal Shoreline Counties from 2000 to 2010.



Broadkill Beach, DE. Credit: K. Crossett

Seasonal Housing

Figure 11 | Leading States in Number of Seasonal Housing Units in Coastal Shoreline Counties in 2010

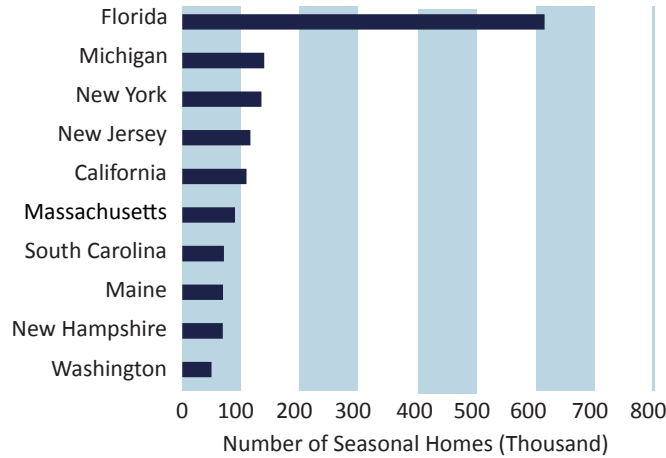
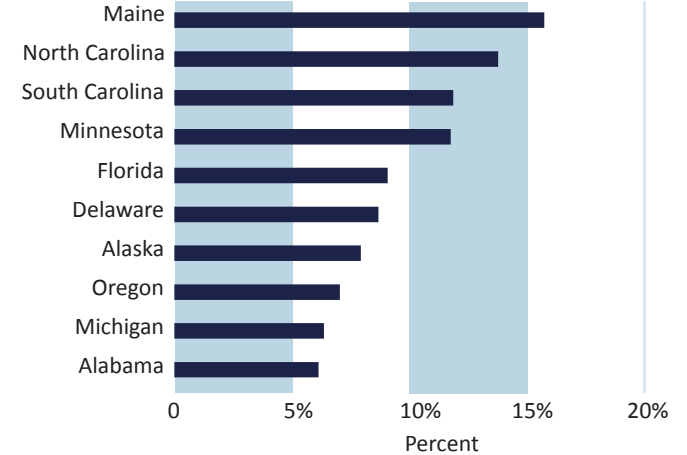


Figure 12 | Leading States in Percent of Housing Units that are Seasonal in Coastal Shoreline Counties in 2010



Note: U.S. Territories not included. Source: U.S. Census Bureau, 2011a; NOAA, 2012; Crowell et al., 2010

Building Permits

Figure 13 | Building Permits Issued for Single-Family Units in Coastal Shoreline Counties from 2000 to 2010

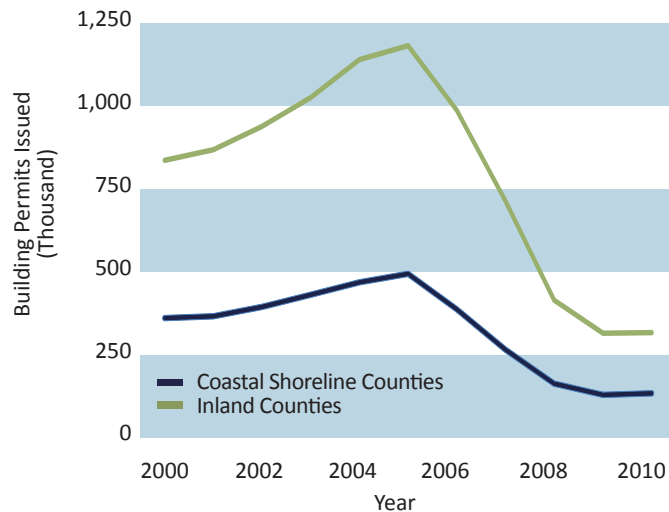
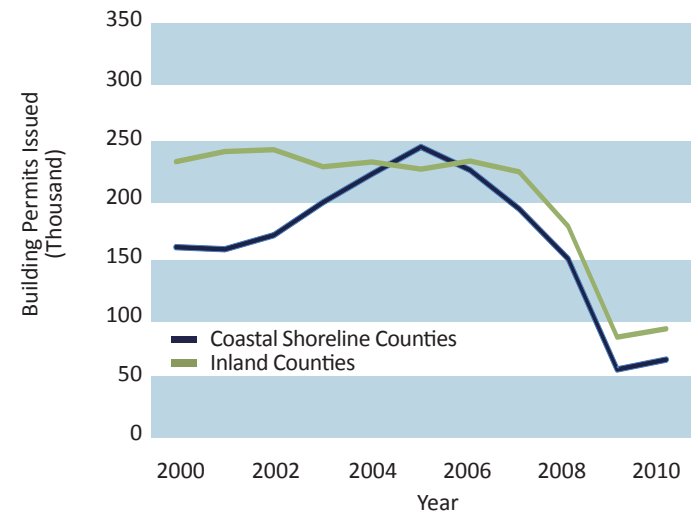


Figure 14 | Building Permits Issued for Multi-Unit Buildings in Coastal Shoreline Counties from 2000 to 2010



Note: U.S. Territories not included. Source: U.S. Census Bureau, 2011c; NOAA, 2012; Crowell et al., 2010

Coastal Shoreline Counties

Coastal States Summary

Table 5 | Demographic Summary of Aggregated Coastal Shoreline Counties by State

U.S. State or Territory	2010 Population	Rank	2010 Population Density (pers/mi ²)	Rank	1970-2010 Percent Historic Population Change	2010-2020 Percent Projected Population Change	1970-2010 Percent Increase in 65 and Older Population	2010 Percent Population Living in Poverty
Alabama	595,257	27	211	20	58	11	702	17
Alaska	598,207	26	2	31	147	13	168	10
California	25,520,252	1	716	10	62	8	111	12
Connecticut	2,219,037	15	980	8	18	5	72	9
Delaware	897,934	21	461	14	64	10	196	11
District of Columbia	601,723	25	9,864	1	-20	1	-3	18
Florida	14,468,197	3	454	15	165	16	208	13
Georgia	563,967	28	121	26	82	19	175	15
Hawaii	1,360,301	17	212	19	77	16	340	9
Illinois	5,898,137	6	4,246	2	0	2	28	14
Indiana	771,815	23	509	13	4	4	94	14
Louisiana	2,247,053	14	165	24	23	10	89	16
Maine	836,502	22	97	28	49	-5	43	11
Maryland	4,148,642	11	631	11	37	10	117	9
Massachusetts	4,924,916	7	1,400	4	16	5	97	9
Michigan	4,680,503	9	154	25	-4	0	53	16
Minnesota	216,268	31	22	30	-9	4	27	14
Mississippi	370,702	30	209	21	54	5	202	15
New Hampshire	418,366	29	393	17	100	13	264	7
New Jersey	7,045,573	4	1,360	5	21	4	178	9
New York	15,691,096	2	1,280	6	6	5	69	14
North Carolina	999,064	20	102	27	92	10	30	15
Ohio	2,534,282	12	809	9	-14	-1	39	15
Oregon	653,112	24	42	29	53	9	181	16
Pennsylvania	2,365,551	13	2,118	3	-16	0	-2	20
Rhode Island	1,052,567	19	1,018	7	11	5	46	12
South Carolina	1,241,048	18	168	23	127	23	443	15
Texas	6,121,490	5	410	16	107	16	198	18
Virginia	4,730,951	8	544	12	94	18	248	8
Washington	4,615,192	10	245	18	99	15	164	10
Wisconsin	2,049,934	16	195	22	7	3	31	14
American Samoa	55,502		445		104	8		
Guam	159,358		752		86	11		
CNMI	53,883		305		449	9		
Puerto Rico	2,525,305		1,281		27	0		
U.S. Virgin Islands	106,405		580		68	1		

Source: U.S. Census Bureau, 2011b; NOAA, 2012; Crowell et al., 2010



Coastal Watershed Counties

163.8 million

Coastal Watershed County population in 2010.

52%

Percent of the U.S. population that resides in the Coastal Watershed Counties in 2010.

50.9 million

Population change in Coastal Watershed Counties from 1970 to 2010, a 45% increase. (U.S. average 52%)

15 million

Projected population change in Coastal Watershed Counties from 2010 to 2020, a 9% increase. (U.S. average 10%)



Los Angeles County, CA, had the largest single county population growth from 1970 to 2010, increasing by over 2.7 million people. Credit: Bruce Perry, CSULB

Population Change

Figure 15 | Population Change in Coastal Watershed Counties: 1970-2010

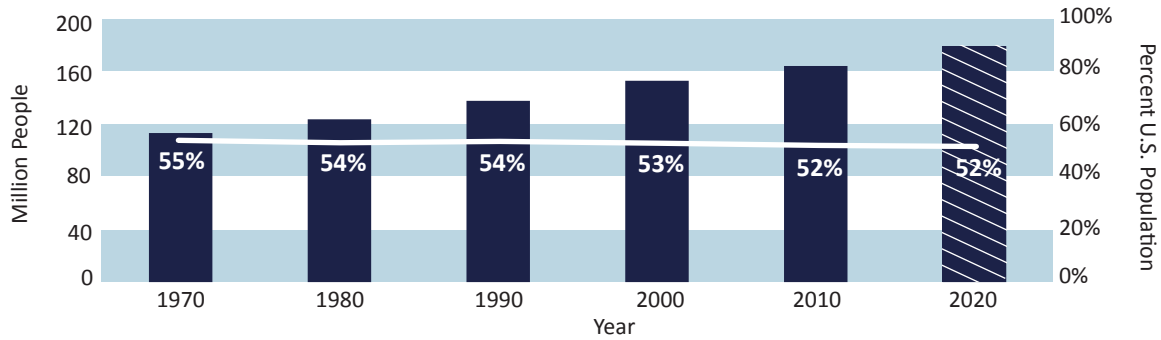
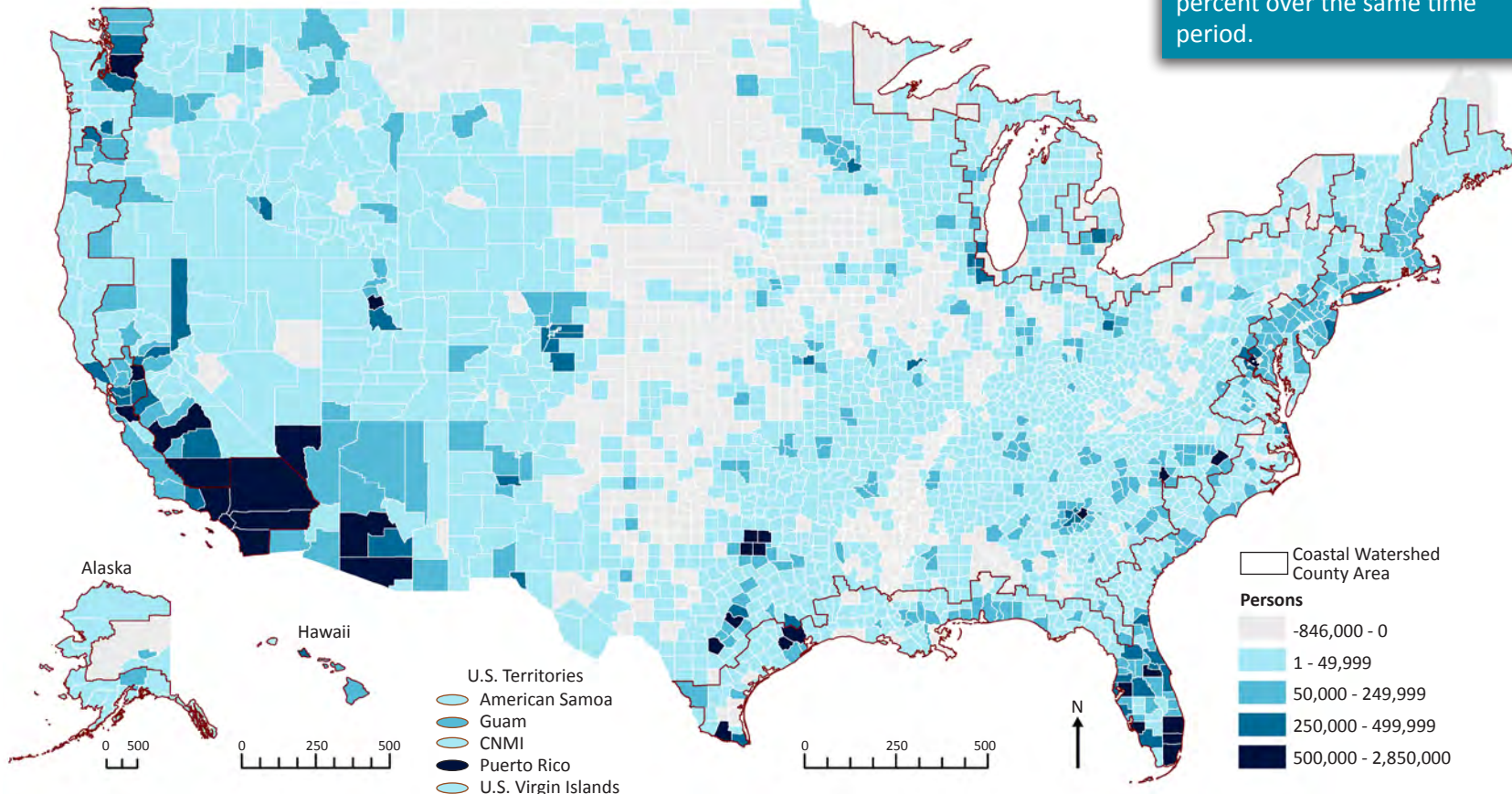


Figure 16 | Numeric Population Change in U.S. Counties, Highlighting Coastal Watershed Counties: 1970-2010



The Bottom Line

In 2010, 163.8 million people, or 52 percent of the nation's population lived in Coastal Watershed Counties. Population growth in these counties occurred at a lower rate than the nation as a whole from 1970 to 2010. The population in Coastal Watershed Counties increased by 50.9 million people, a 45 percent increase, while the nation's entire population increased by 52 percent over the same time period.

Coastal Watershed Counties

319 pers/mi²

Population density of Coastal Watershed Counties in 2010 (excluding Alaska).

(U.S. average 105 pers/mi² excluding Alaska)

24 pers/mi²

Projected population density increase in Coastal Watershed Counties from 2010 to 2020 (excluding Alaska).

97%

Percent increase in the 65 and older population from 1970 to 2010 in Coastal Watershed Counties. (U.S. average 100%)

0%

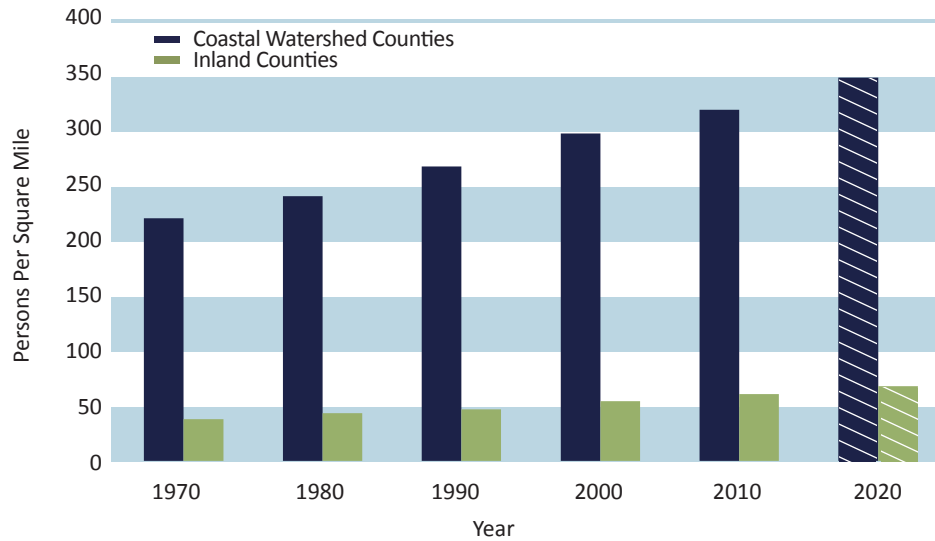
Percent change in persons younger than 18 from 1970 to 2010 in Coastal Watershed Counties. (U.S. average 6%)



Port Townsend, WA Credit: D. Nieters

Population Density

Figure 17 | Population Density Change in Coastal Watershed Counties and Inland Counties from 1970 to 2020



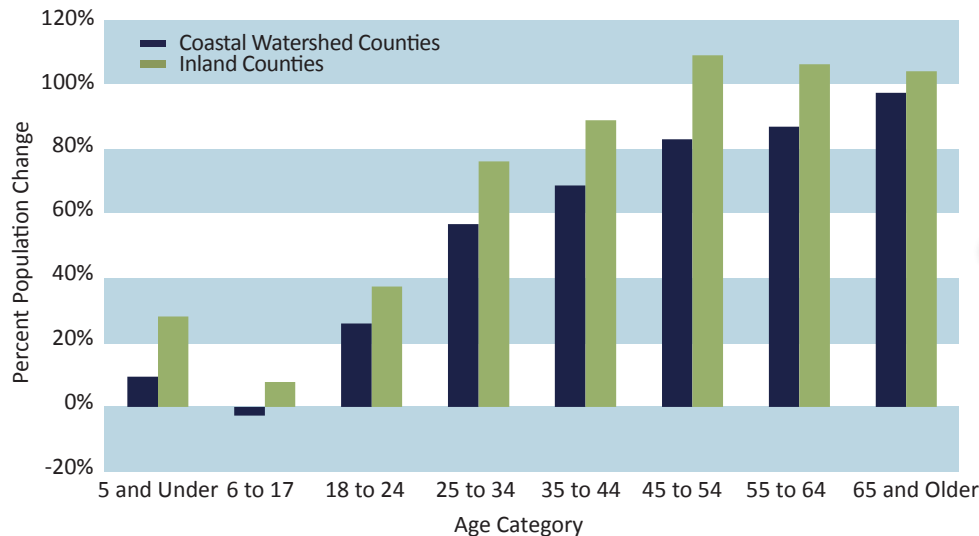
The Bottom Line

In 2010, 52 percent of the U.S. population lived in Coastal Watershed Counties (less than 20 percent of the total land area excluding Alaska). The population density of Coastal Watershed Counties is over five times greater than the corresponding inland counties, a trend that has been consistent since 1970.

Note: Density values include U.S. Territories and exclude Alaska. Source: U.S. Census Bureau, 2011; NOAA, 2012

Age

Figure 18 | Percent Population Change of Coastal Watershed Counties and Inland Counties by Age from 1970 to 2010



The Bottom Line

In 2010, age distribution within Coastal Watershed Counties and inland counties differed only slightly and the share of the U.S. population living in Coastal Watershed Counties by age category was consistent with the share of total population. However, from 1970 to 2010, the growth rate among the age categories differed substantially, demonstrating an aging population in both Coastal Watershed Counties and inland counties, with inland counties growing faster within each age category.

Note: U.S. Territories not included. Source: U.S. Census Bureau, 2011b; NOAA, 2012

Coastal Watershed Counties

75%

Share of the U.S. Asian Alone population living in Coastal Watershed Counties.

(Share of total U.S. Population 52%)

59%

Share of the U.S. Black or African American Alone population living in Coastal Watershed Counties.

(Share of total U.S. Population 52%)

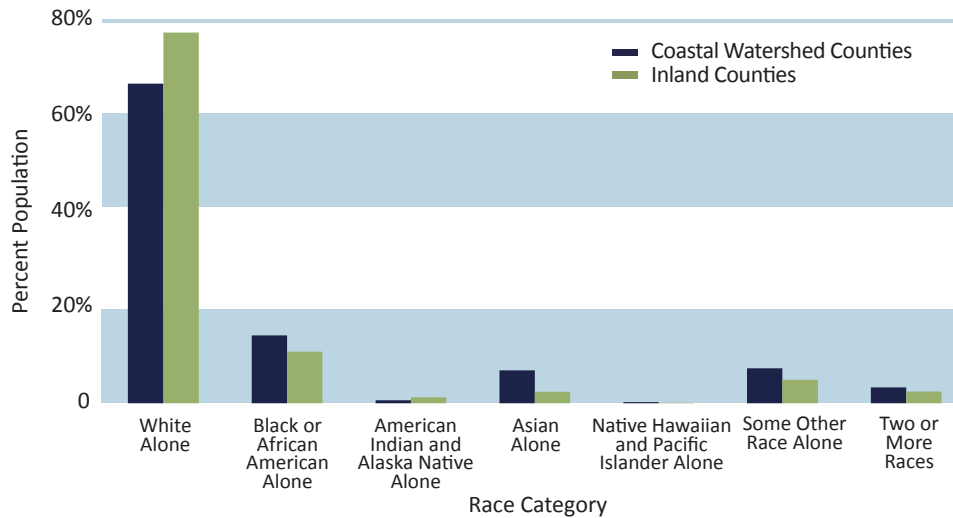
239%

Percent increase in the Hispanic or Latino population from 1980 to 2010 in Coastal Watershed Counties.

(U.S. average 220%)

Race

Figure 19 | Percent Population of Coastal Watershed Counties and Inland Counties by Race in 2010



Note: The U.S. Census Bureau uses the word "Alone" following certain race categories to distinguish those populations that chose a single race to characterize themselves.

U.S. Territories not included.

Source: U.S. Census Bureau, 2011b; NOAA, 2012

Table 6 | Share of the U.S. Population by Race in Coastal Watershed Counties in 2010

Race Category	Percent U.S. Population
Total Population	52%
White Alone	48%
Black or African American Alone	59%
American Indian and Alaska Native Alone	35%
Asian Alone	75%
Native Hawaiian and Pacific Islander Alone	70%
Some Other Race Alone	61%
Two or More Races	59%

The Bottom Line

In 2010, minority population groups residing in Coastal Watershed Counties represented a combined 33 percent of the Coastal Watershed County population. This is higher than the combined share of the total U.S. population at 28 percent.

Hispanic Origin

Figure 20 | Percent Population of Coastal Watershed Counties and Inland Counties by Hispanic or Latino Origin in 2010

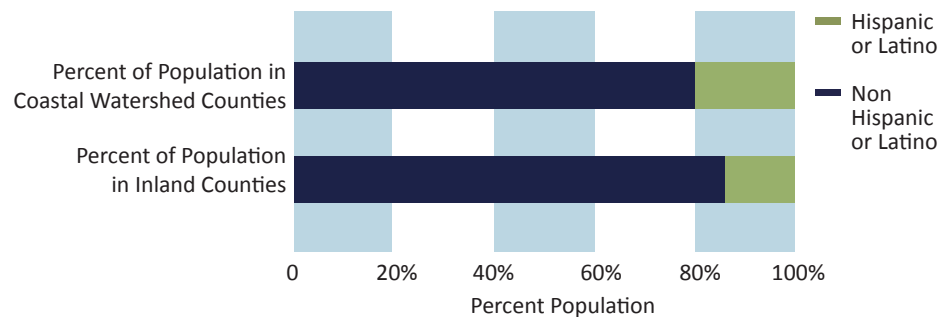


Table 7 | Share of the U.S. Population by Hispanic or Latino Origin in Coastal Watershed Counties in 2010

Ethnicity Category	Percent U.S. Population
Total Population	52%
Hispanic or Latino	62%
Non Hispanic or Latino	50%

Note: U.S. Territories not included. Source: U.S. Census Bureau, 2011b; NOAA, 2012



Shrimp boats in the Gulf of Mexico. Credit: Texas Parks and Wildlife Department

Coastal Watershed Counties

37%

Percent of the population in Coastal Watershed Counties that hold a higher education degree in 2010 (for those 25 years and over). (U.S. average 35%)

13%

Percent of the population in Coastal Watershed Counties living below the poverty line in 2010. (U.S. average 13%)

60%

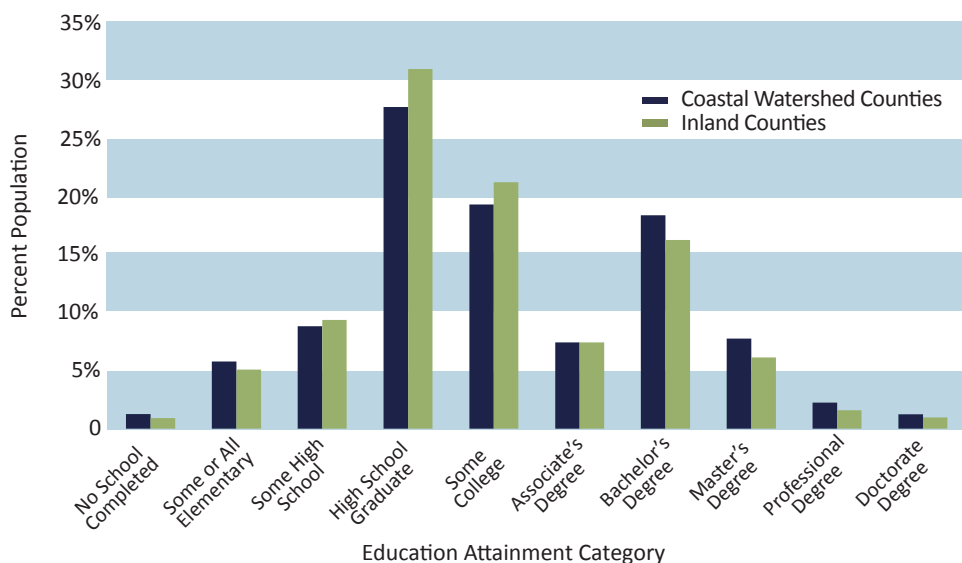
Share of the U.S. households making over \$100,000 that are in Coastal Watershed Counties. (Share of total U.S. Households 52%)



Martha's Vineyard, MA. Credit: K. Crossett

Education Attainment

Figure 21 | Percent Population of Coastal Watershed Counties and Inland Counties by Education Attainment for Those 25 Years and Over in 2010



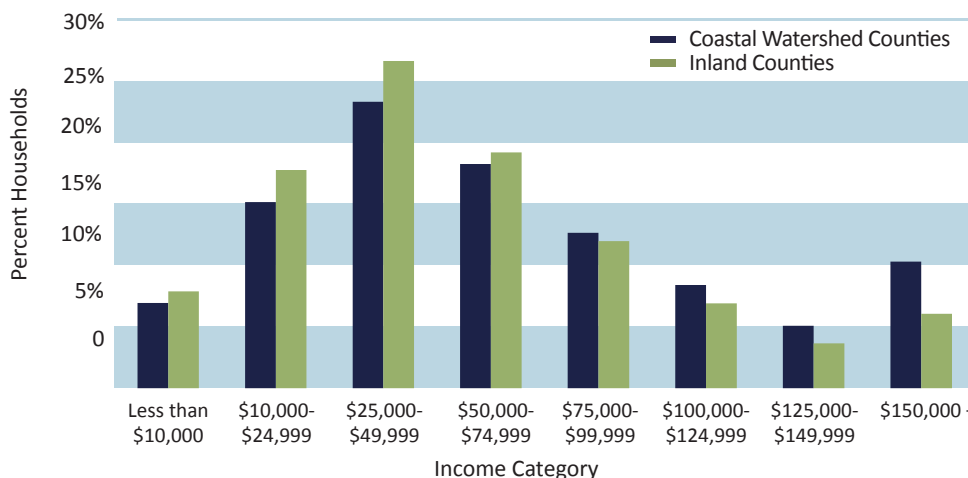
Note: Puerto Rico included. Remaining U.S. Territories excluded. Source: U.S. Census Bureau, 2012a; NOAA, 2012

Table 8 | Share of the U.S. Population by Education Attainment for Those 25 Years and Over in Coastal Watershed Counties in 2010

Education Attainment Category	Percent U.S. Population
Total Population	52%
No School Completed	61%
Some or All Elementary	56%
Some High School	52%
High School Graduate	50%
Some College	51%
Associate's Degree	53%
Bachelor's Degree	56%
Master's Degree	59%
Professional School Degree	61%
Doctorate Degree	59%

Household Income

Figure 22 | Percent Households of Coastal Watershed Counties and Inland Counties by Income in 2010



Note: U.S. Territories not included. Source: U.S. Census Bureau, 2011b; NOAA, 2012

Table 9 | Share of the U.S. Households by Household Income in Coastal Watershed Counties in 2010

Income Category	Percent U.S. Households
Total Households	52%
Less than \$10,000	48%
\$10,000 to \$24,999	47%
\$25,000 to \$49,999	48%
\$50,000 to \$74,999	50%
\$75,000 to \$99,999	53%
\$100,000 to \$124,999	56%
\$125,000 to \$149,999	59%
\$150,000 +	64%

Coastal Watershed Counties

65.2 million

Number of housing units in Coastal Watershed Counties in 2010, 51% of the U.S. total.

16%

Percent increase in seasonal housing units in Coastal Watershed Counties from 2000 to 2010. Total housing units in Coastal Watershed Counties increased 9%.

55%

Share of all U.S. seasonal homes located in Coastal Watershed Counties in 2010.

1876

Number of building permits issued per day in Coastal Watershed Counties from 2000 through 2010.



Mystic Seaport, CT. Credit: J. O'Grady

Seasonal Housing

Figure 23 | Leading States in Number of Seasonal Housing Units in Coastal Watershed Counties in 2010

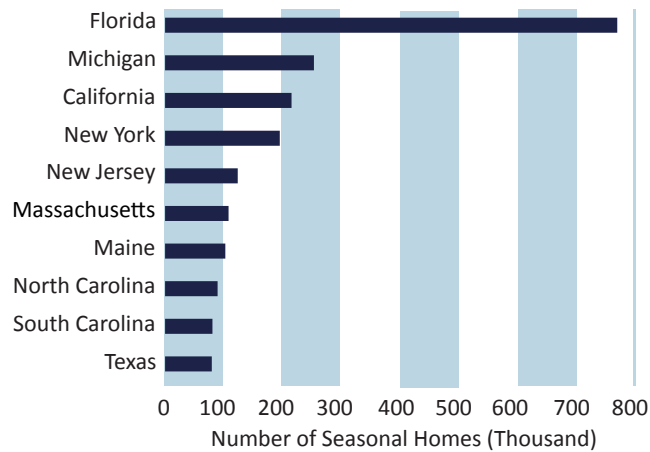
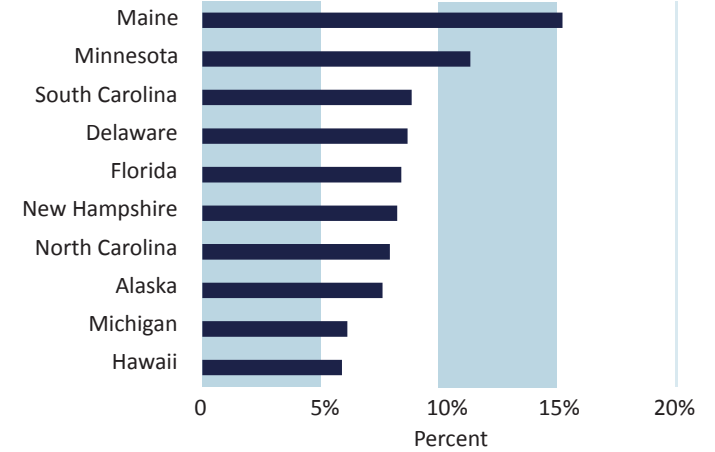


Figure 24 | Leading States in Percent of Housing Units that are Seasonal in Coastal Watershed Counties in 2010



Note: U.S. Territories not included. Source: U.S. Census Bureau, 2011a; NOAA, 2012

Building Permits

Figure 25 | Building Permits Issued for Single-Family Units in Coastal Watershed Counties from 2000 to 2010

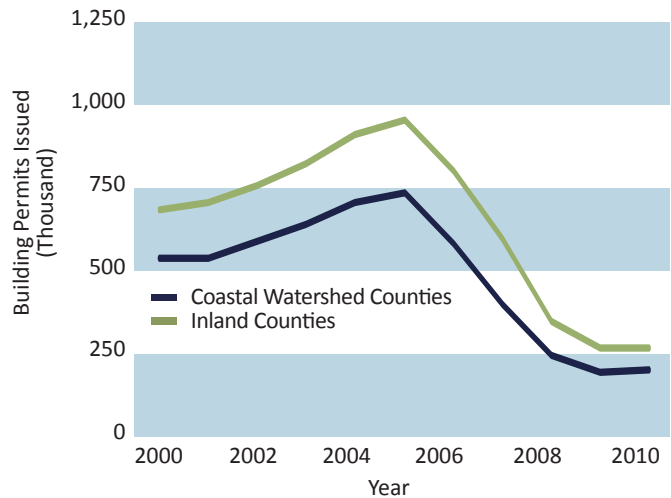
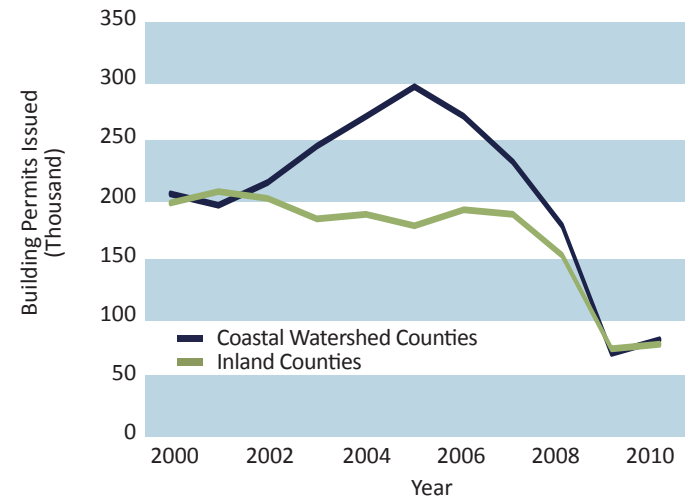


Figure 26 | Building Permits Issued for Multi-Unit Buildings in Coastal Watershed Counties from 2000 to 2010



Note: U.S. Territories not included. Source: U.S. Census Bureau, 2011c; NOAA, 2012

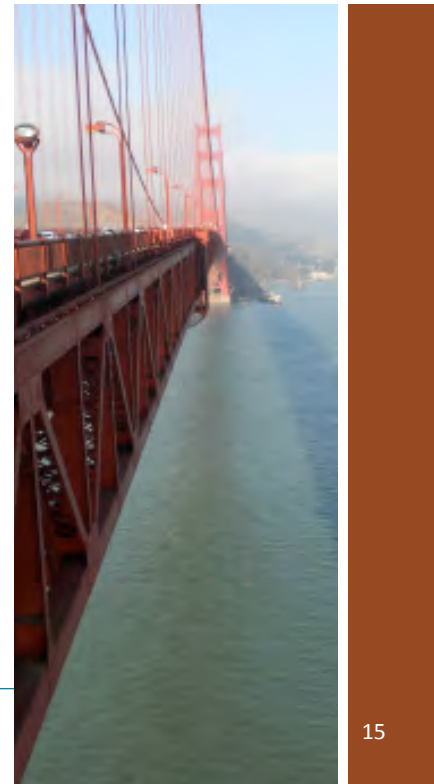
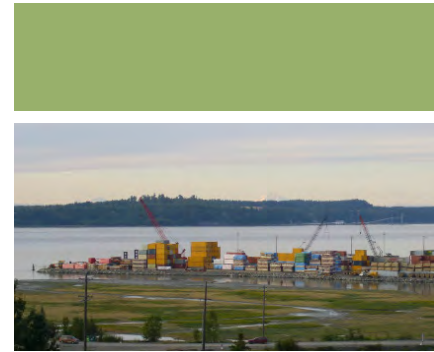
Coastal Watershed Counties

Coastal States Summary

Table 10 | Demographic Summary of Aggregated Coastal Watershed Counties by State

U.S. State or Territory	2010 Population	Rank	2010 Population Density (pers/mi ²)	Rank	1970-2010 Percent Historic Population Change	2010-2020 Percent Projected Population Change	1970-2010 Percent Increase in 65 and Older Population	2010 Percent Population Living in Poverty
Alabama	764,613	27	88	27	44	9	131	18
Alaska	598,207	30	2	31	147	13	702	10
California	32,258,738	1	415	11	79	11	127	13
Connecticut	3,574,097	14	738	7	18	6	75	9
Delaware	897,934	26	461	10	64	10	196	11
District of Columbia	601,723	29	9,864	1	-20	1	-3	18
Florida	18,427,589	2	362	14	178	17	228	13
Georgia	1,043,009	25	77	28	72	9	138	18
Hawaii	1,360,301	21	212	18	77	16	340	9
Illinois	5,898,137	9	4,246	2	0	2	28	14
Indiana	1,432,512	20	352	15	16	6	87	14
Louisiana	3,573,854	15	137	22	27	8	95	17
Maine	1,238,956	22	61	29	40	8	85	12
Maryland	5,287,553	11	703	8	46	11	138	8
Massachusetts	6,318,177	8	961	5	15	5	41	10
Michigan	8,797,000	4	173	20	12	3	78	14
Minnesota	251,654	31	24	30	-5	4	33	14
Mississippi	628,502	28	93	26	59	8	154	17
New Hampshire	1,073,438	23	255	16	90	10	138	7
New Jersey	8,683,202	5	1,241	3	22	4	70	9
New York	17,586,787	3	604	9	6	4	31	14
North Carolina	2,254,172	17	114	24	59	8	198	18
Ohio	4,326,145	13	411	12	-4	1	55	14
Oregon	1,982,081	18	94	25	56	8	101	14
Pennsylvania	6,388,180	7	834	6	14	4	54	12
Rhode Island	1,052,567	24	1,018	4	11	5	46	12
South Carolina	1,932,243	19	127	23	83	17	290	17
Texas	8,287,623	6	207	19	130	19	202	19
Virginia	5,425,647	10	392	13	83	18	198	8
Washington	5,229,486	12	212	17	103	17	170	10
Wisconsin	2,569,028	16	167	21	14	5	42	12
American Samoa	55,519		445		103	8		
Guam	159,358		752		86	11		
CNMI	53,883		305		449	9		
Puerto Rico	3,725,789		1,088		37	2		
U.S. Virgin Islands	106,405		580		68	1		

Source: U.S. Census Bureau, 2011a; NOAA, 2012



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Appendix A: Coastal Shoreline Counties

The Federal Emergency Management Agency (FEMA) has derived 452 Coastal Shoreline Counties. FEMA's 100-year flood plain, or Special Flood Hazard Area (SFHA), delineates where the National Flood Insurance Program's floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. The Coastal Shoreline Counties are counties that have a coastline bordering the open ocean, or contain FEMA identified coastal high hazard areas in the SFHA (Crowell et al., 2010).

American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, the U.S. Virgin Islands, and Puerto Rico are included in this suite (Ache et al., 2012).

For more detailed information about Coastal Shoreline Counties visit: http://coastalsocioeconomics.noaa.gov/coast_defined.html.

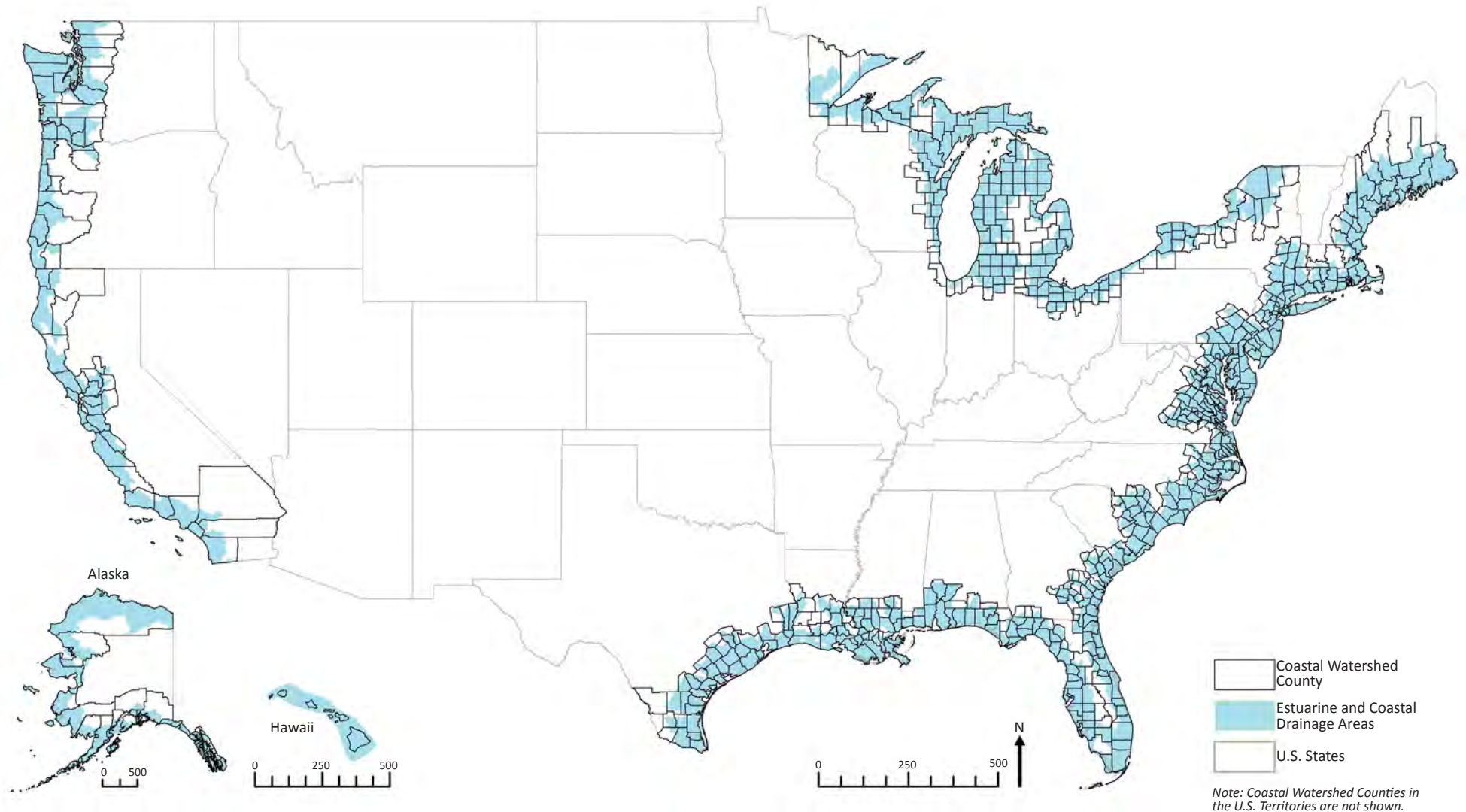


Appendix B: Coastal Watershed Counties

NOAA has derived 769 Coastal Watershed Counties. A county is considered a Coastal Watershed County if one of the following criteria is met: (1) at a minimum, 15 percent of the county's total land area is located within a coastal watershed; or (2) a portion of a county, or an entire county, accounts for at least 15 percent of a coastal USGS 8-digit cataloging unit. This "15-percent rule" intends to identify counties that have a substantial watershed-based

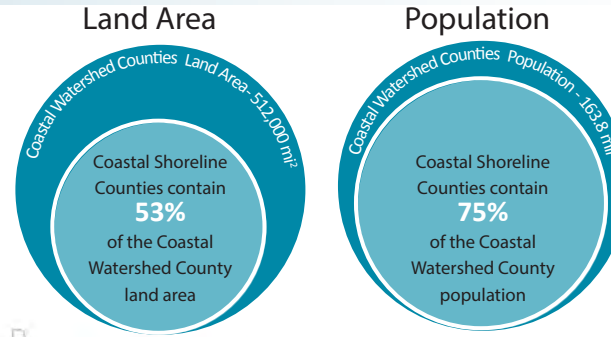
impact on coastal and ocean resources. In addition, the five U.S. Territories – American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, the U.S. Virgin Islands, and Puerto Rico, are included in their entirety (Ache et al., 2012).

For more detailed information about the Coastal Watershed Counties visit: http://coastalsocioeconomics.noaa.gov/coast_defined.html.



Appendix C: Comparing Coastal Shoreline and Coastal Watershed Counties

Coastal Shoreline Counties are contained entirely within the inland extent of Coastal Watershed Counties, making up 53 percent of the total land area of Coastal Watershed Counties. However, Coastal Shoreline Counties exhibit a much higher population density than Coastal Watershed Counties, as they contain 75 percent of the total population in this area.



Average Density

Coastal Watershed Counties
319 pers/mi²

Coastal Shoreline Counties
446 pers/mi²

Note: Land area and density numbers exclude Alaska. Population values include Alaska.





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