

Joint Omnibus Alternative Gear-Marking Framework Adjustment

Appendix IV: Affected Community Profiles

Draft Document

September 12, 2025

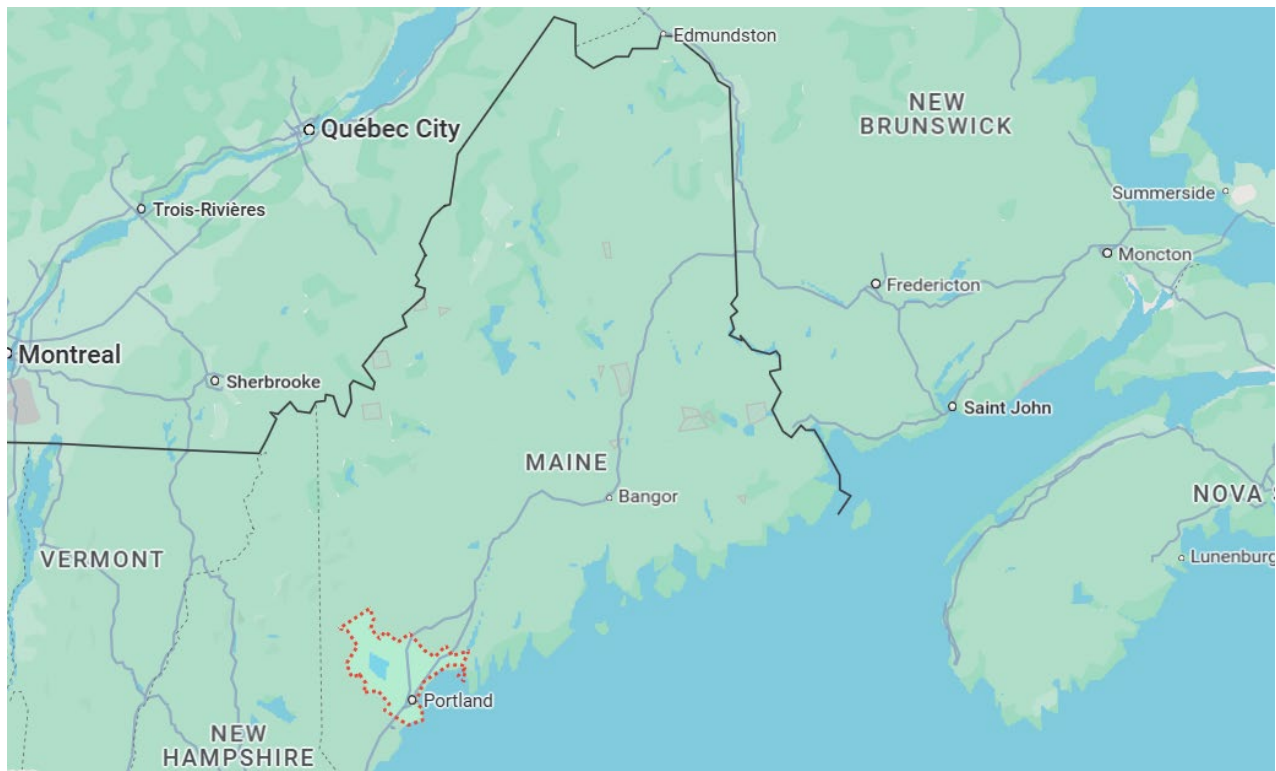
Community Profiles

Project Overview

This document provides a series of community snapshots, offering a concise overview of the social, demographic, and economic characteristics of fishing communities. The foundation for this work is the *Community Profiles for Northeast U.S. Marine Fisheries*, originally published by the NOAA Fisheries Northeast Fisheries Center's Social Science Branch (2010). This work applies that framework using key metrics to illustrate each community's unique attributes. The descriptive text for the Social Vulnerability Indicators is a modified version of documentation from the NOAA Fisheries Office of Science and Technology (2020). A complete list of data sources is provided in the References and Data Notes section.

Cumberland County, ME

Cumberland County has a population of 305,940¹ and a population per square mile of 366². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

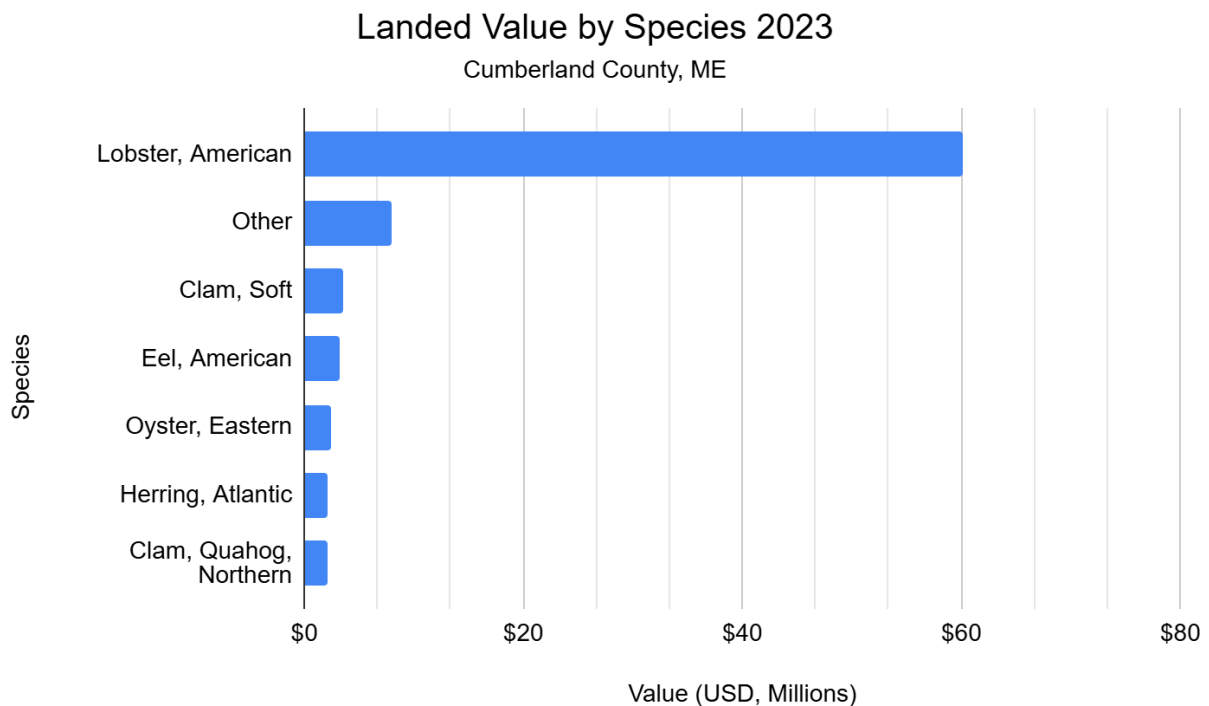
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Cumberland County?

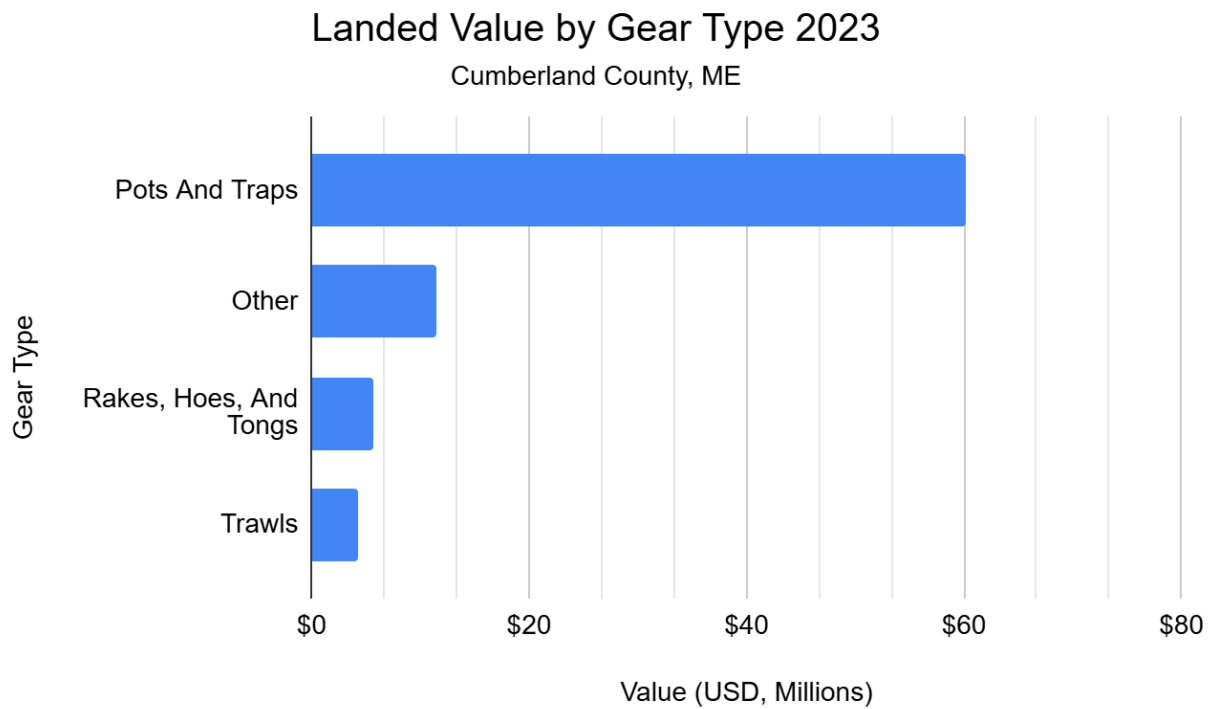
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community's ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Cumberland County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

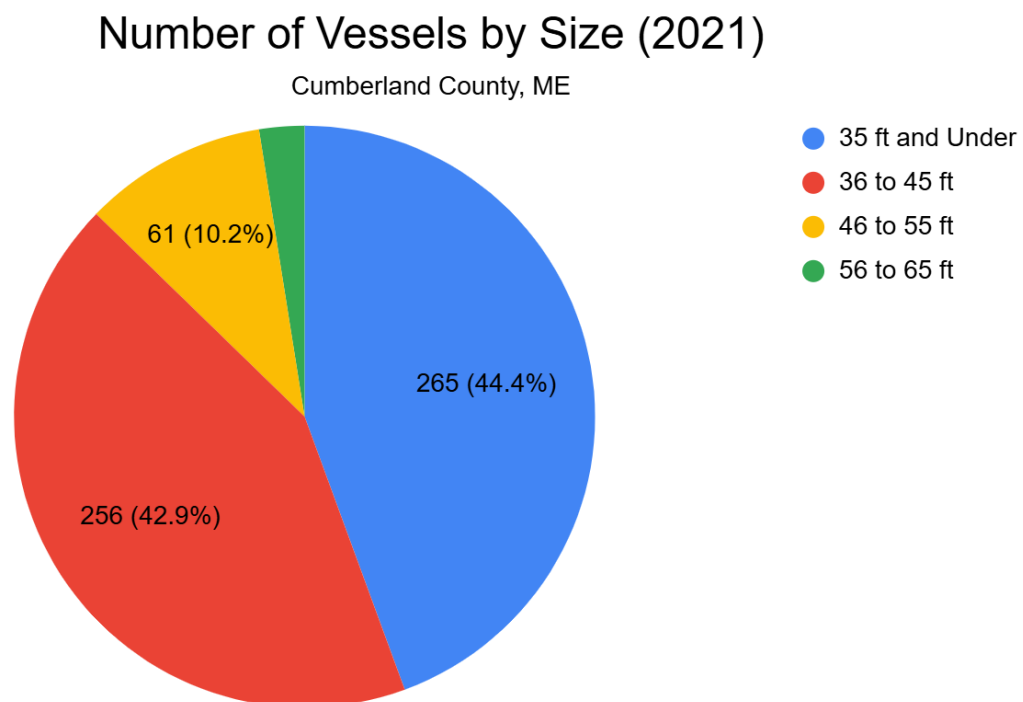


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Cumberland County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

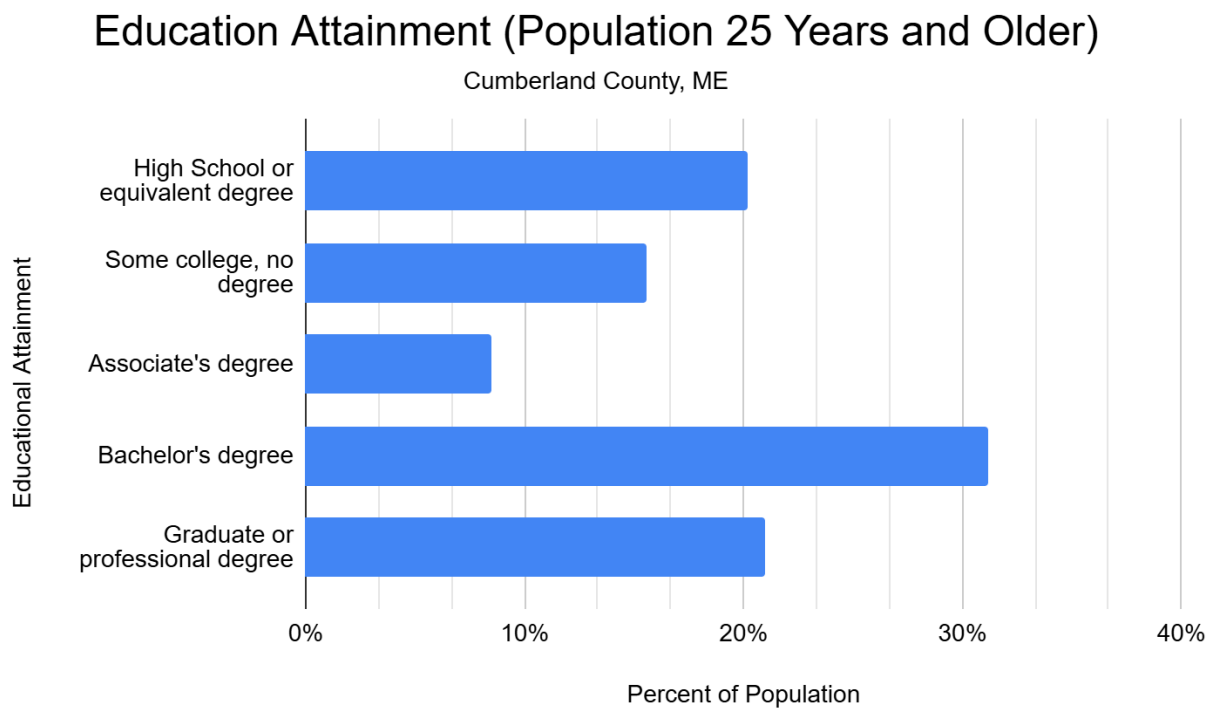


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

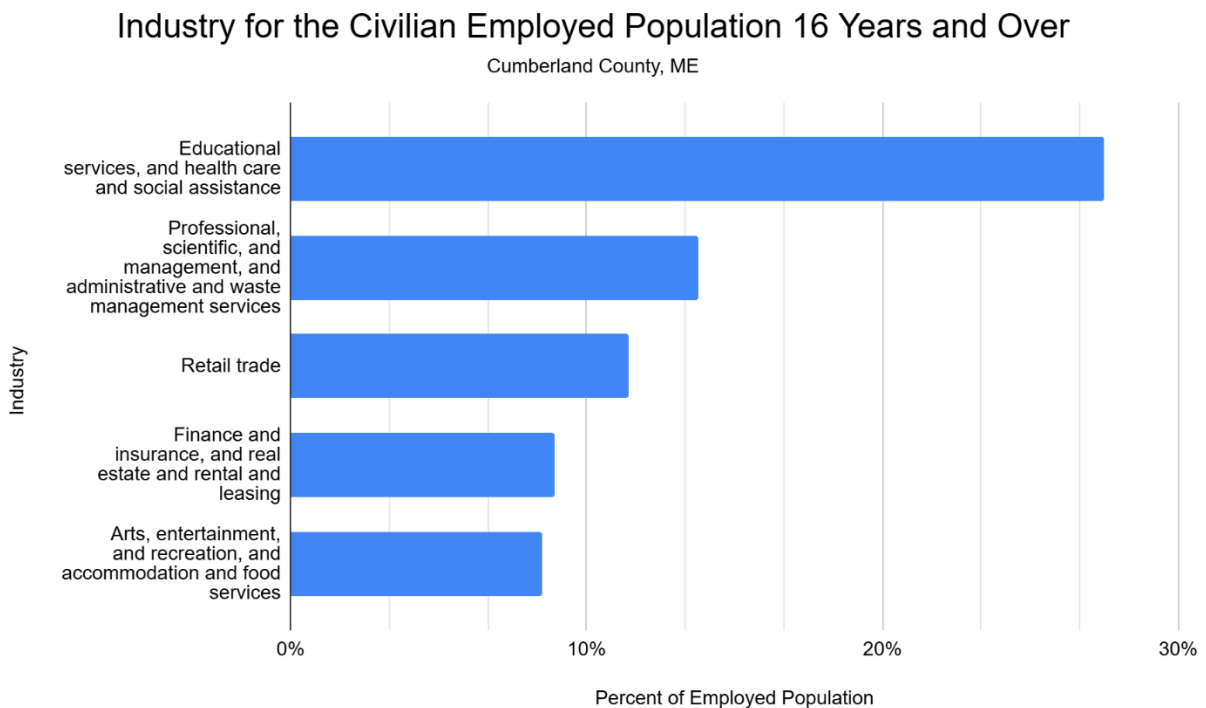
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Cumberland County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 3.2%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$92,983³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 7.1%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

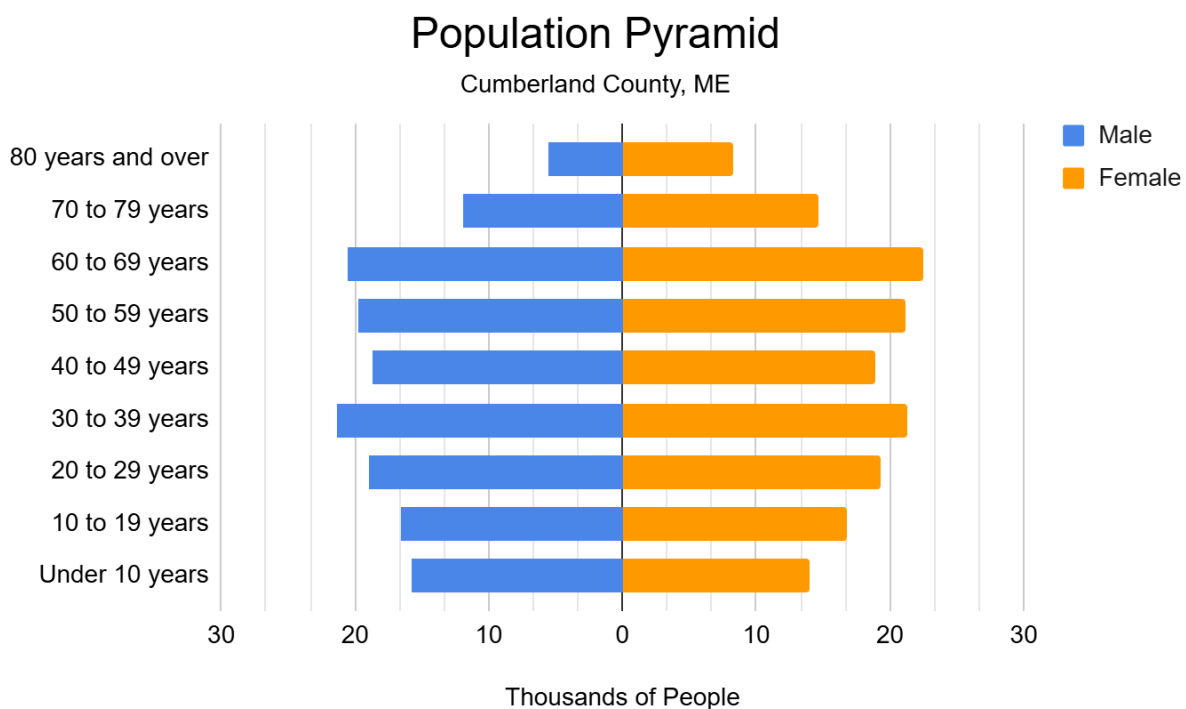
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 42.1⁵

National median: 38.7⁵

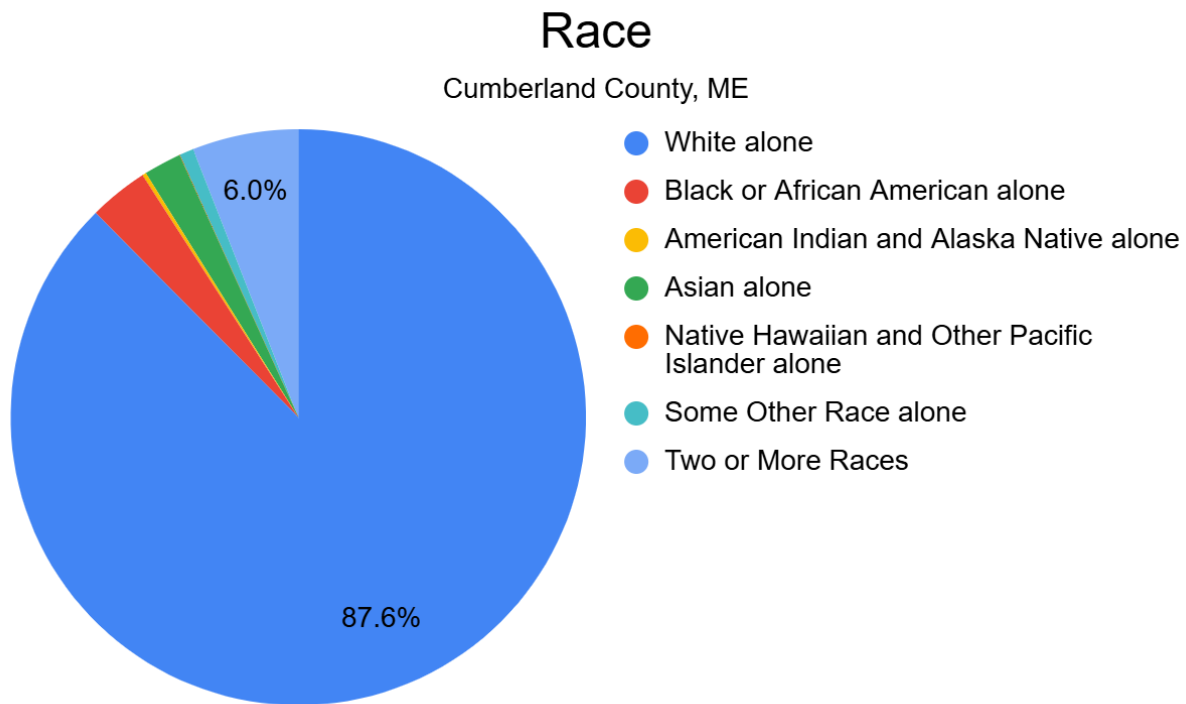


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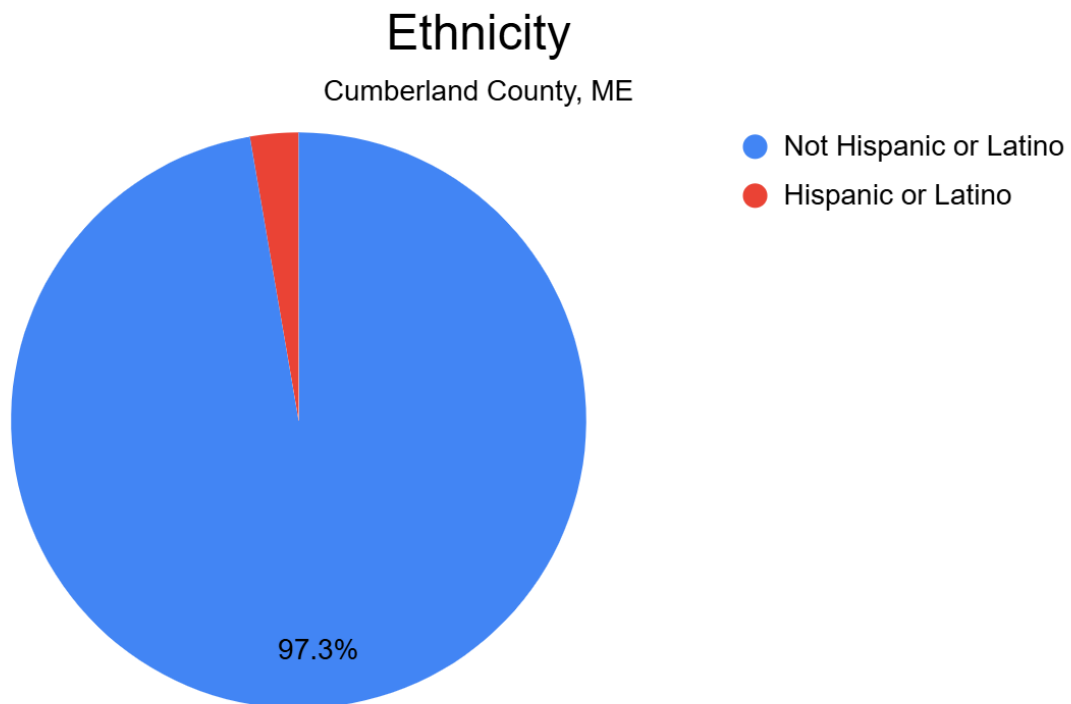
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



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Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 6.5%⁶

National Average: 13.9%⁶

Speak English less than very well: 2.4%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Cumberland County

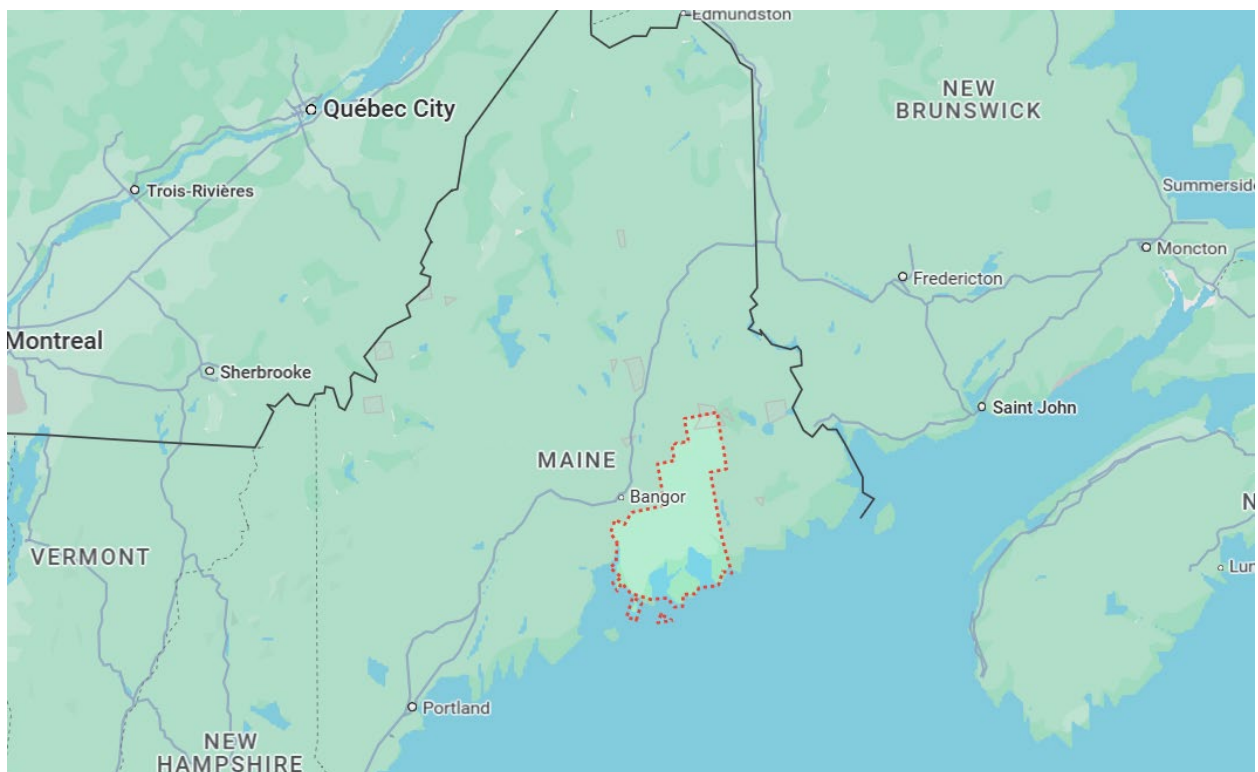
Community Name	Portland	Harpwell / Bailey Island	Falmouth	Brunswick	Freeport
Commercial Engagement	3.739	3.204	0.011	0.128	0.158
Commercial Reliance	-0.034	0.195	-0.049	-0.046	0.007
Poverty	0.148	-0.493	-0.733	-0.465	0.954
Population Composition	-0.3	-1.063	-0.721	-0.535	-0.669
Personal Disruption	-0.287	-0.578	-0.989	-0.375	-0.54
Housing Disruption	0.414	-0.193	-0.155	-0.743	-0.873
Retiree Migration	-0.885	0.683	-0.31	0.031	-1.403
Urban Sprawl	0.035	-0.399	0.07	-0.545	-0.512
Labor Force	-0.945	0.301	-0.375	-0.163	-1.168
Housing Characteristics	0.296	0.484	-0.742	0.835	0.462
Sea Level Rise Risk	-0.214	0.035	-0.281	0.143	-0.346
Storm Surge Risk	-0.361	-0.091	-0.583	-0.511	-0.661

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Hancock County, ME

Hancock County has a population of 56,084 ¹ and a population per square mile of 35². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

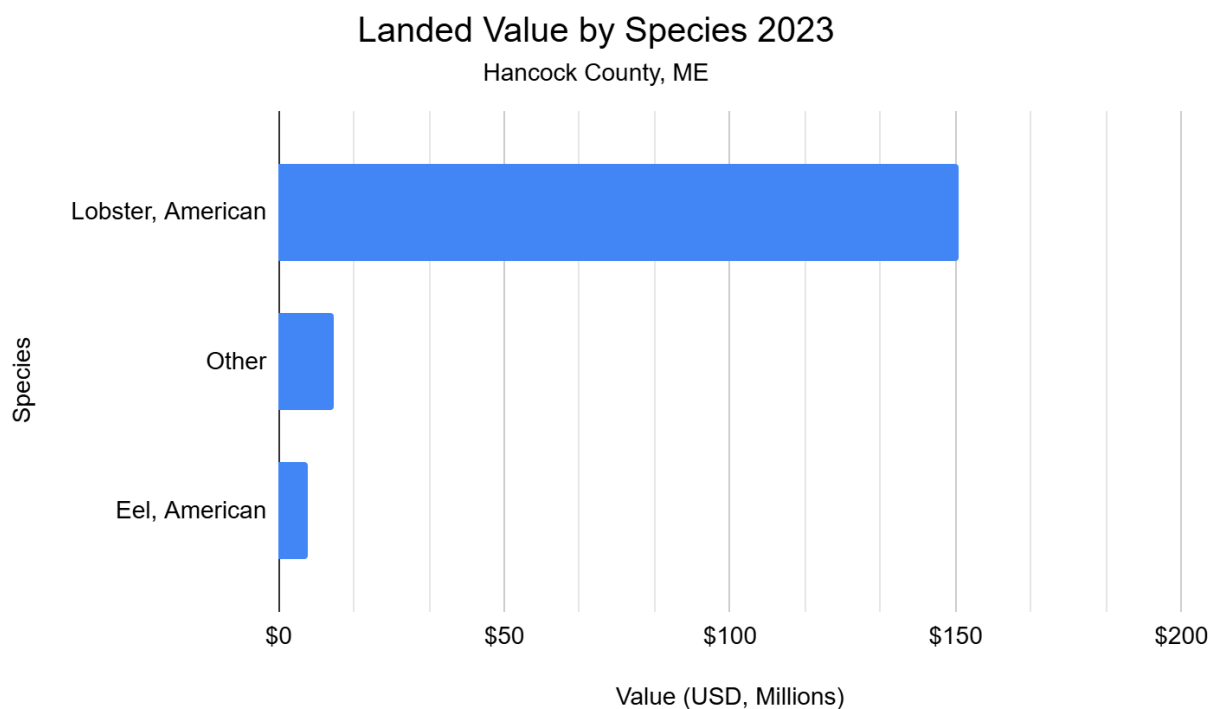
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² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Hancock County?

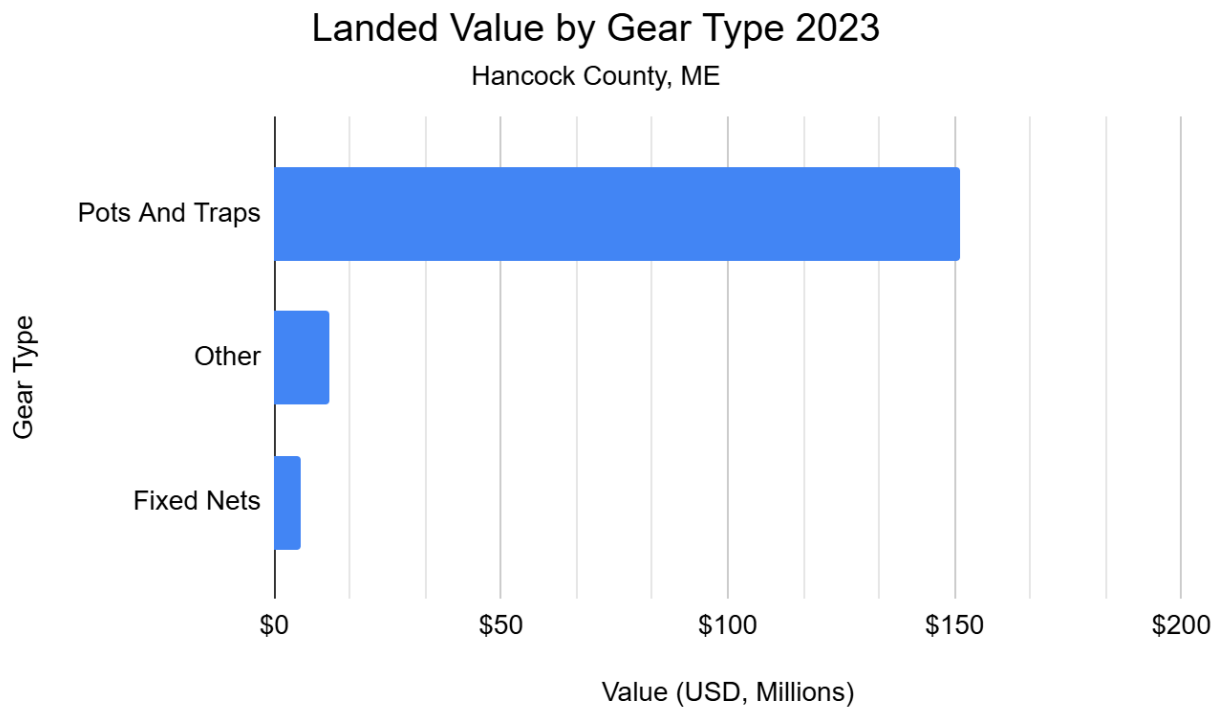
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community's ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Hancock County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

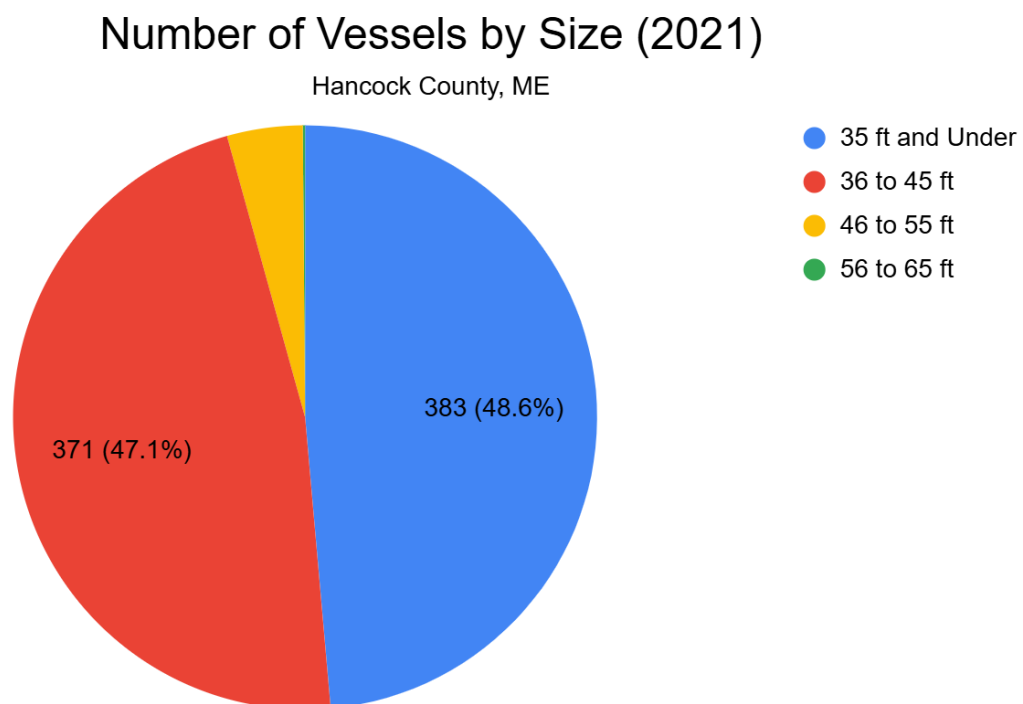


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What are the characteristics of the fishing vessels in Hancock County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

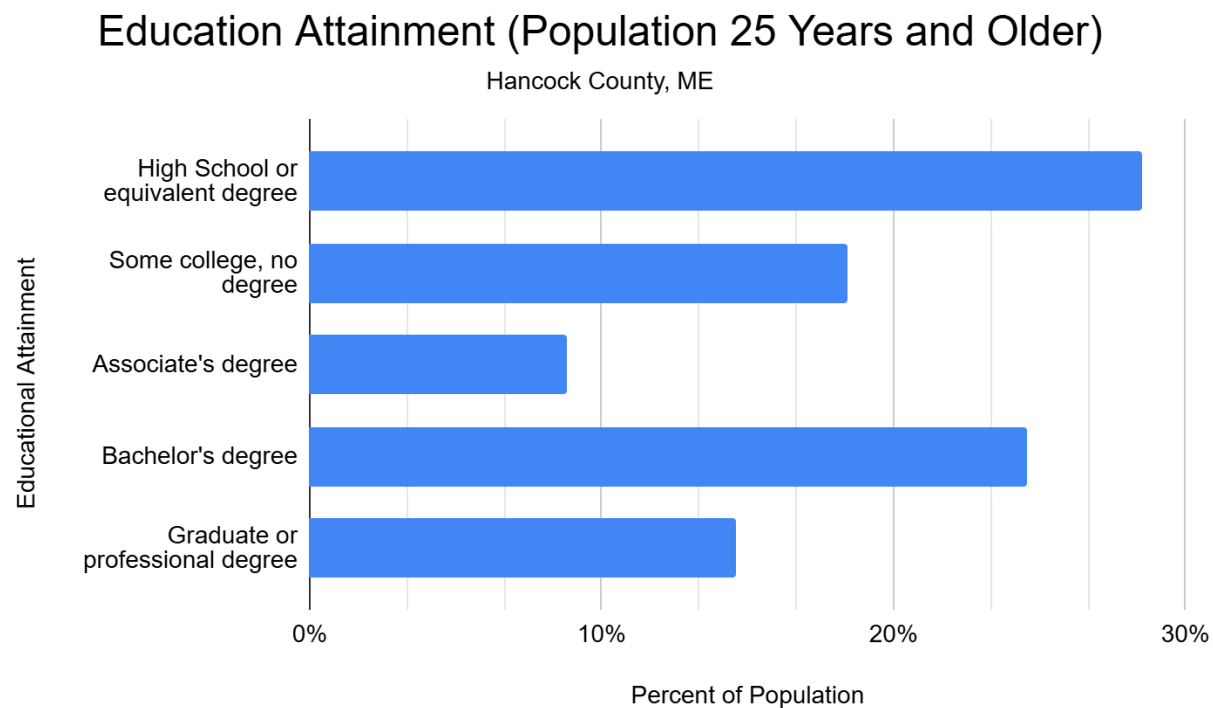


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Demographic Attributes

Educational Attainment

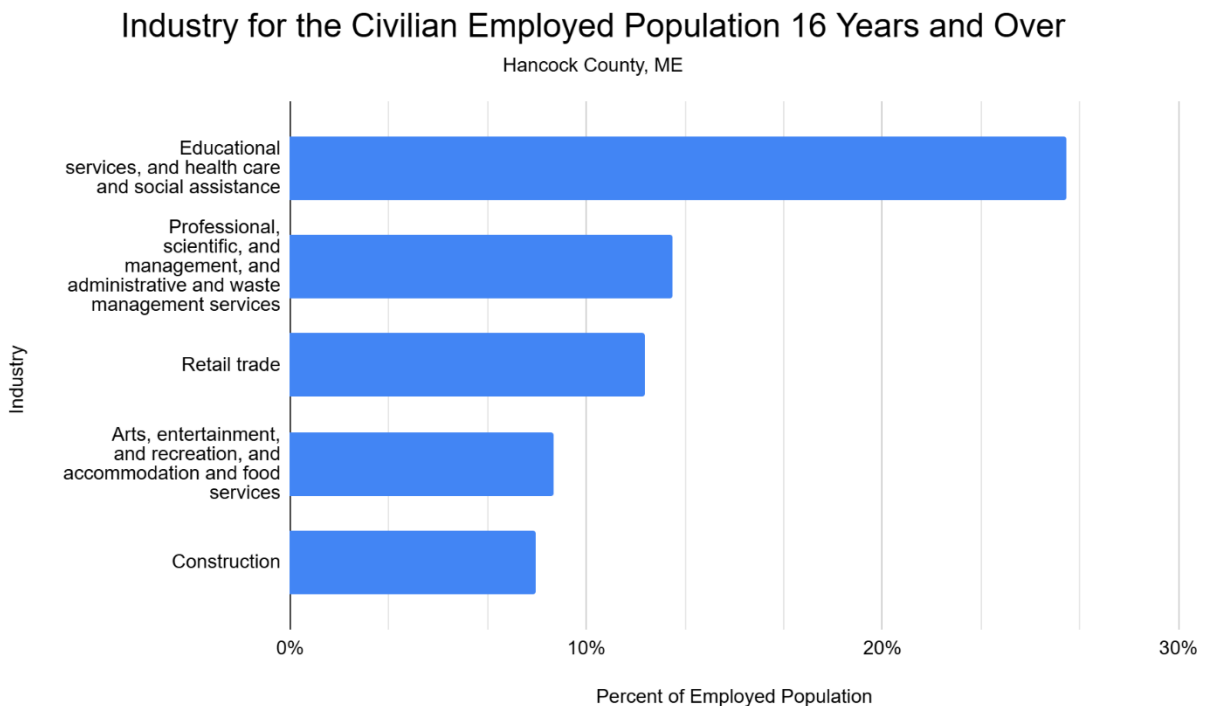
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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Hancock County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



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Unemployment Rate: 3.7%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$69,630³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 10.2%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

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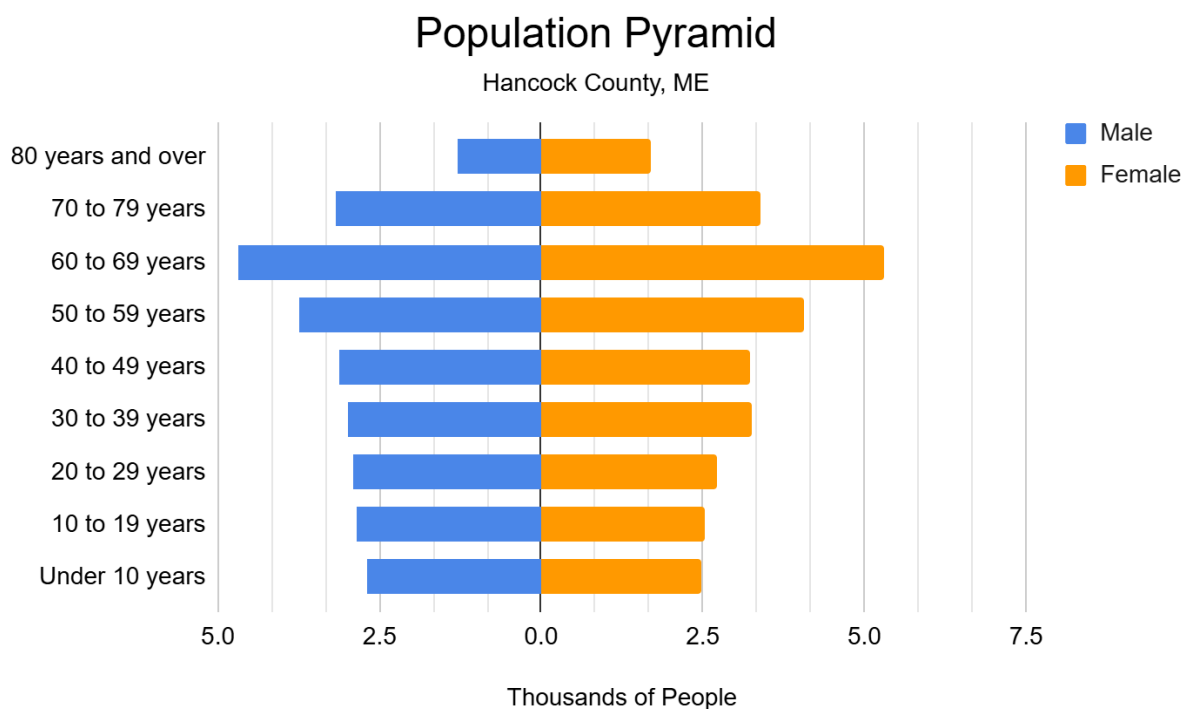
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Median age: 49.1⁵

National median: 38.7⁵

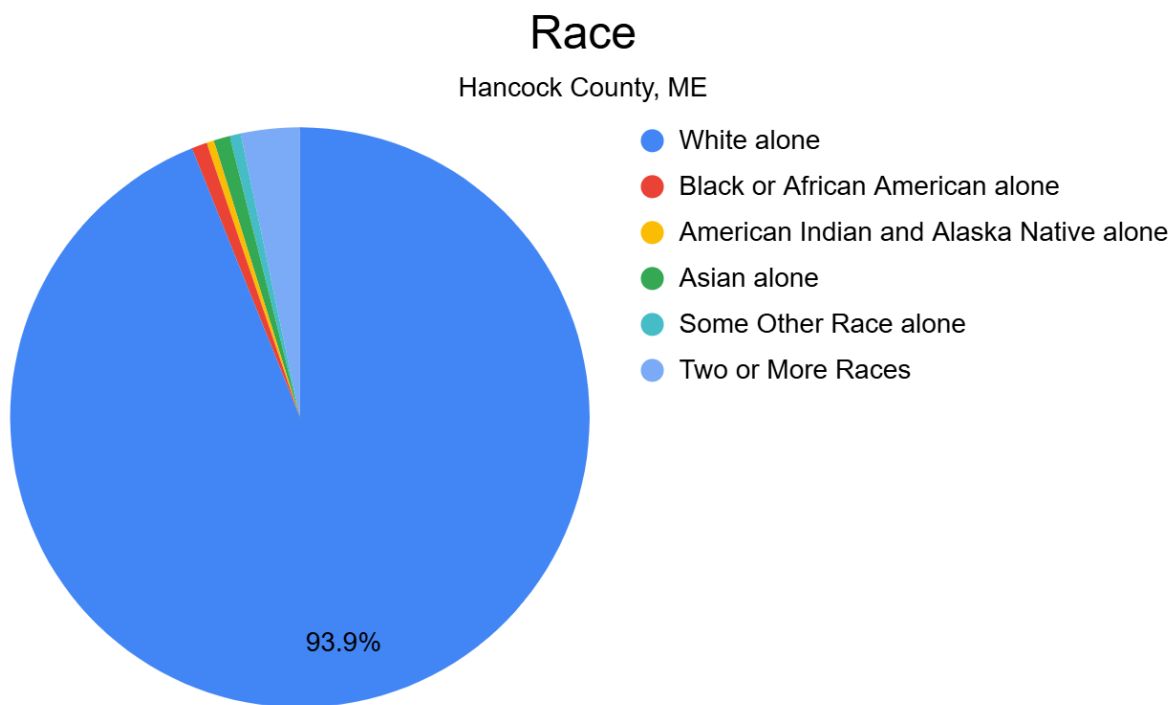


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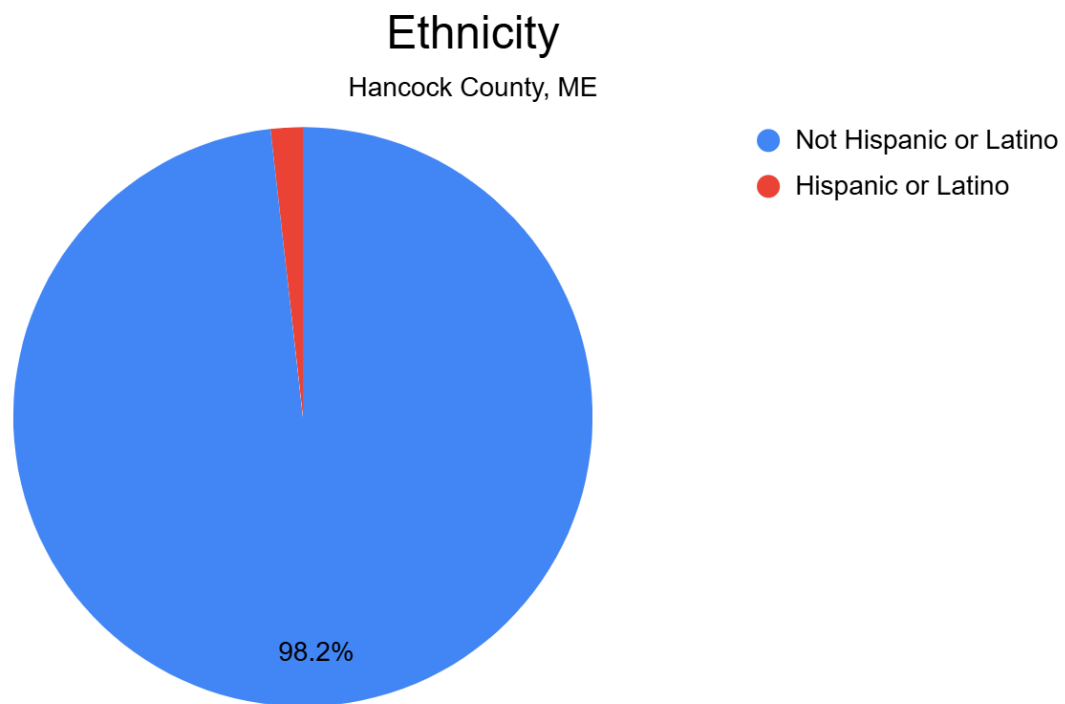
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Foreign Born: 3.0%⁶

National Average: 13.9%⁶

Speak English less than very well: 0.6%⁶

National Average: 8.4%⁶

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Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

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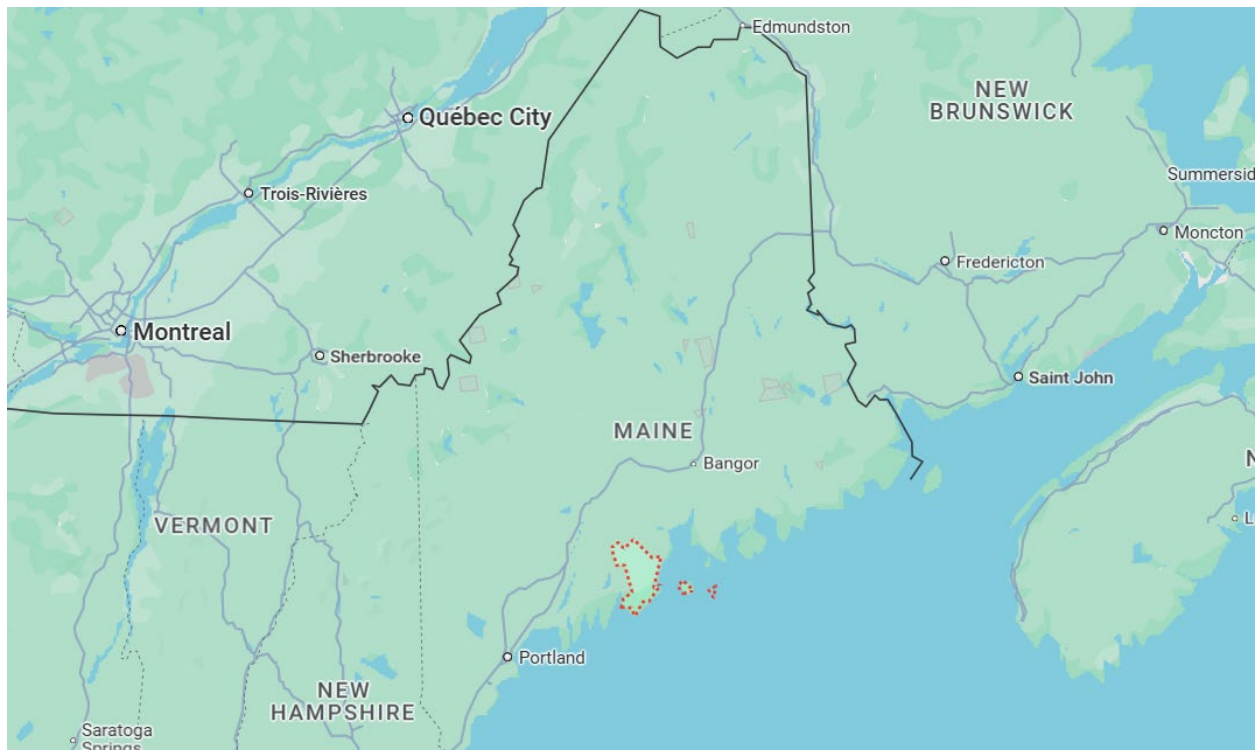
Community Name	Stonington	Southwest Harbor	Cranberry Isles	Gouldsboro / Corea / Prospect Harbor	Swans Island
Commercial Engagement	3.211	0.795	0.342	1.325	0.561
Commercial Reliance	1.531	0.237	1.952	0.374	0.465
Poverty	0.506	-0.487	-1.066	0.422	0.214
Population Composition	-0.678	-0.716	-1.143	-1.081	-0.961
Personal Disruption	0.352	-0.316	-1.16	-0.369	0.299
Housing Disruption	1.661	0.574	NA	-0.35	-0.869
Retiree Migration	-0.068	0.422	-0.405	1.055	-1.031
Urban Sprawl	-1.521	-1.655	-1.561	-2.018	-1.694
Labor Force	0.13	0.281	-1.099	1.018	-0.659
Housing Characteristics	0.838	0.801	NA	1.022	NA
Sea Level Rise Risk	-0.276	-0.249	-0.076	-0.255	-0.265
Storm Surge Risk	-0.511	-0.532	-0.2	-0.533	-0.541

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

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Knox County, ME

Knox County has a population of 40,860¹ and a population per square mile of 112². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



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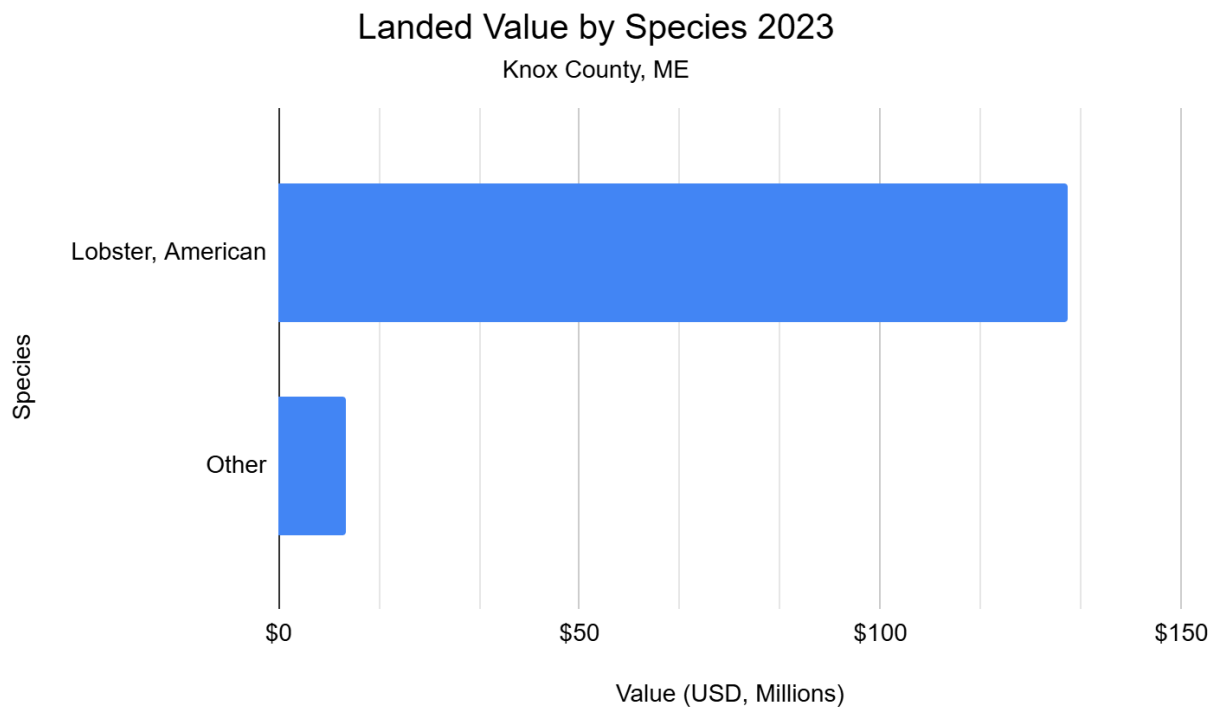
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Involvement in Fisheries

What species are landed in Knox County?

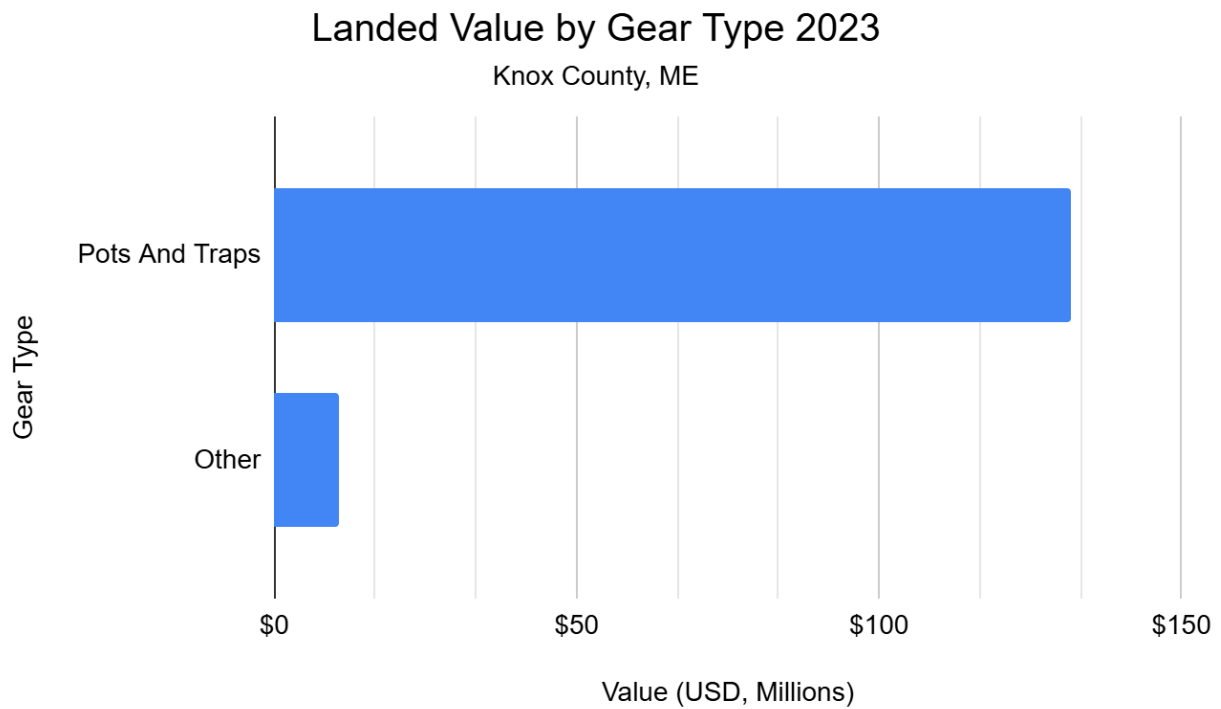
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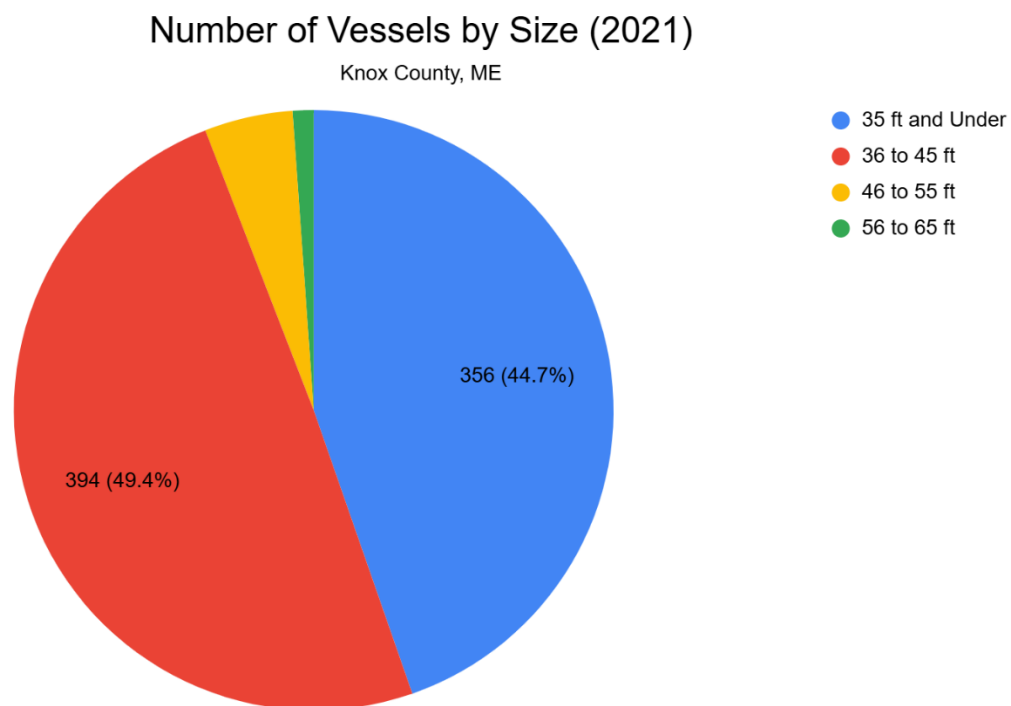


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What are the characteristics of the fishing vessels in Knox County?

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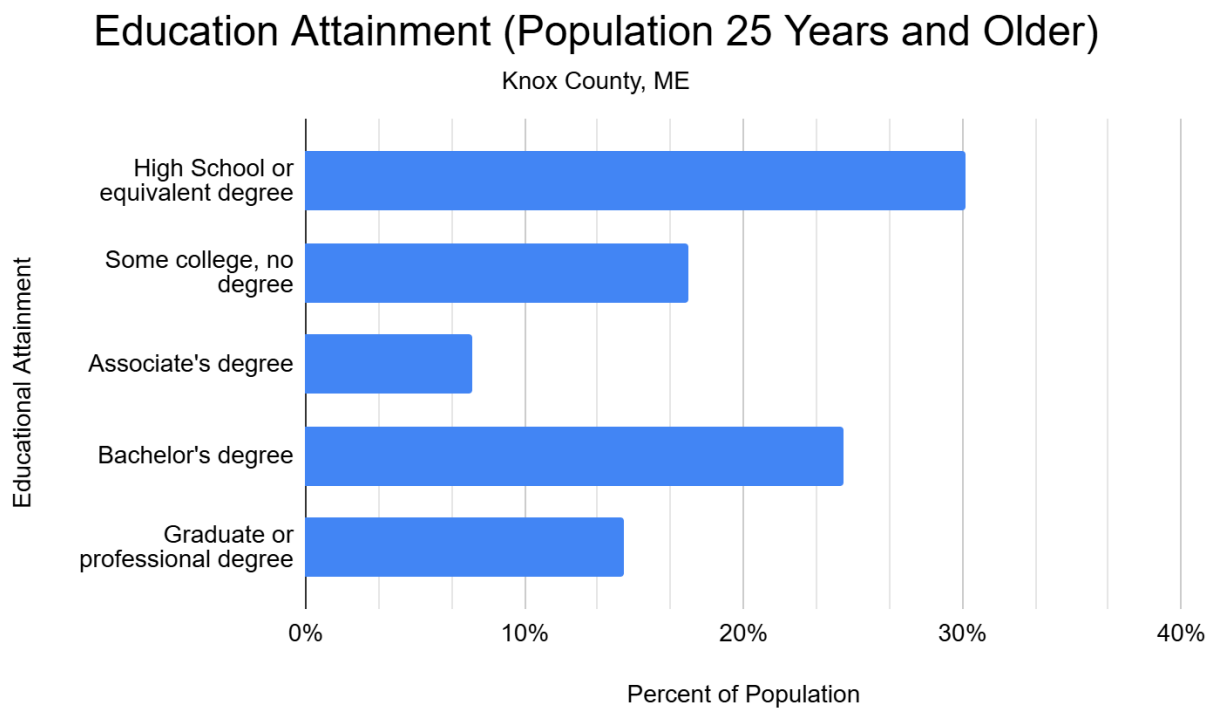


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Demographic Attributes

Educational Attainment

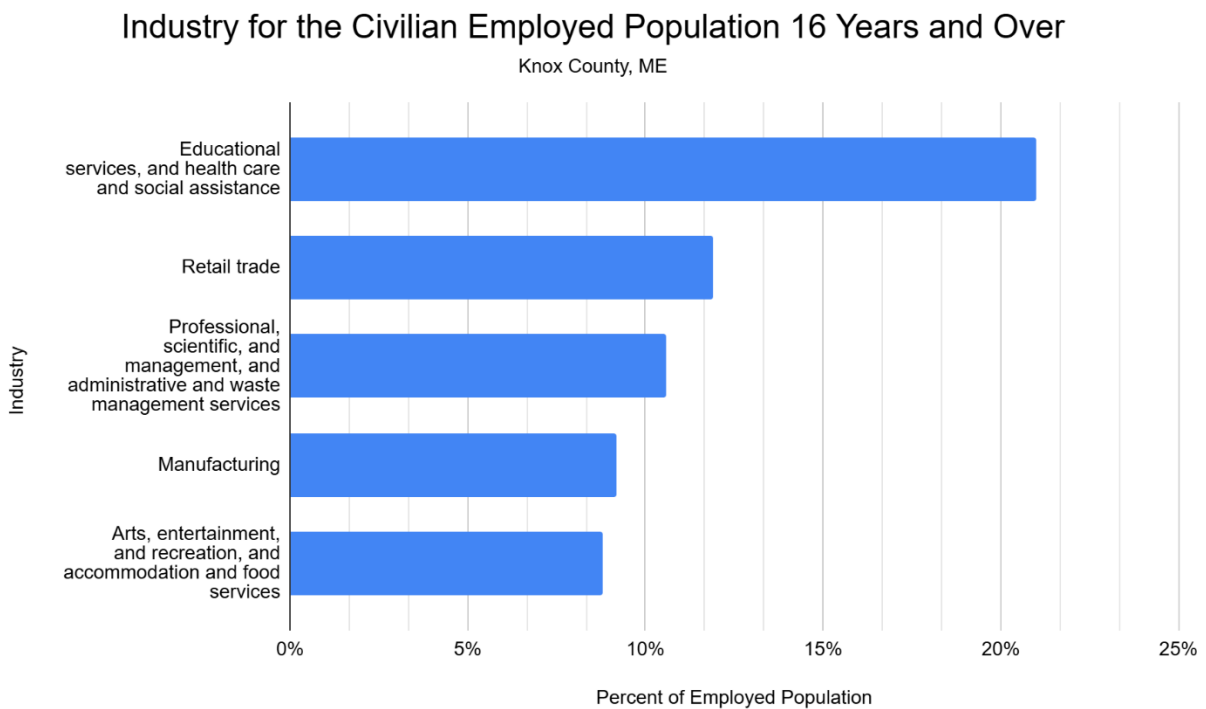
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How do people make a living in Knox County?

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Unemployment Rate: 3.9%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$71,903 ³

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Individuals Living in Poverty: 8.8%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

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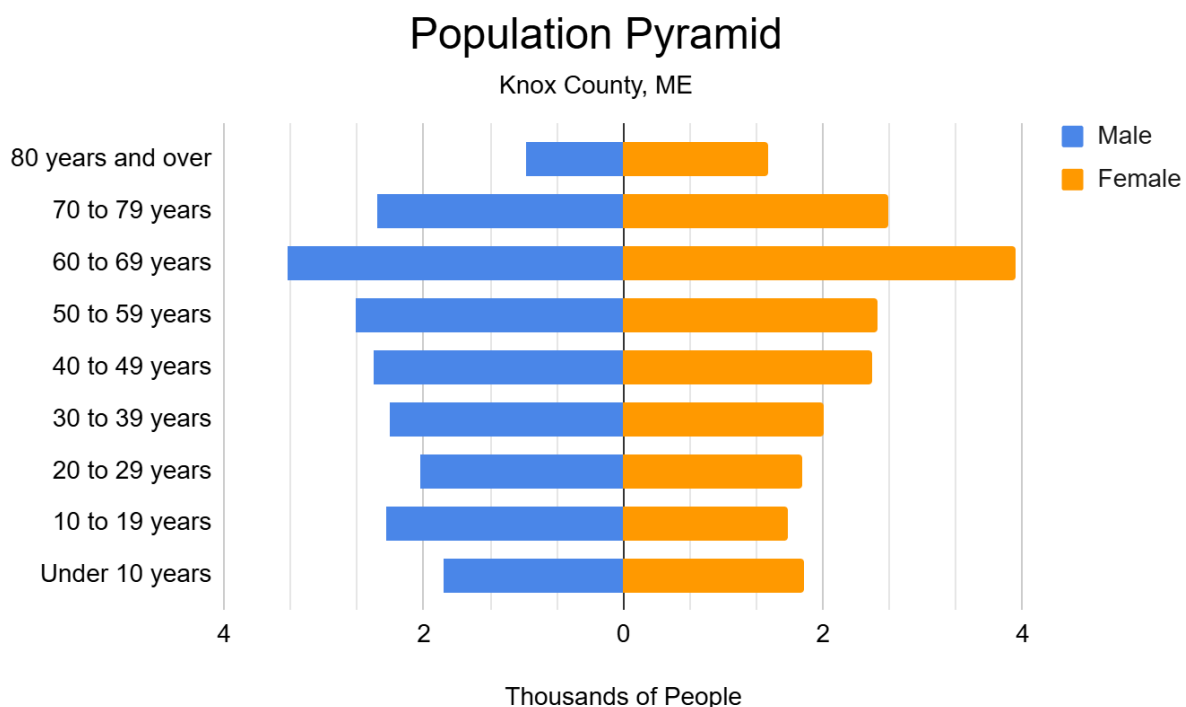
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Median age: 49.2 ⁵

National median: 38.7⁵

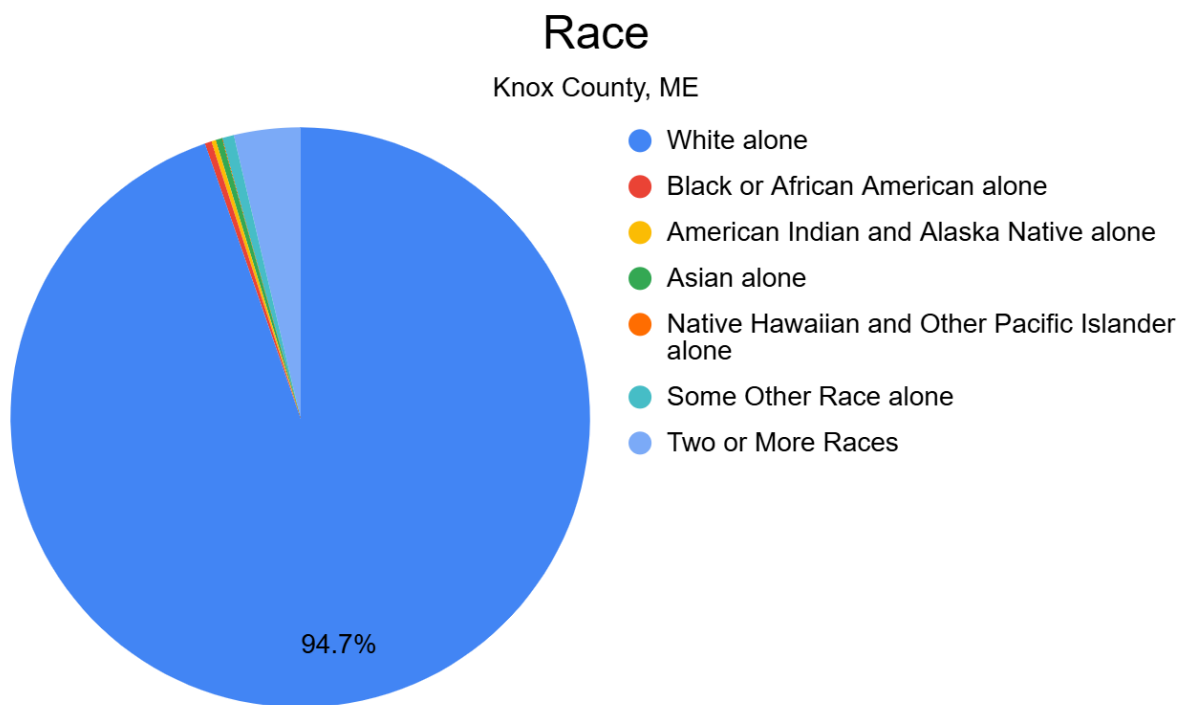


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

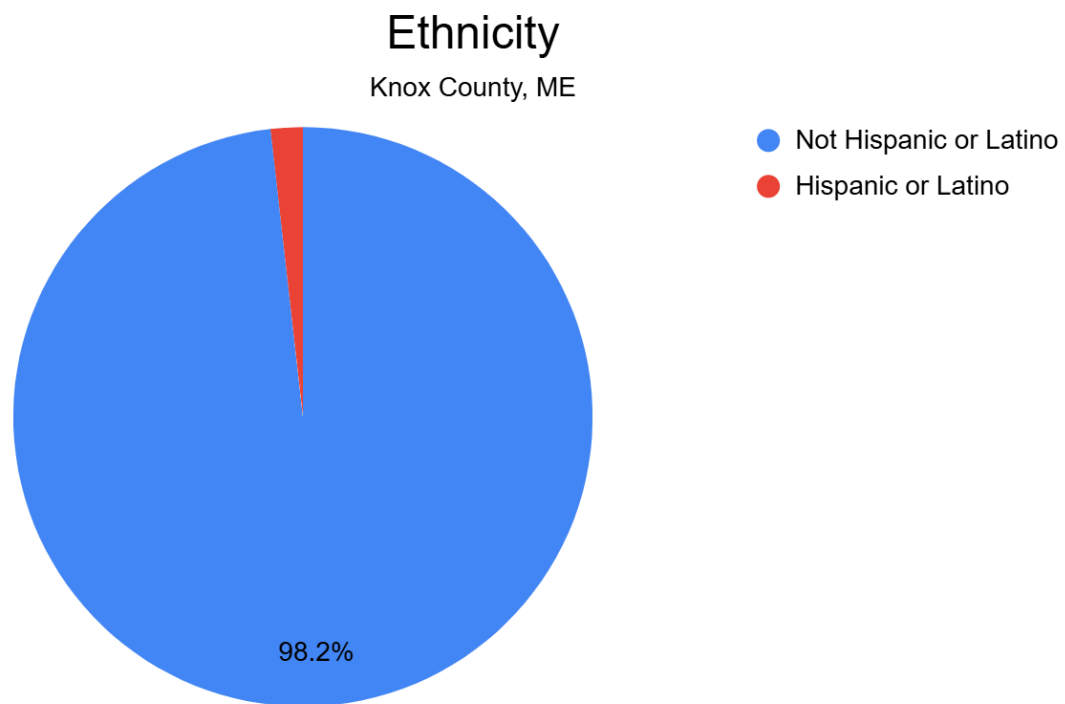
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



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Foreign Born: 3.0%⁶

National Average: 13.9%⁶

Speak English less than very well: 1.1%⁶

National Average: 8.4%⁶

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Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

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Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Knox County

Community Name	Vinalhaven	Friendship	Port Clyde / Tenants Harbor / Saint George / Spruce Head	Cushing	Owls Head
Commercial Engagement	2.193	1.691	2.858	0.539	0.918
Commercial Reliance	1.189	0.656	0.439	0.164	0.248
Poverty	-0.724	0.019	0.214	-0.724	-0.44
Population Composition	-1.194	-1.078	-1.298	-1.032	-1.104
Personal Disruption	-0.833	-0.316	0.341	-0.776	-0.705
Housing Disruption	1.653	0.02	-0.148	0.974	-0.214
Retiree Migration	0.751	0.765	1.126	0.259	0.044
Urban Sprawl	-1.257	-1.093	-1.128	-1.116	-1.196
Labor Force	0.619	0.499	1.034	0.053	0.2
Housing Characteristics	0.55	0.48	0.458	0.865	0.343
Sea Level Rise Risk	0.098	-0.228	-0.118	-0.268	-0.143
Storm Surge Risk	-0.386	-0.443	-0.325	-0.51	-0.536

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Lincoln County, ME

Lincoln County has a population of 35,840¹ and a population per square mile of 79². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

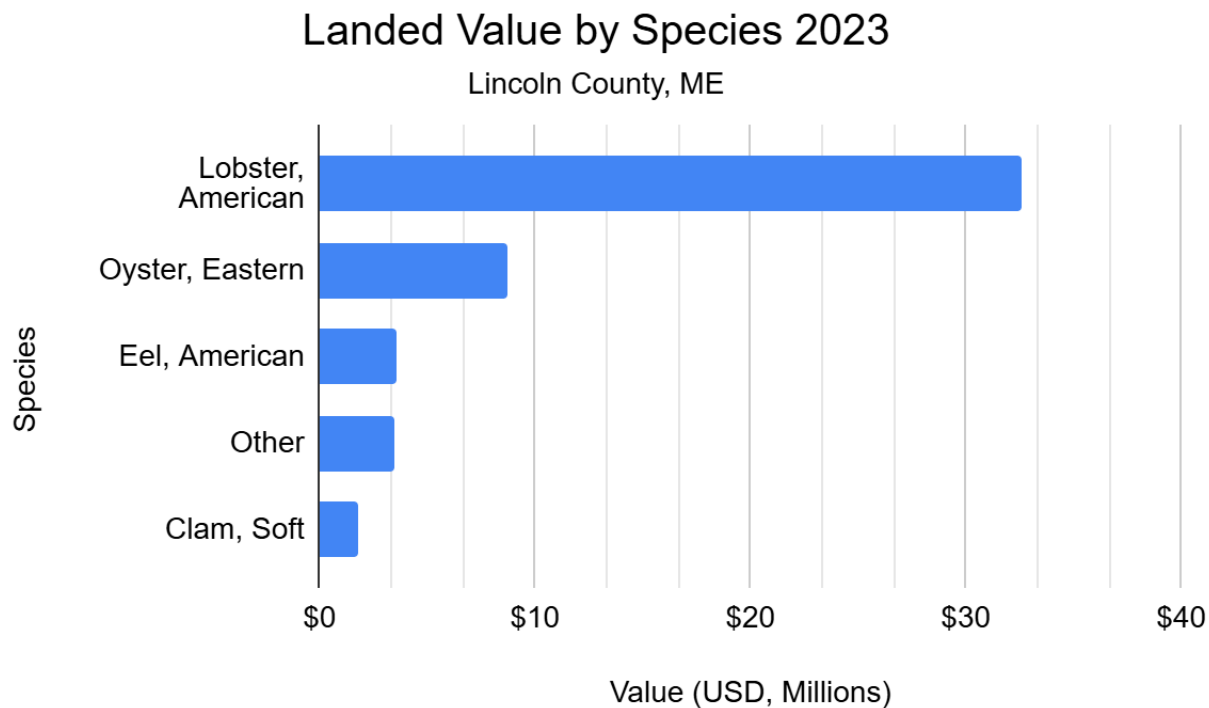
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Lincoln County?

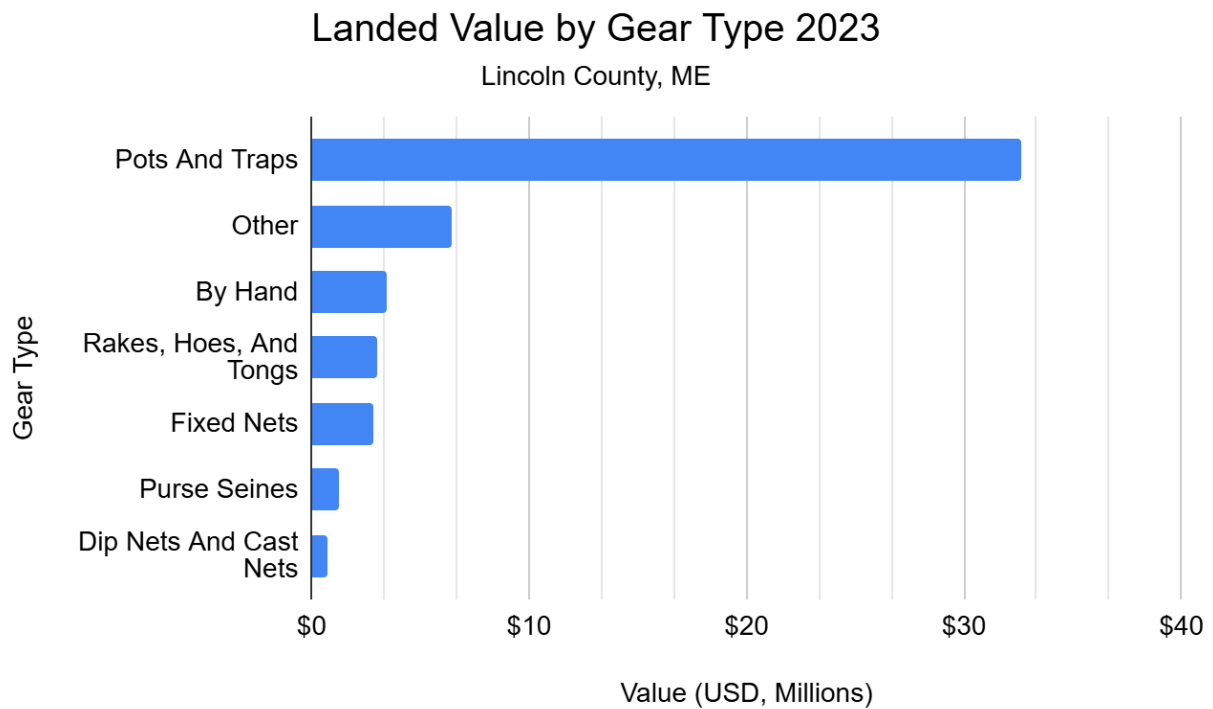
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Lincoln County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

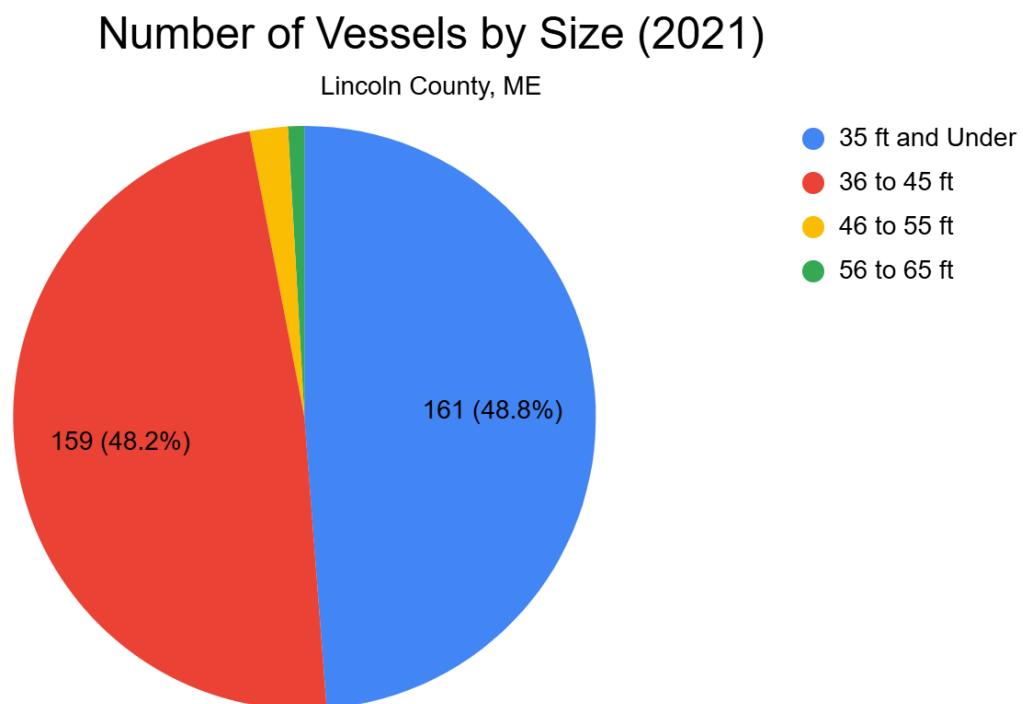


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Lincoln County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

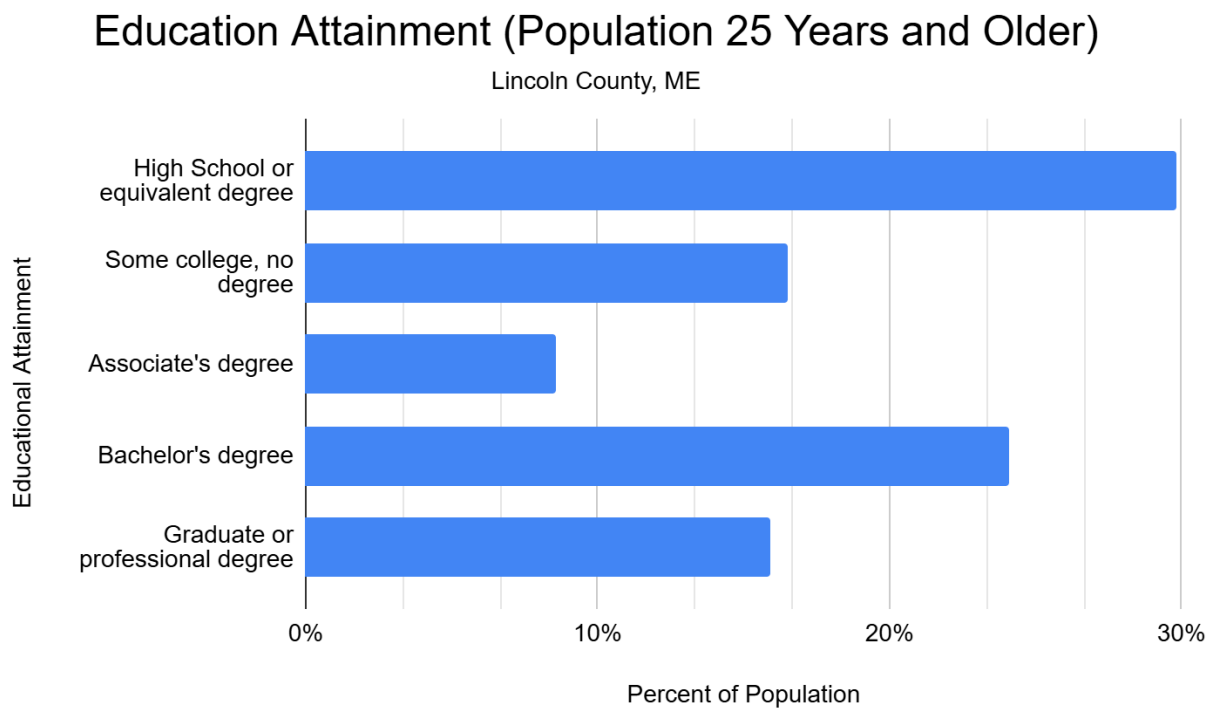


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

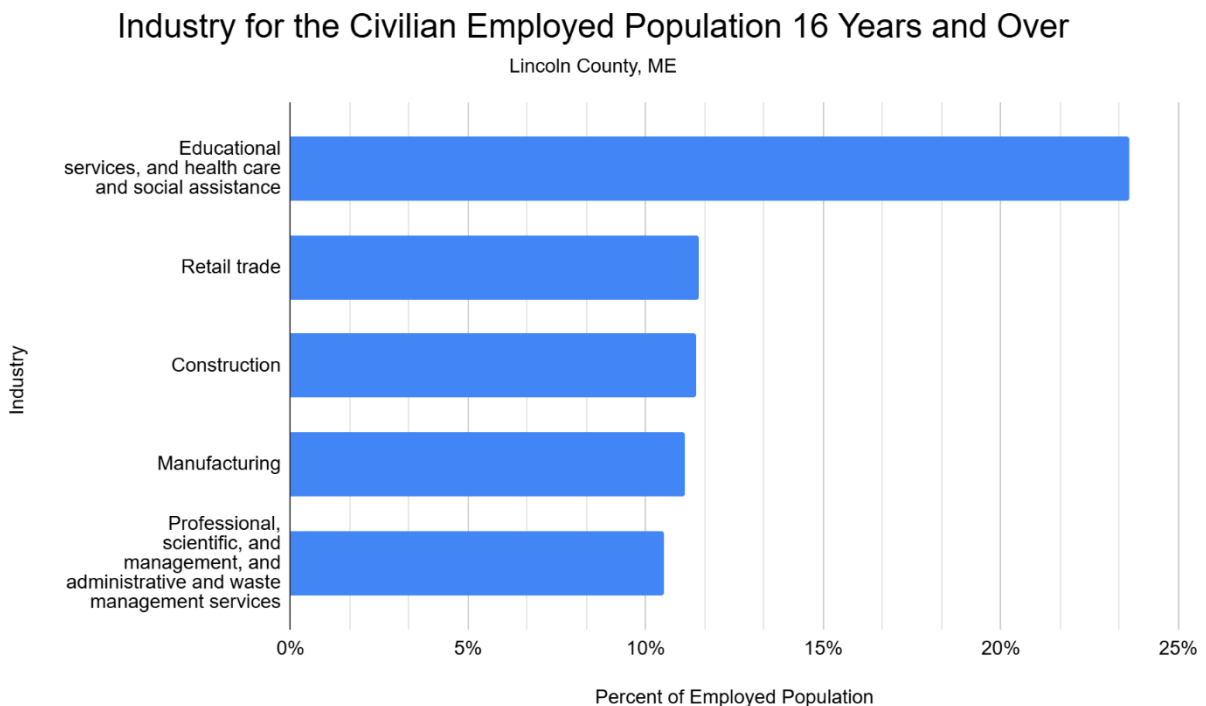
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Lincoln County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 3.5%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$72,026³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 8.5%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

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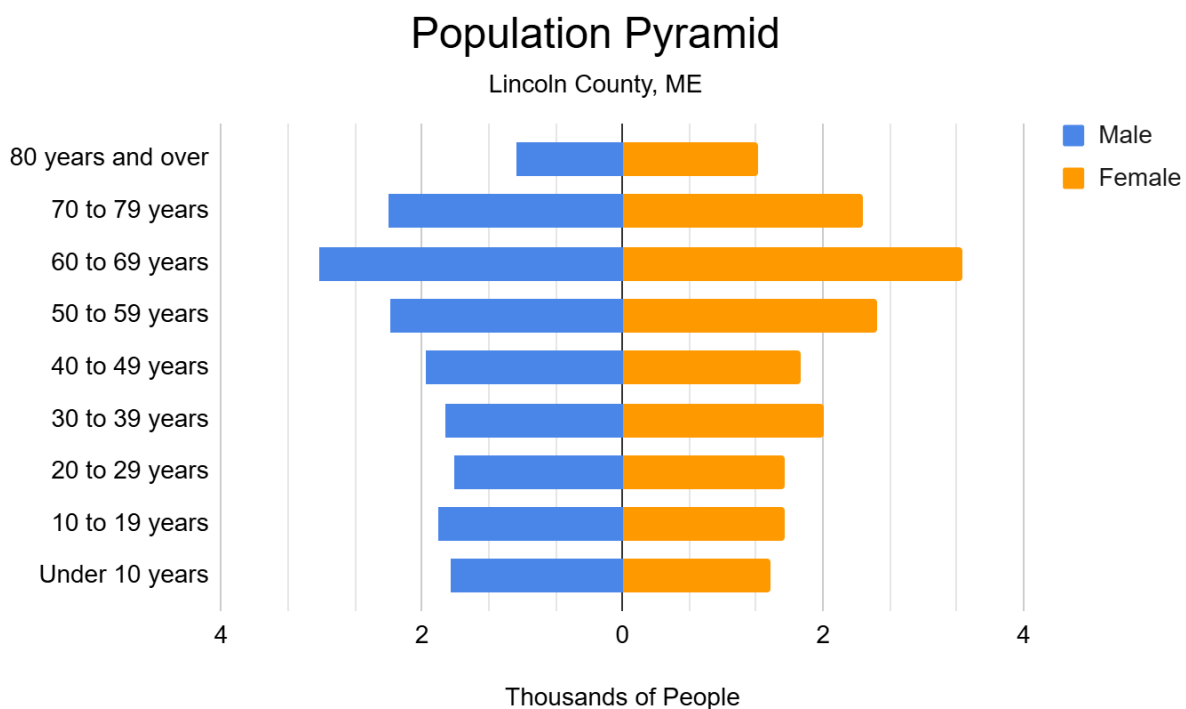
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Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 51.1⁵

National median: 38.7⁵

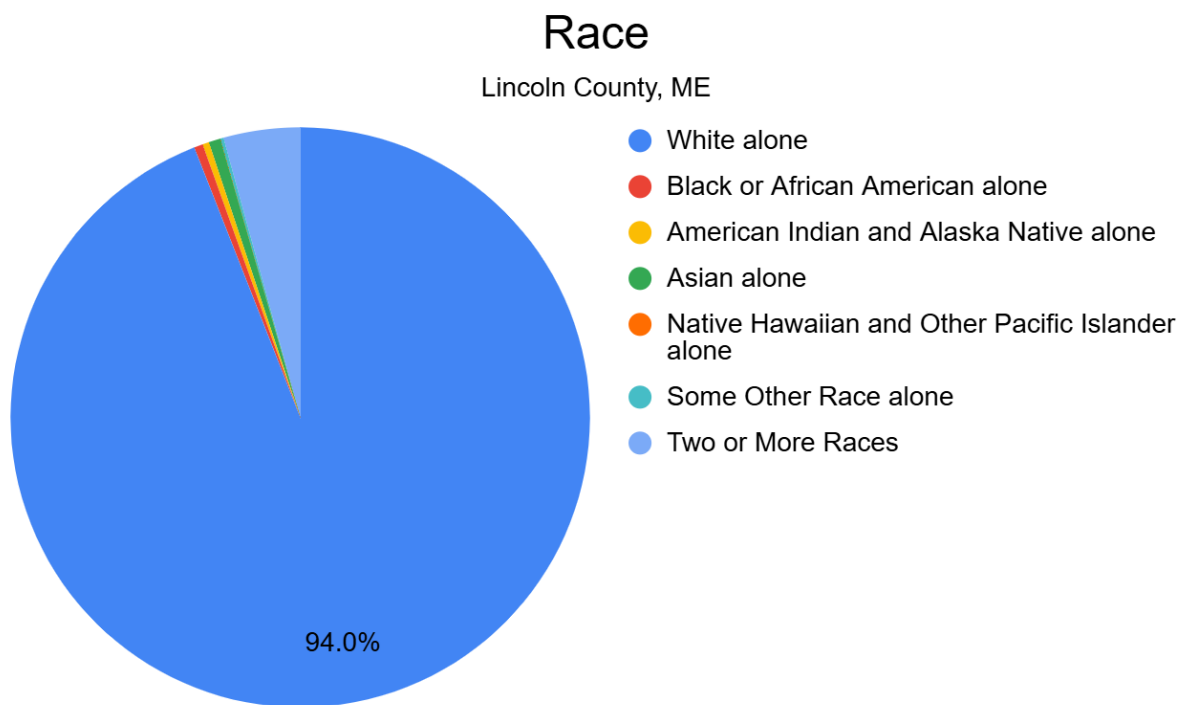


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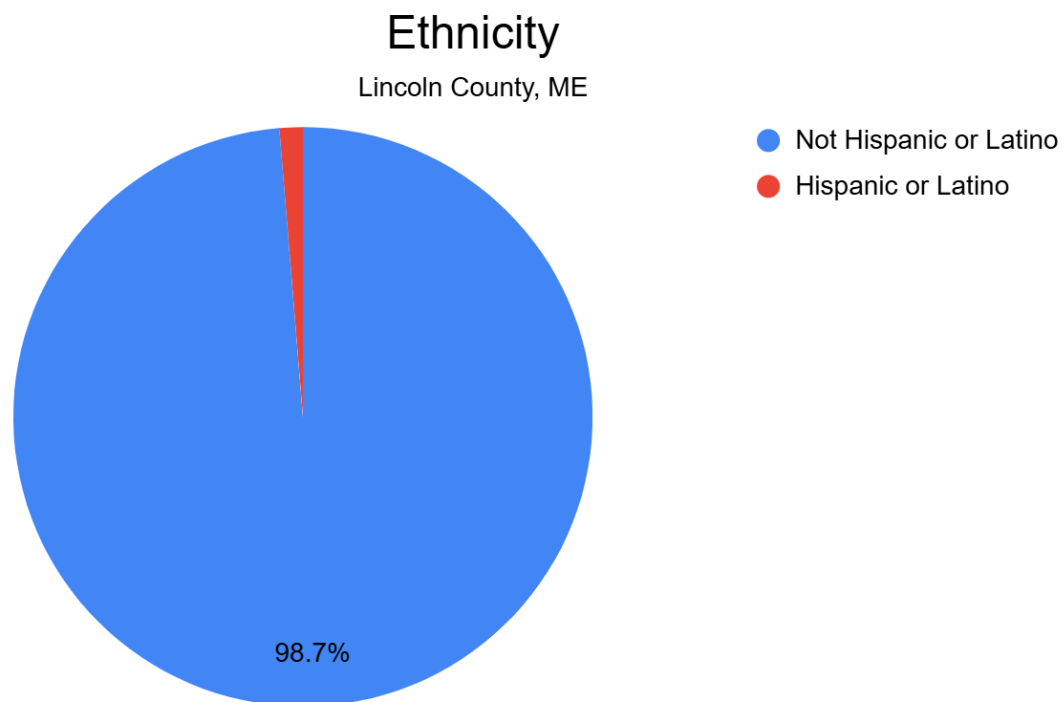
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

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Foreign Born: 1.9%⁶

National Average: 13.9%⁶

Speak English less than very well: 0.5%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

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Social Vulnerability Indicators for Top Ports in Lincoln County

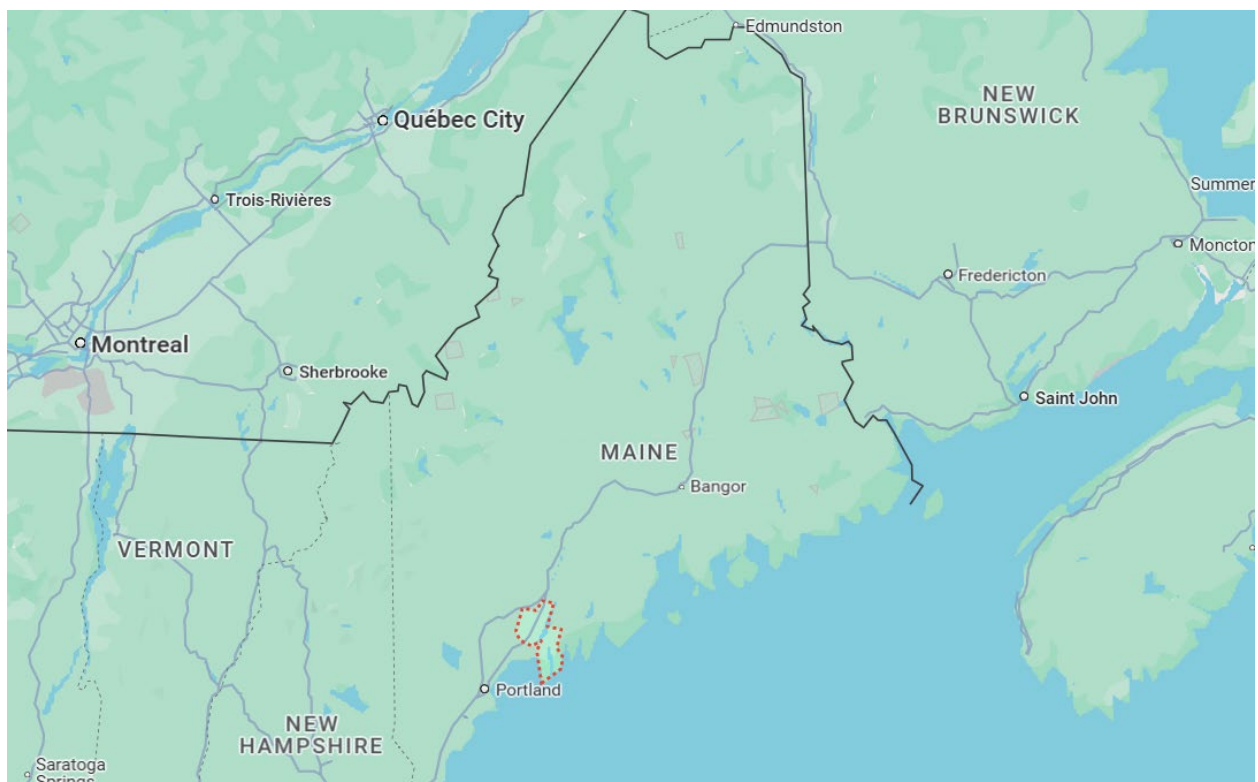
Community Name	Boothbay Harbor	South Bristol	Damariscotta	Bristol / New Harbor / Pemaquid	Bremen
Commercial Engagement	0.825	0.699	-0.028	0.566	0.081
Commercial Reliance	0.119	0.286	-0.028	0.057	0.093
Poverty	-0.559	-0.4	0.464	-0.608	0.013
Population Composition	-0.637	-1.197	-0.637	-0.684	-1.002
Personal Disruption	-0.433	-0.75	-0.365	-0.441	-0.181
Housing Disruption	-0.106	0.459	-0.748	-0.075	0.43
Retiree Migration	1.262	0.252	0.093	1.138	0.857
Urban Sprawl	-0.908	-0.714	-0.933	-0.889	-0.953
Labor Force	1.38	0.304	0.075	1.003	0.92
Housing Characteristics	0.717	0.42	0.874	0.474	0.438
Sea Level Rise Risk	-0.106	0.62	-0.046	-0.259	-0.314
Storm Surge Risk	-0.519	-0.544	-0.586	-0.638	-0.572

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

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Sagadahoc County, ME

Sagadahoc County has a population of 37,093¹ and a population per square mile of 146². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

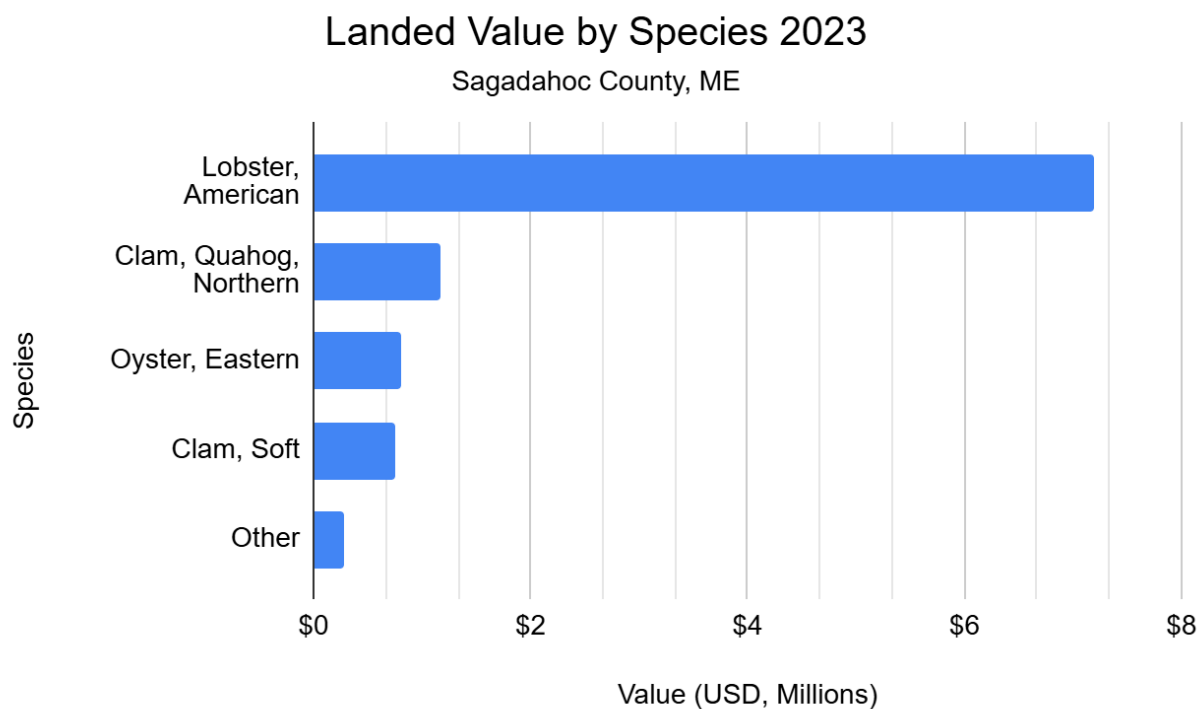
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What species are landed in Sagadahoc County?

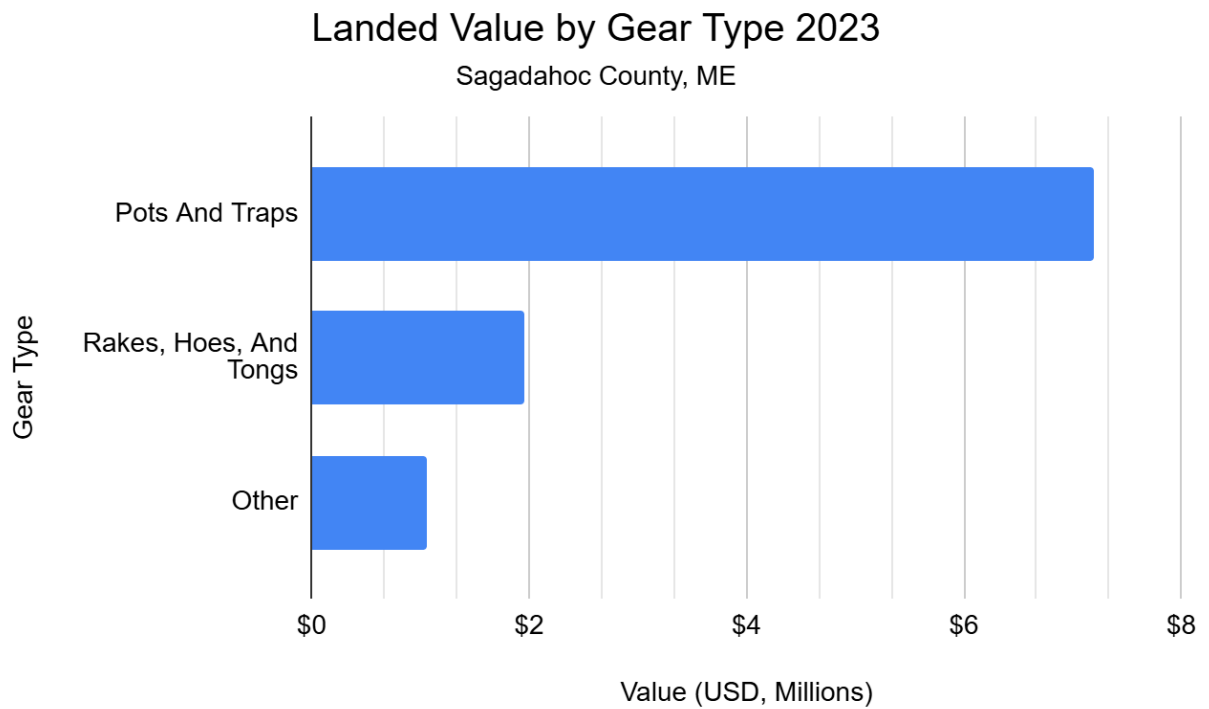
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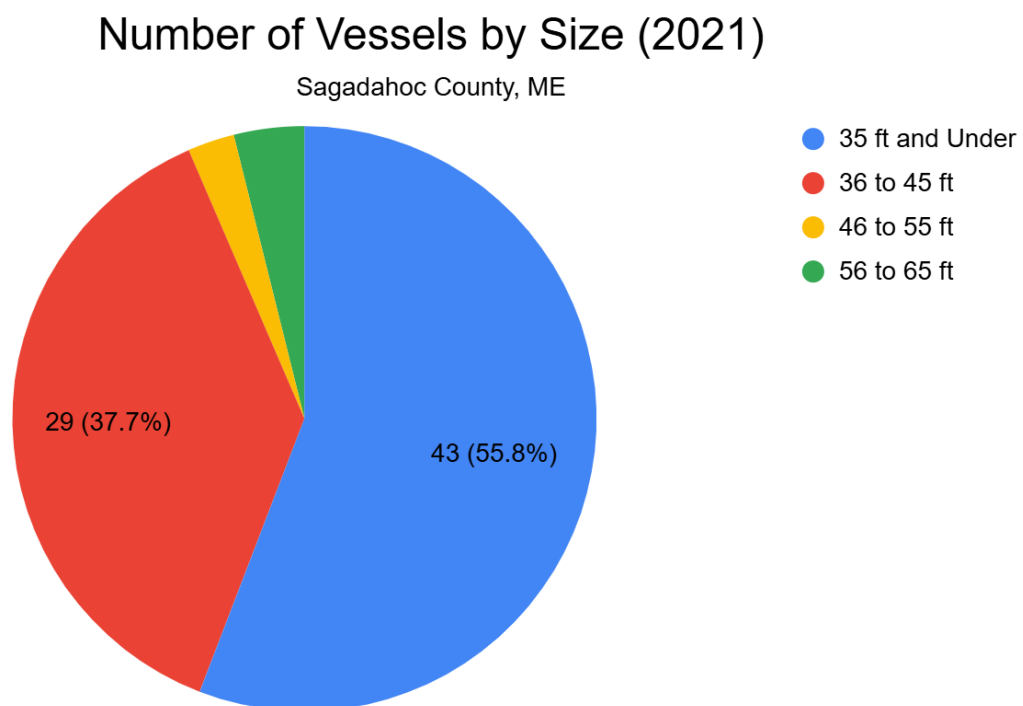


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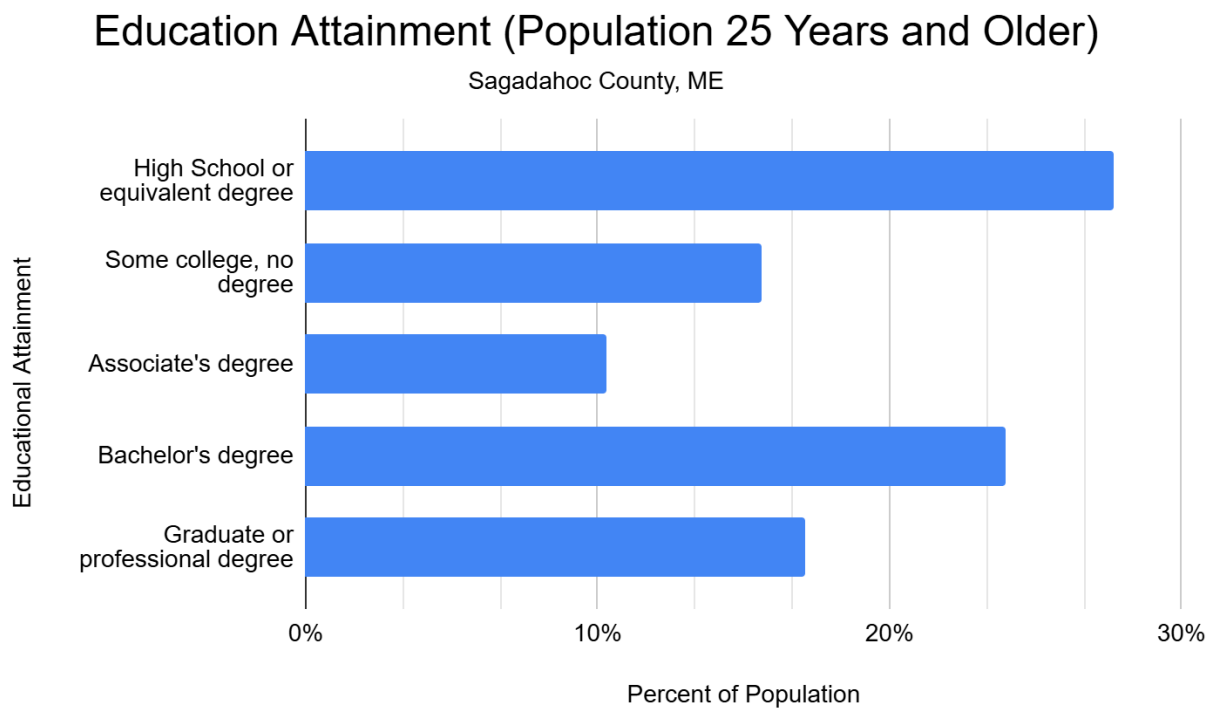


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Demographic Attributes

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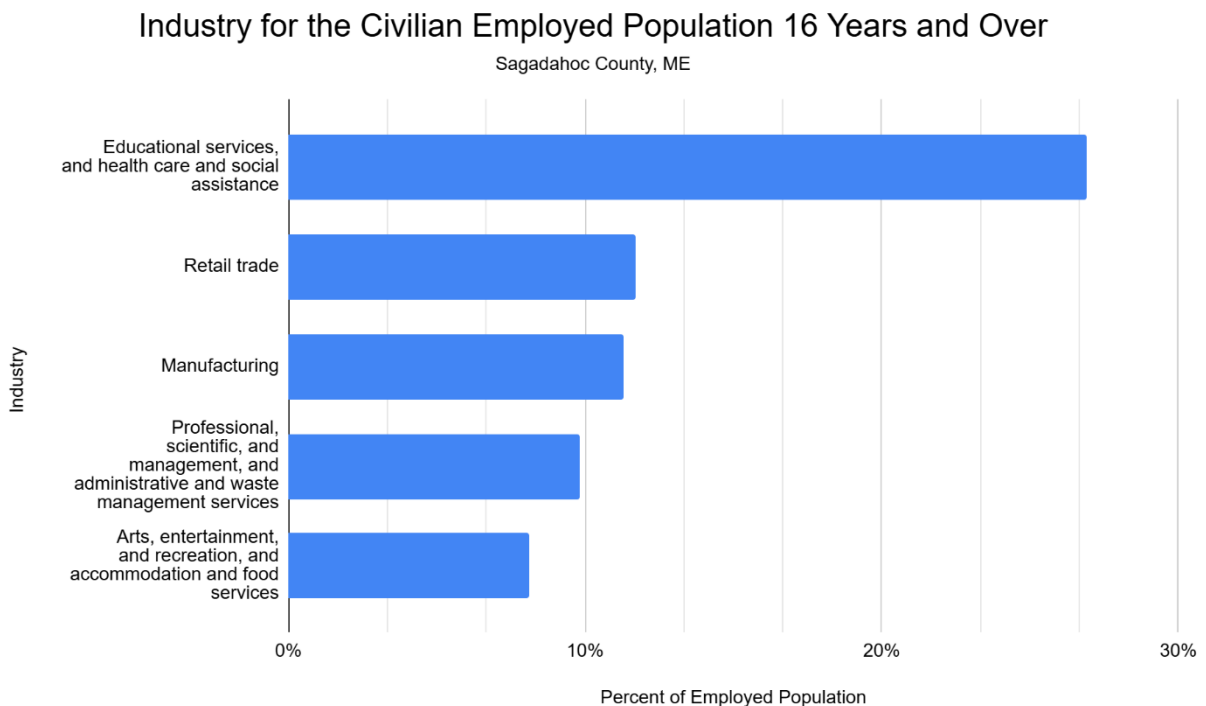
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Unemployment Rate: 4.6%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$82,080³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 11.1%³

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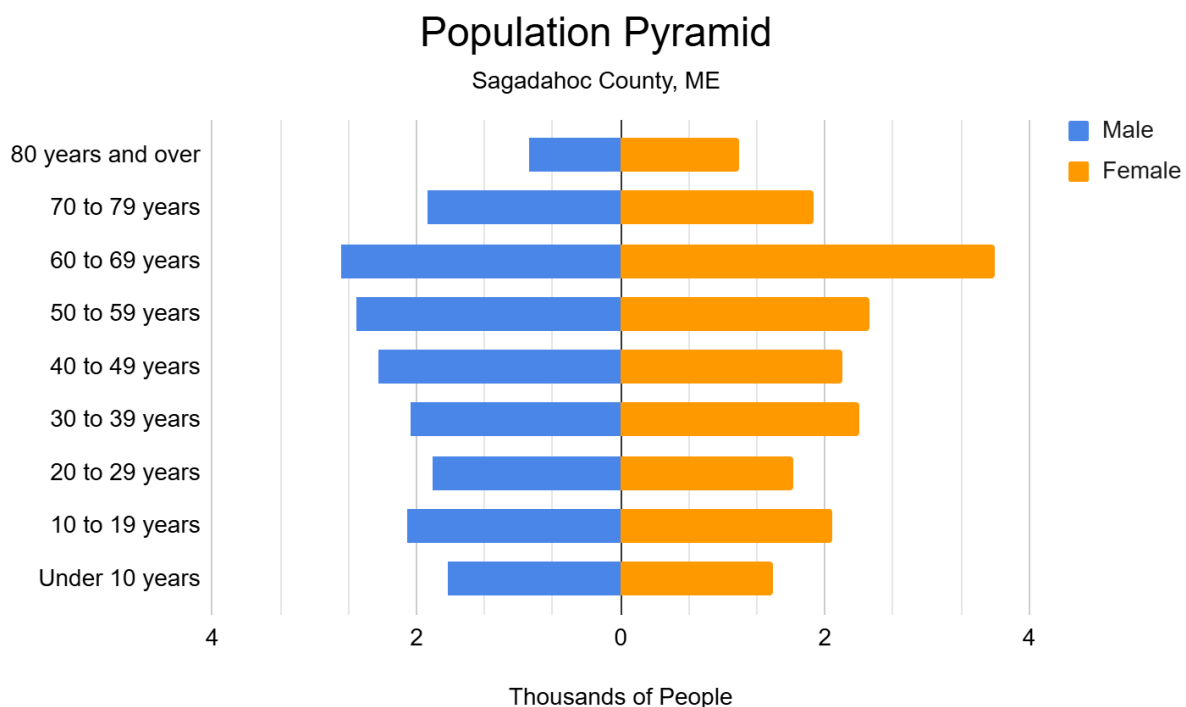
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Median age: 47.3⁵

National median: 38.7⁵

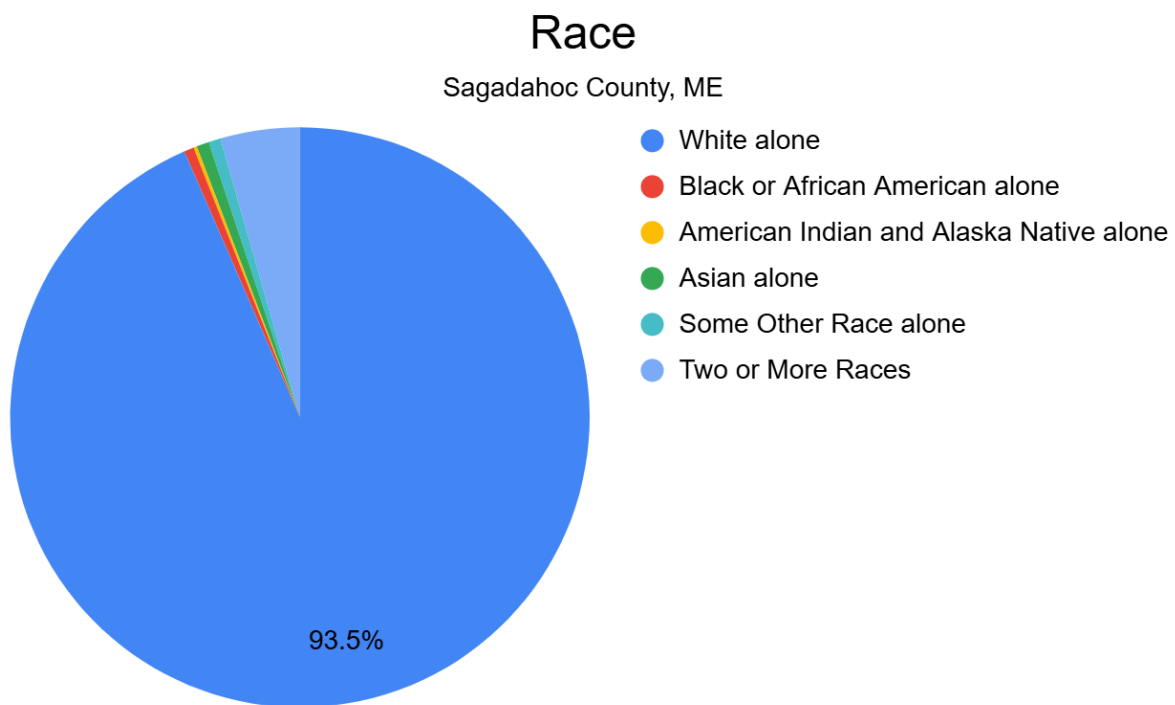


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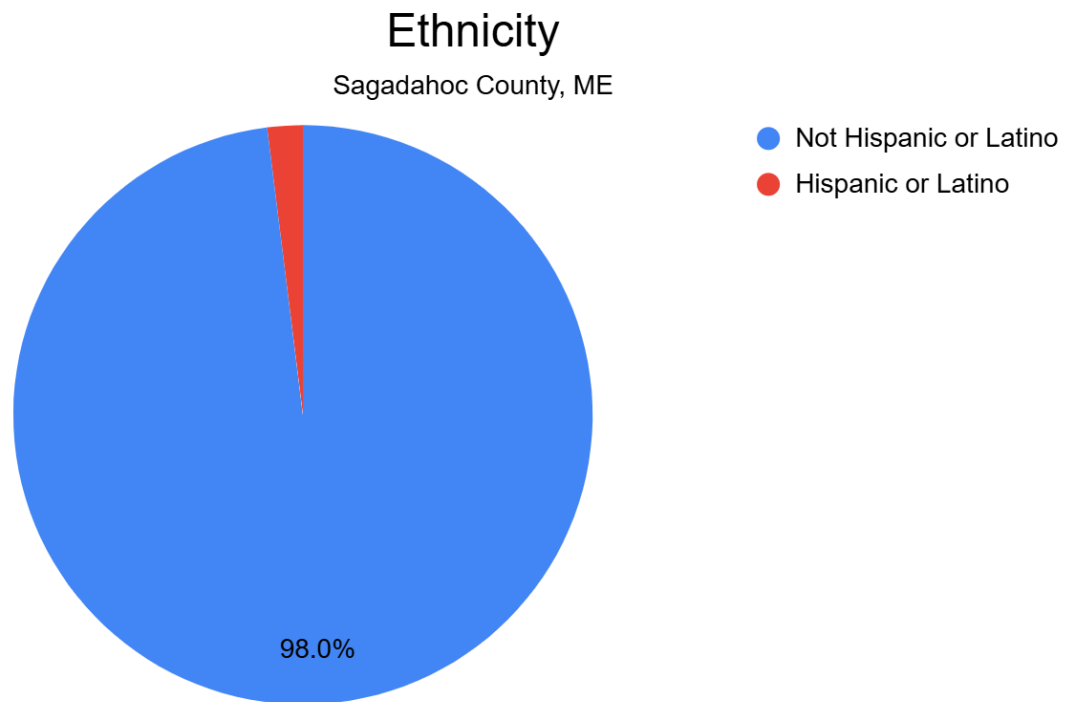
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National Average: 13.9%⁶

Speak English less than very well: 0.8%⁶

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Social Vulnerability Indicators for Top Ports in Sagadahoc County

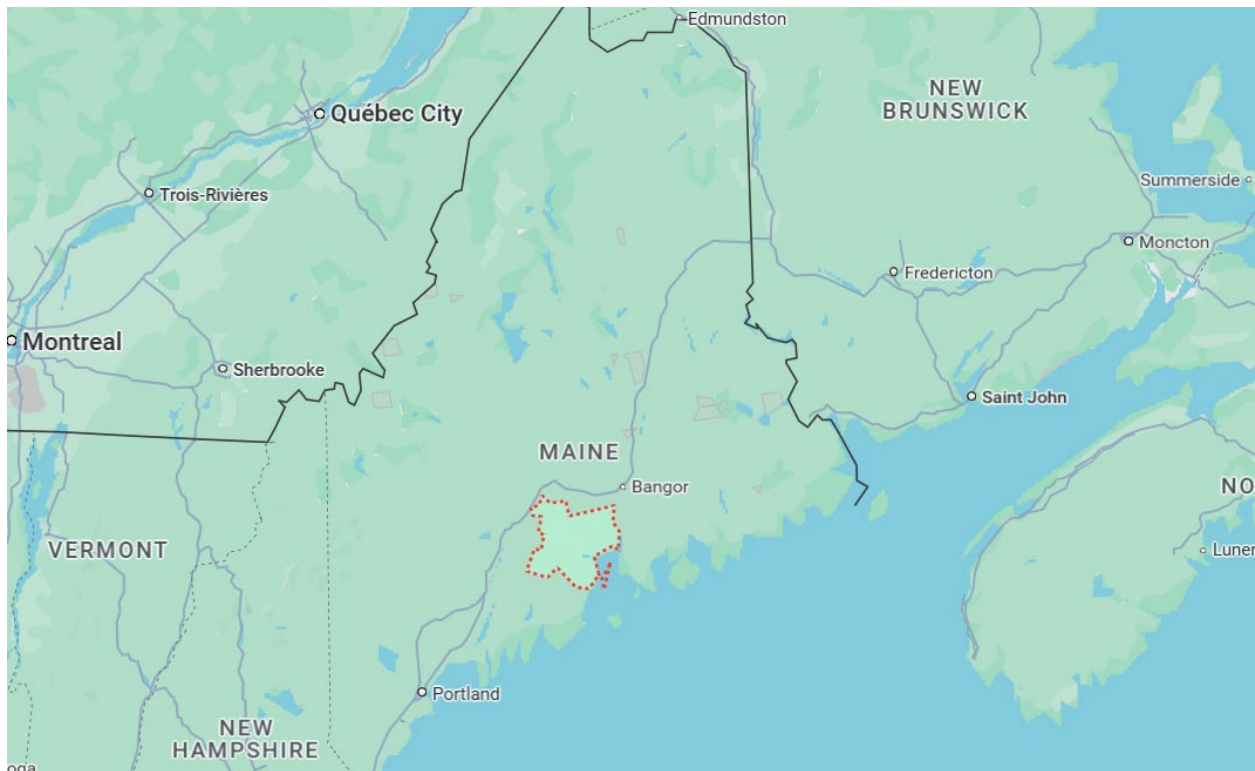
Community Name	Georgetown	West Bath	Phippsburg	Bath	Topsham
Commercial Engagement	0.158	0.009	0.401	-0.086	-0.005
Commercial Reliance	0.072	-0.024	0.043	-0.051	-0.046
Poverty	-0.465	-0.441	-0.19	-0.127	0.204
Population Composition	-1.268	-0.831	-1.182	-0.707	-0.76
Personal Disruption	-0.78	0.034	-0.546	-0.379	-0.273
Housing Disruption	-0.229	0.371	-0.975	-0.378	-0.515
Retiree Migration	1.087	-0.435	0.02	-0.131	0.011
Urban Sprawl	-0.686	-0.659	-0.742	-0.703	-0.622
Labor Force	0.718	-0.671	-0.349	-0.192	-0.132
Housing Characteristics	0.594	0.724	0.977	0.609	0.614
Sea Level Rise Risk	1.101	-0.215	0.903	1.108	0.207
Storm Surge Risk	-0.366	-0.475	-0.272	-0.451	-0.593

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Waldo County, ME

Waldo County has a population of 40,006¹ and a population per square mile of 55². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

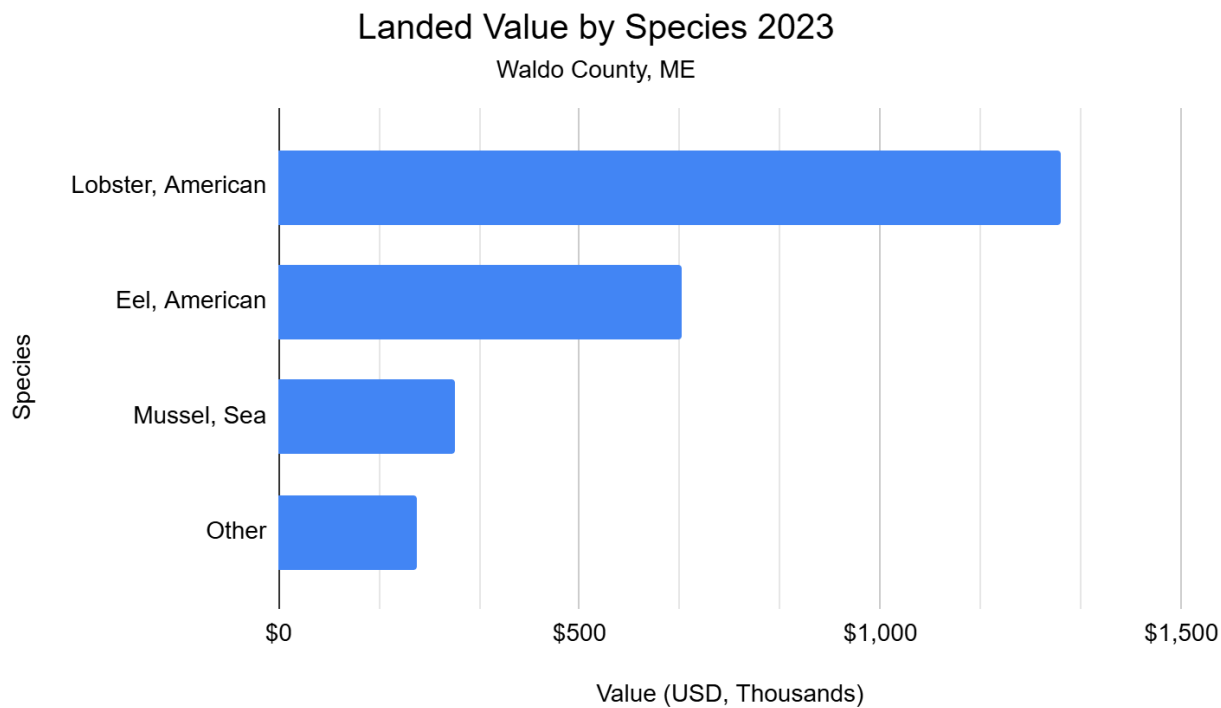
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Waldo County?

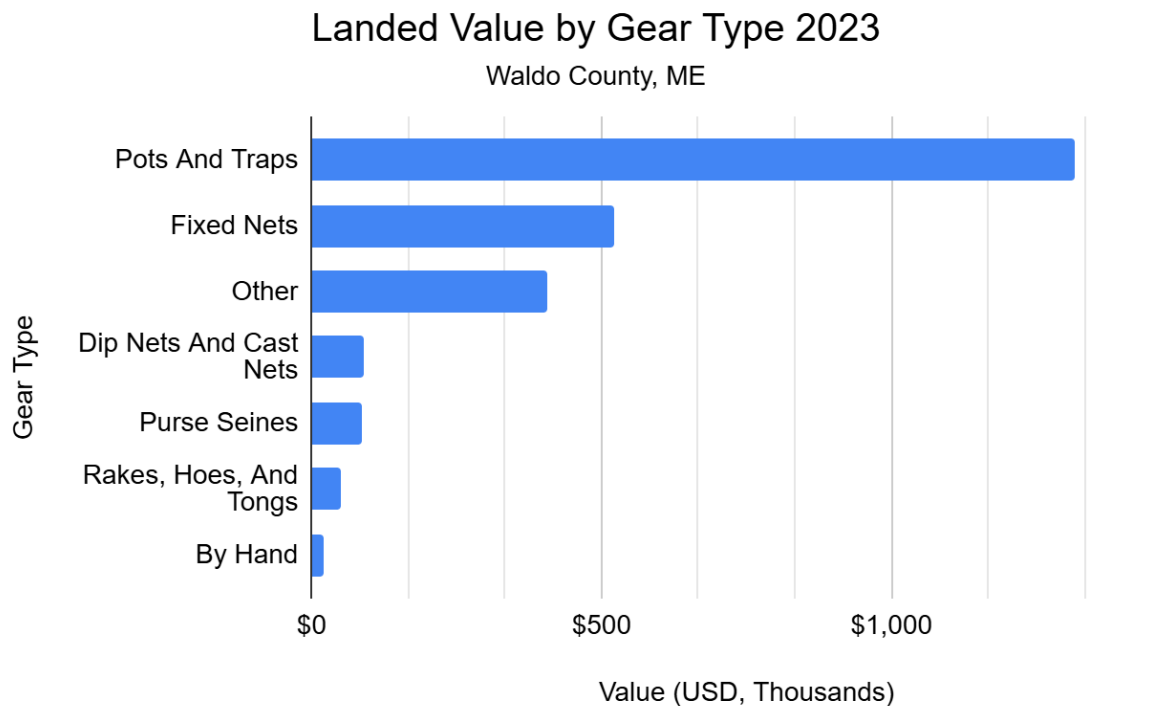
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Waldo County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

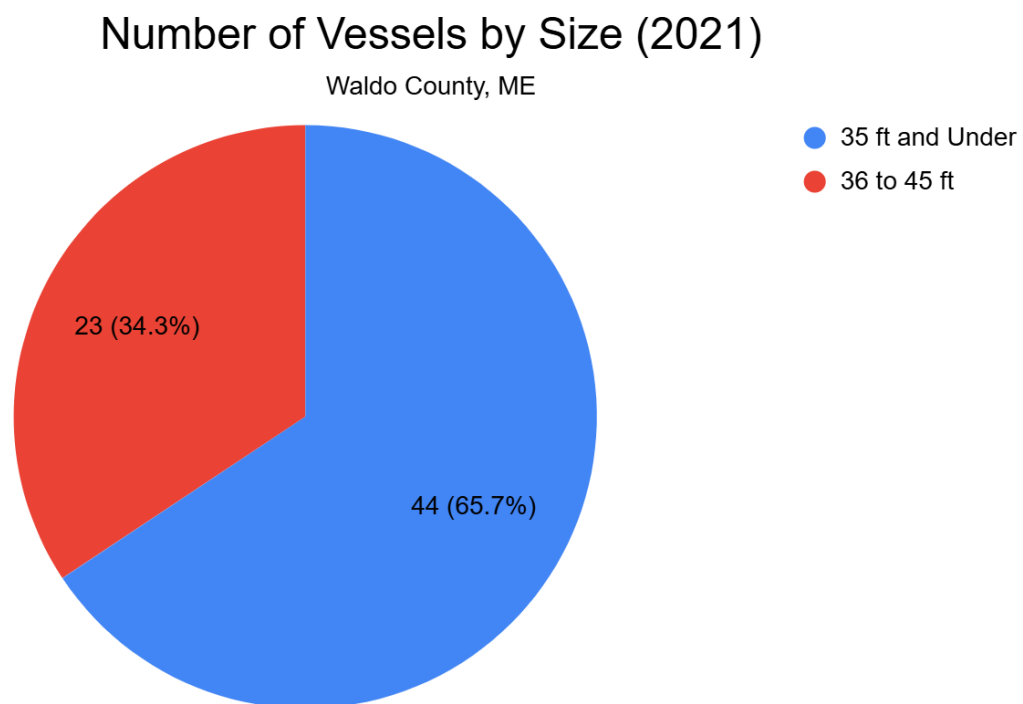


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Waldo County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

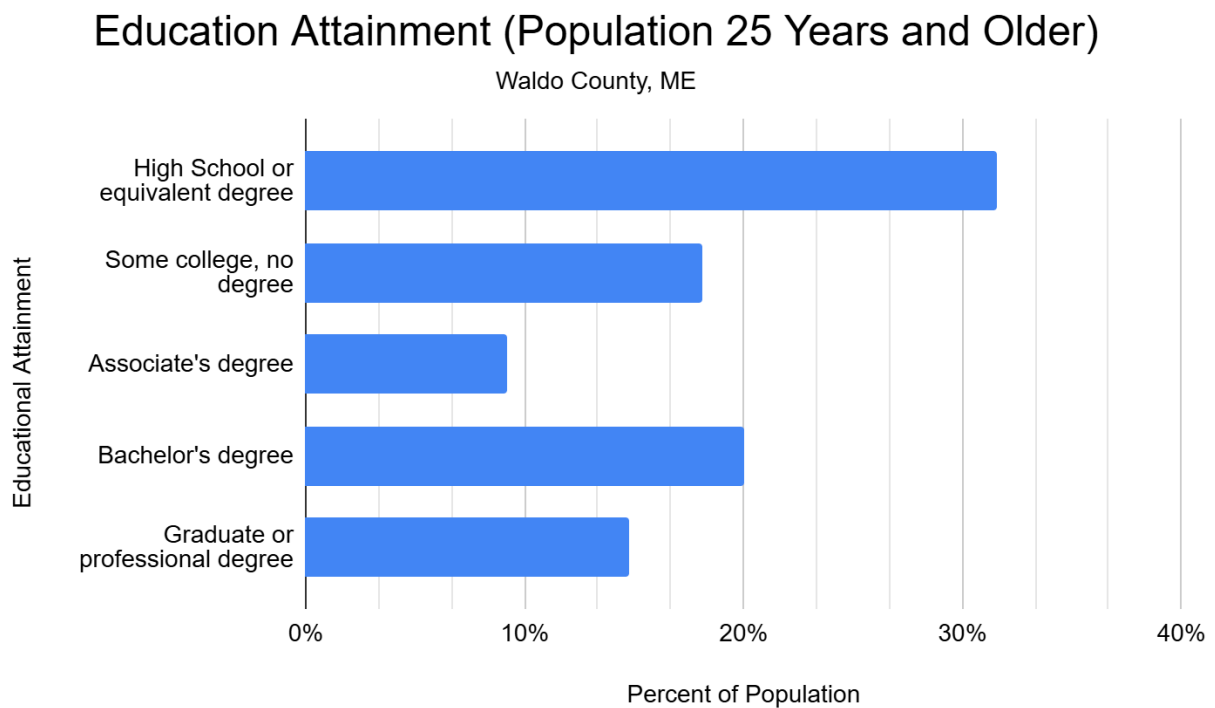


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

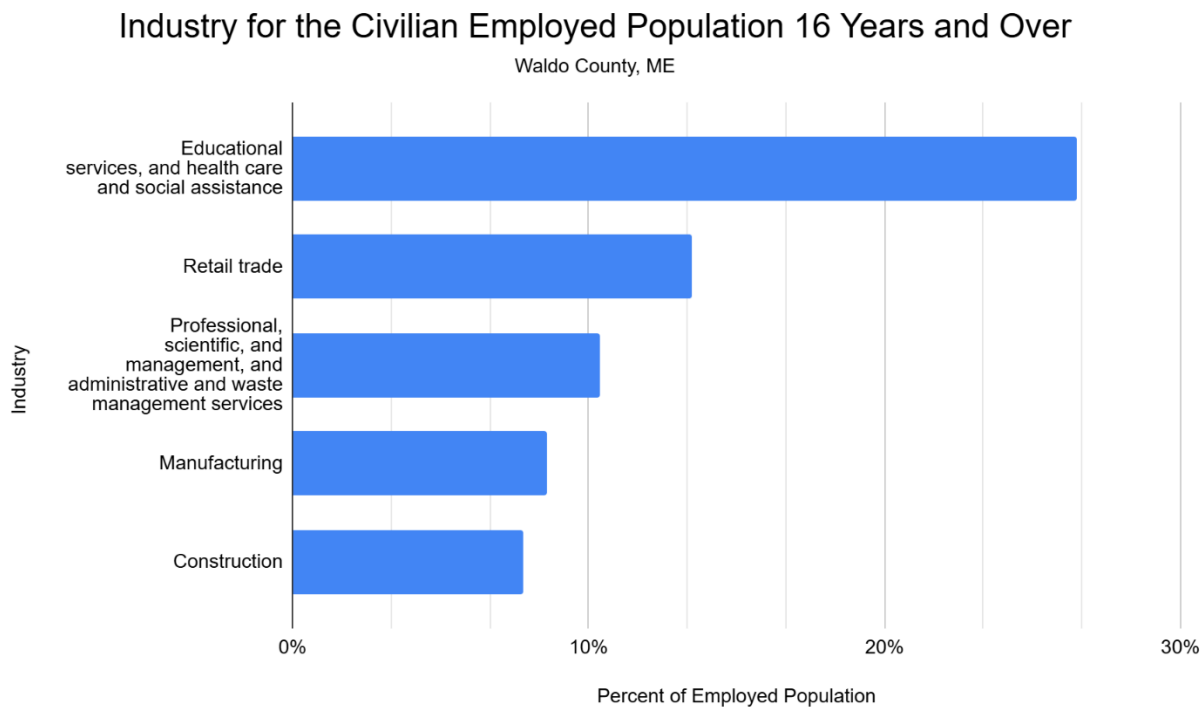
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Waldo County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 4.4%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$68,441³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 12.8%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

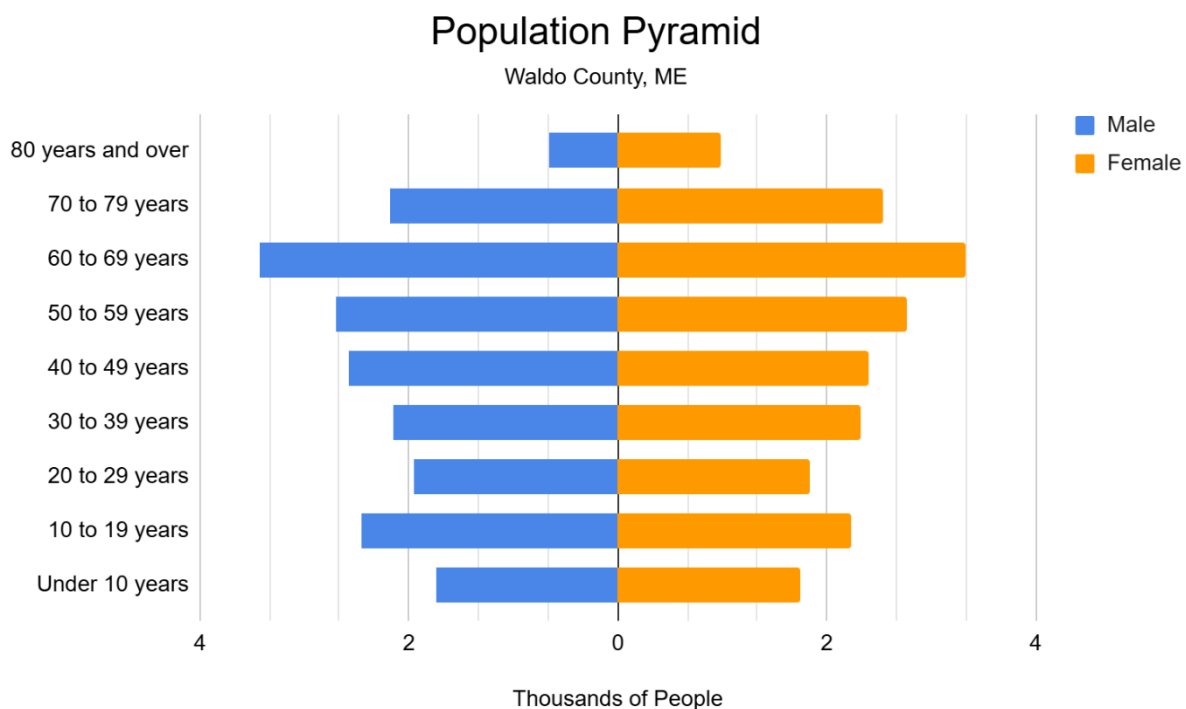
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 46.9⁵

National median: 38.7⁵

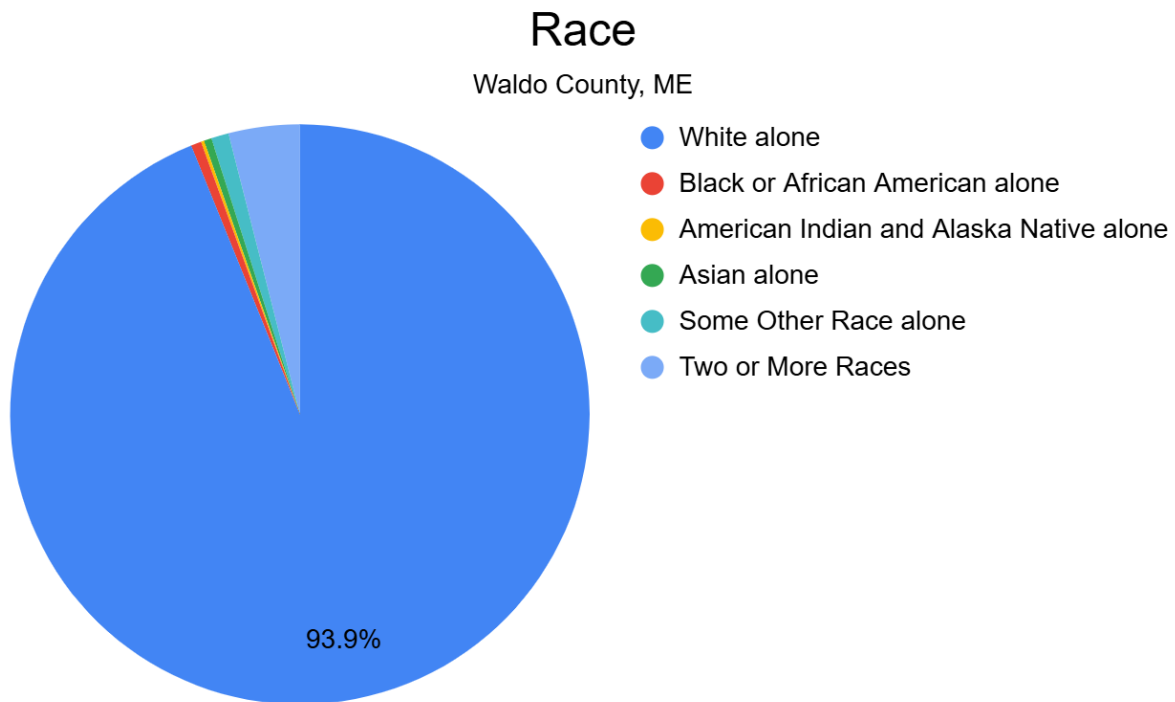


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

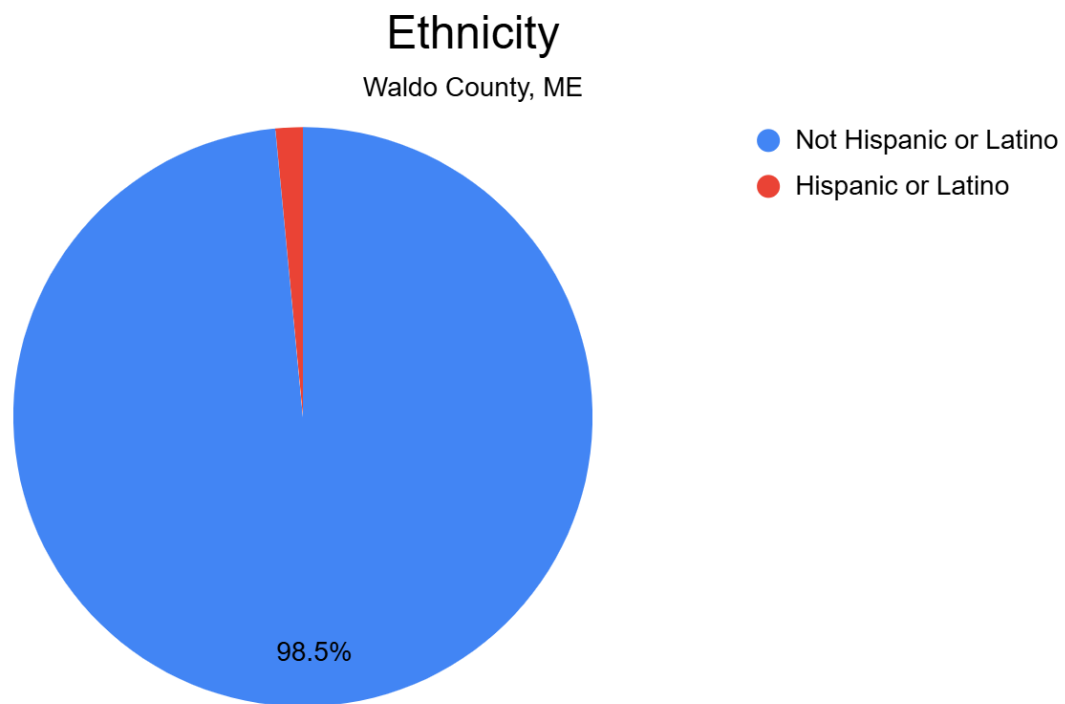
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 2.2%⁶

National Average: 13.9%⁶

Speak English less than very well: 0.4%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Waldo County

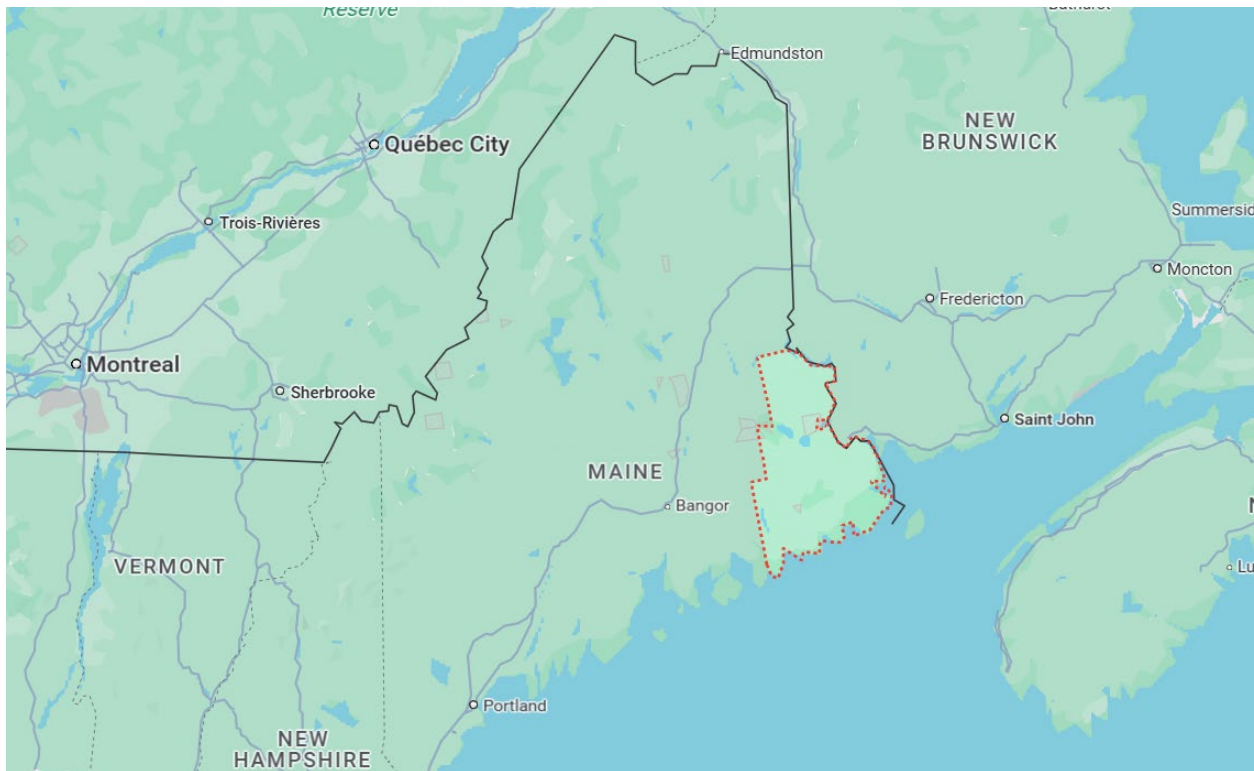
Community Name	Belfast	Islesboro	Lincolntonville	Stockton Springs	Prospect
Commercial Engagement	-0.097	-0.116	-0.132	-0.124	-0.152
Commercial Reliance	-0.049	-0.021	-0.048	-0.044	-0.052
Poverty	-0.027	-0.281	-0.564	-0.719	-0.075
Population Composition	-0.759	-1.221	-1.246	-1.26	-1.094
Personal Disruption	-0.142	-0.279	-0.505	-0.636	-0.086
Housing Disruption	-0.511	0.451	-0.053	-0.028	-0.638
Retiree Migration	1.086	1.141	-0.1	1.333	-0.11
Urban Sprawl	-1.567	-1.374	-1.304	-1.646	-1.741
Labor Force	0.943	1.234	-0.243	1.067	0.19
Housing Characteristics	0.851	0.504	0.563	0.714	1.45
Sea Level Rise Risk	-0.219	0.022	-0.327	-0.299	0.1
Storm Surge Risk	-0.653	-0.371	-0.675	-0.595	-0.577

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Washington County, ME

Washington County has a population of 31,261¹ and a population per square mile of 12². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

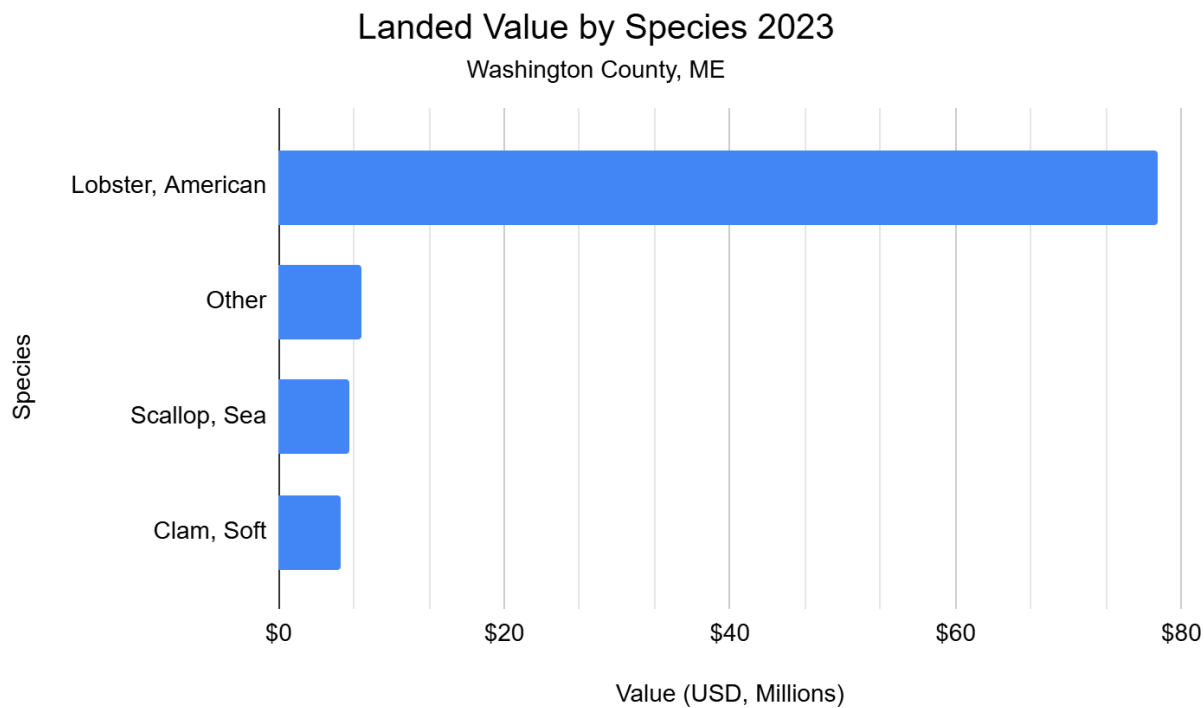
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Washington County?

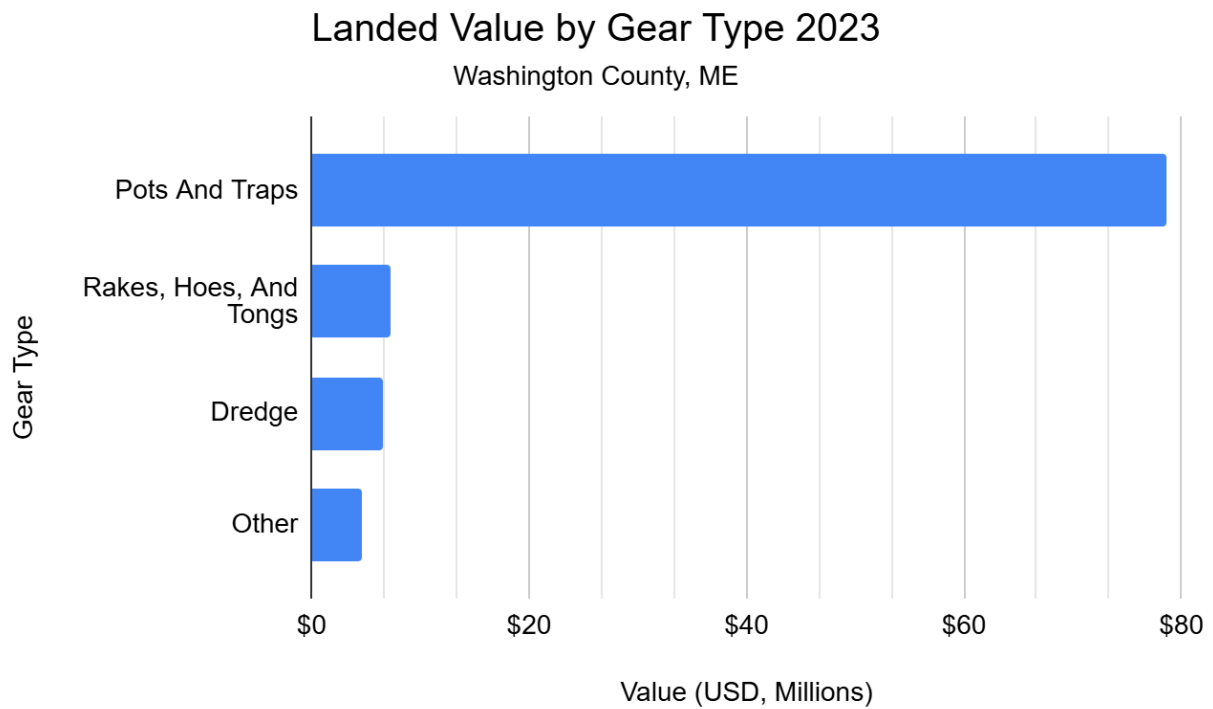
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Washington County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

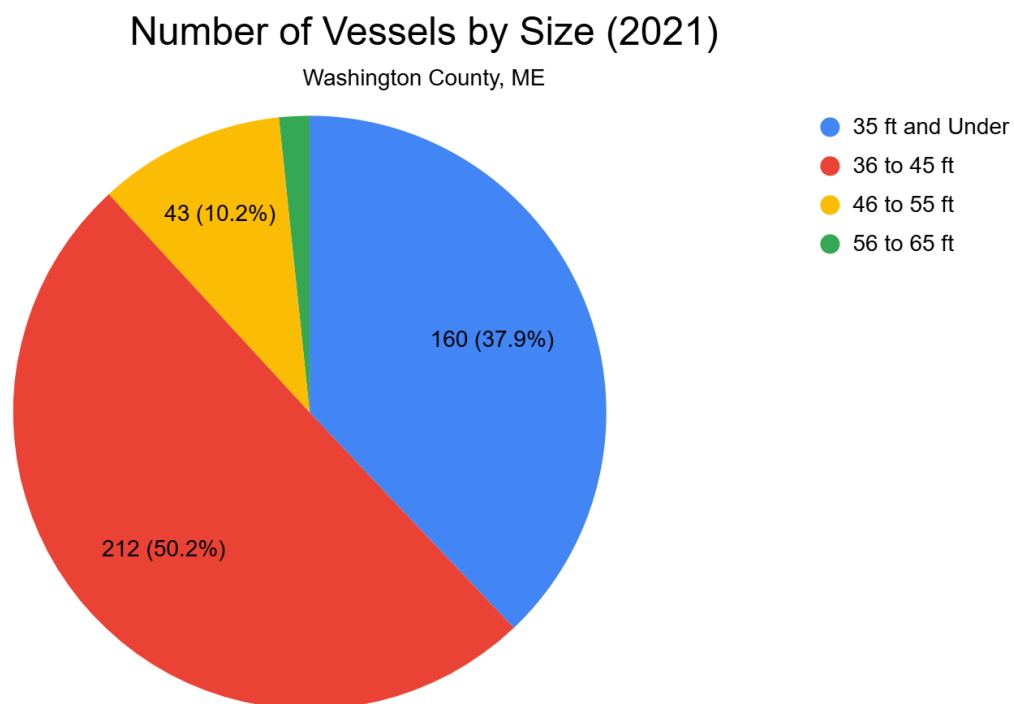


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Washington County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

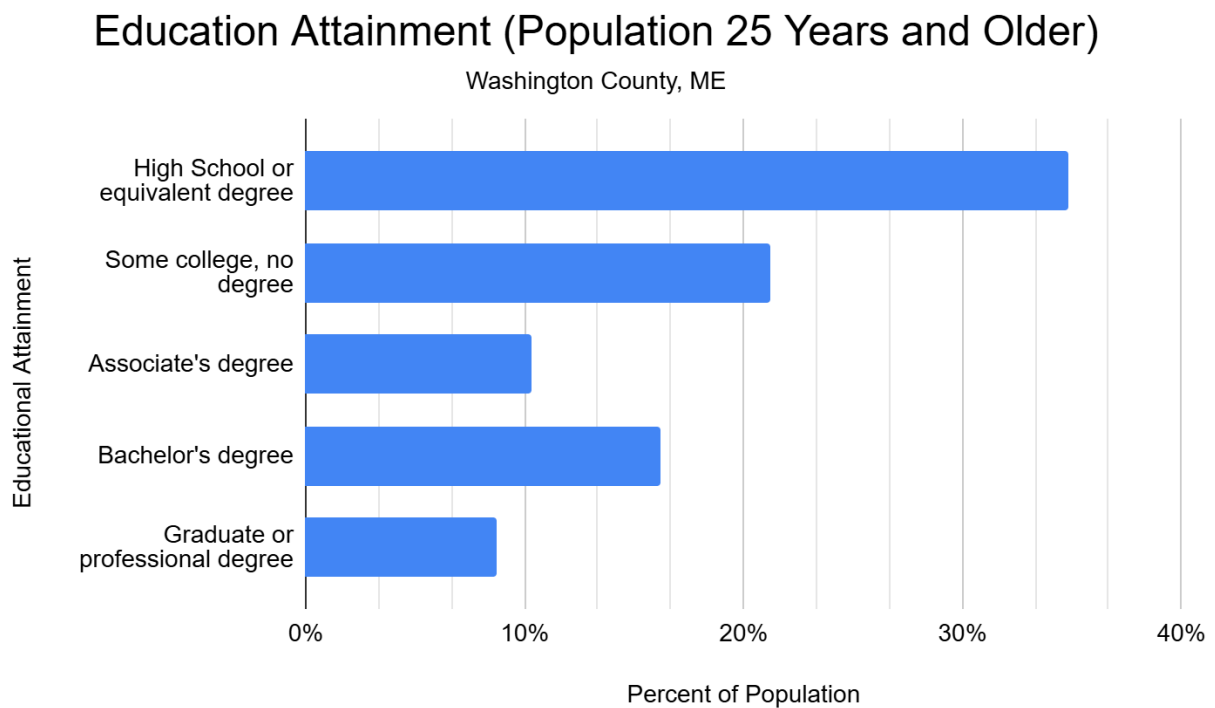


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.

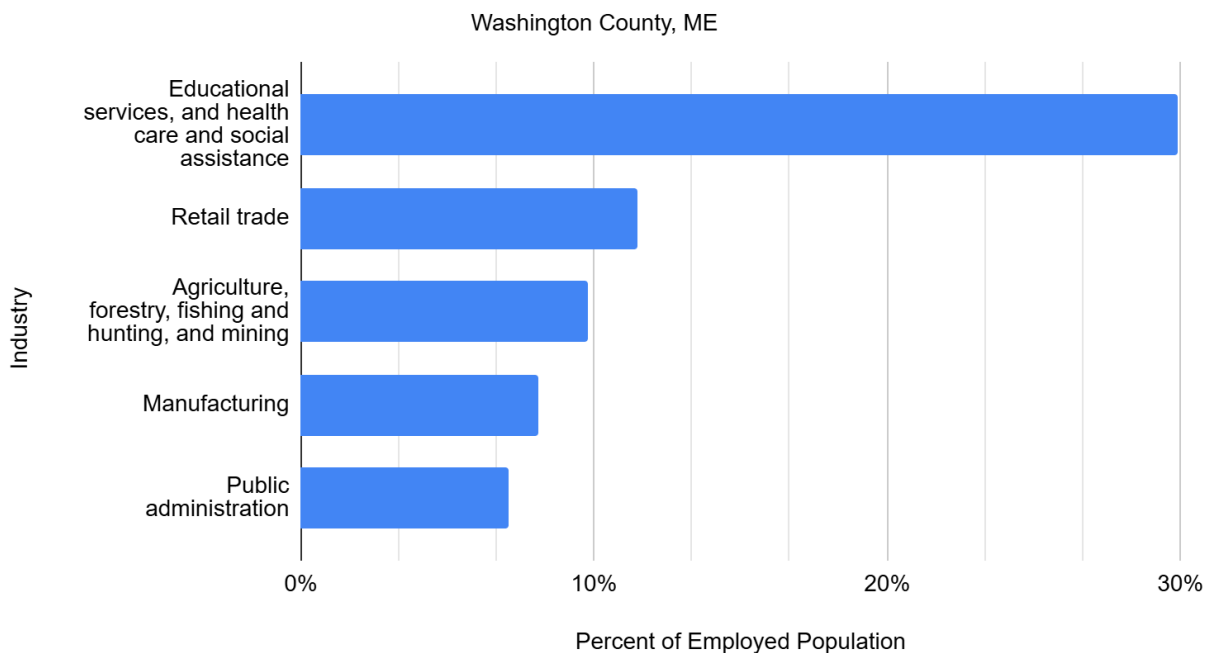


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Washington County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?

Industry for the Civilian Employed Population 16 Years and Over



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 6.6%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$52,237³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 17.8%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

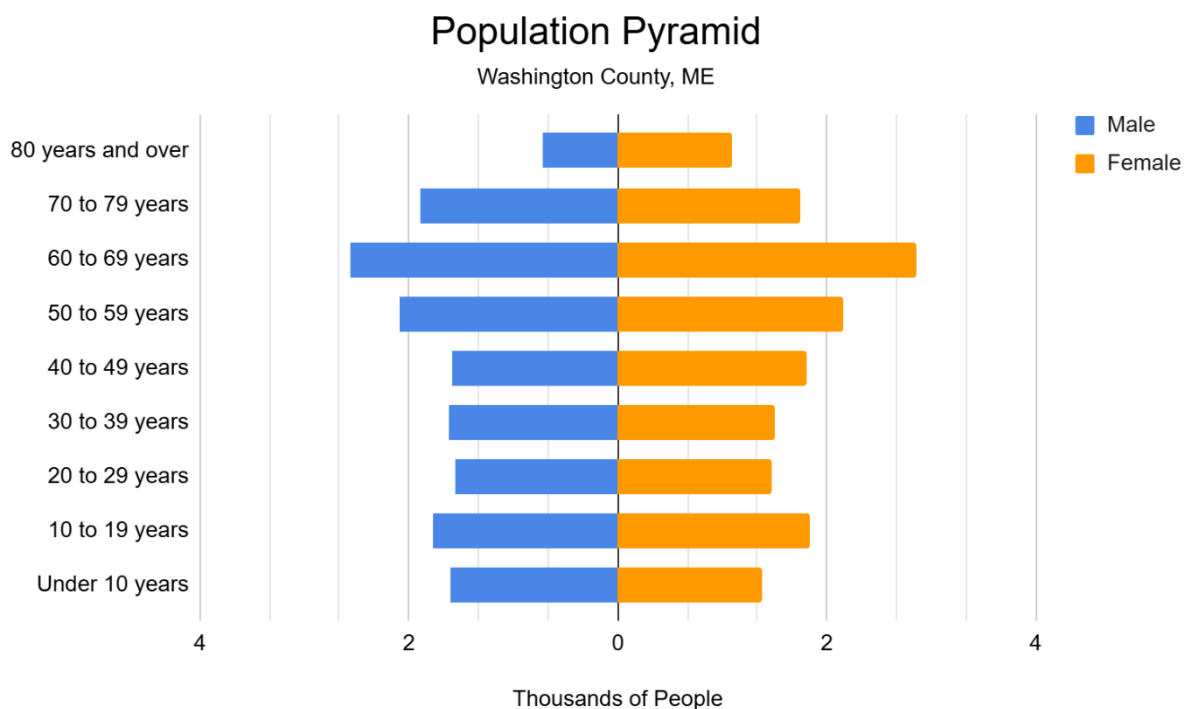
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 48.6⁵

National median: 38.7⁵

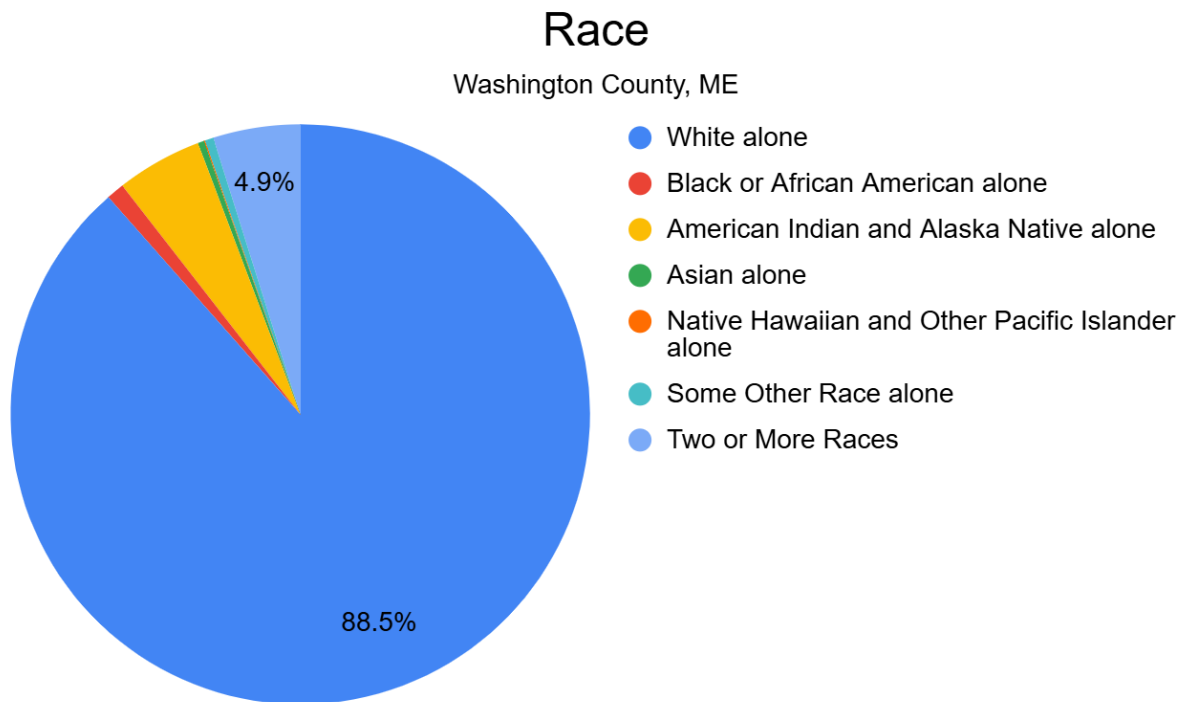


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

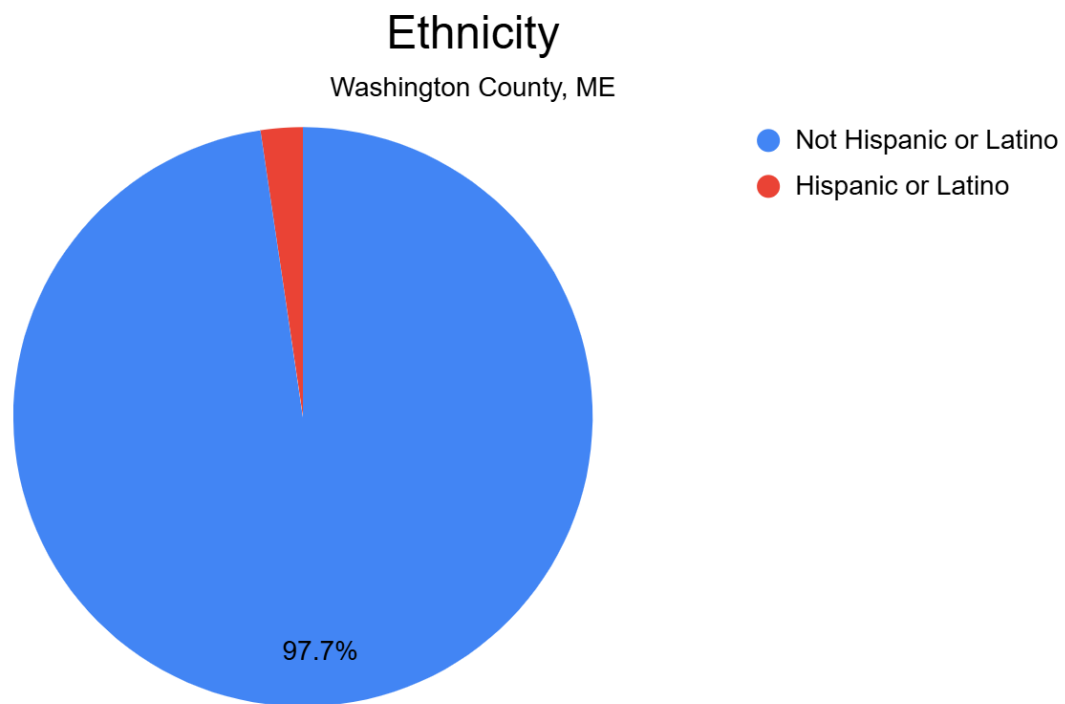
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 3.3%⁶

National Average: 13.9%⁶

Speak English less than very well: 0.8%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Washington County

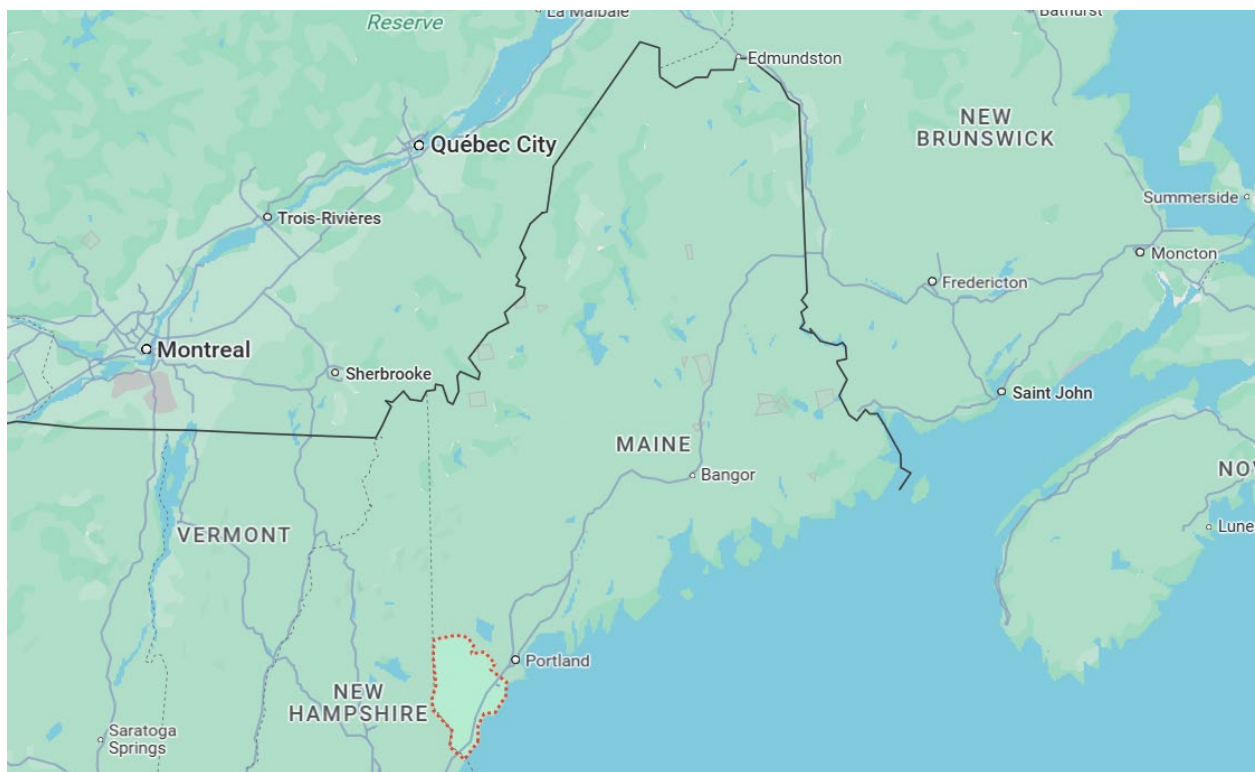
Community Name	Beals	Harrington	Milbridge	Jonesport	Steuben
Commercial Engagement	1.56	0.69	0.799	1.249	0.835
Commercial Reliance	1.757	0.374	0.234	0.4	0.24
Poverty	-0.492	-0.379	0.457	0.509	-0.499
Population Composition	-1.125	-1.139	-0.336	-1.128	-0.817
Personal Disruption	-0.342	-0.366	0.047	0.27	-0.191
Housing Disruption	0.196	-0.938	0.237	-0.595	0.372
Retiree Migration	-0.25	0.111	0.749	0.163	0.043
Urban Sprawl	-2.357	-2.326	-2.237	-2.41	-2.191
Labor Force	-0.147	0.182	1.183	0.732	0.293
Housing Characteristics	1.069	0.927	1.265	1.584	1.195
Sea Level Rise Risk	-0.138	-0.069	0.015	-0.201	-0.169
Storm Surge Risk	-0.42	-0.327	-0.435	-0.391	-0.508

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

York County, ME

York County has a population of 214,731¹ and a population per square mile of 217². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

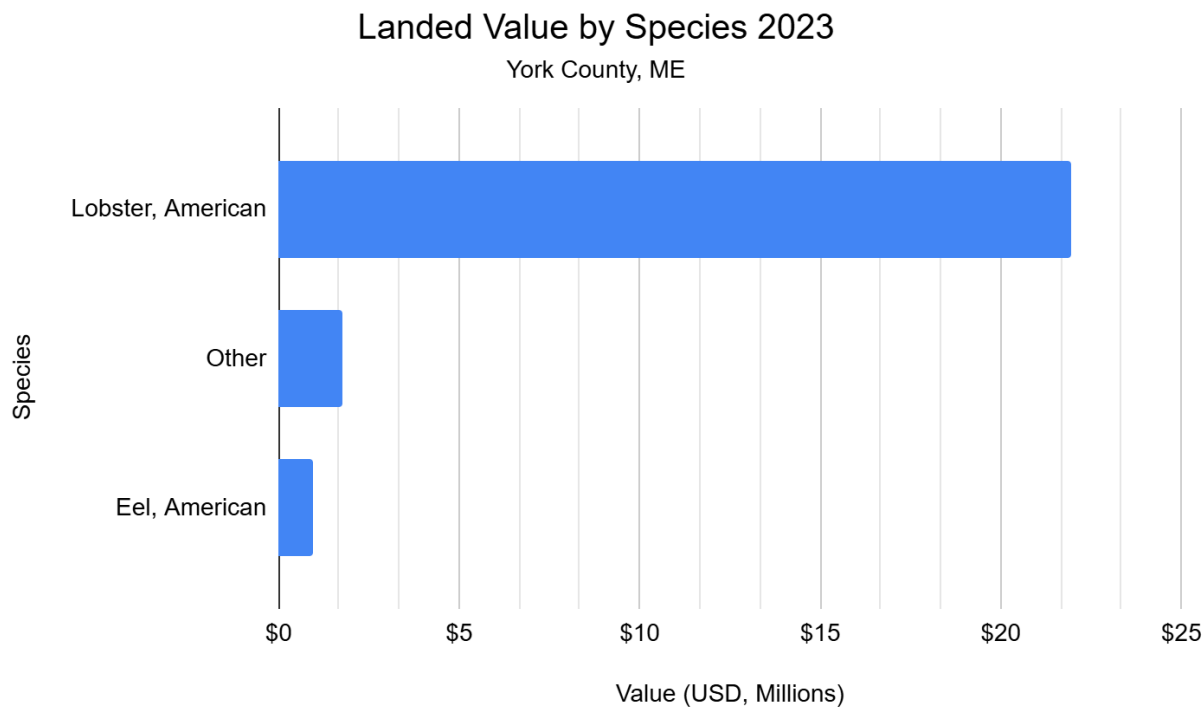
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in York County?

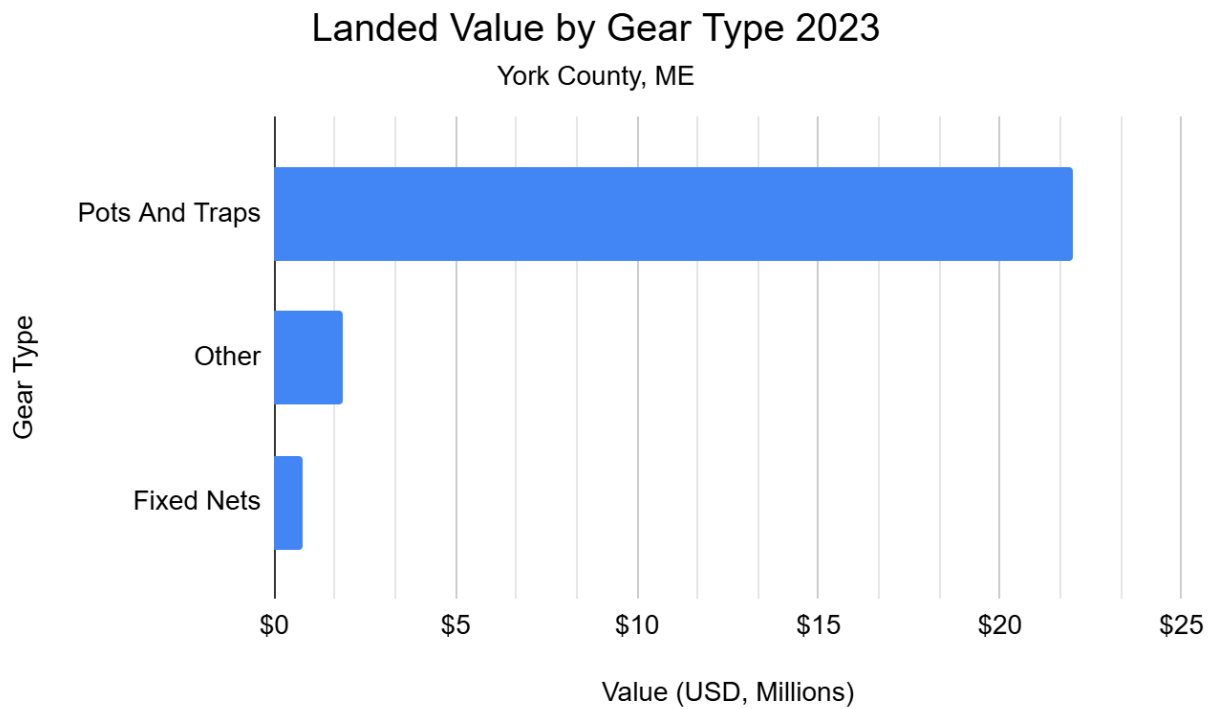
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in York County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

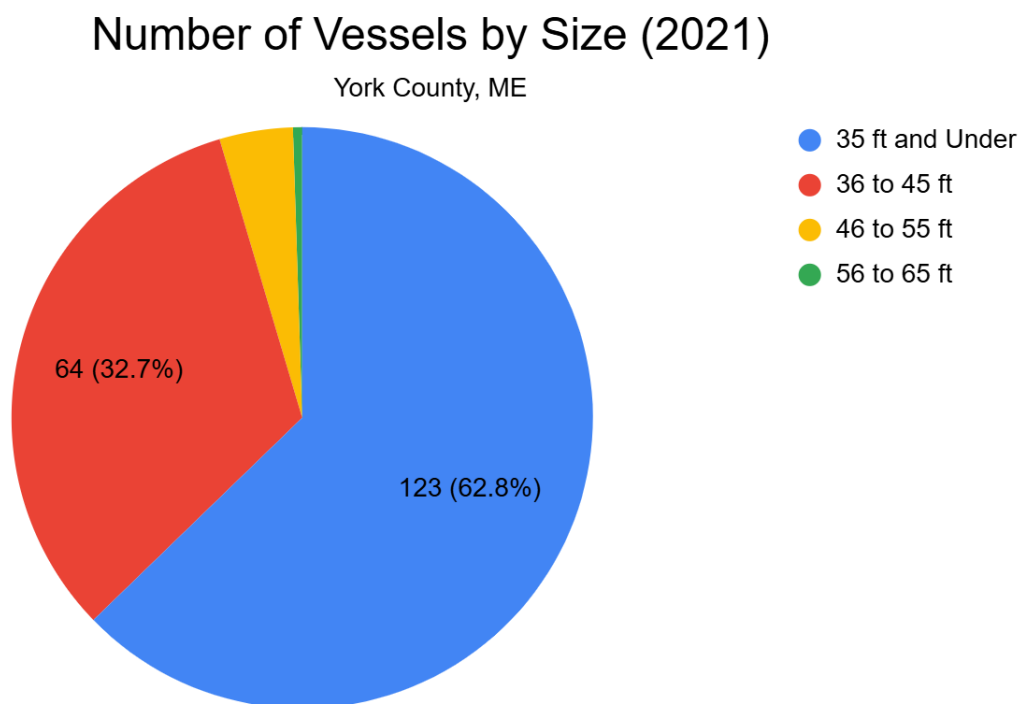


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in York County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

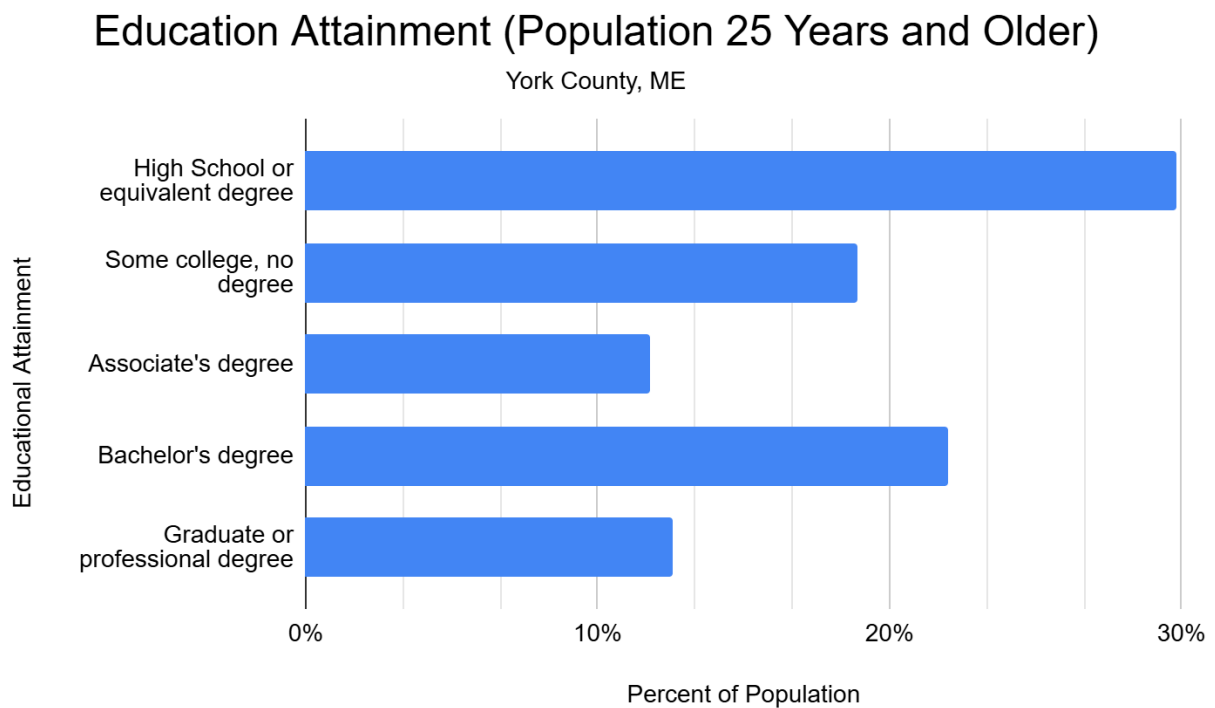


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

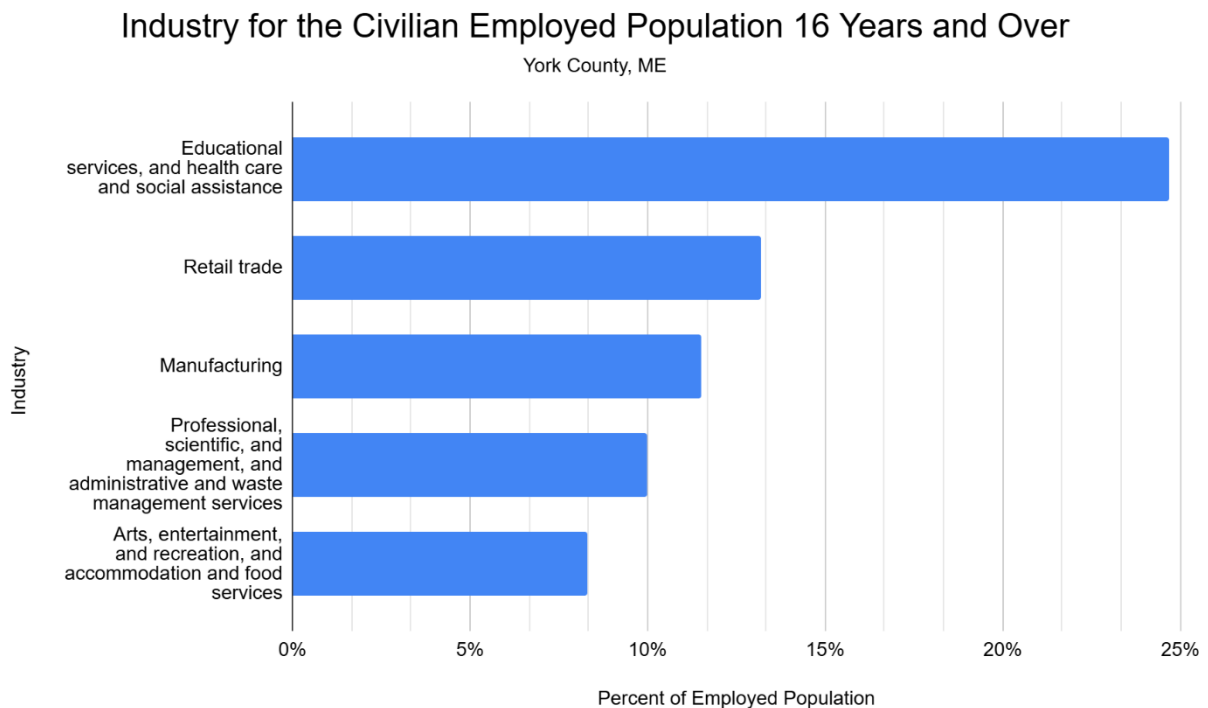
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in York County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 3.5%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$82,904³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 7.8%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

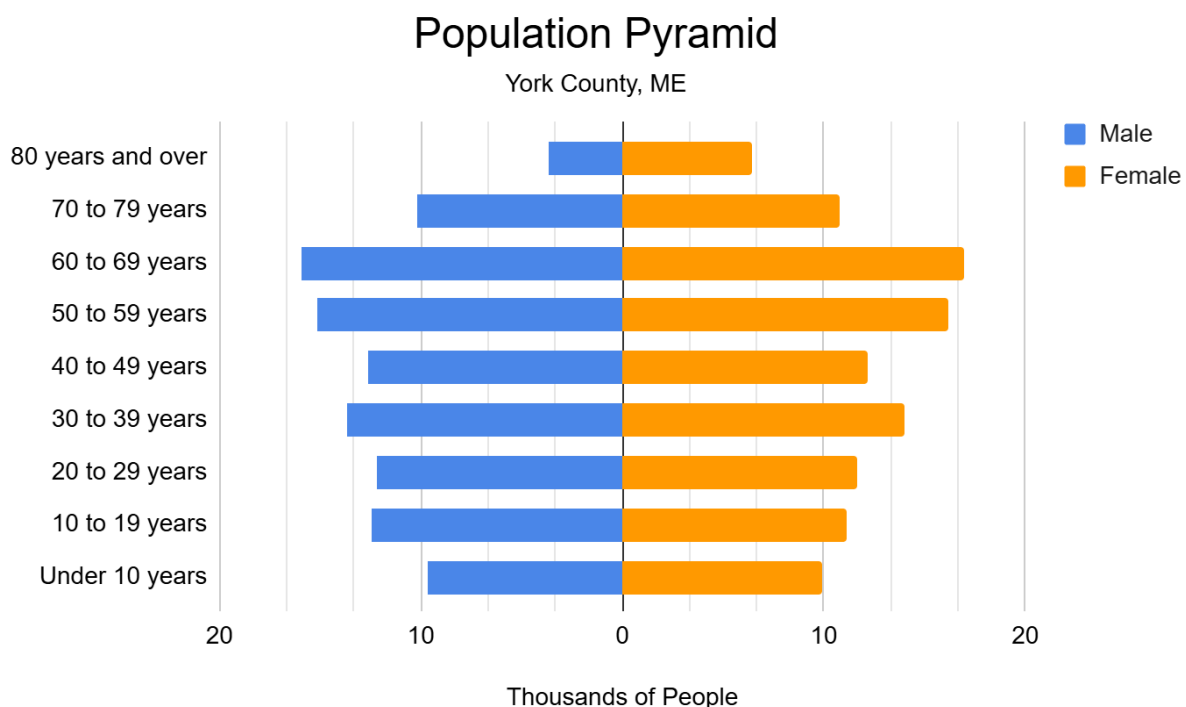
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 43.9⁵

National median: 38.7⁵

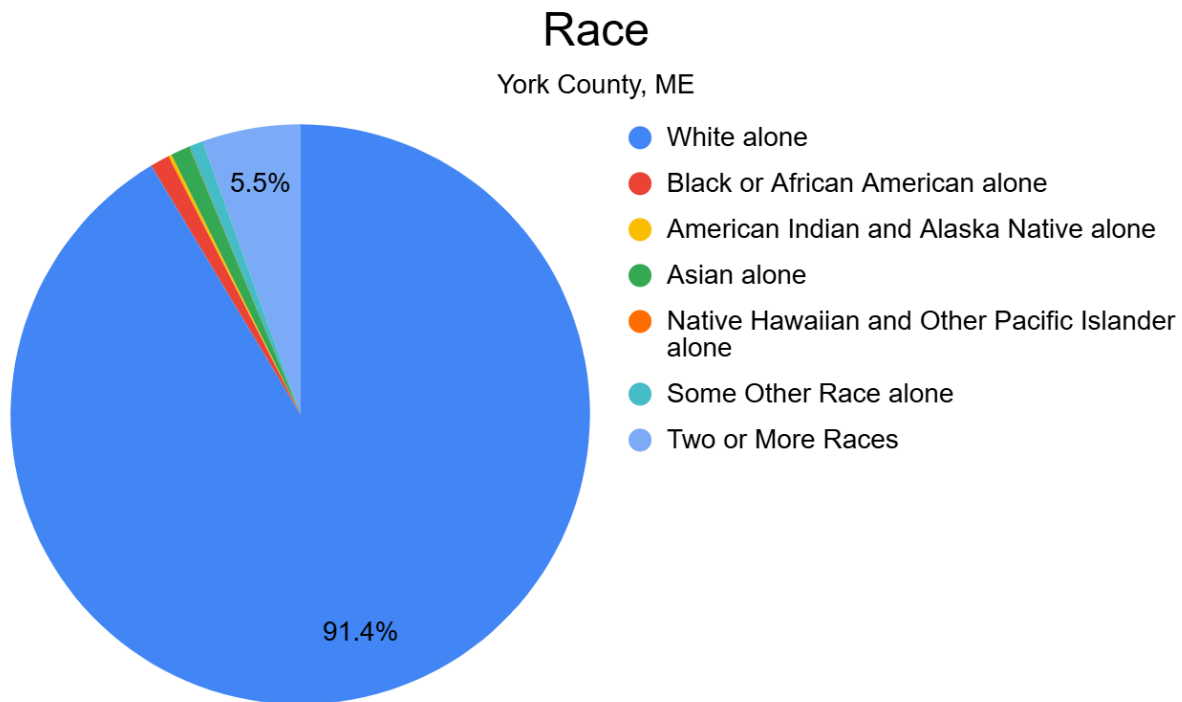


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

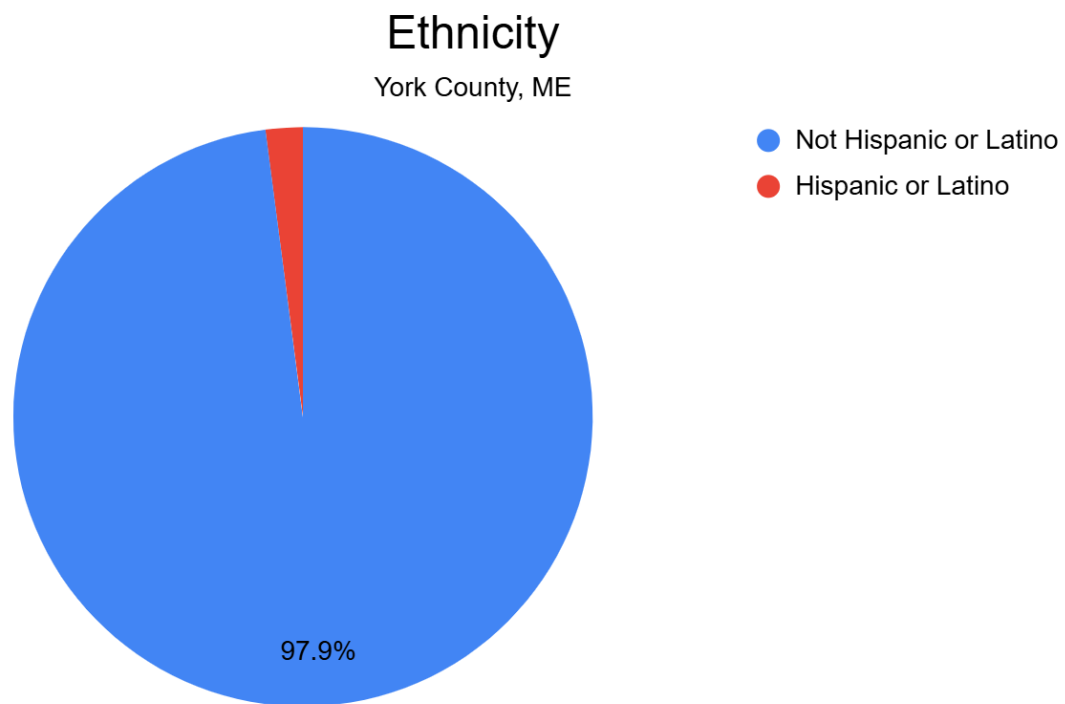
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

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Foreign Born: 3.8%⁶

National Average: 13.9%⁶

Speak English less than very well: 1.5%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

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Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in York County

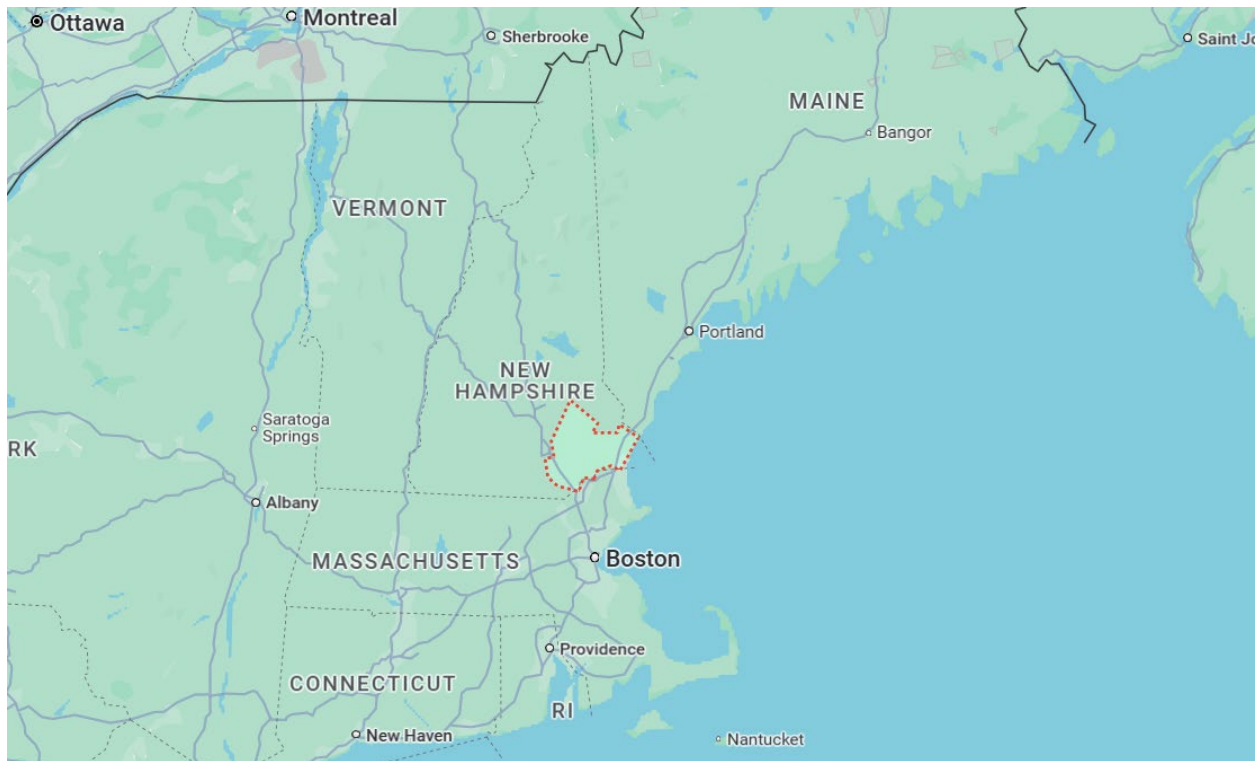
Community Name	Kittery / Kittery Point	Ogunquit	York Harbor	Kennebunk- port	Biddeford
Commercial Engagement	0.784	0.234	0.364	0.986	0.013
Commercial Reliance	-0.02	0.059	-0.001	0.23	-0.051
Poverty	-0.462	-0.635	-0.664	0.021	-0.159
Population Composition	-0.429	-1.134	-0.768	-1.062	-0.559
Personal Disruption	-0.74	-1.146	-1.066	-0.389	-0.067
Housing Disruption	0.422	1.205	-0.752	-1.001	0.198
Retiree Migration	0.365	1.774	0.395	0.509	-0.565
Urban Sprawl	-0.263	-0.016	-0.258	-0.206	-0.237
Labor Force	0.217	1.86	0.379	-0.074	-0.545
Housing Characteristics	0.153	-0.018	-0.094	-0.456	0.403
Sea Level Rise Risk	0.134	-0.093	-0.052	-0.13	-0.143
Storm Surge Risk	-0.498	-0.596	-0.592	-0.376	-0.529

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Rockingham County, NH

Rockingham County has a population of 317,163¹ and a population per square mile of 456². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

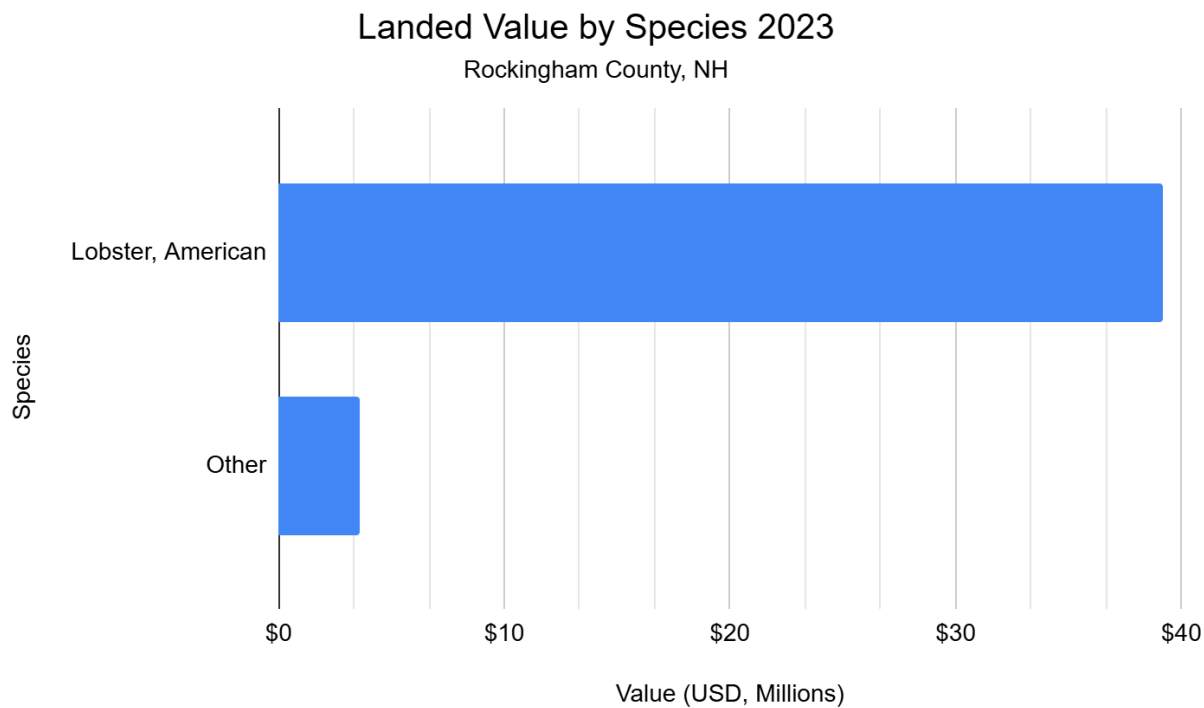
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Rockingham County?

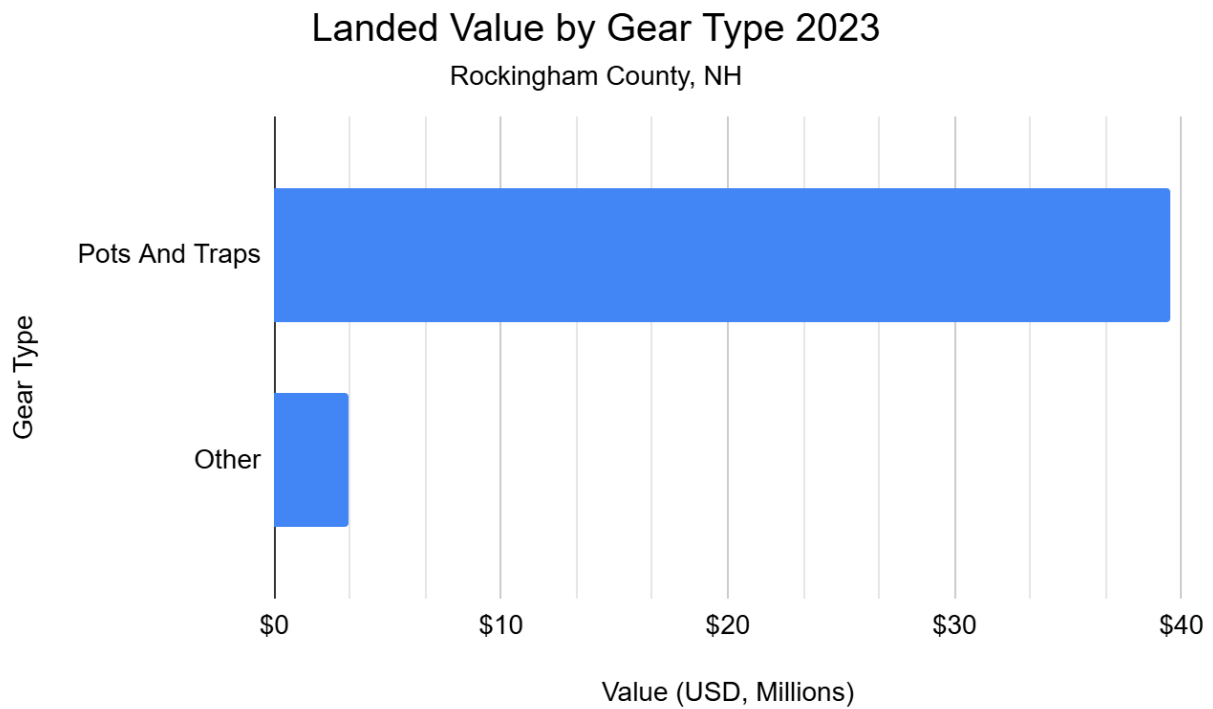
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Rockingham County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

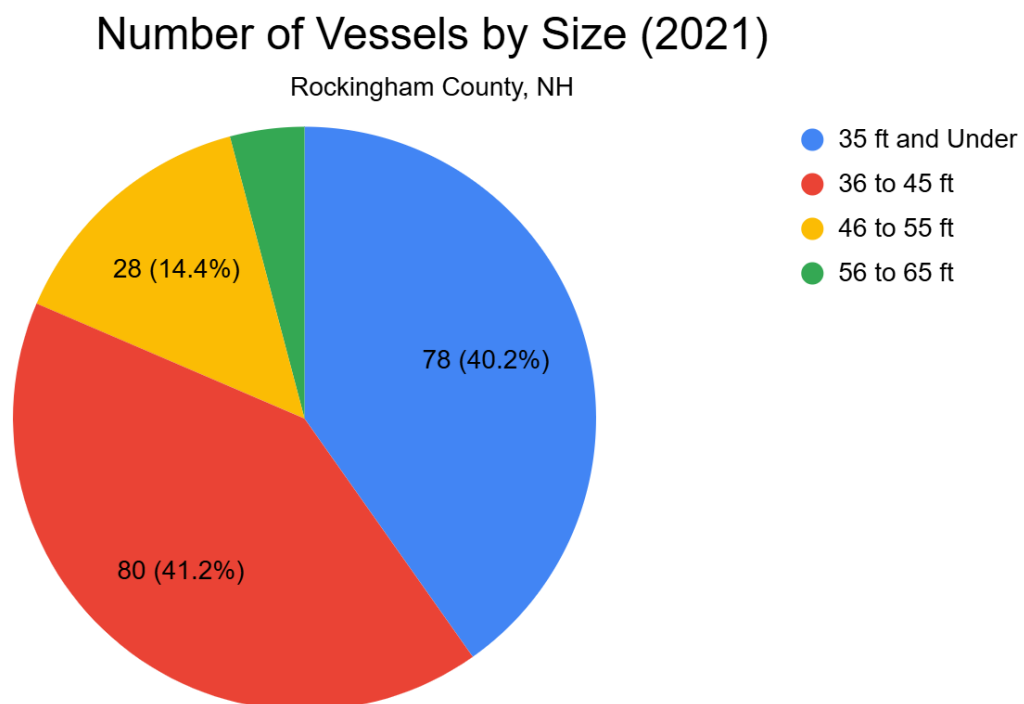


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Rockingham County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

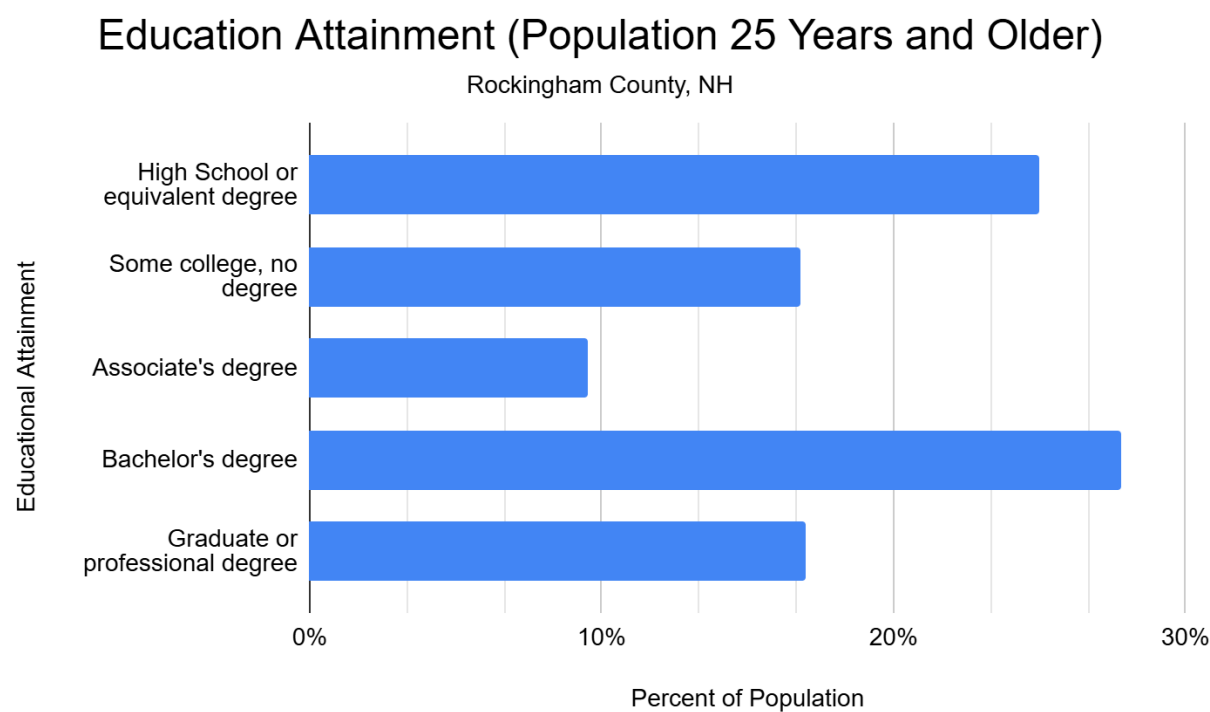


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

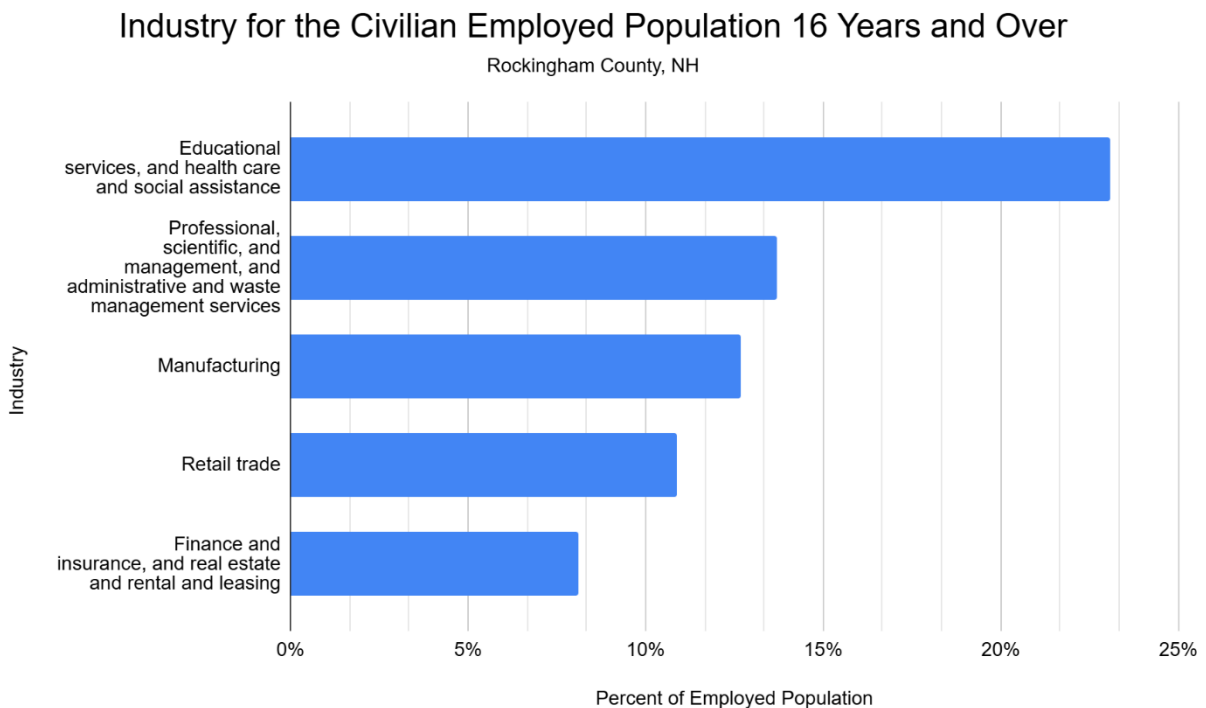
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Rockingham County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 3.5%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$113,927³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 4.8%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

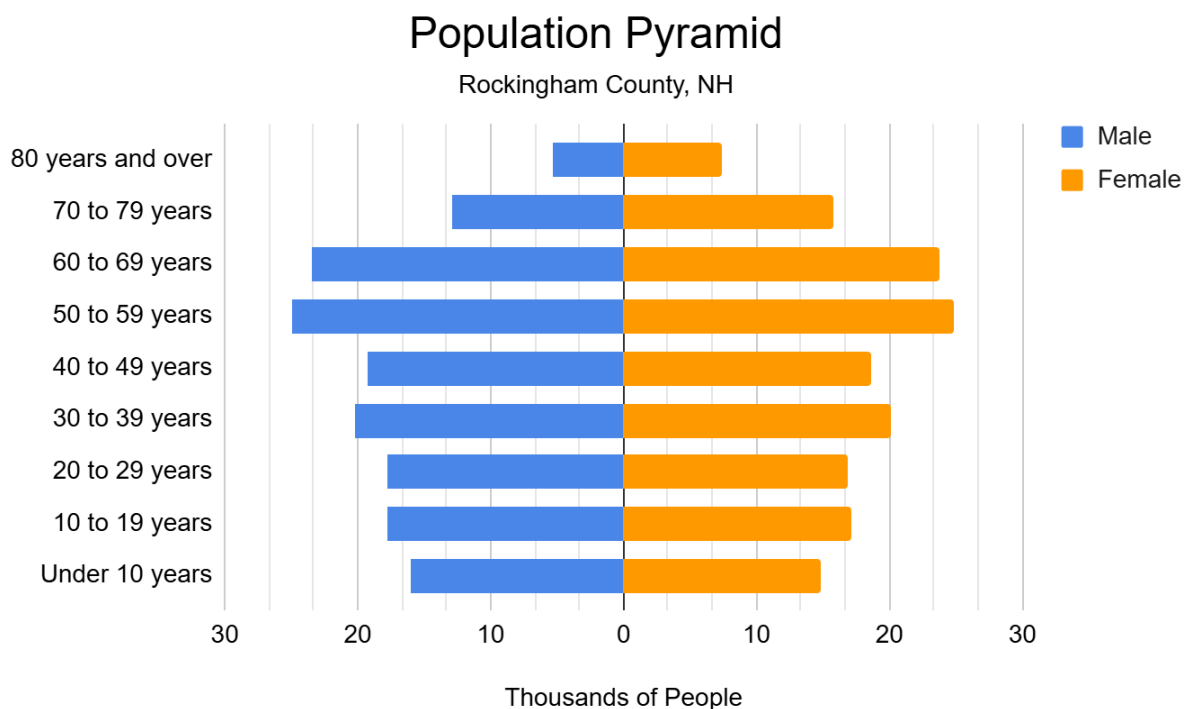
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Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 44.8⁵

National median: 38.7⁵

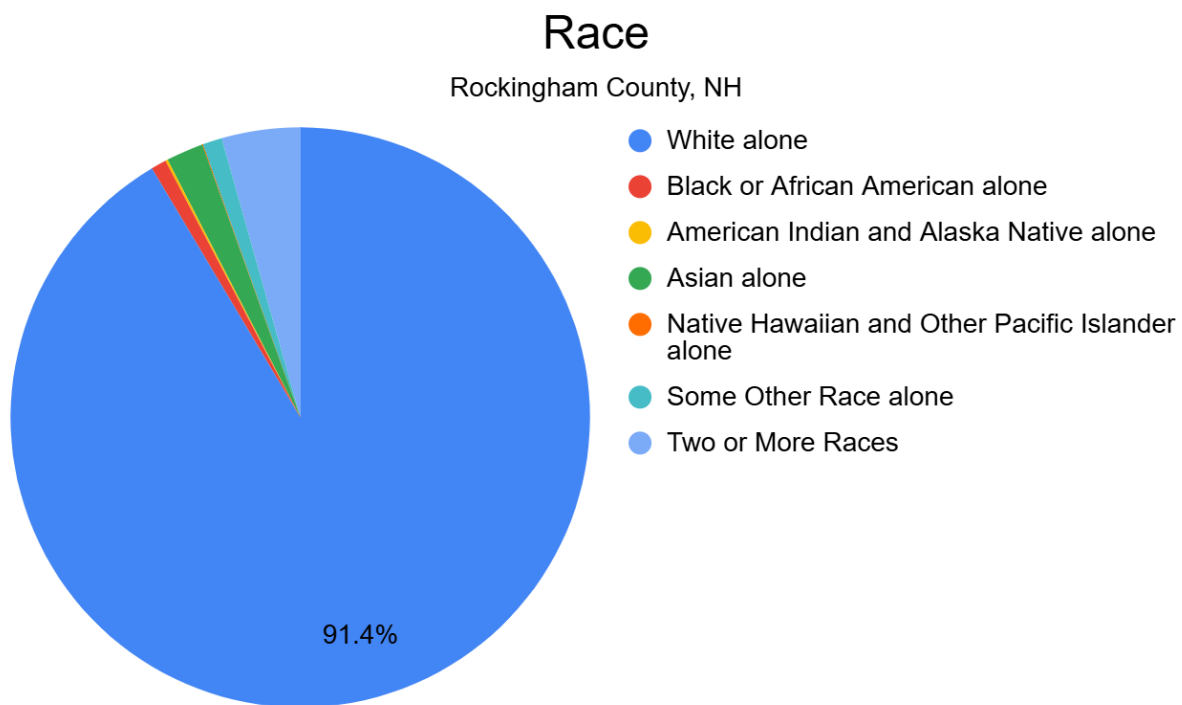


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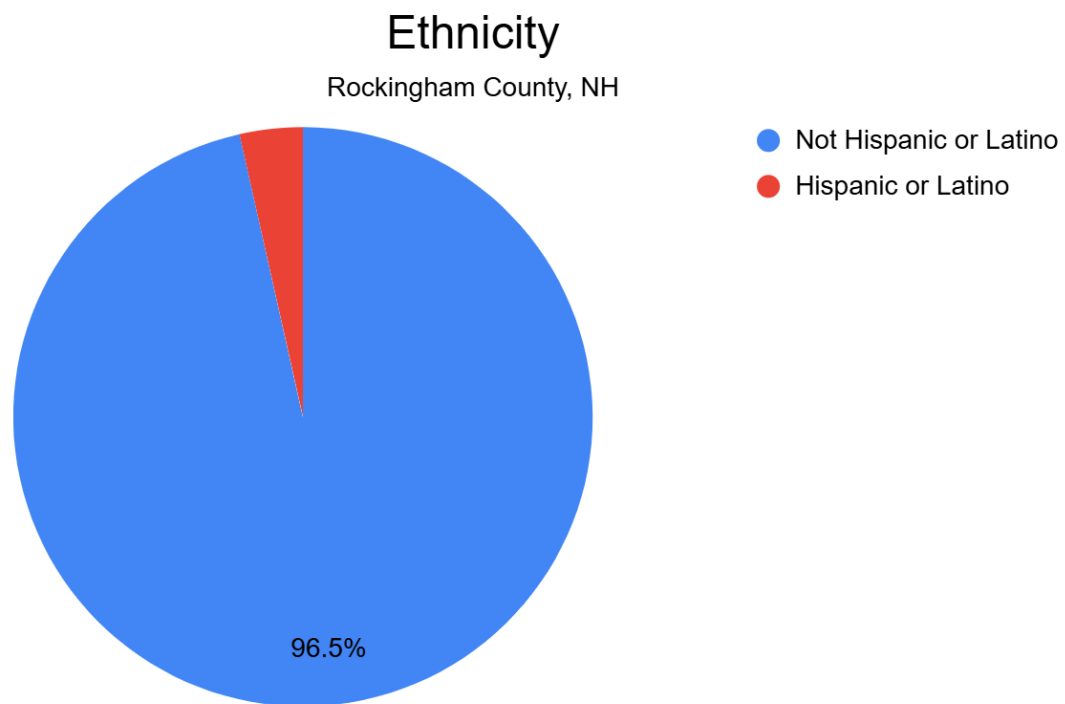
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



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Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 5.3%⁶

National Average: 13.9%⁶

Speak English less than very well: 1.3%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

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The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Rockingham County

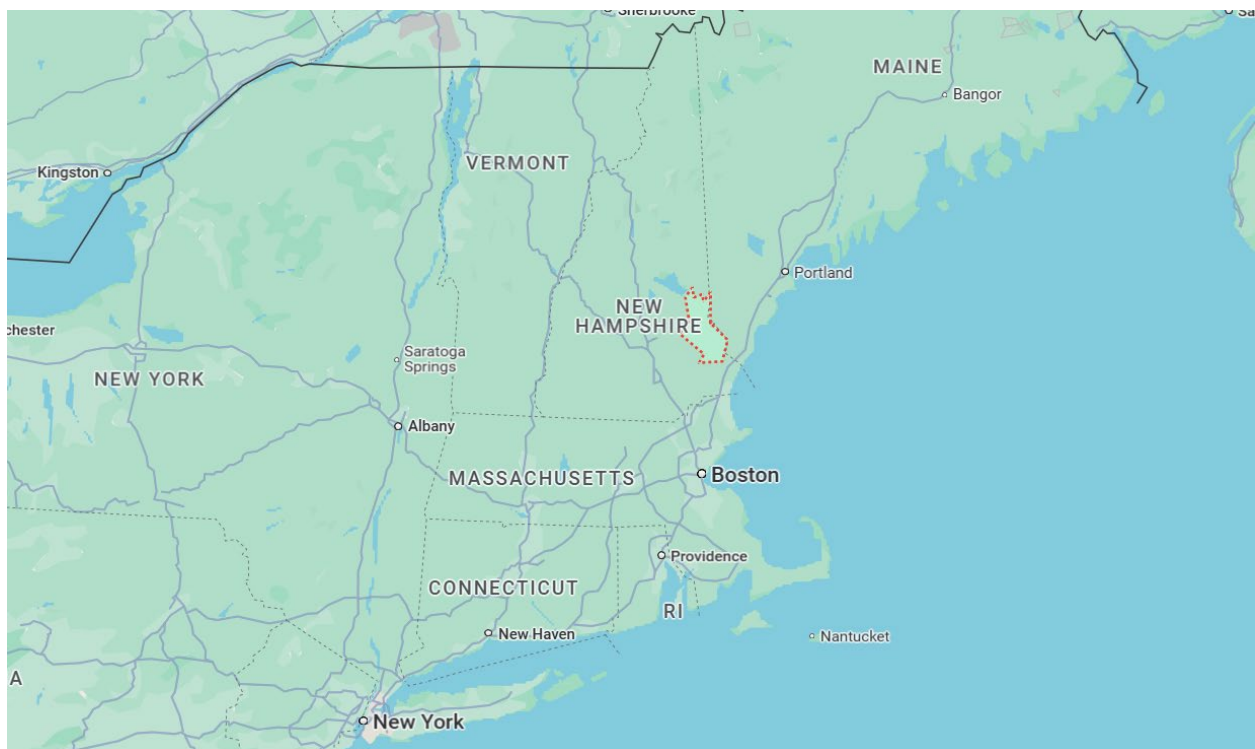
Community Name	Newington	Portsmouth	Seabrook	Rye	Hampton
Commercial Engagement	1.869	1.422	0.947	1.009	1.061
Commercial Reliance	0.686	-0.031	-0.026	-0.004	-0.038
Poverty	-0.649	-0.365	-0.556	-0.802	-0.579
Population Composition	-1.164	-0.765	-0.919	-1.072	-1.06
Personal Disruption	-0.354	-0.71	-0.33	-0.841	-0.67
Housing Disruption	0.71	0.741	-1.081	0.208	-0.237
Retiree Migration	-0.044	-0.657	0.203	0.441	-0.107
Urban Sprawl	0.262	0.275	0.297	0.815	0.244
Labor Force	-0.343	-0.74	-0.106	0.323	-0.323
Housing Characteristics	-2.354	-0.001	0.698	-0.441	0.038
Sea Level Rise Risk	-0.233	-0.228	0.585	0.225	0.672
Storm Surge Risk	-0.545	-0.577	-0.372	-0.244	-0.315

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

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Strafford County, NH

Strafford County has a population of 131,743¹ and a population per square mile of 359². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

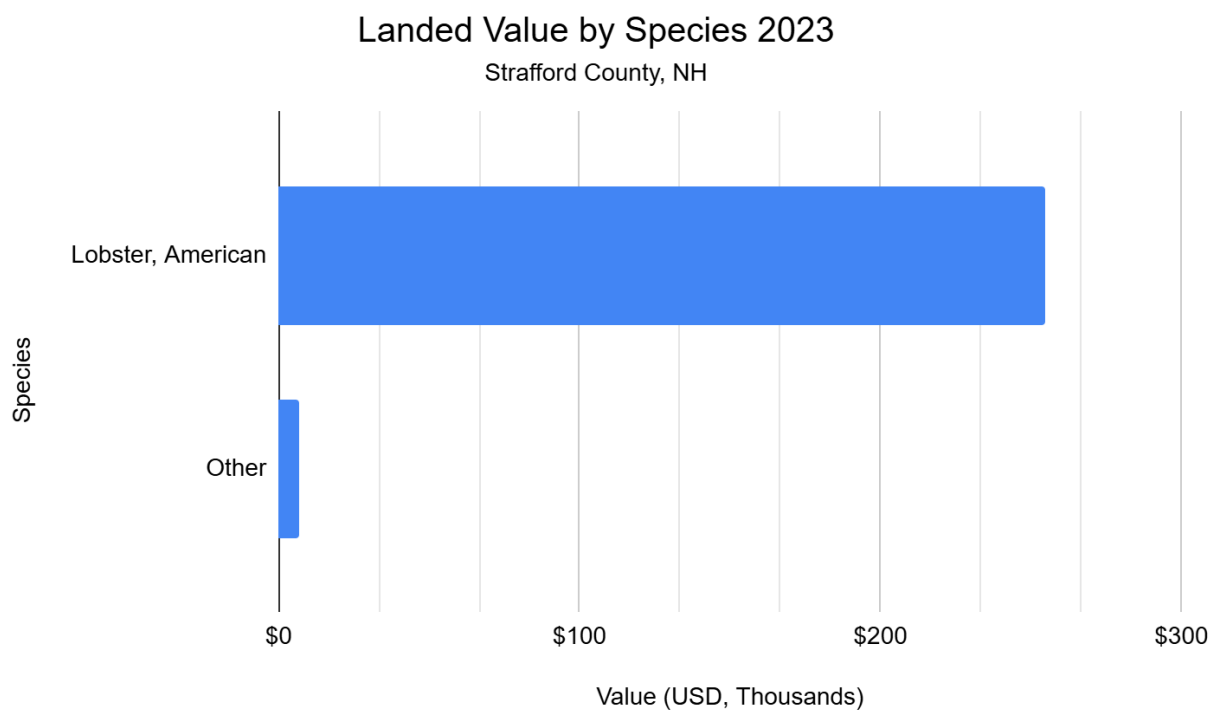
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Strafford County?

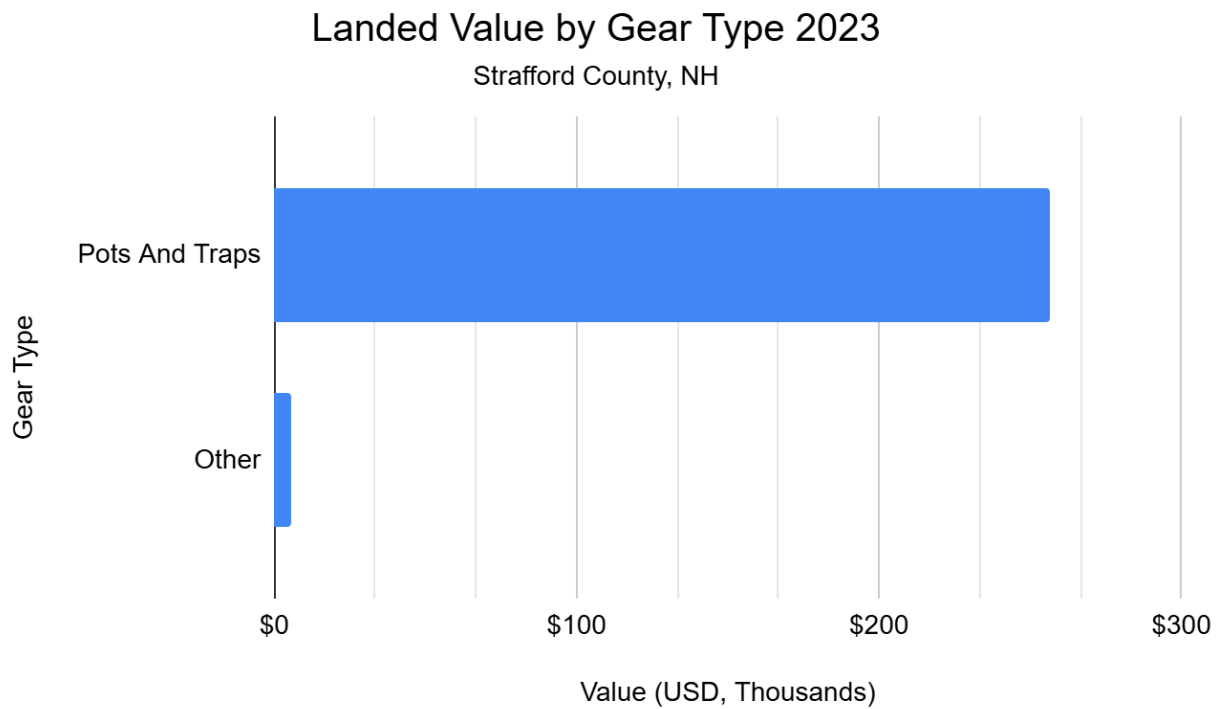
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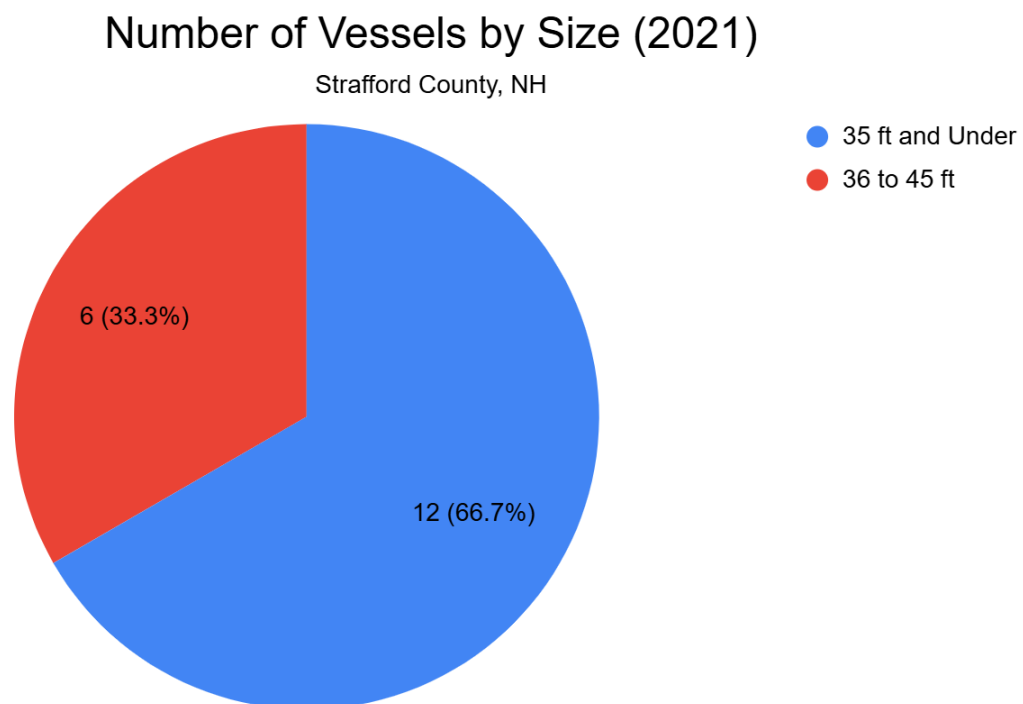


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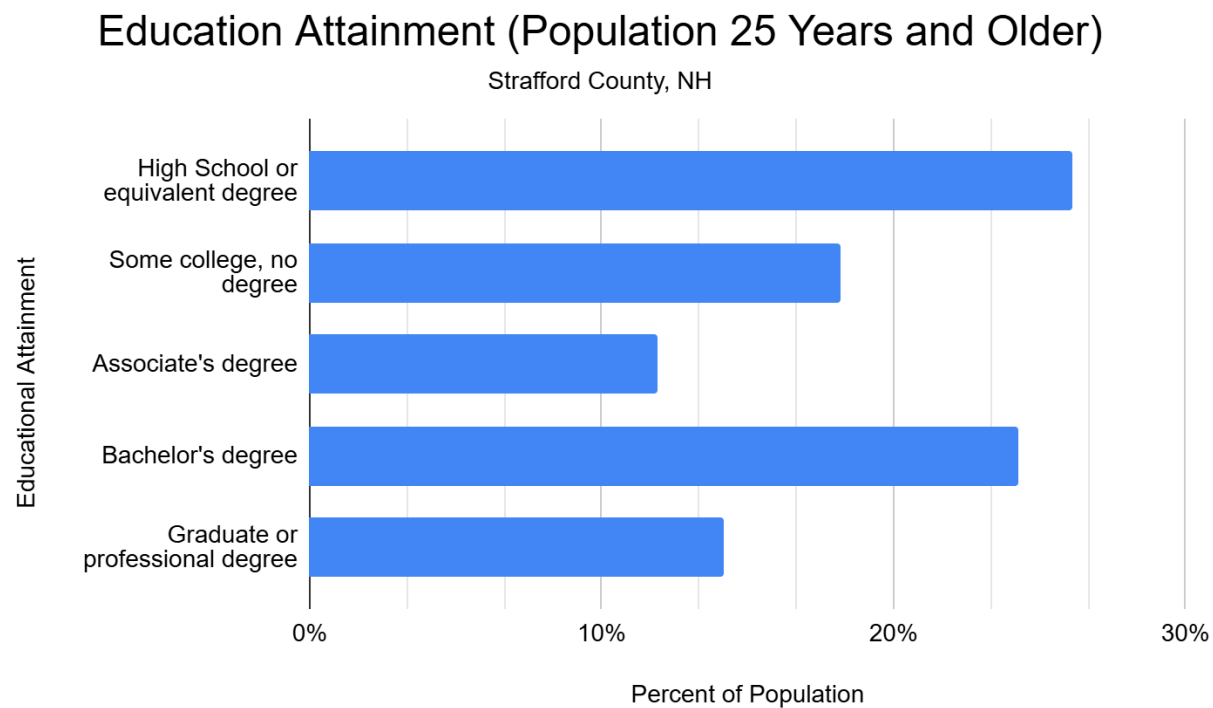


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Demographic Attributes

Educational Attainment

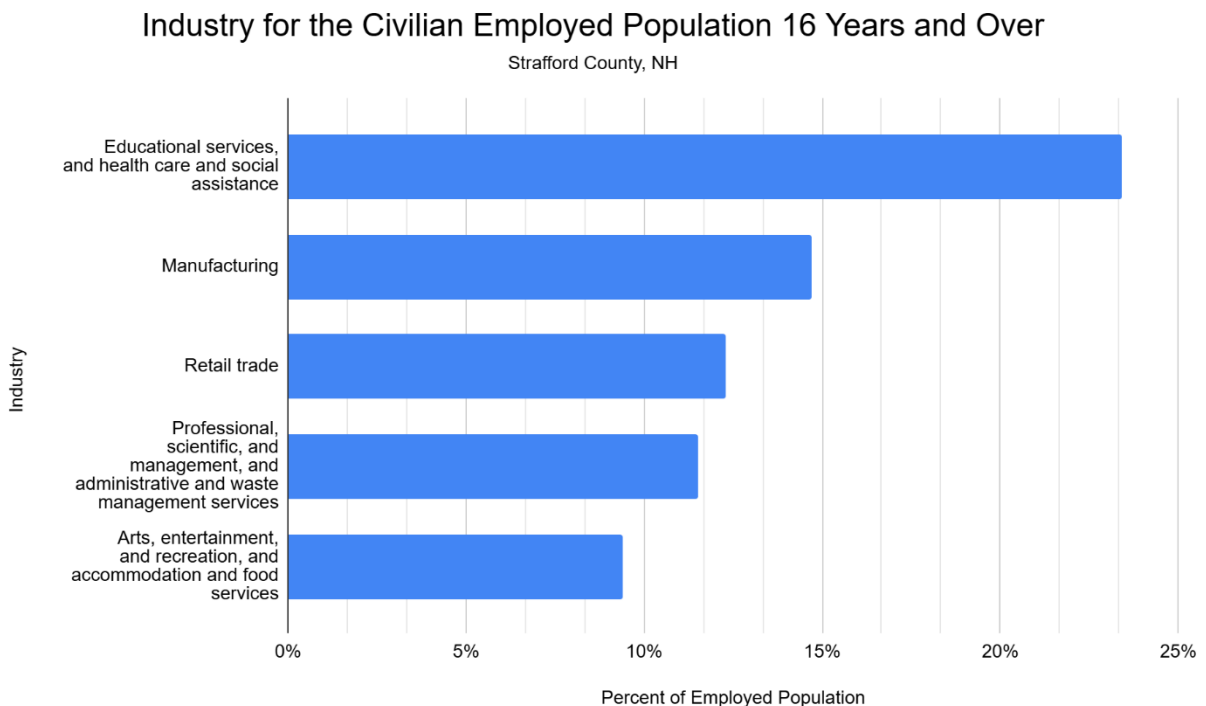
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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 3.6%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$86,564³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 8.8%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

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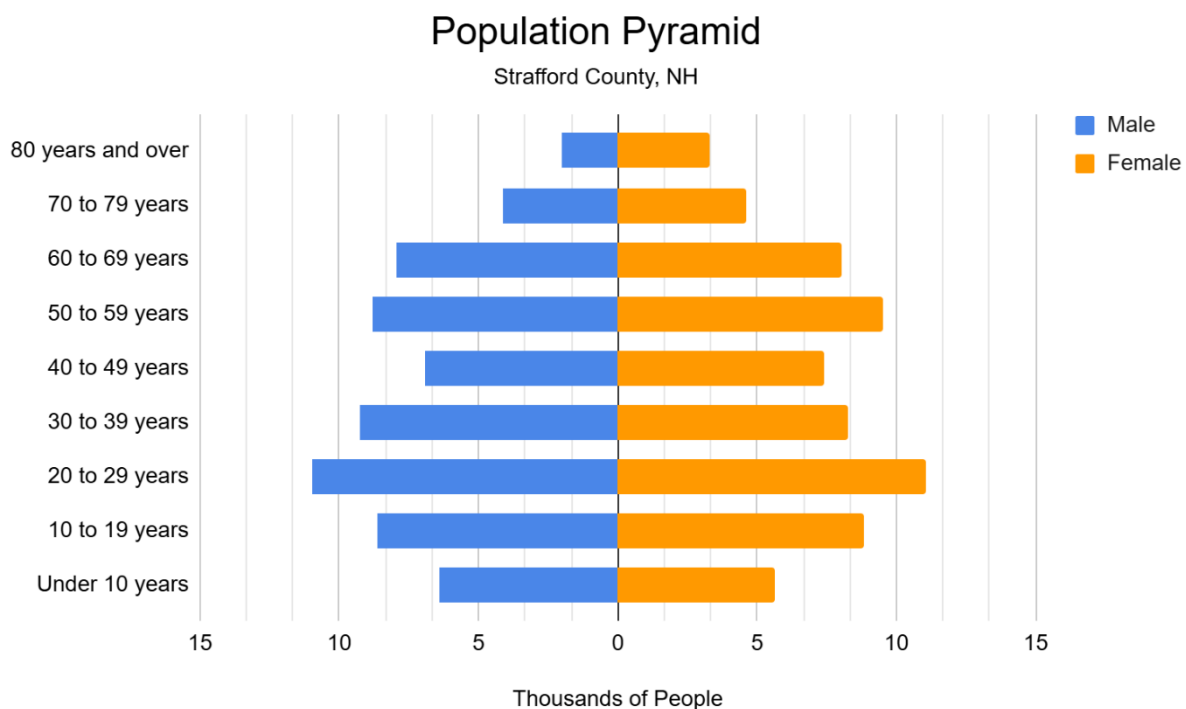
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Median age: 37.9⁵

National median: 38.7⁵

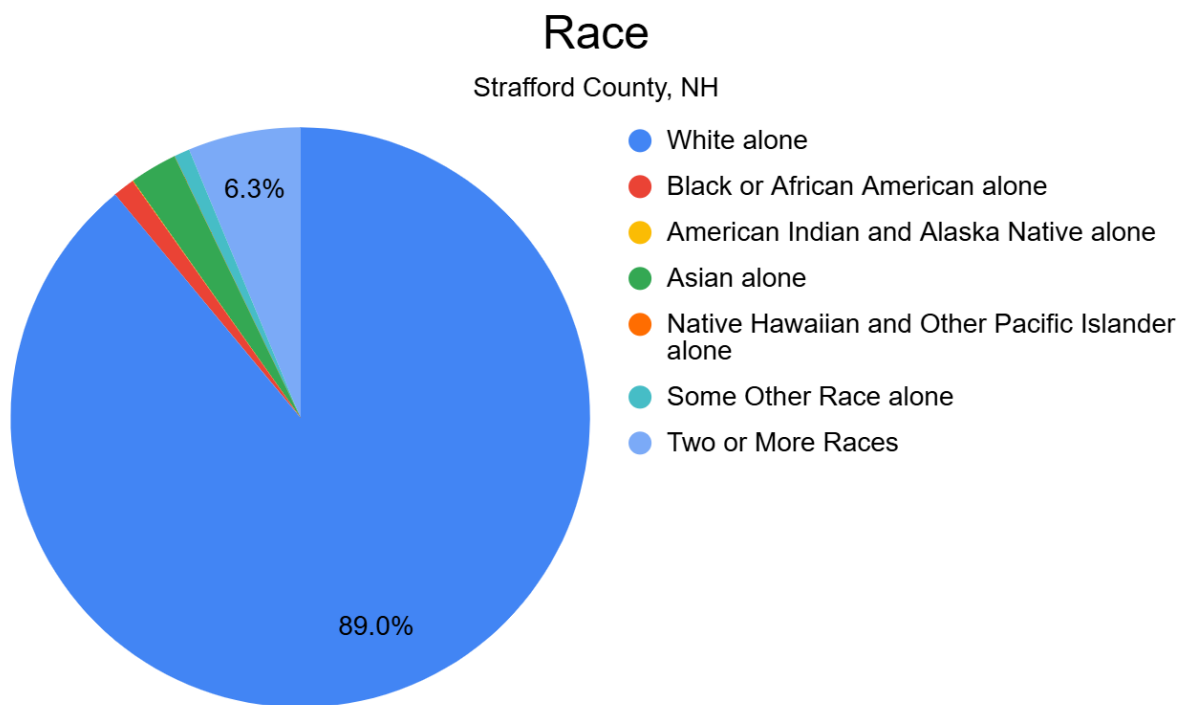


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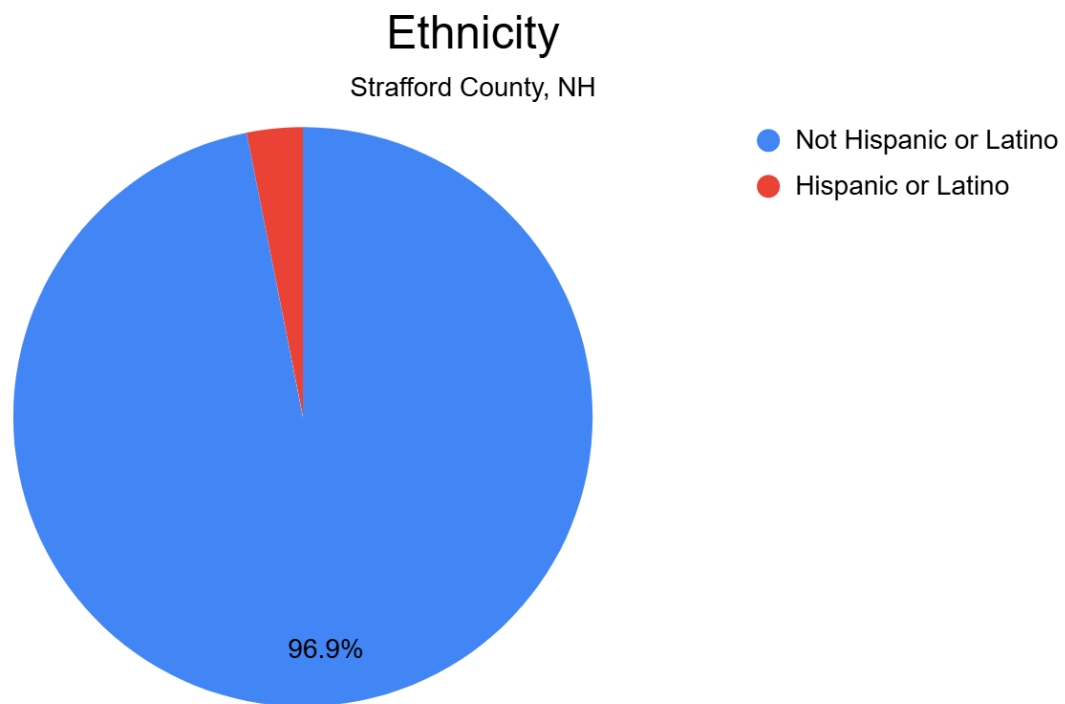
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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



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Language and Marginalization

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Foreign Born: 4.0%⁶

National Average: 13.9%⁶

Speak English less than very well: 1.4%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

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Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Strafford County

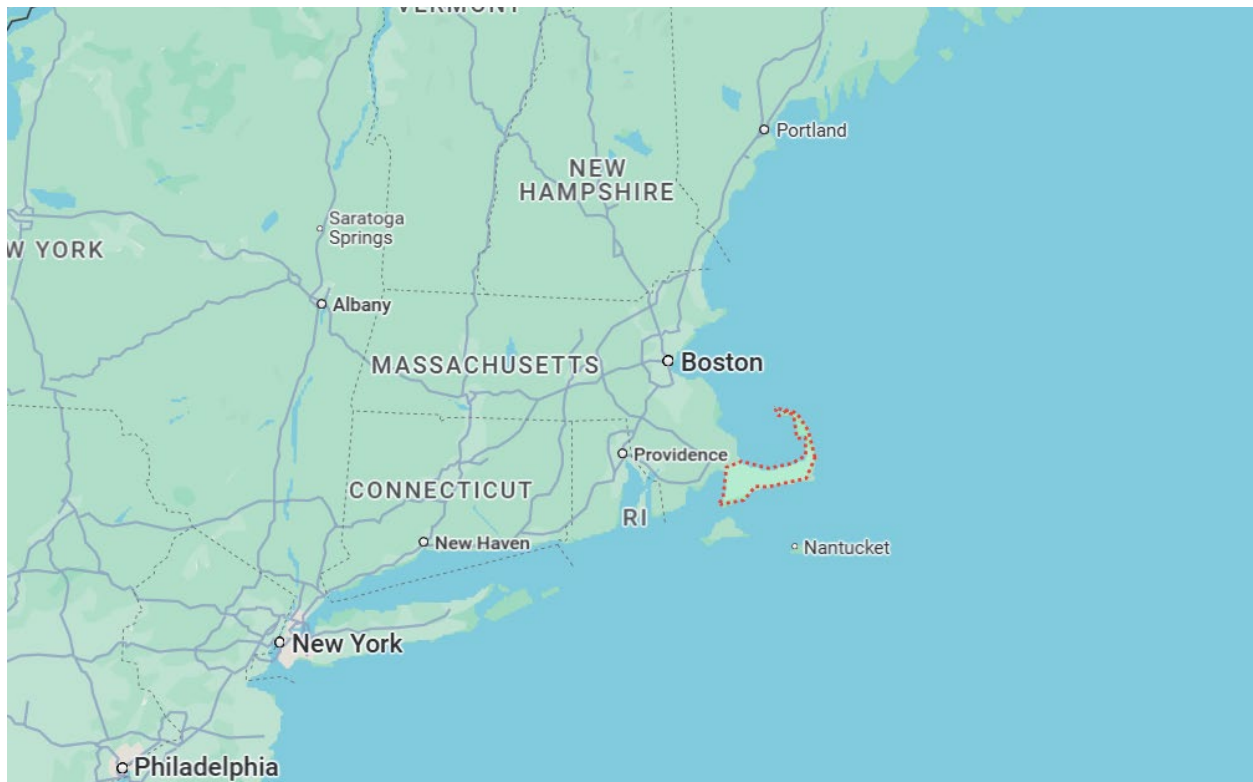
Community Name	Dover	Durham	Farmington	Rochester	Somersworth
Commercial Engagement	0.005	-0.147	-0.153	-0.079	-0.116
Commercial Reliance	-0.051	-0.053	-0.053	-0.052	-0.052
Poverty	-0.384	-0.704	-0.115	-0.195	-0.263
Population Composition	-0.492	-0.846	-0.501	-0.86	-0.529
Personal Disruption	-0.452	0.066	0.17	-0.212	-0.423
Housing Disruption	0.244	-0.178	-0.059	-0.045	0.277
Retiree Migration	-0.726	-0.826	-0.847	-0.194	-0.641
Urban Sprawl	-0.059	0.391	-0.271	-0.248	-0.196
Labor Force	-0.882	-0.713	-0.759	-0.264	-0.861
Housing Characteristics	0.196	-0.09	0.718	0.812	0.393
Sea Level Rise Risk	-0.18	-0.327	-0.346	-0.346	-0.346
Storm Surge Risk	-0.584	-0.64	NA	NA	NA

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Barnstable County, MA

Barnstable County has a population of 230,073¹ and a population per square mile of 584². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

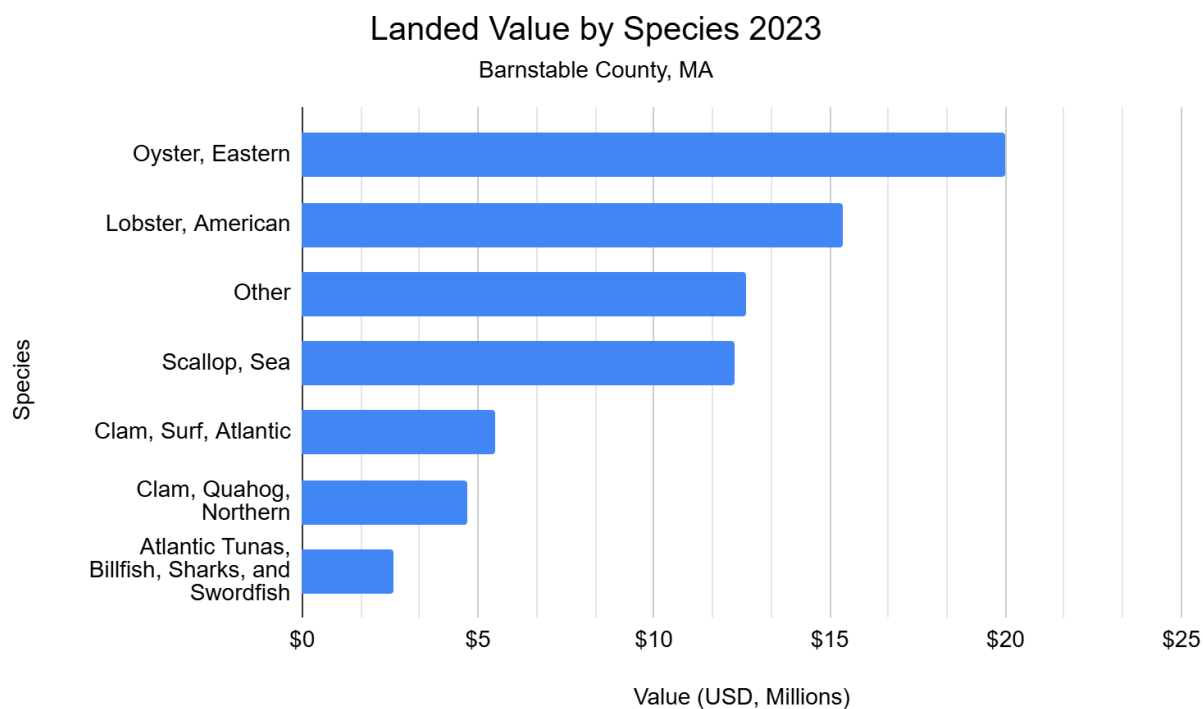
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Barnstable County?

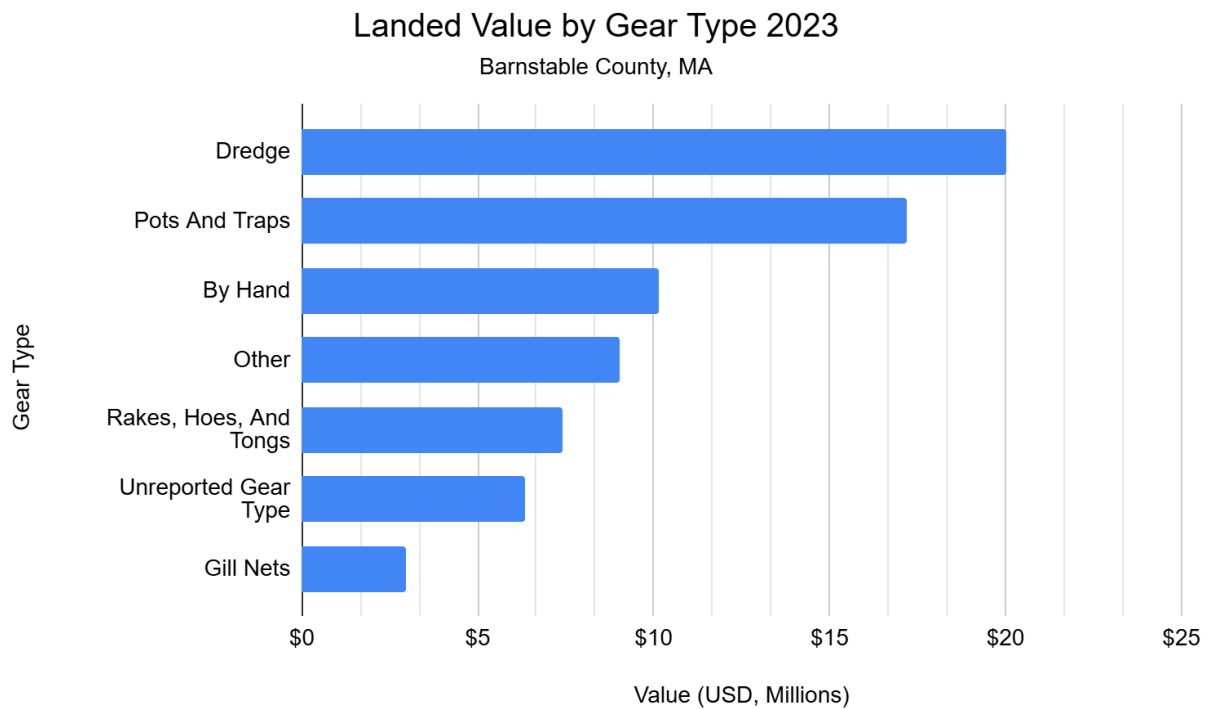
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Barnstable County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

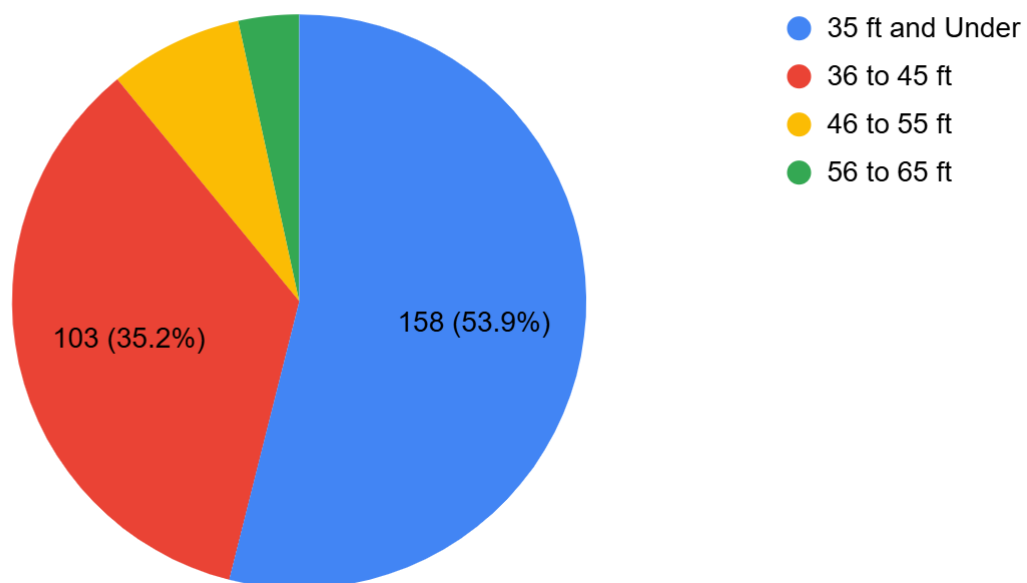
What are the characteristics of the fishing vessels in Barnstable County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

Number of Vessels by Size (2021)

Barnstable County, MA

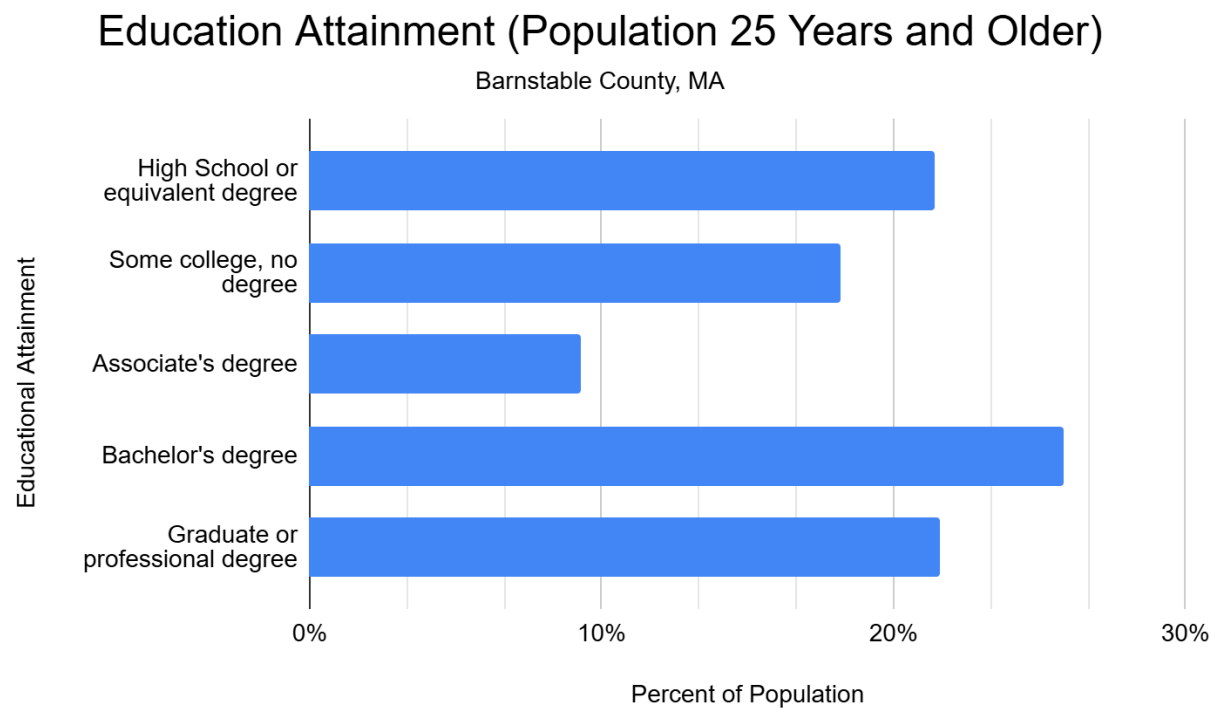


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

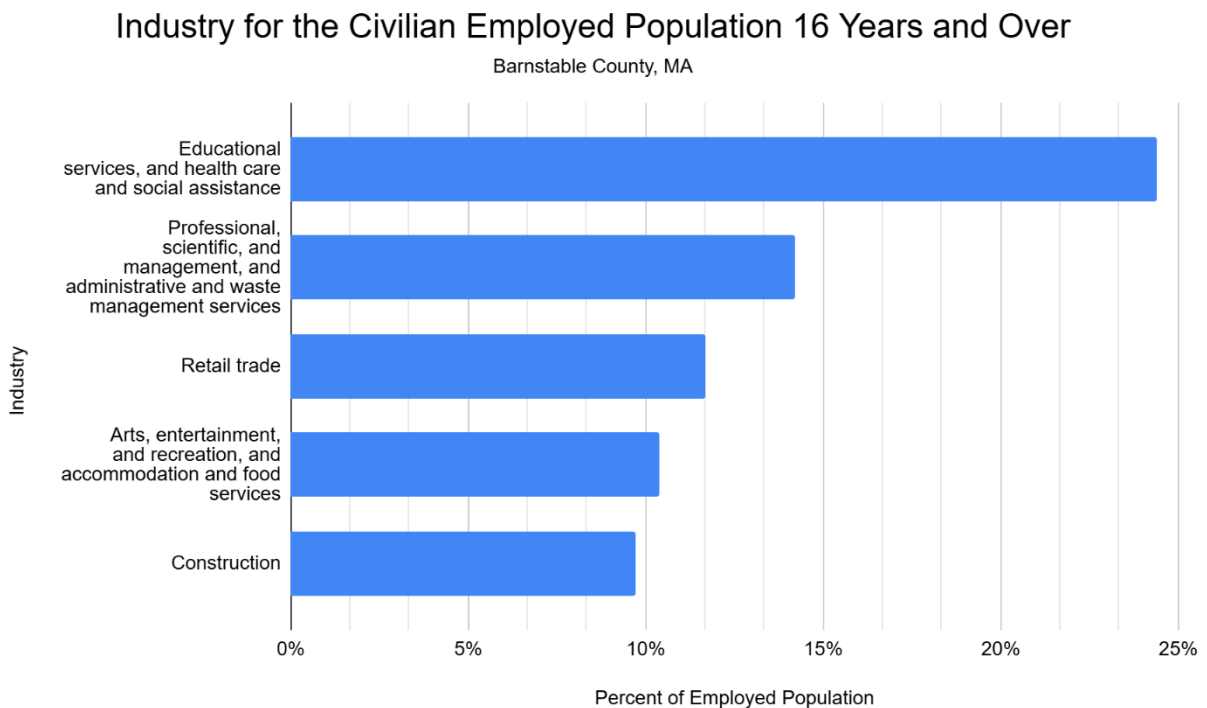
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Barnstable County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 4.6%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$94,452³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 7.4%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

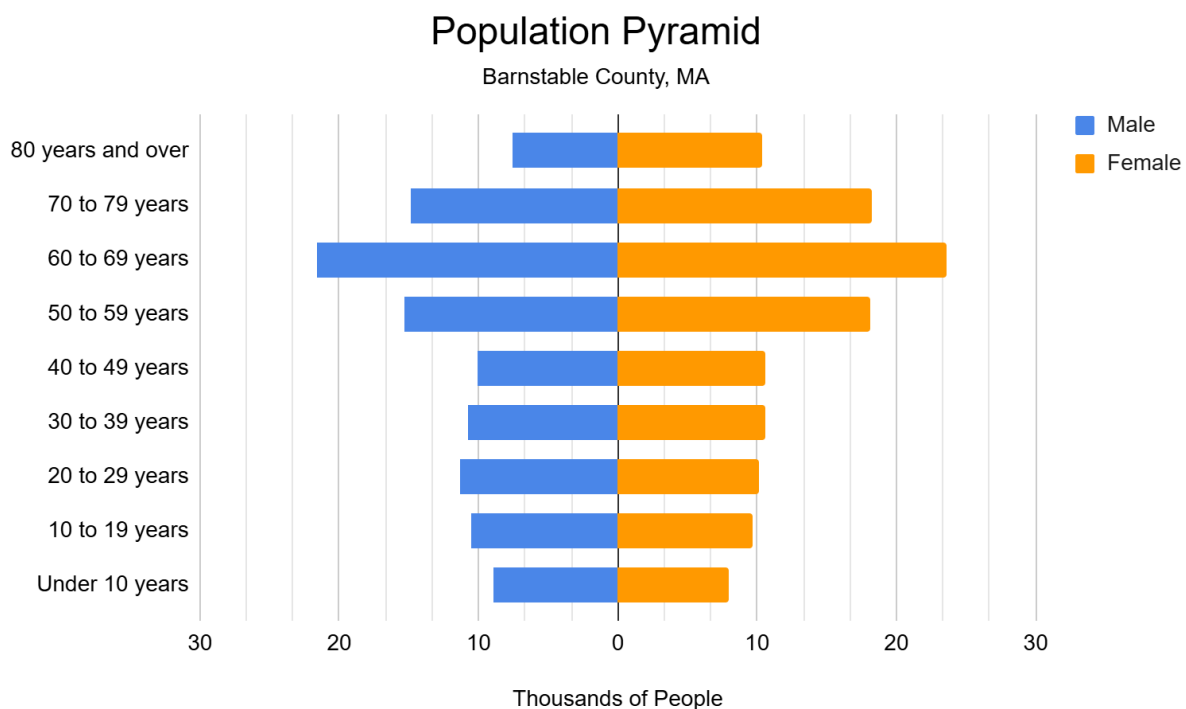
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 55.1⁵

National median: 38.7⁵

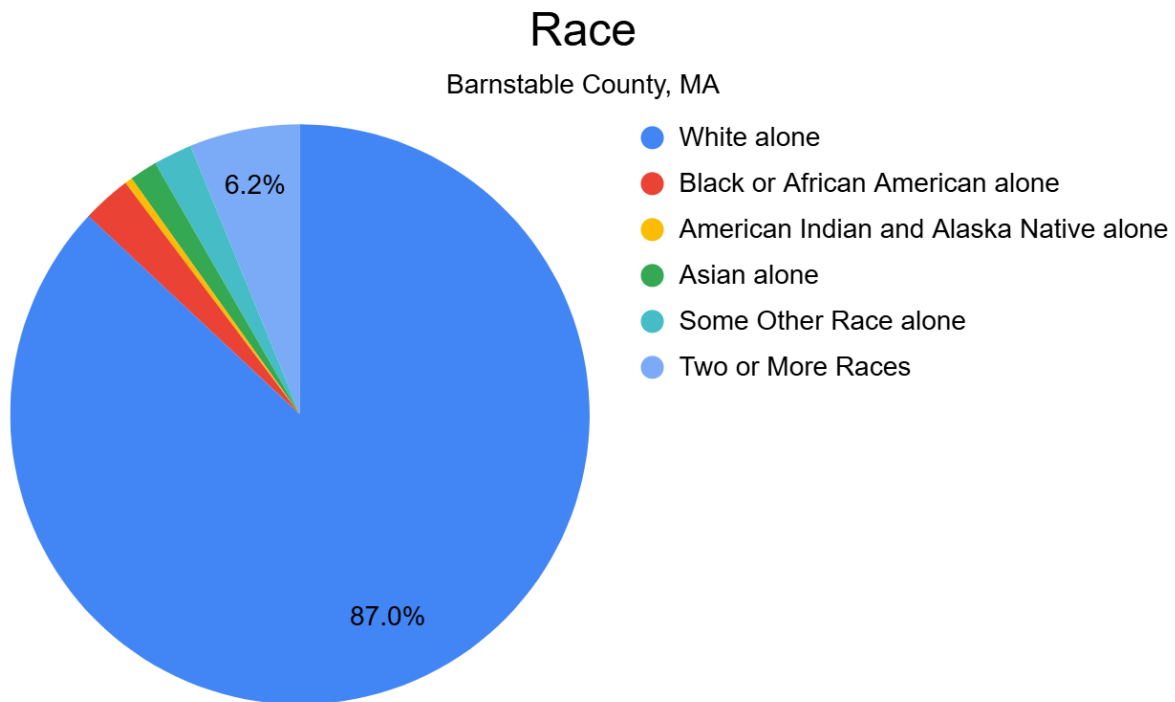


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

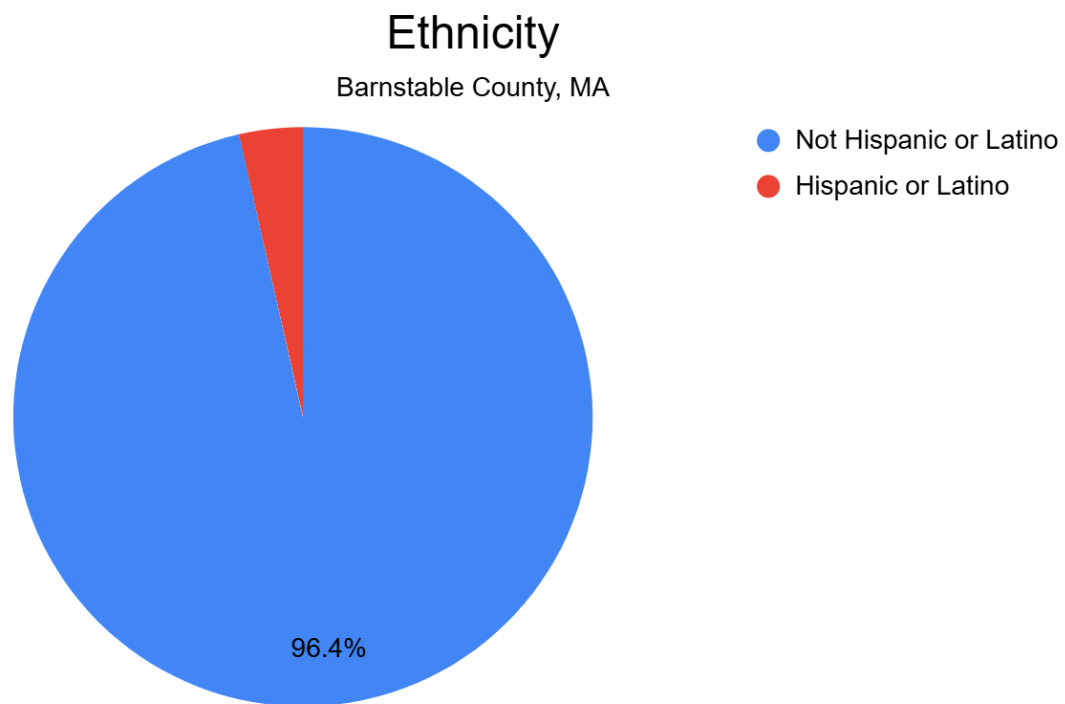
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 9.6%⁶

National Average: 13.9%⁶

Speak English less than very well: 3.7%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Barnstable County

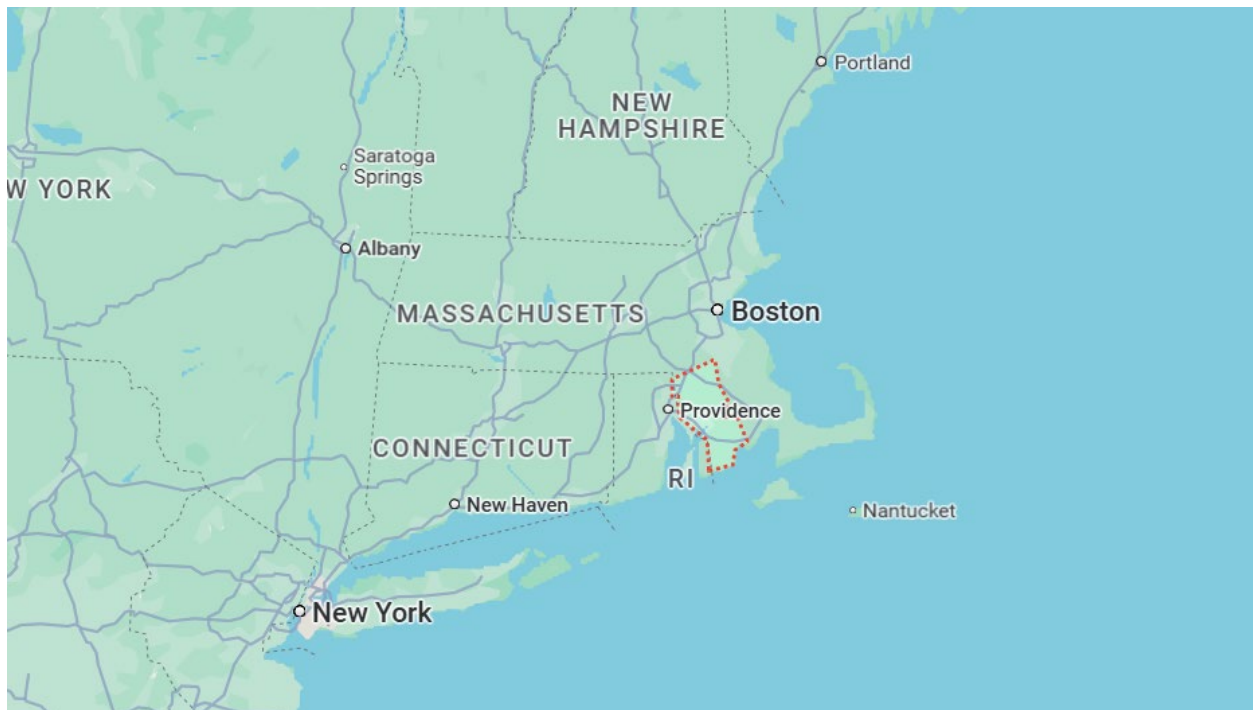
Community Name	Chatham	Provincetown	Wellfleet	Barnstable Town	Harwich Port
Commercial Engagement	4.388	1.012	0.602	1.037	0.474
Commercial Reliance	0.741	0.073	0.019	-0.043	0.049
Poverty	-0.873	-0.021	-0.734	-0.229	-0.419
Population Composition	-1.234	-0.508	-0.675	-0.323	-0.952
Personal Disruption	-0.908	-0.366	-0.632	-0.42	-0.757
Housing Disruption	3.074	0.688	1.075	NA	0.051
Retiree Migration	1.986	-0.168	1.102	-0.065	1.418
Urban Sprawl	0.2	0.172	-0.355	-0.107	-0.215
Labor Force	1.605	-0.094	0.807	-0.398	1.063
Housing Characteristics	-0.329	0.31	0.105	-0.271	0.048
Sea Level Rise Risk	0.537	-0.132	0.293	0.708	-0.056
Storm Surge Risk	-0.367	-0.26	-0.249	0.04	0.083

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Bristol County, MA

Bristol County has a population of 578,436¹ and a population per square mile of 1,046². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

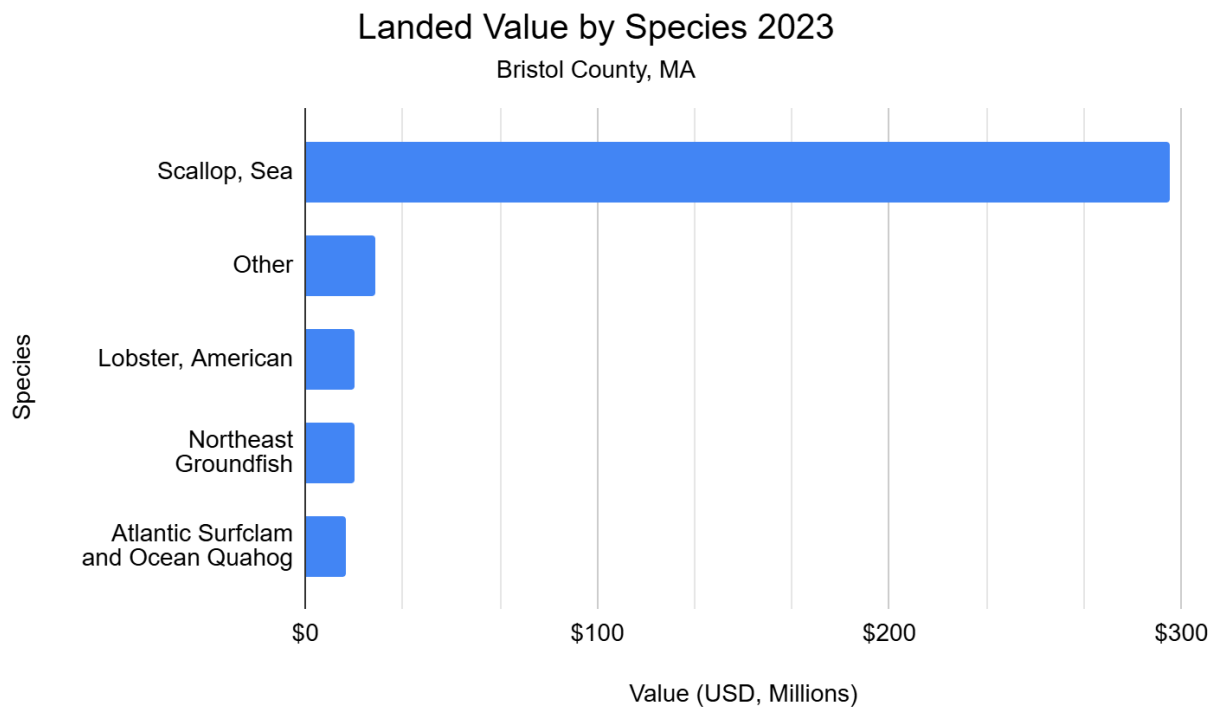
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Bristol County?

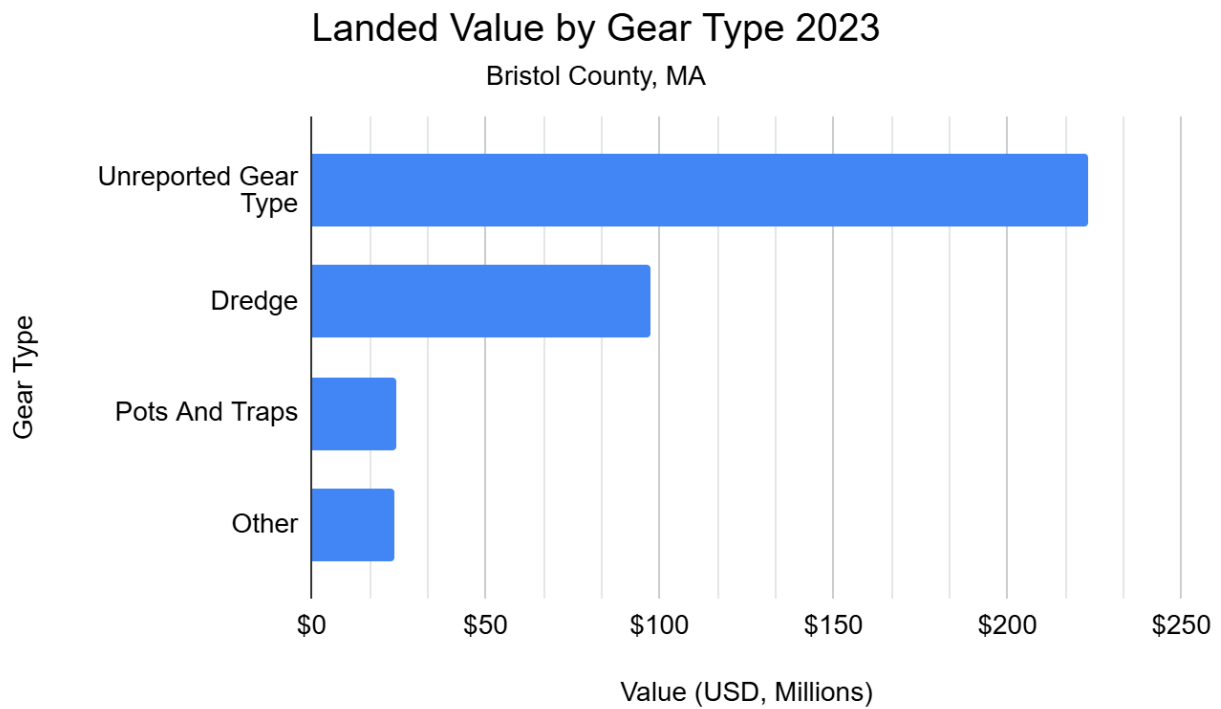
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Bristol County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

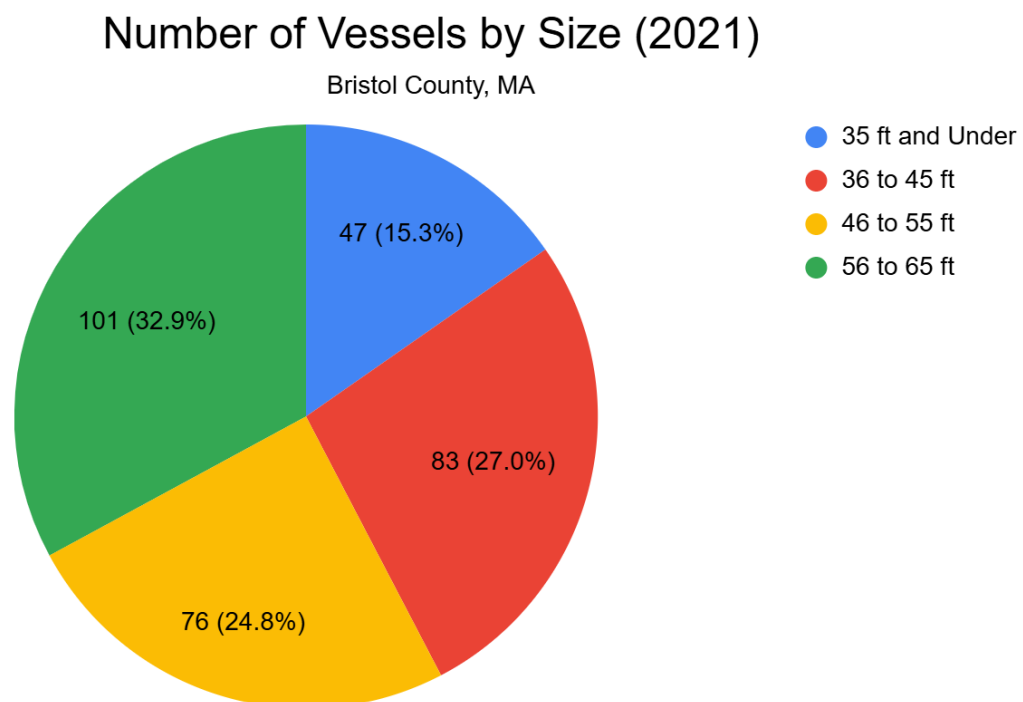


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Bristol County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

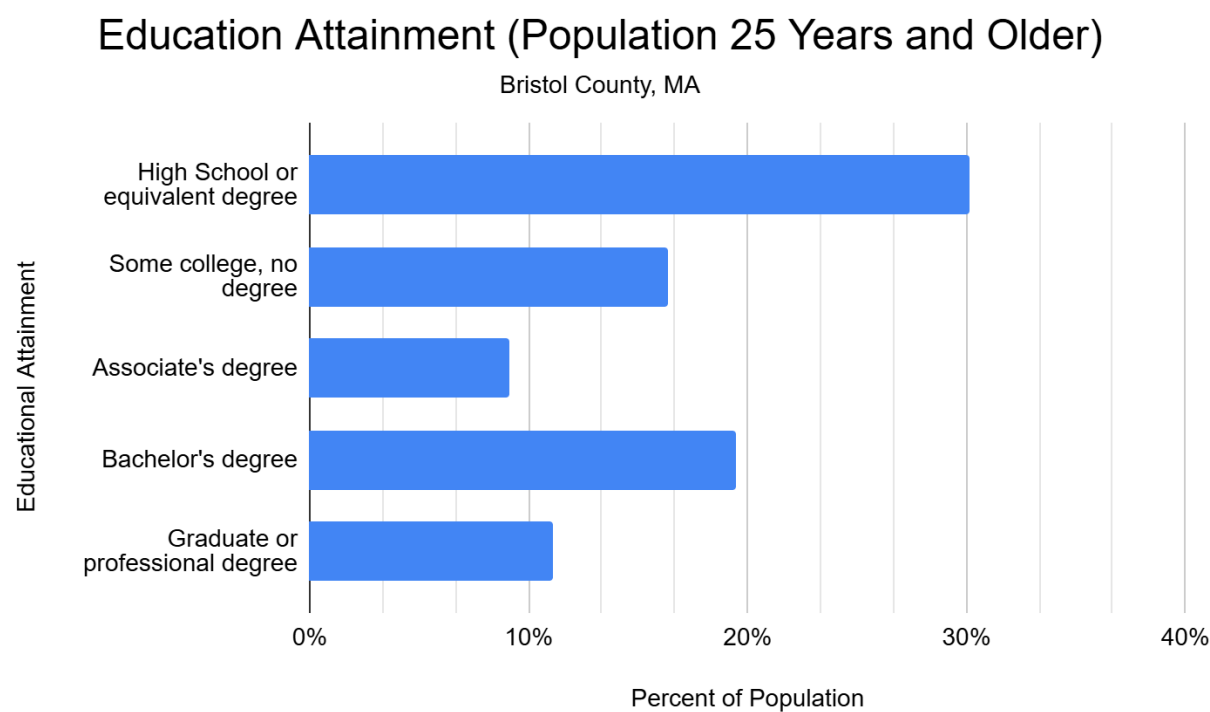


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

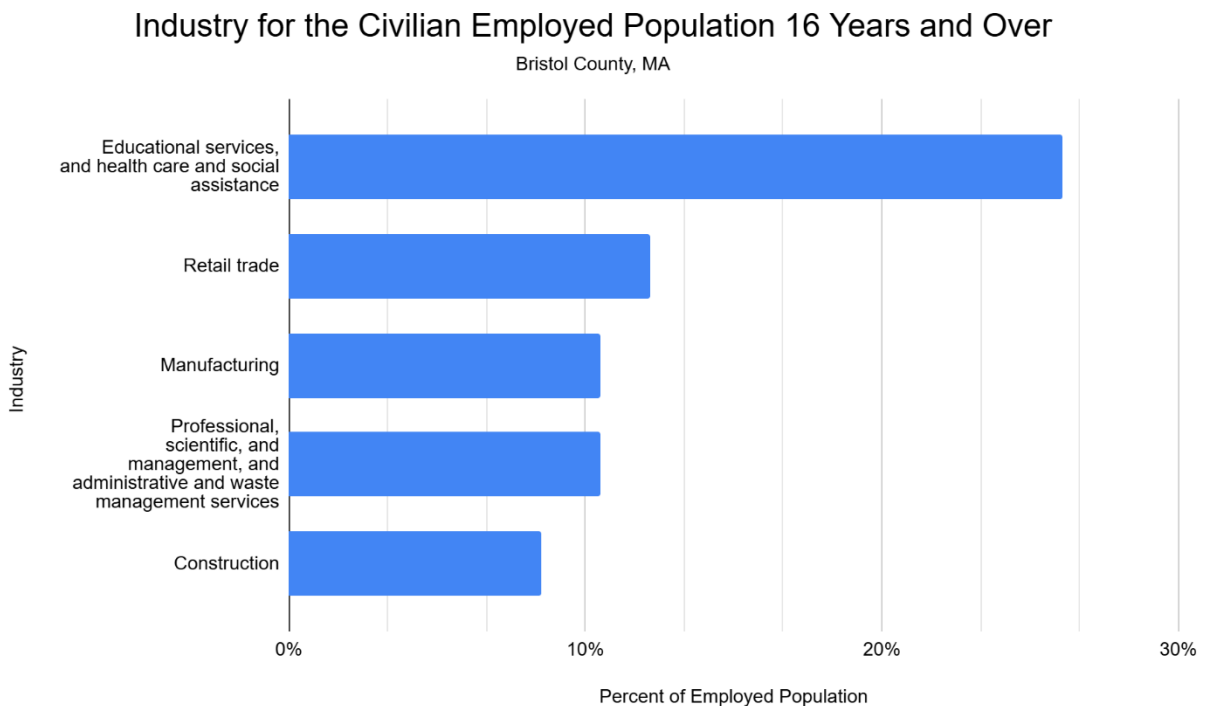
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Bristol County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 5.6%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$84,198³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 11.6%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

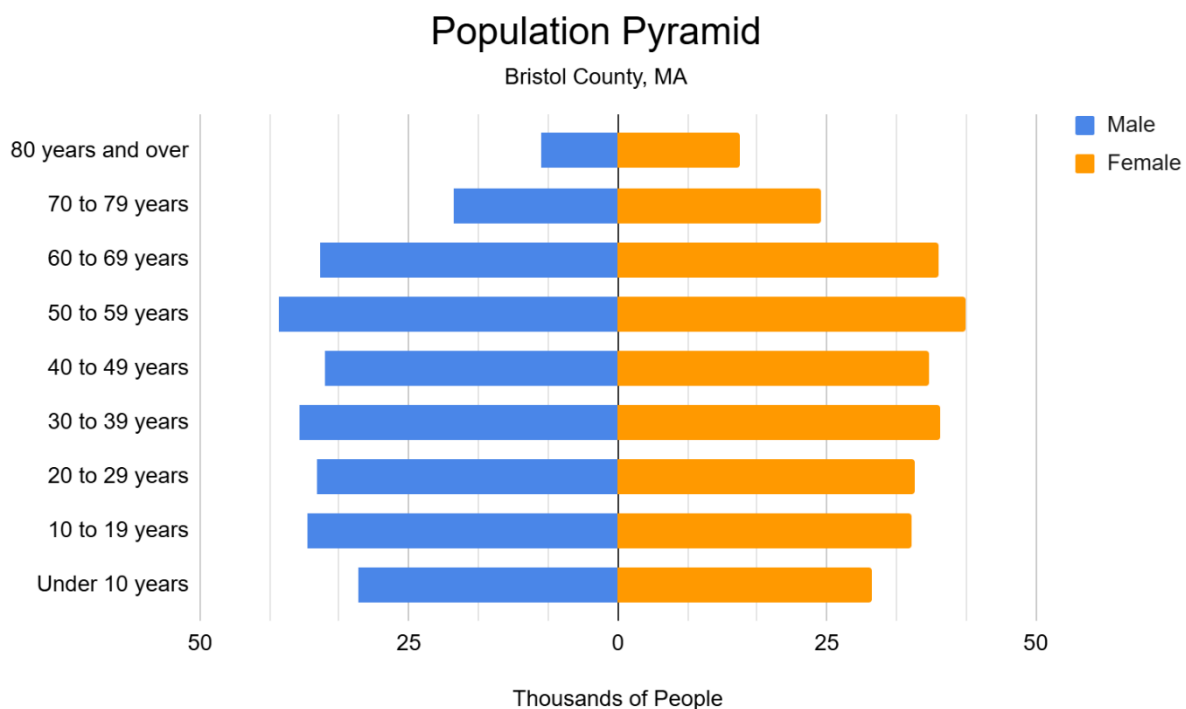
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 40.9⁵

National median: 38.7⁵

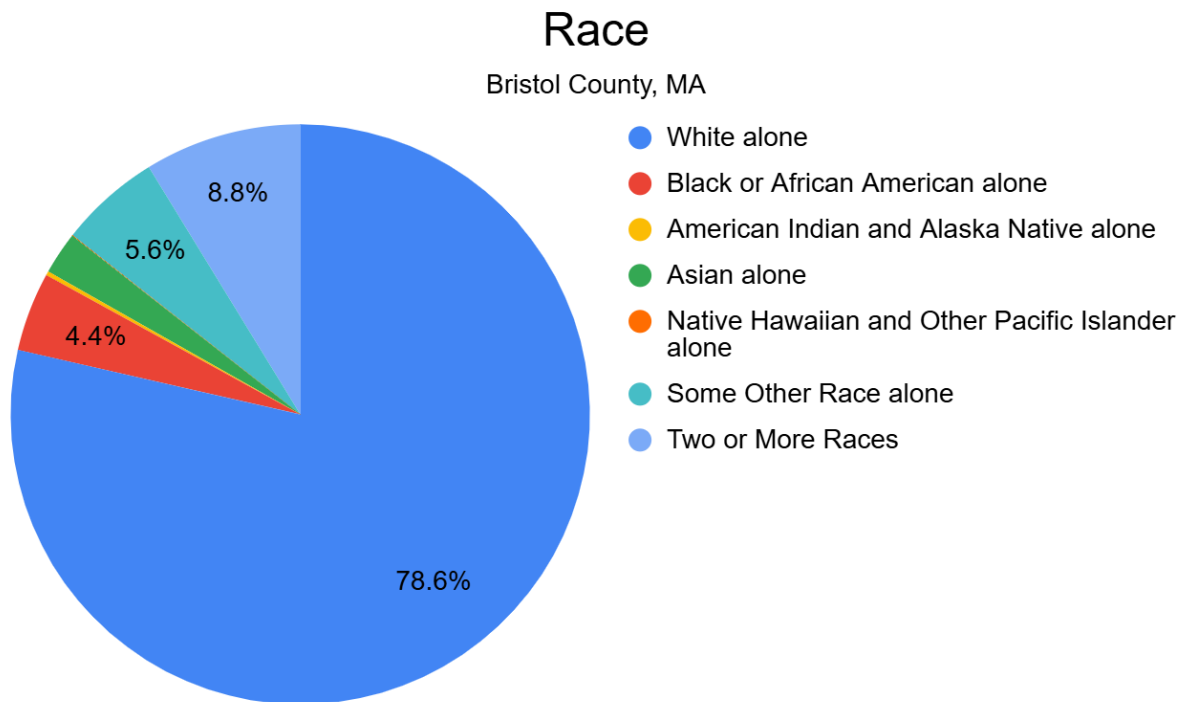


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

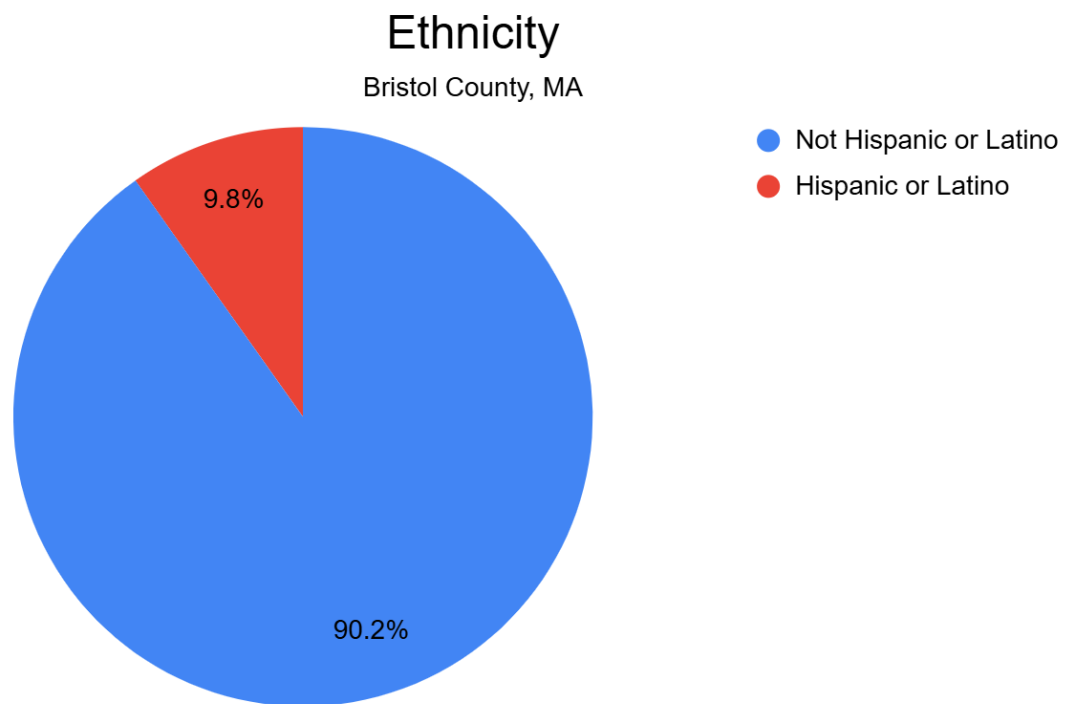
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 13.5%⁶

National Average: 13.9%⁶

Speak English less than very well: 8.2%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Bristol County

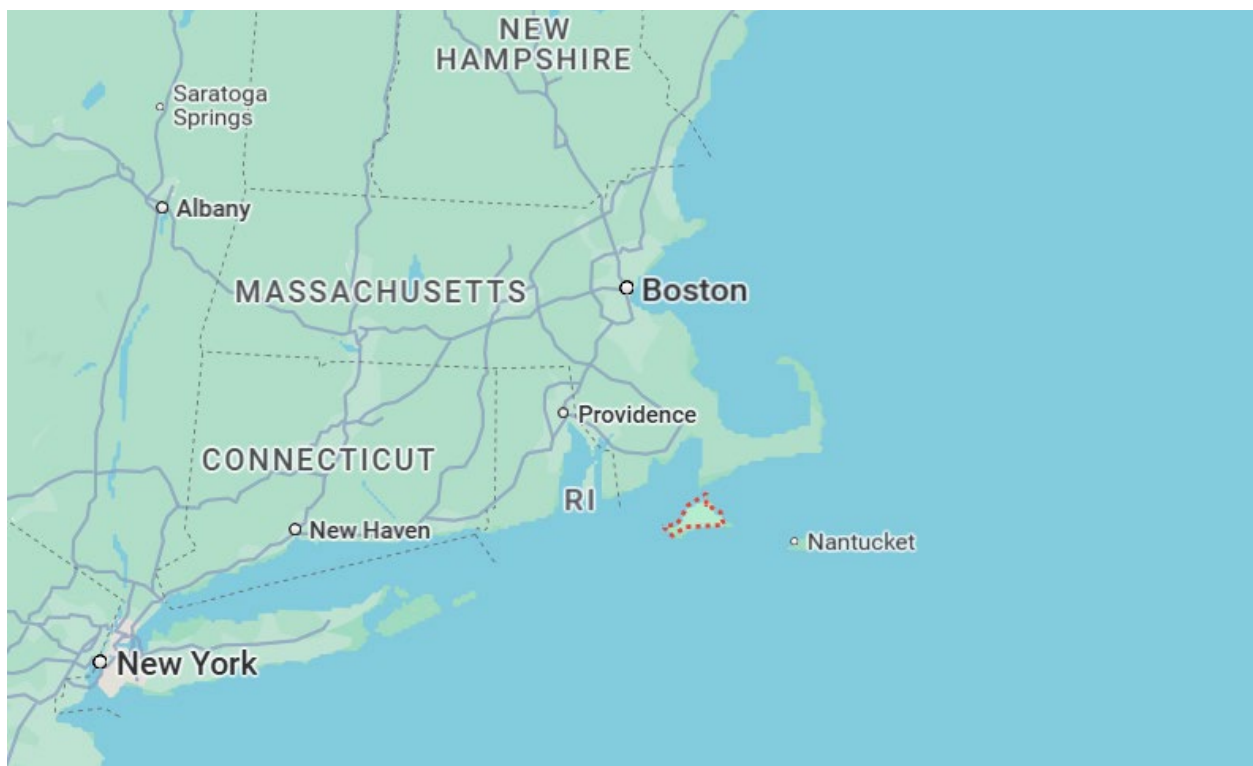
Community Name	New Bedford	Westport	Fairhaven	Fall River	Swansea
Commercial Engagement	34.548	0.729	1.358	0.039	-0.077
Commercial Reliance	0.098	-0.04	-0.028	-0.052	-0.052
Poverty	0.903	-0.469	-0.522	0.963	-0.571
Population Composition	0.755	-0.899	-0.679	0.492	-0.82
Personal Disruption	0.914	-0.396	-0.609	0.823	-0.352
Housing Disruption	-0.008	0.195	0.063	-0.075	0.312
Retiree Migration	-0.529	0.183	0.139	-0.341	-0.052
Urban Sprawl	0.559	0.3	0.435	0.435	0.36
Labor Force	-0.22	-0.08	0.054	-0.03	-0.392
Housing Characteristics	0.54	0.103	0.338	0.587	0.095
Sea Level Rise Risk	-0.288	0.038	0.269	-0.065	0.241
Storm Surge Risk	-0.46	-0.292	0.042	-0.638	-0.35

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Dukes County, MA

Dukes County has a population of 20,751¹ and a population per square mile of 201². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

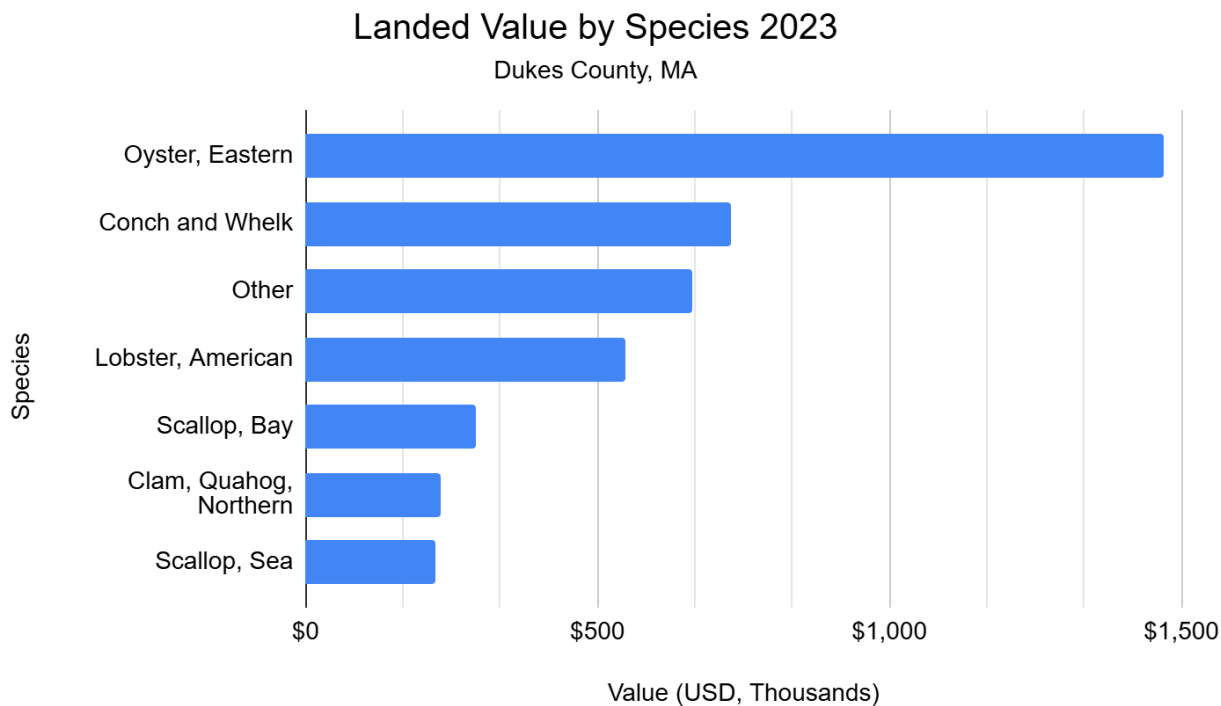
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Dukes County?

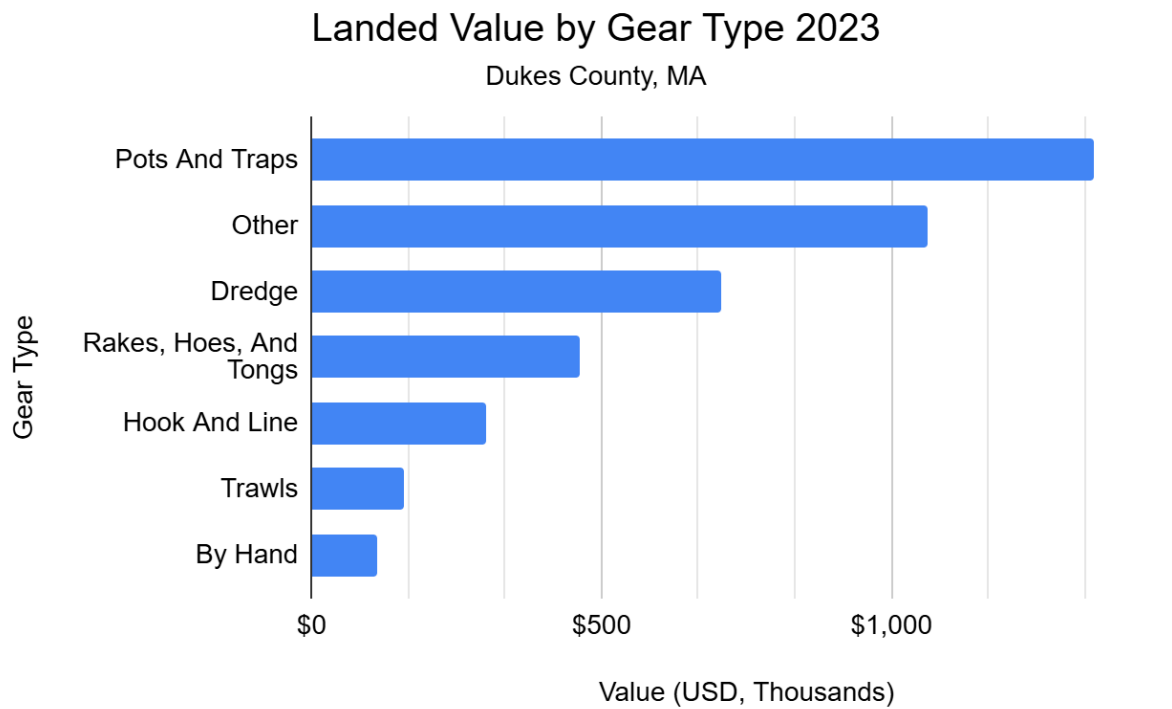
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Dukes County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

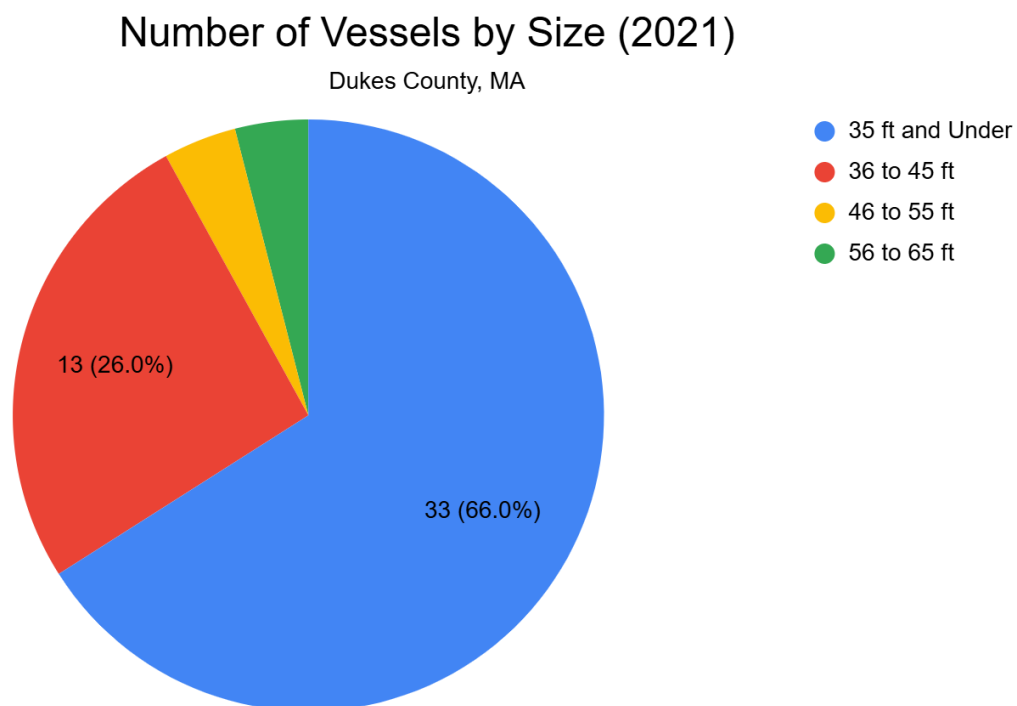


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Dukes County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

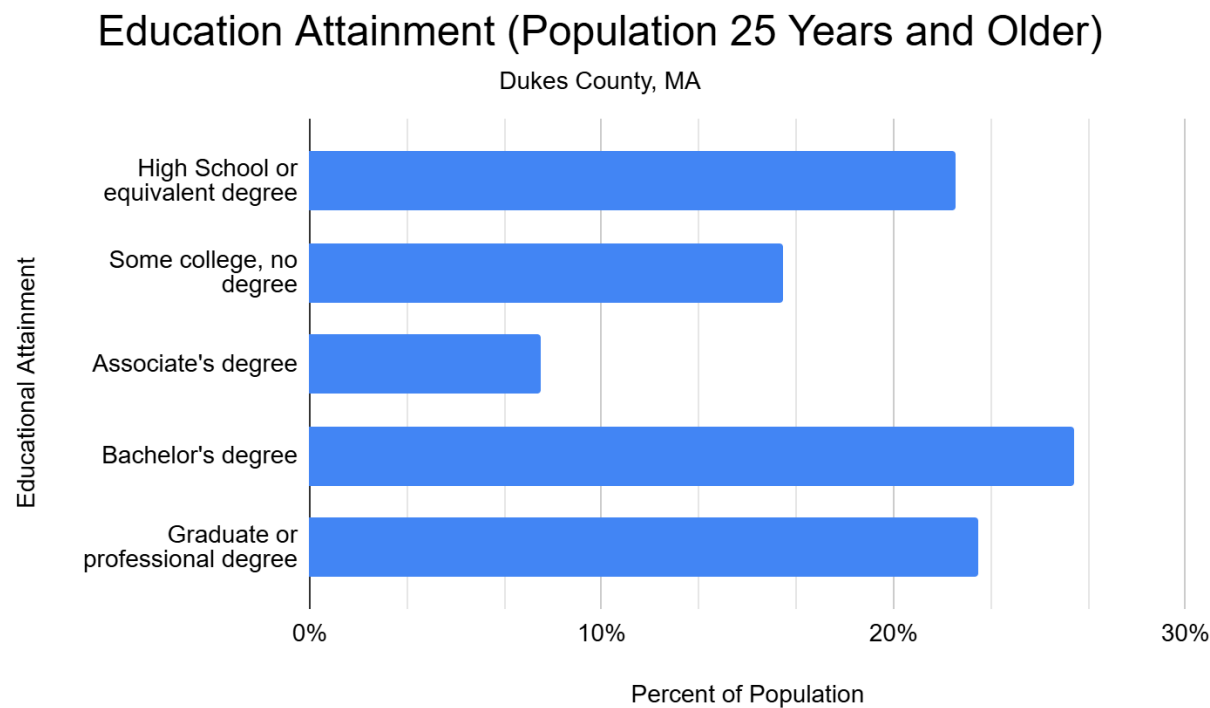


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

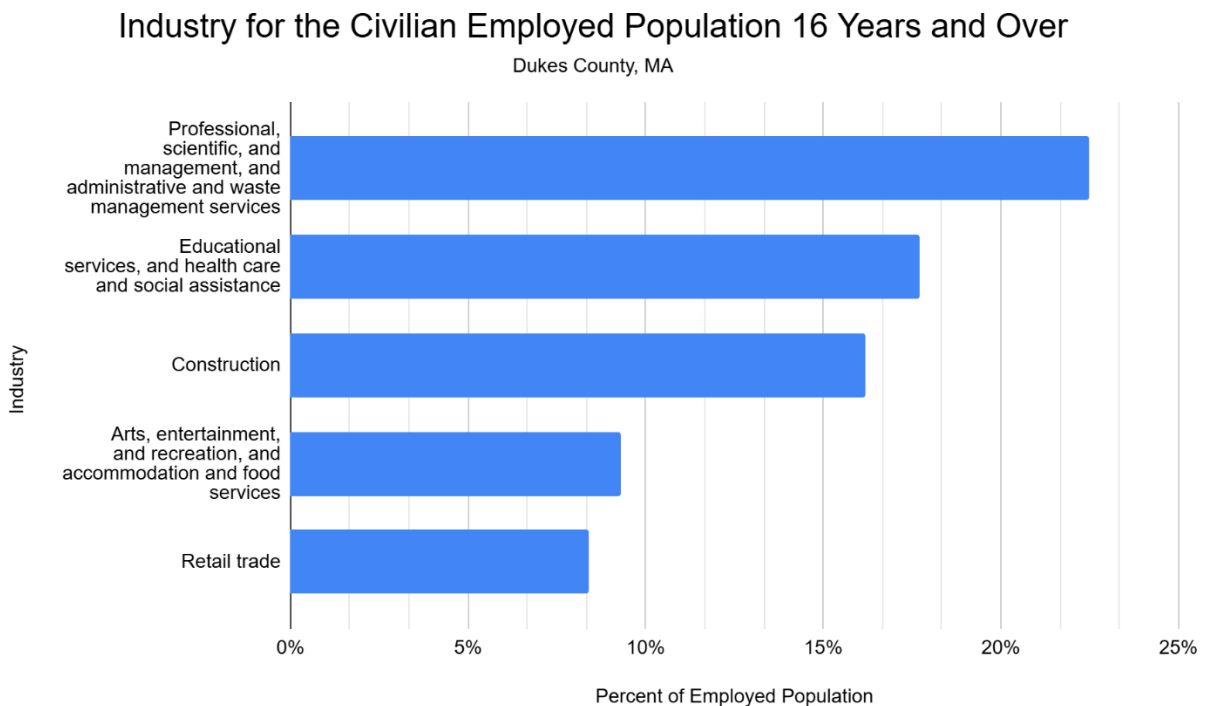
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Dukes County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 6.7%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$102,348³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 5.4%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

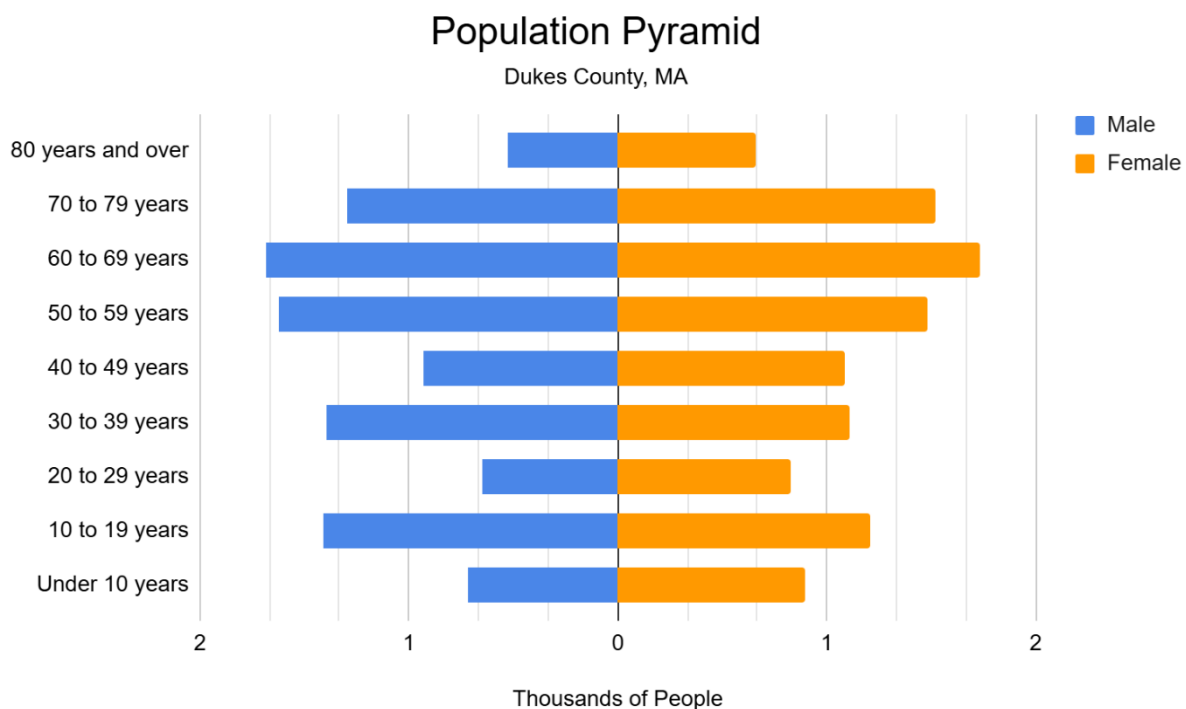
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 50.4⁵

National median: 38.7⁵

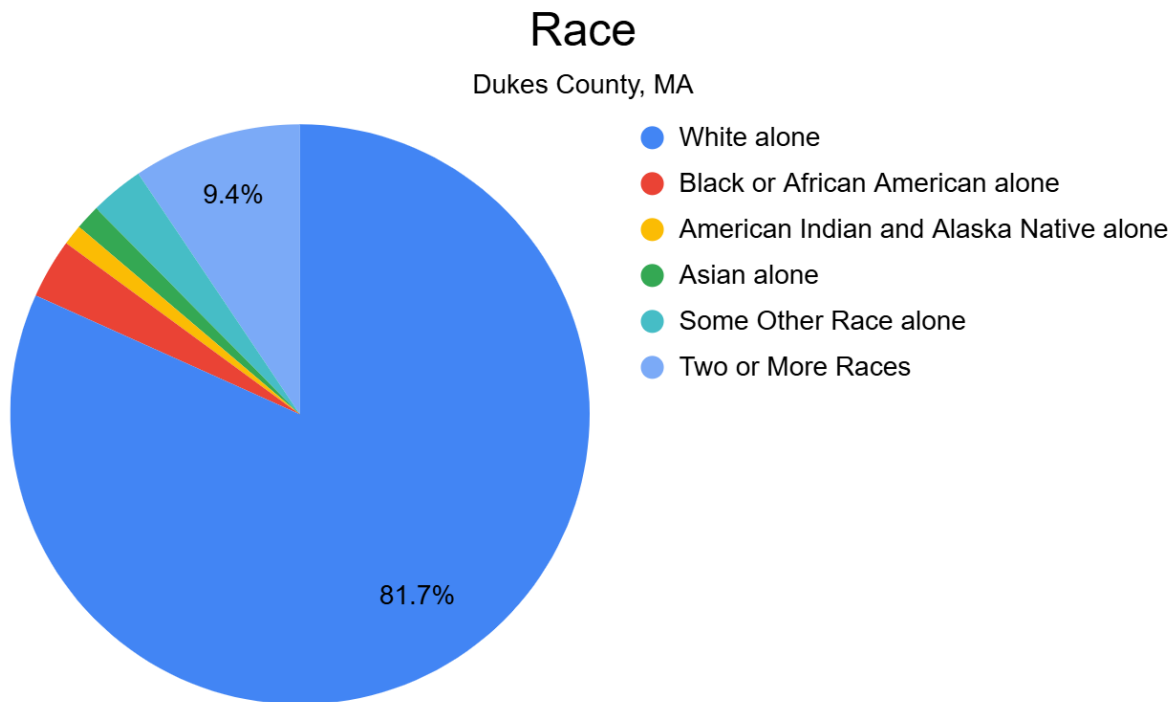


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

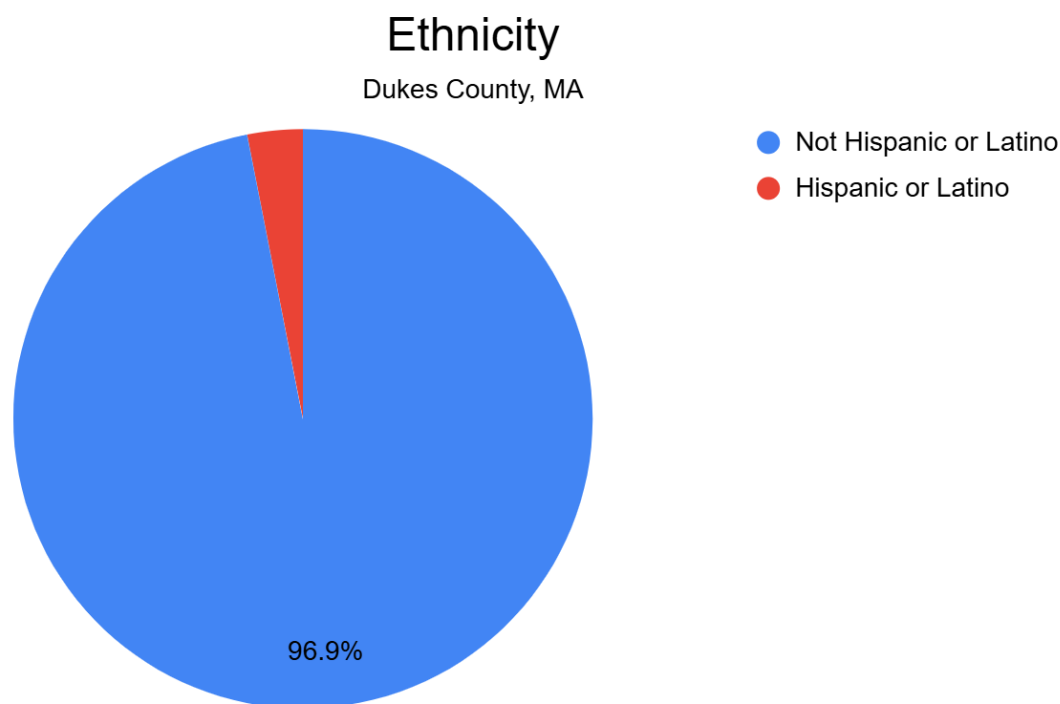
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 13.7%⁶

National Average: 13.9%⁶

Speak English less than very well: 9.0%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Dukes County

Community Name	Edgartown	Chilmark	Tisbury / Vineyard Haven	Oak Bluffs	Gosnold
Commercial Engagement	0.124	0.606	0.191	-0.123	-0.148
Commercial Reliance	-0.034	0.085	-0.027	-0.051	0.014
Poverty	-0.314	-0.69	-0.371	-0.619	NA
Population Composition	-0.42	-1.108	-0.452	-0.409	-1.555
Personal Disruption	-0.408	-0.44	-0.092	-0.39	0.213
Housing Disruption	2.421	1.767	2.243	1.692	-1.207
Retiree Migration	-0.14	0.968	0.122	-0.249	0.118
Urban Sprawl	0.495	2.644	0.755	0.563	1.233
Labor Force	0.067	0.157	-0.166	-0.403	-0.043
Housing Characteristics	-0.956	-1.008	-0.345	-0.593	NA
Sea Level Rise Risk	0.087	0.077	-0.162	-0.132	0.013
Storm Surge Risk	0.28	-0.232	-0.46	-0.327	-0.174

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Essex County, MA

Essex County has a population of 807,258¹ and a population per square mile of 1,639². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

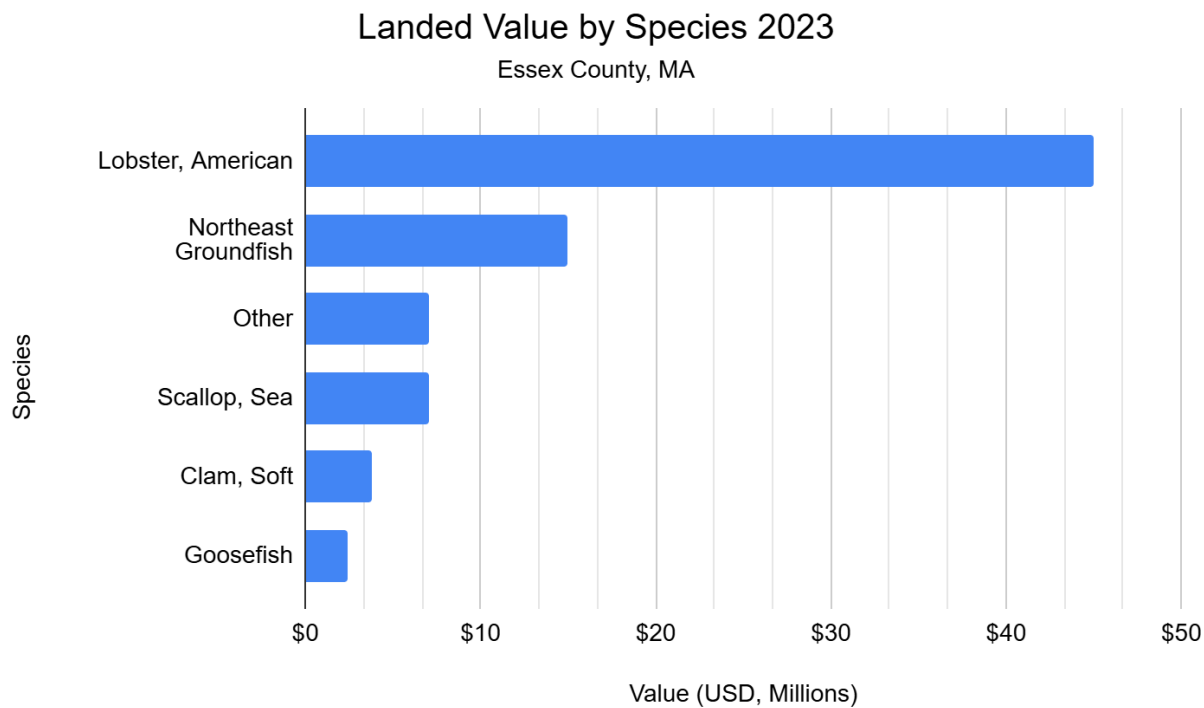
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Essex County?

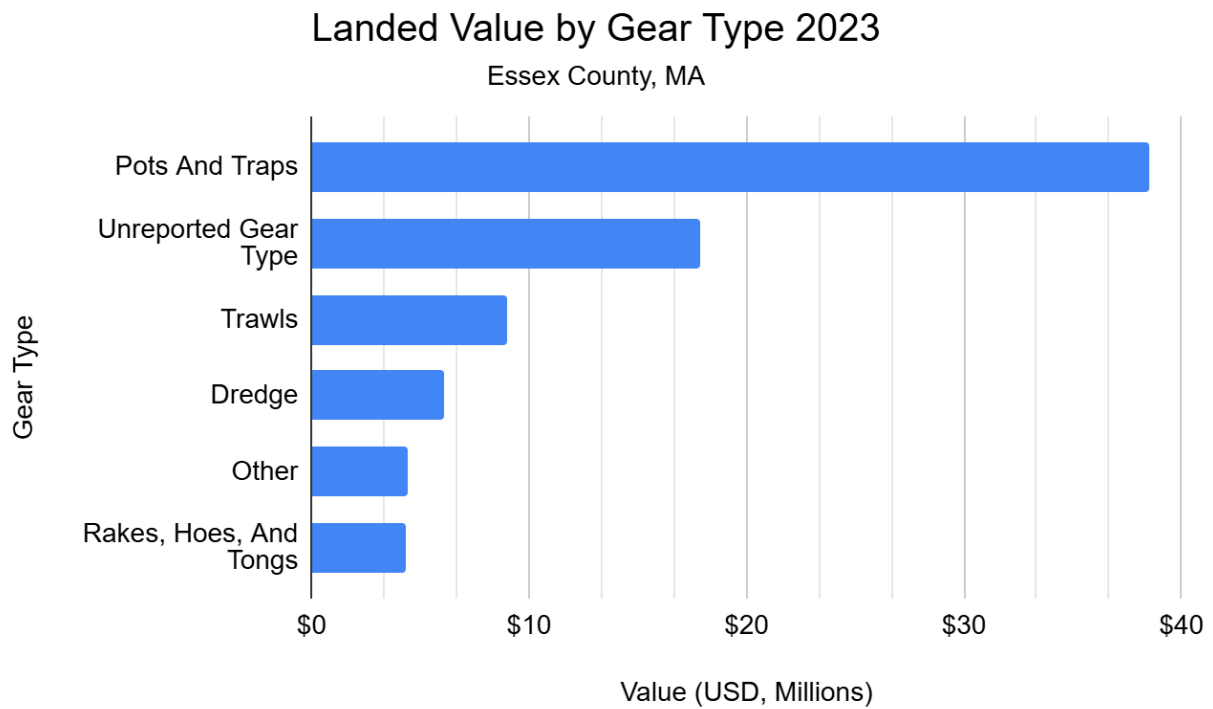
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Essex County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

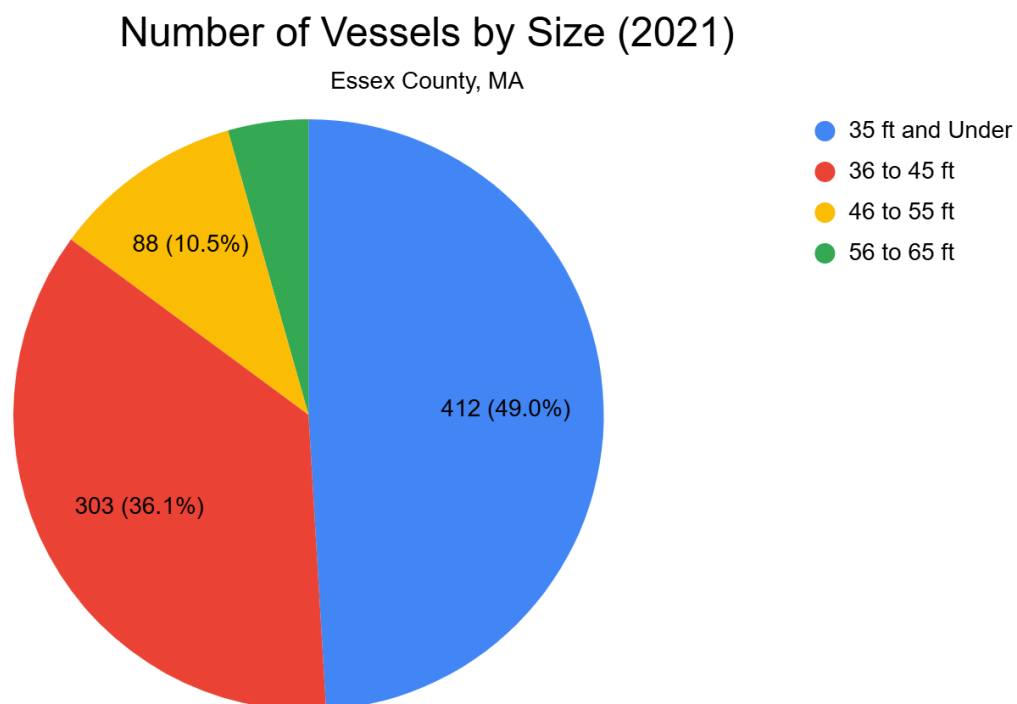


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Essex County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

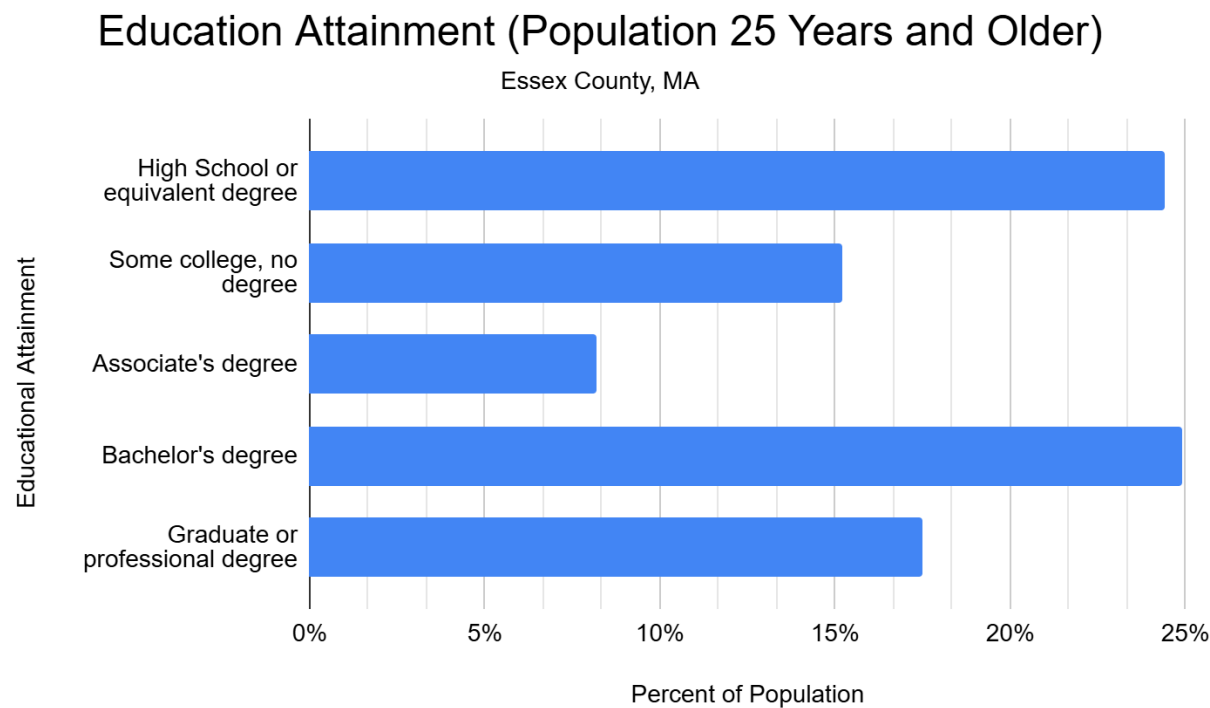


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

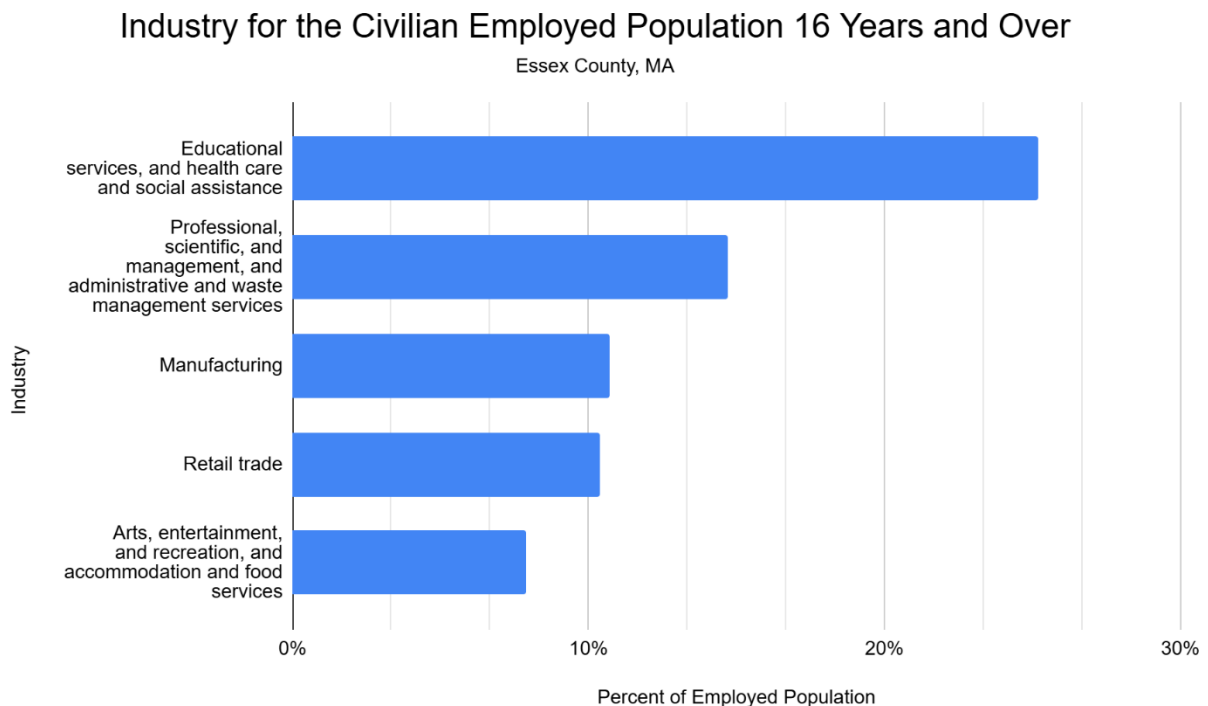
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Essex County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 5.1%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$99,431³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 9.4%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

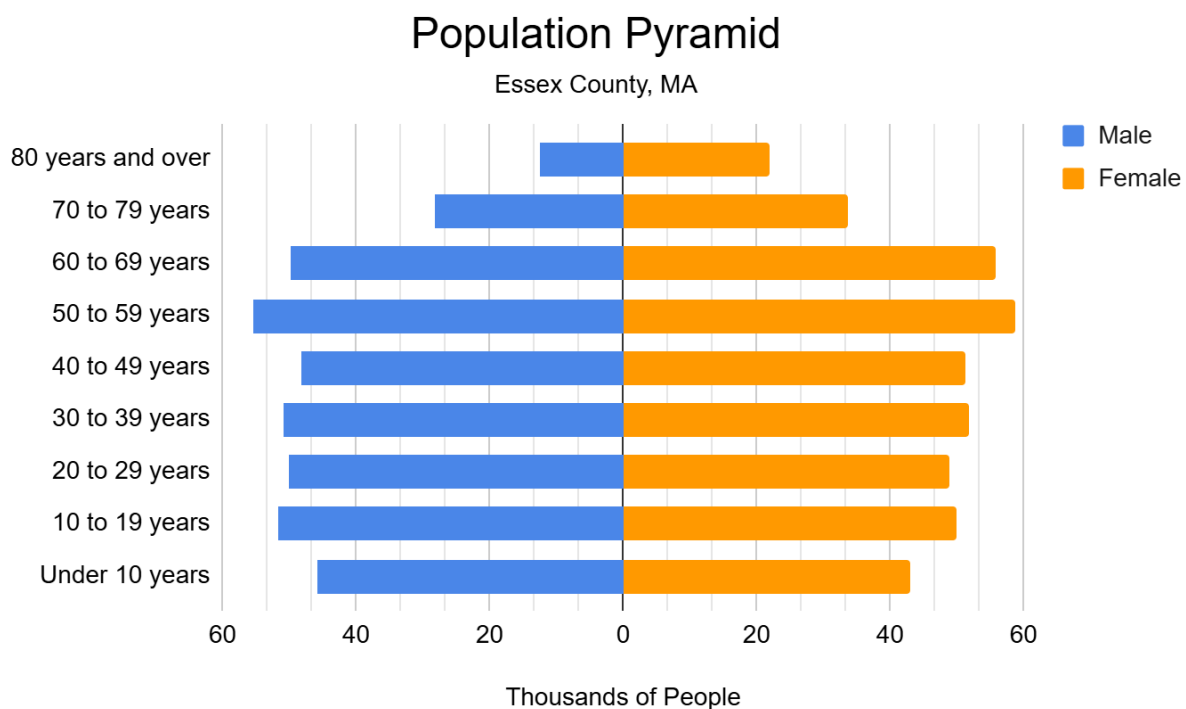
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Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 41.1⁵

National median: 38.7⁵

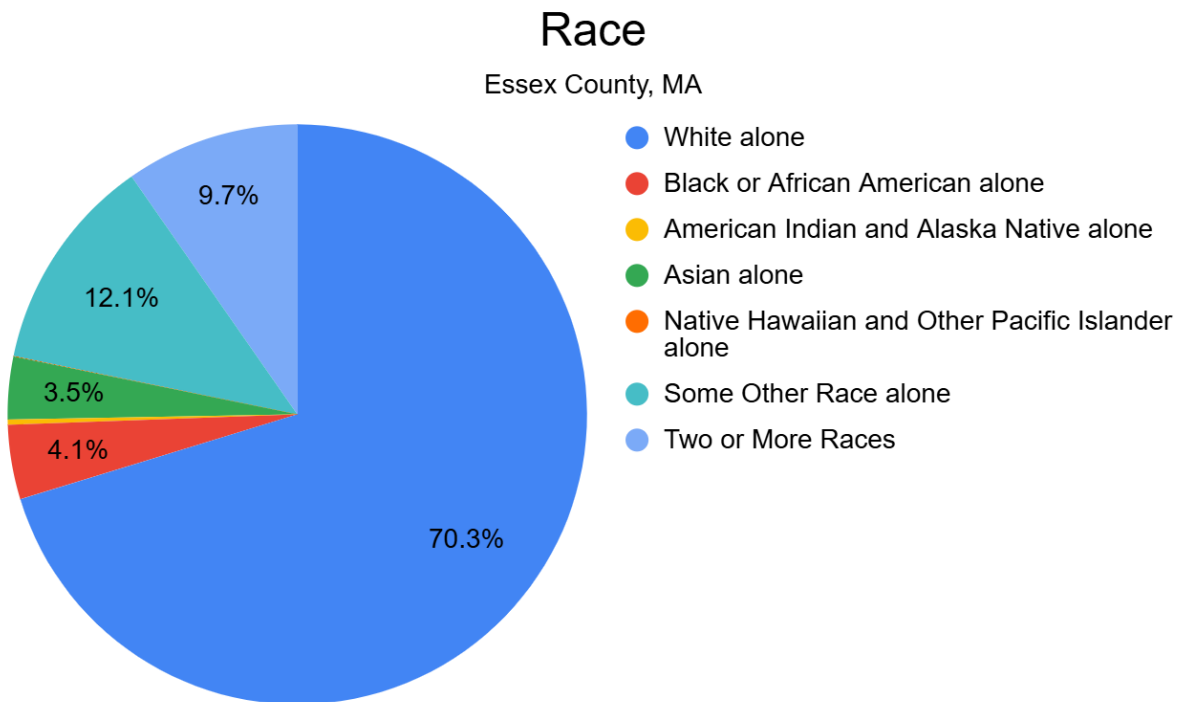


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

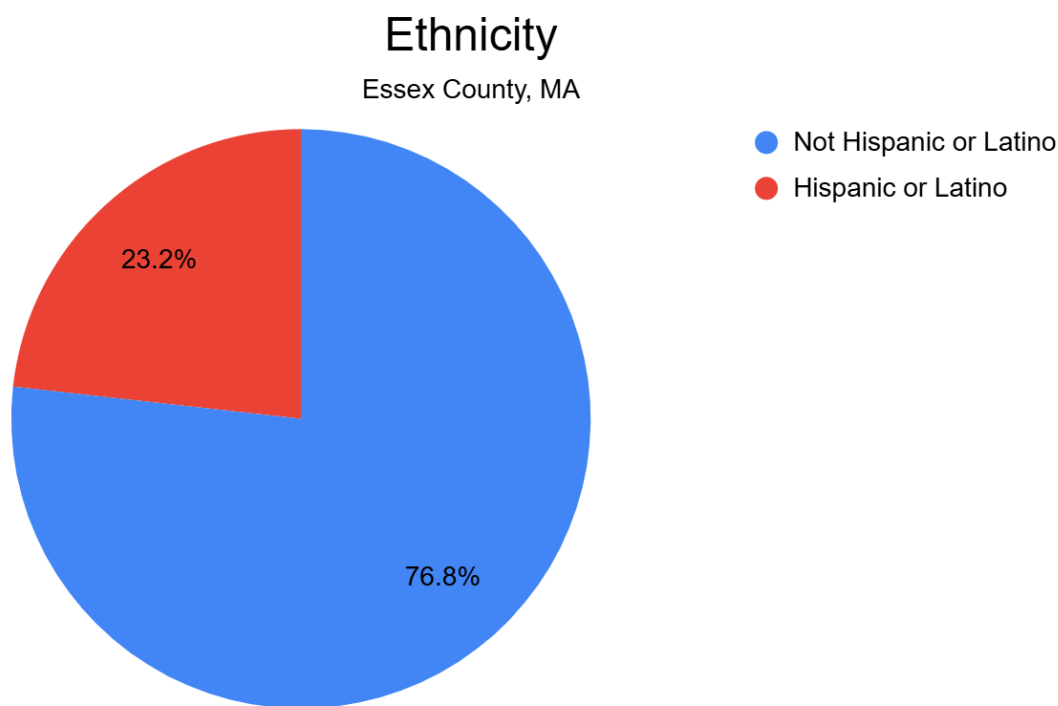
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 18.8%⁶

National Average: 13.9%⁶

Speak English less than very well: 12.2%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retire Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Essex County

Community Name	Gloucester	Rockport	Beverly	Marblehead	Ipswich
Commercial Engagement	9.714	0.955	0.837	0.289	0.089
Commercial Reliance	0.052	-0.006	-0.047	-0.046	-0.033
Poverty	-0.131	-0.478	-0.111	-0.716	-0.334
Population Composition	-0.562	-0.839	-0.406	-0.781	-0.398
Personal Disruption	-0.402	-0.463	-0.44	-0.891	-0.24
Housing Disruption	0.253	-0.118	-0.176	0	-0.052
Retiree Migration	-0.078	0.802	-0.454	-0.282	-0.691
Urban Sprawl	0.341	0.451	0.614	1.07	0.533
Labor Force	-0.145	0.482	-0.51	-0.403	-0.61
Housing Characteristics	-0.065	-0.378	-0.186	-1.041	-0.046
Sea Level Rise Risk	0.378	-0.263	-0.291	-0.189	0.18
Storm Surge Risk	-0.483	-0.629	-0.583	-0.577	-0.484

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

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Nantucket County, MA

Nantucket County has a population of 14,299¹ and a population per square mile of 310². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

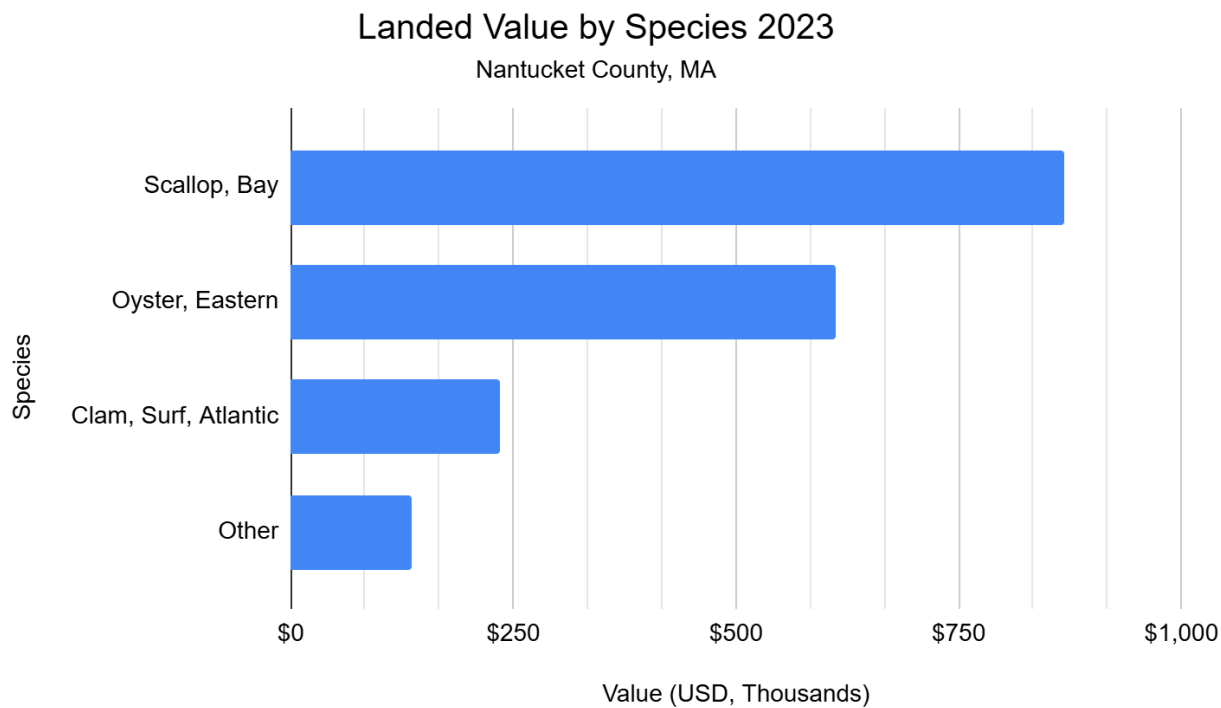
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

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Involvement in Fisheries

What species are landed in Nantucket County?

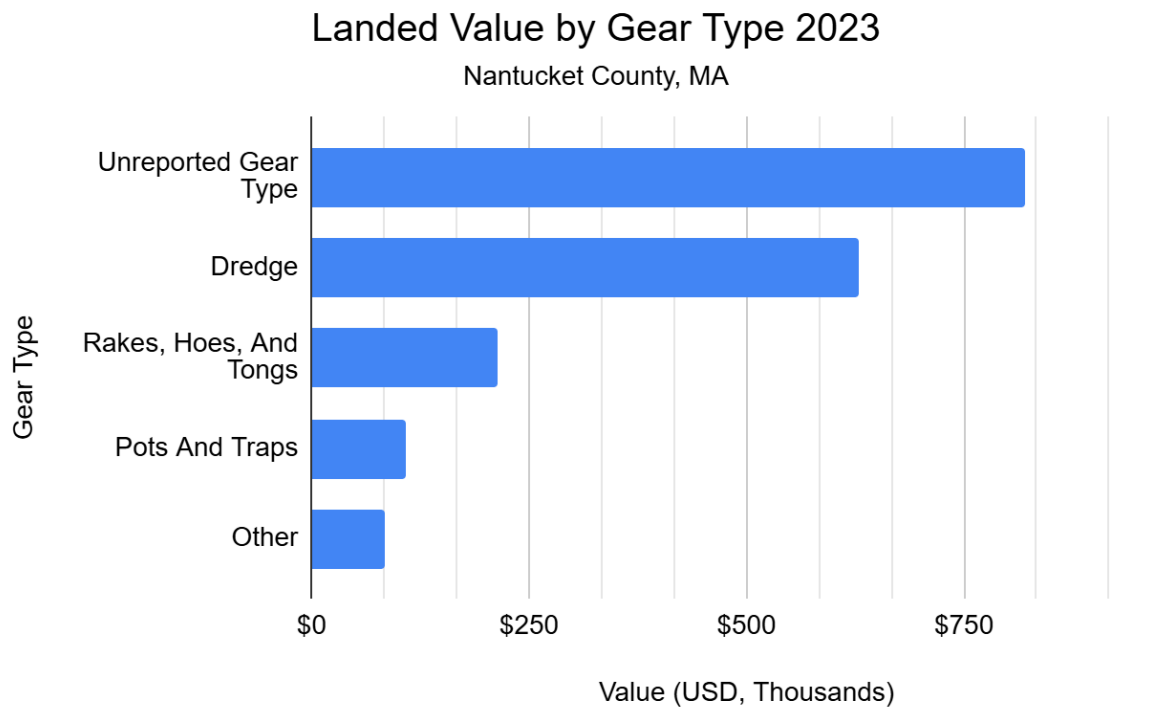
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Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Nantucket County?

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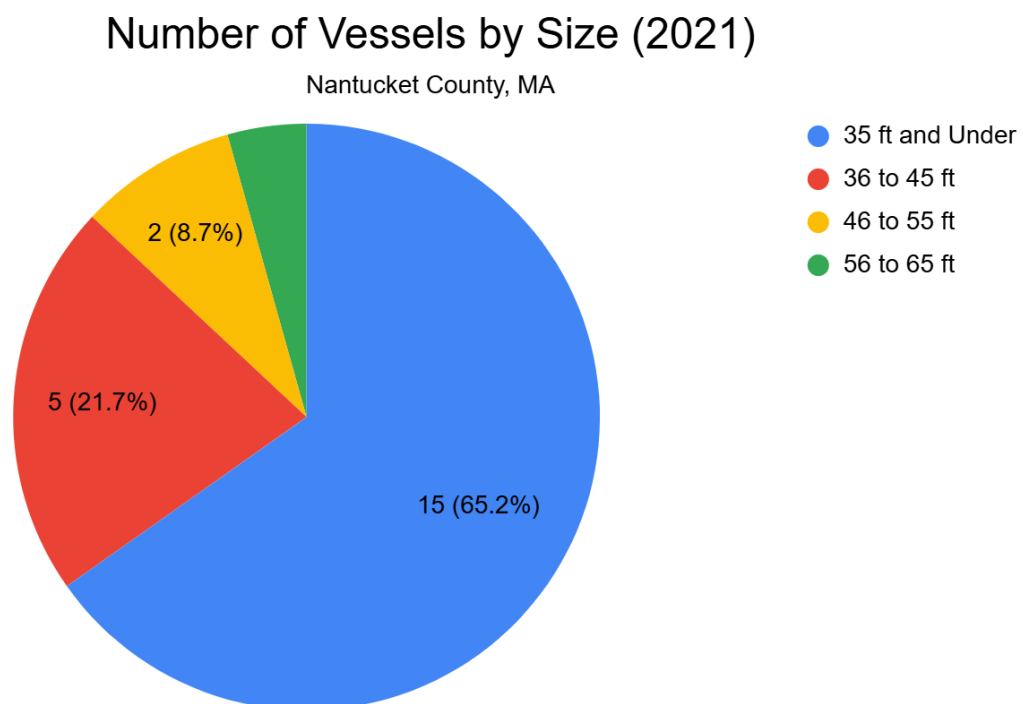


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Nantucket County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

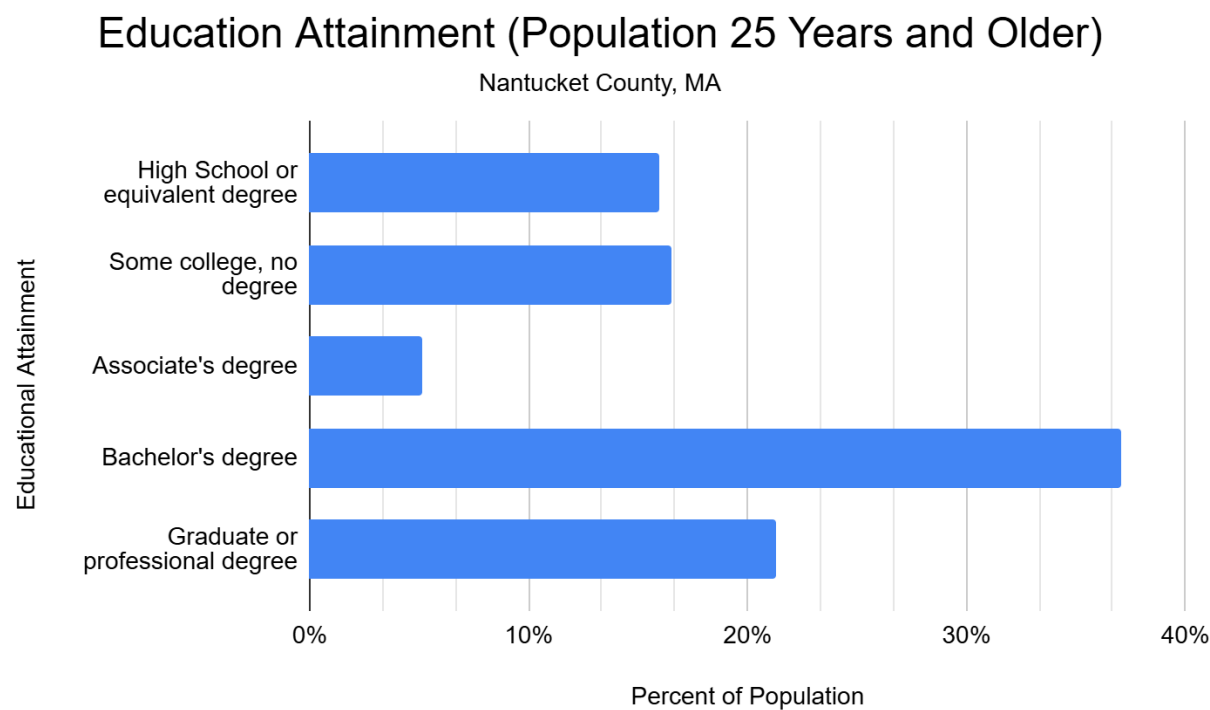


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Demographic Attributes

Educational Attainment

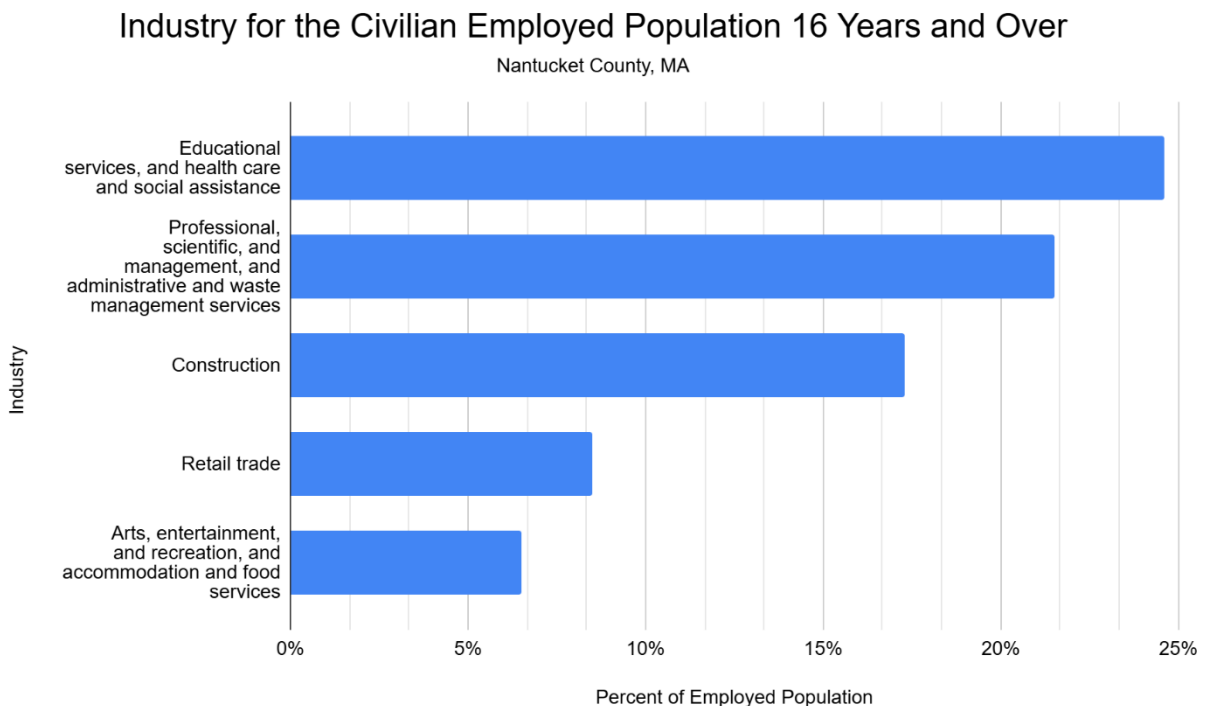
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How do people make a living in Nantucket County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 5.3%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$119,750³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 3.0%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

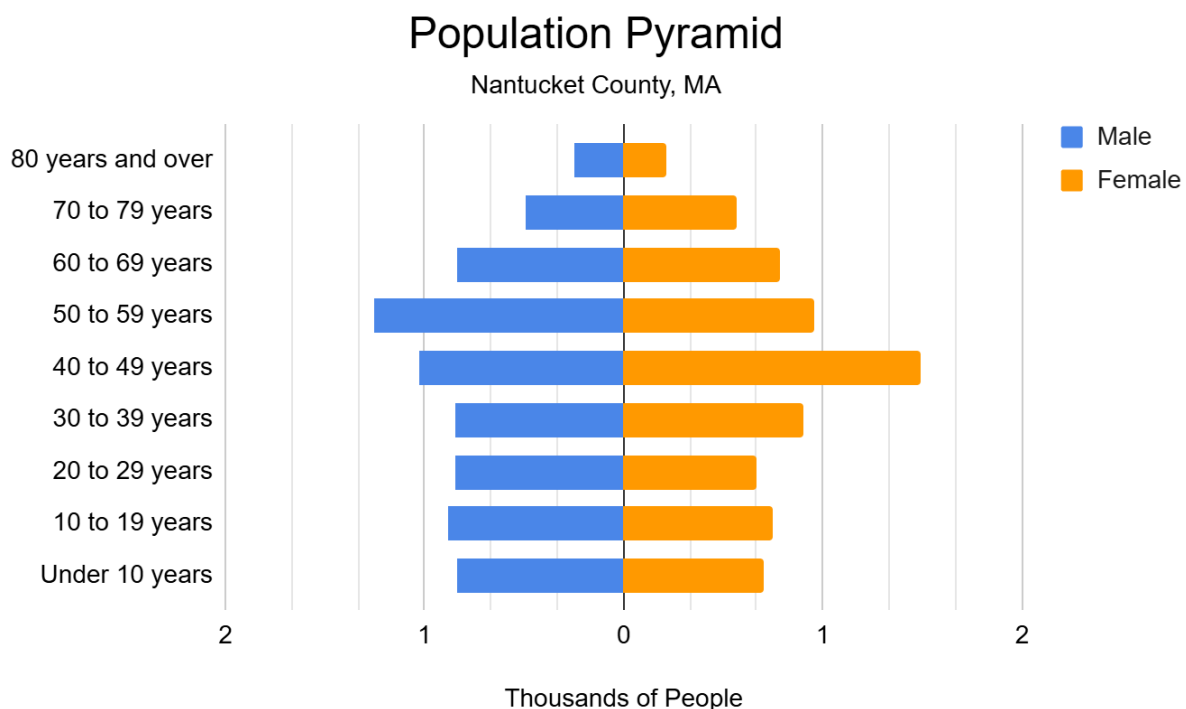
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Median age: 40.8⁵

National median: 38.7⁵

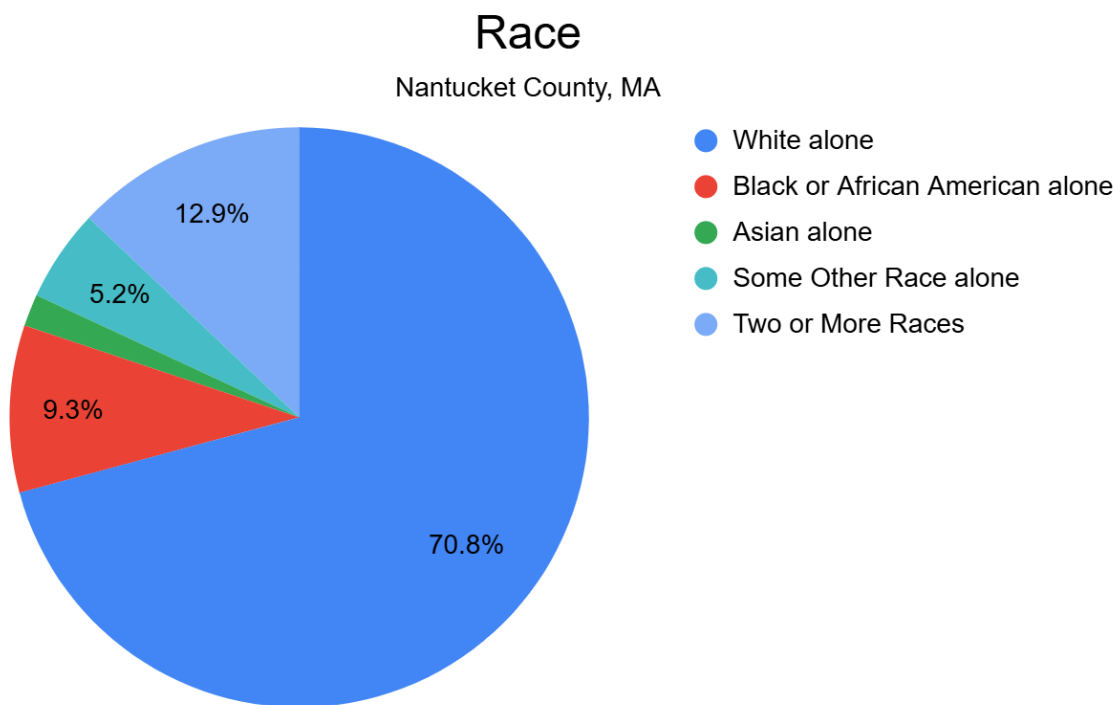


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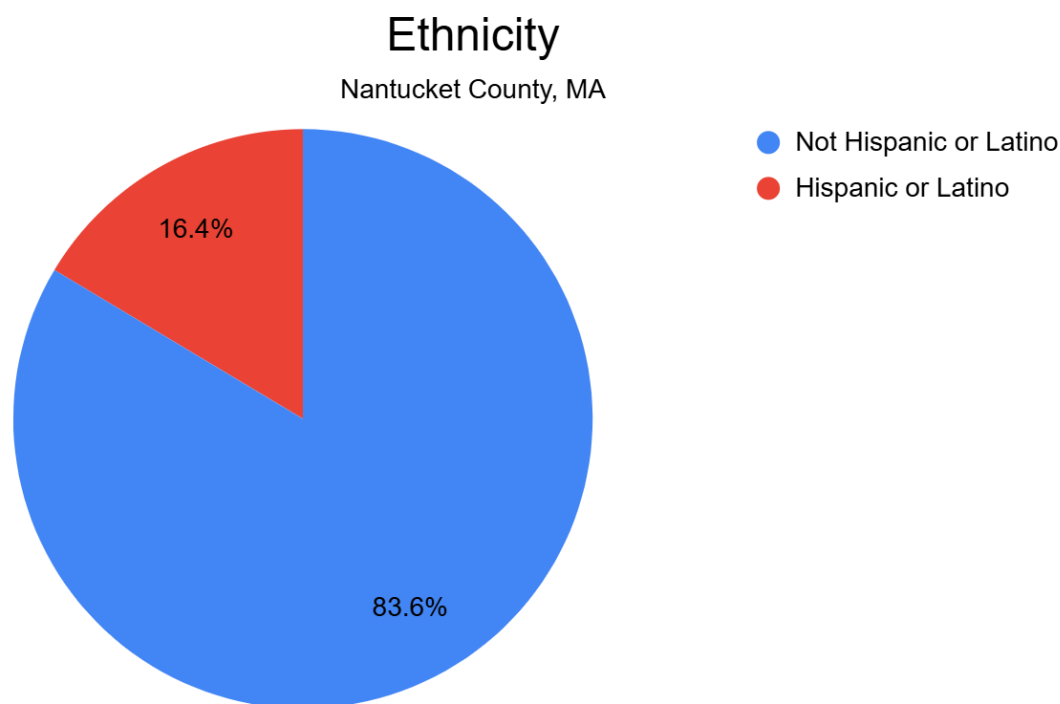
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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



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Language and Marginalization

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Foreign Born: 15.1%⁶

National Average: 13.9%⁶

Speak English less than very well: 5.5%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

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The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Nantucket County

Community Name	Nantucket	Madaket	Siasconset
Commercial Engagement	0.382	-0.153	-0.153
Commercial Reliance	-0.035	-0.053	-0.053
Poverty	-0.574	NA	1.219
Population Composition	-0.138	-1.38	-0.935
Personal Disruption	-0.377	-1.107	0.413
Housing Disruption	1.258	NA	NA
Retiree Migration	-0.266	0.548	3.508
Urban Sprawl	0.496	0.231	0.471
Labor Force	-0.447	0.194	3.539
Housing Characteristics	-1.261	NA	NA
Sea Level Rise Risk	0.158	0.5	-0.187
Storm Surge Risk	-0.519	0.13	-0.273

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

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Norfolk County, MA

Norfolk County has a population of 724,540¹ and a population per square mile of 1,829². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

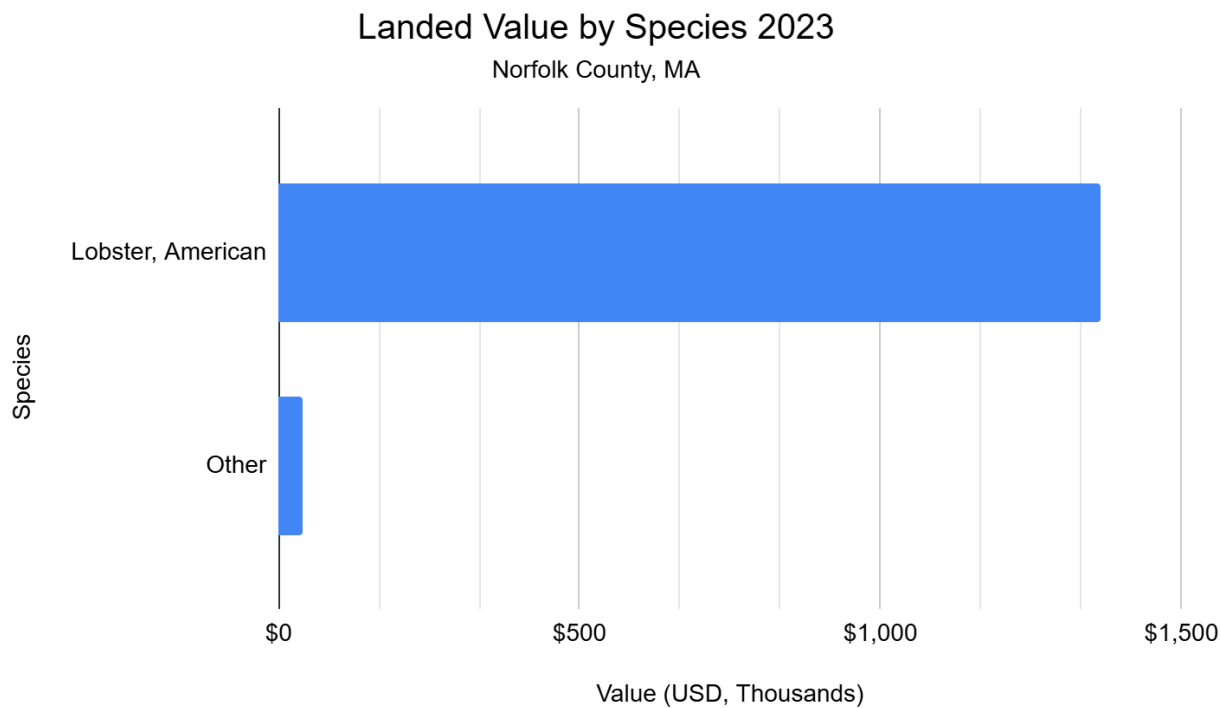
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Norfolk County?

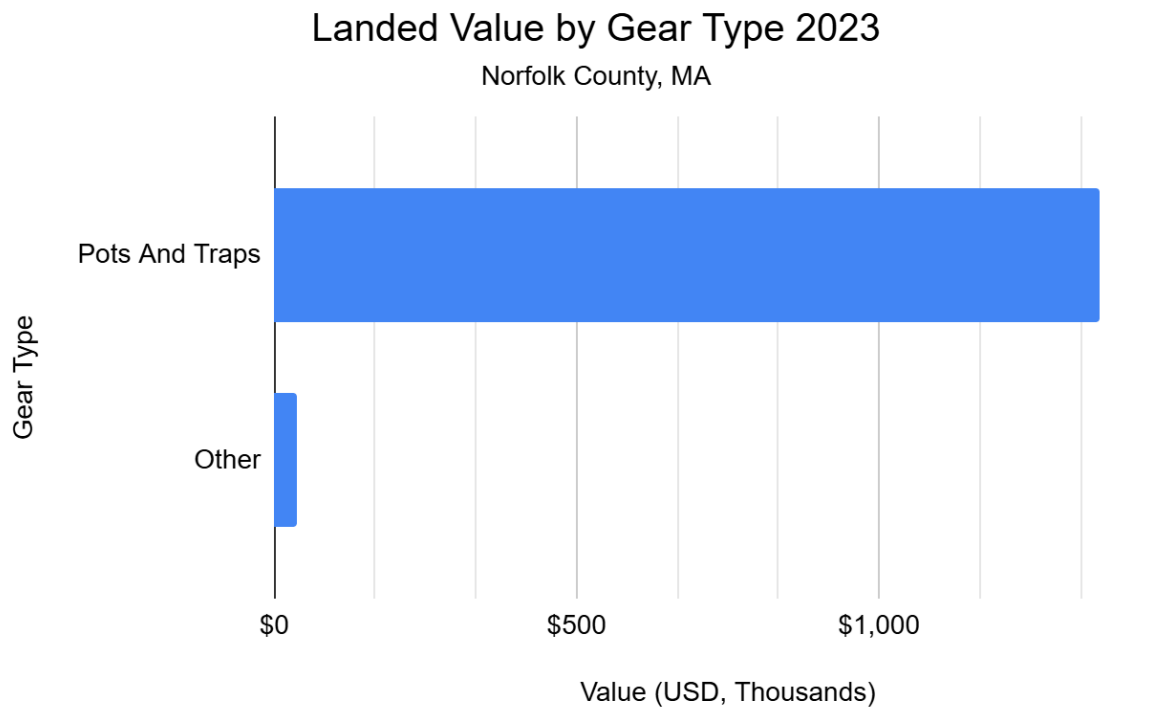
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Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Norfolk County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

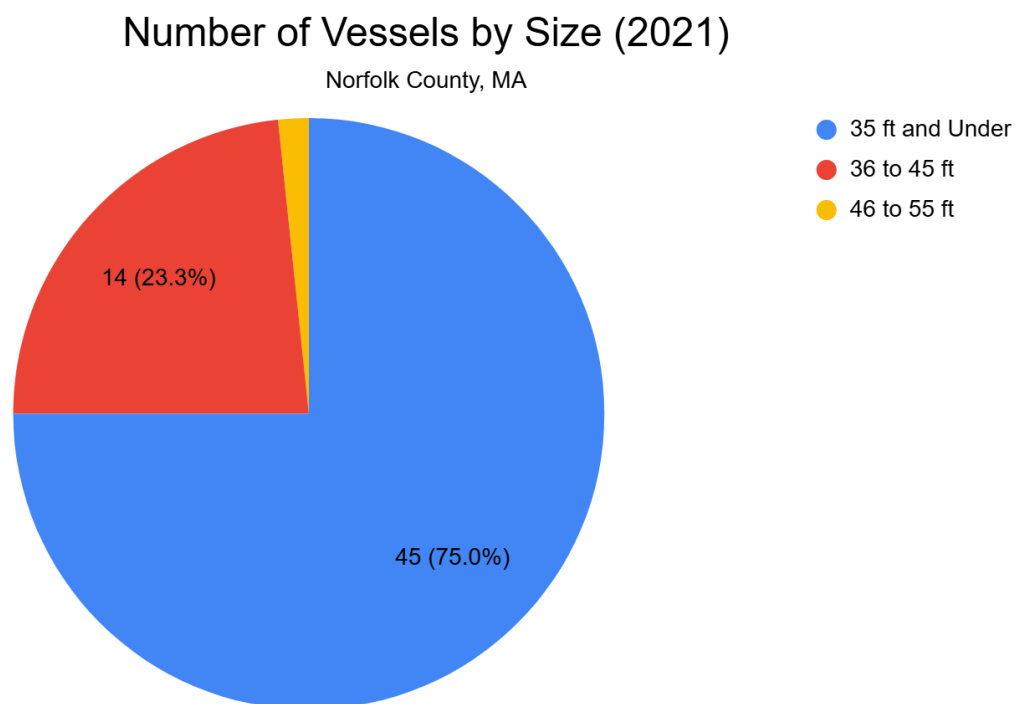


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Norfolk County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

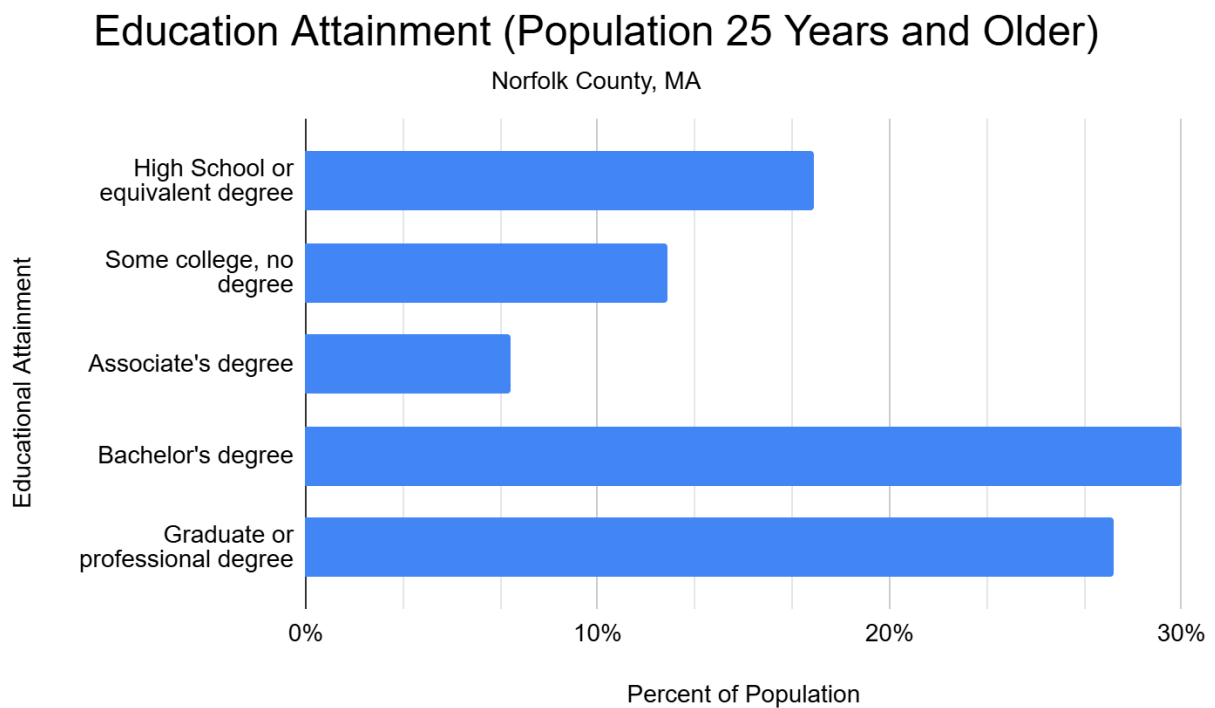


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

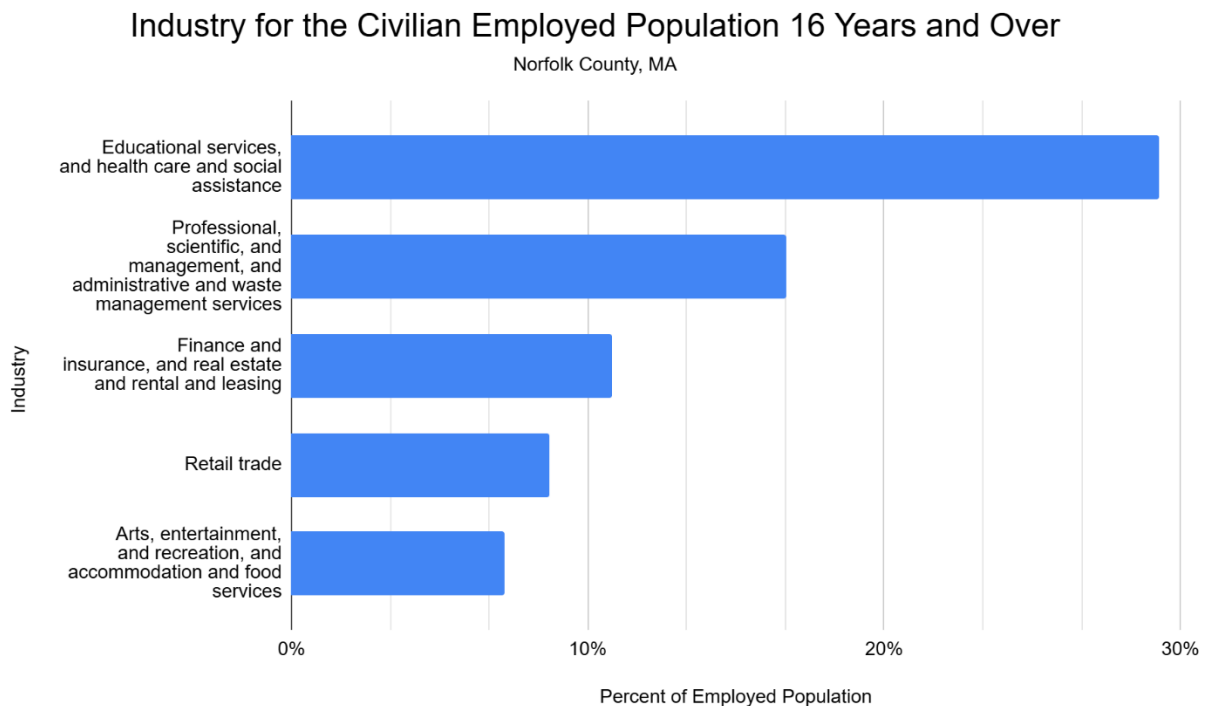
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Norfolk County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 4.9%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$126,497³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 6.6%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

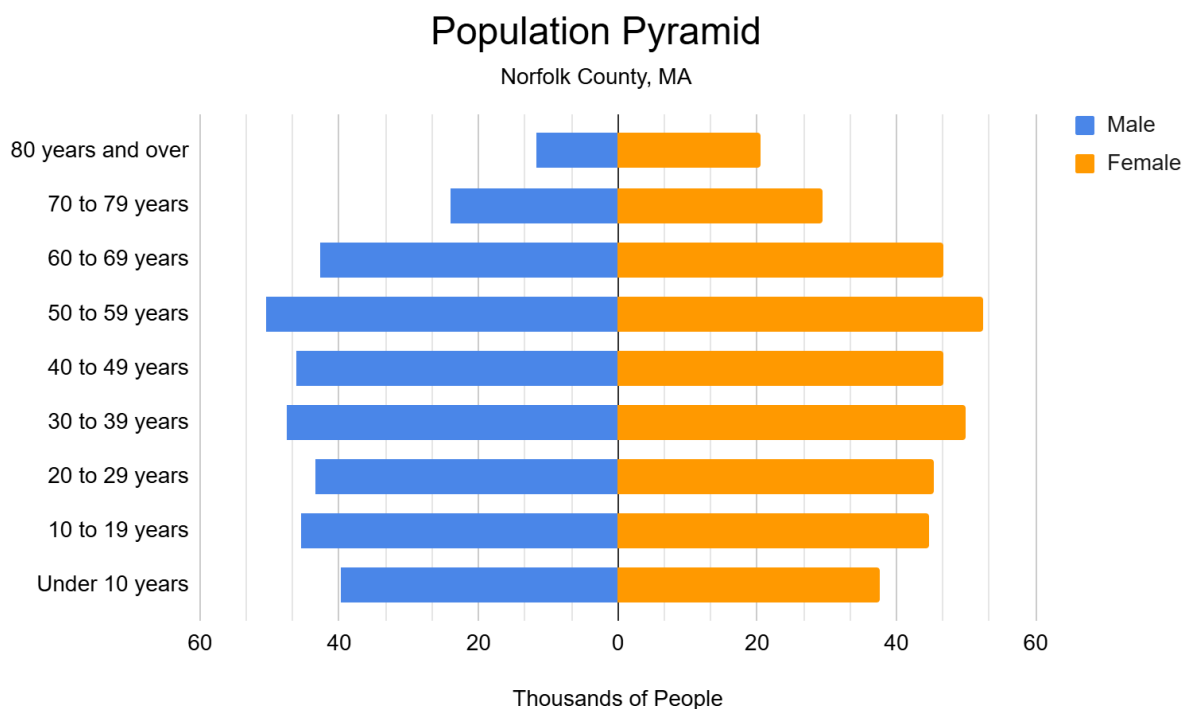
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 40.9⁵

National median: 38.7⁵

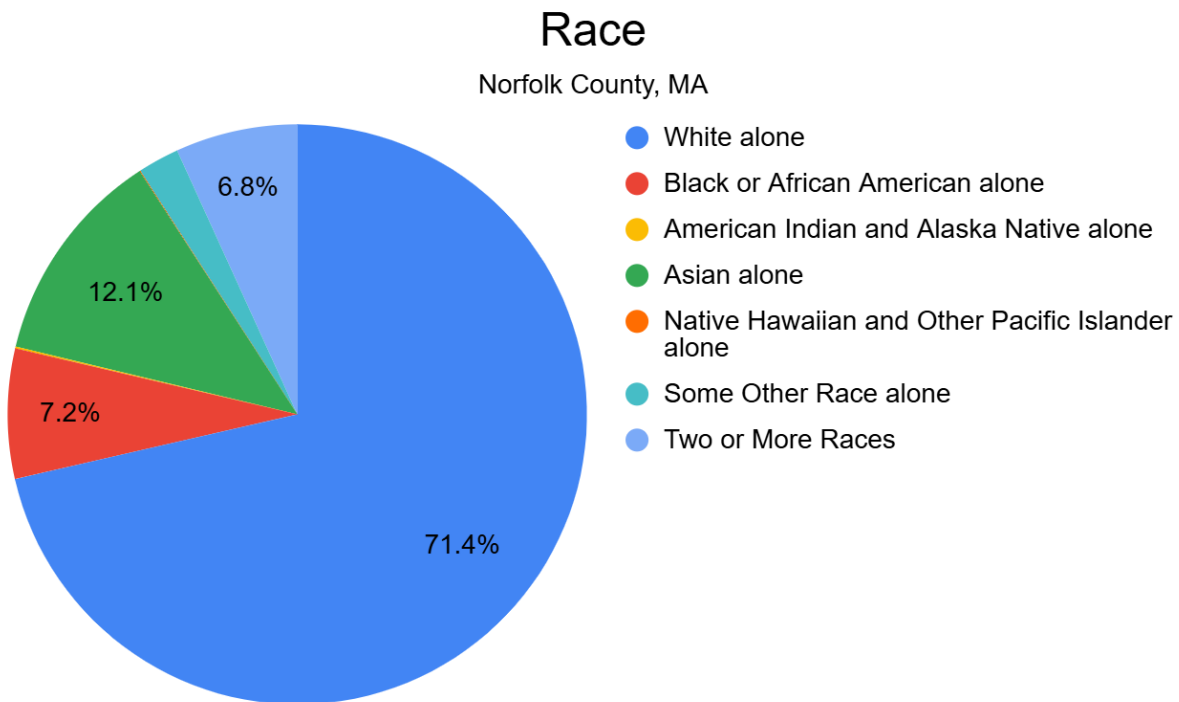


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

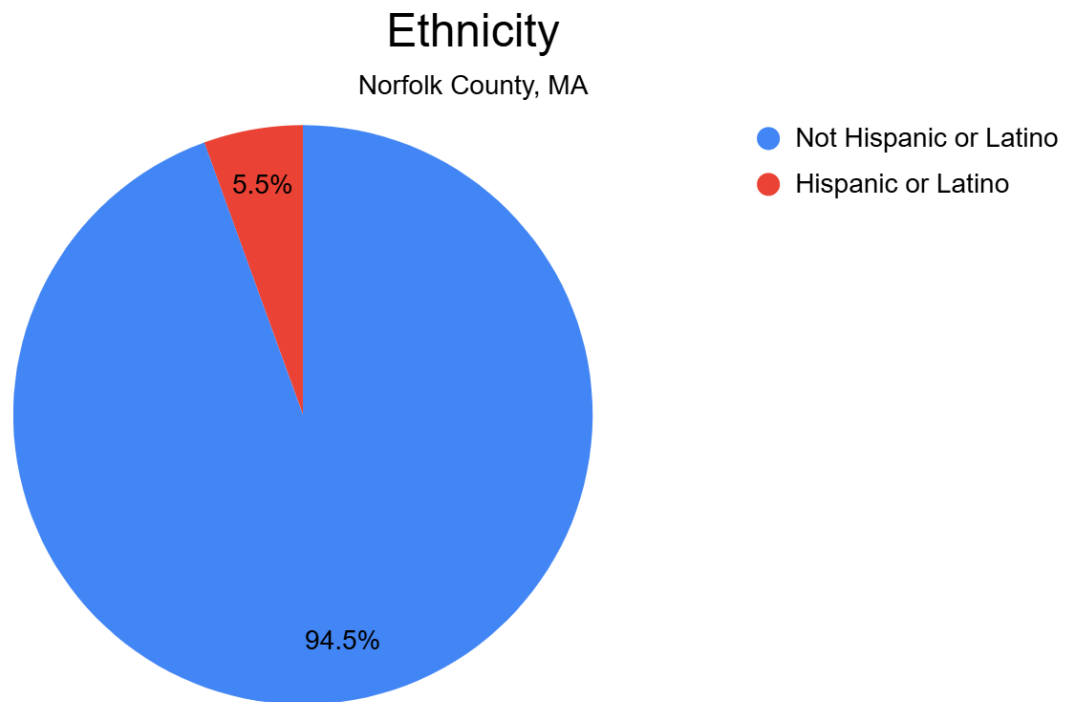
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 19.1%⁶

National Average: 13.9%⁶

Speak English less than very well: 8.4%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Norfolk County

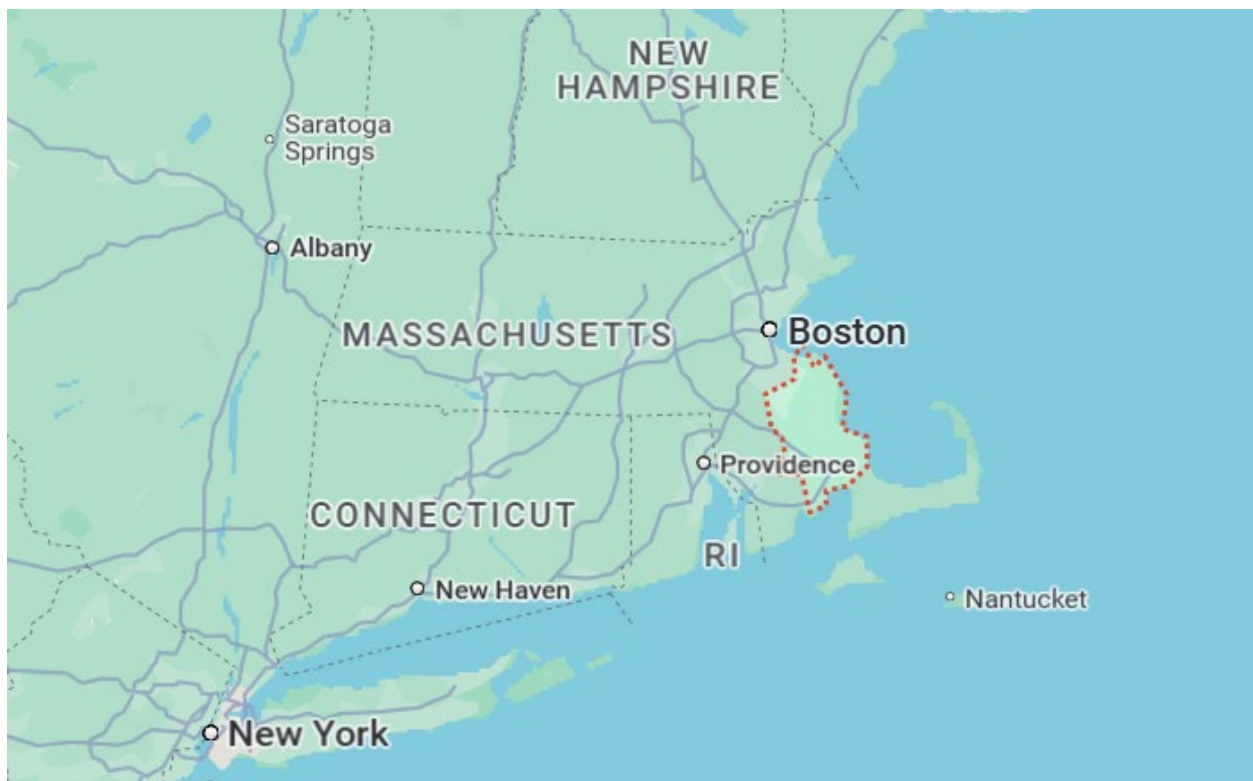
Community Name	Cohasset	Quincy	Weymouth Town	Needham	Franklin Town
Commercial Engagement	0.057	0.082	-0.105	-0.153	-0.116
Commercial Reliance	-0.044	-0.052	-0.053	-0.053	-0.053
Poverty	-0.614	0.01	-0.347	-0.713	-0.598
Population Composition	-0.581	0.874	-0.367	-0.532	-0.686
Personal Disruption	-0.725	-0.109	-0.314	-0.922	-0.587
Housing Disruption	0.257	0.842	NA	0.623	NA
Retiree Migration	-0.247	-0.69	-0.47	-0.193	-0.758
Urban Sprawl	1.183	0.97	0.607	1.084	0.298
Labor Force	-0.27	-0.77	-0.674	-0.296	-0.838
Housing Characteristics	-1.209	-0.135	-0.265	-1.559	-0.574
Sea Level Rise Risk	-0.068	-0.043	-0.205	-0.346	-0.346
Storm Surge Risk	-0.562	-0.16	-0.564	NA	NA

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Plymouth County, MA

Plymouth County has a population of 531,889¹ and a population per square mile of 808². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

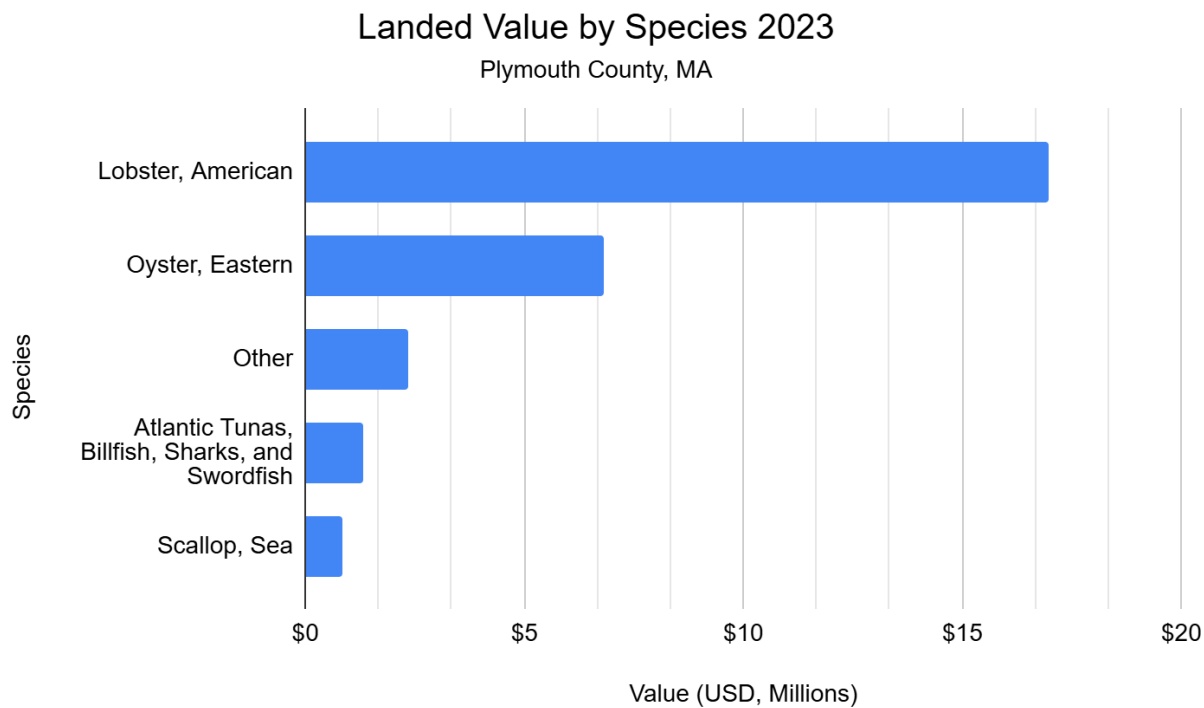
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Plymouth County?

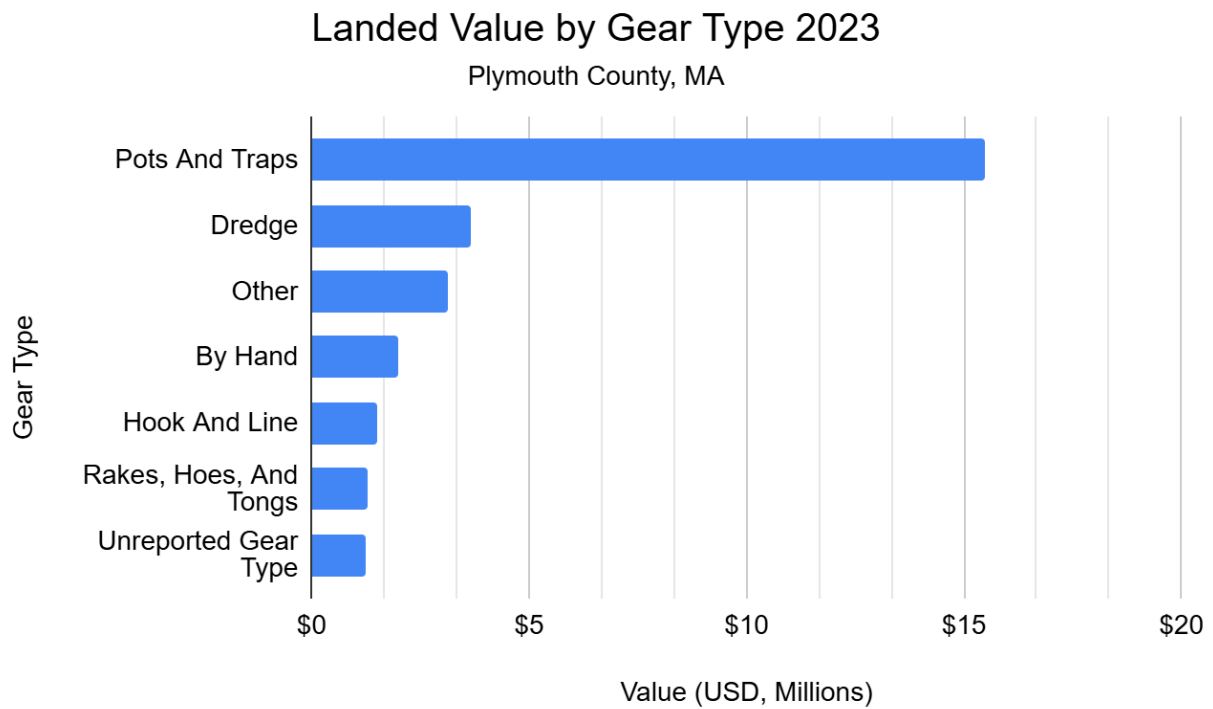
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Plymouth County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

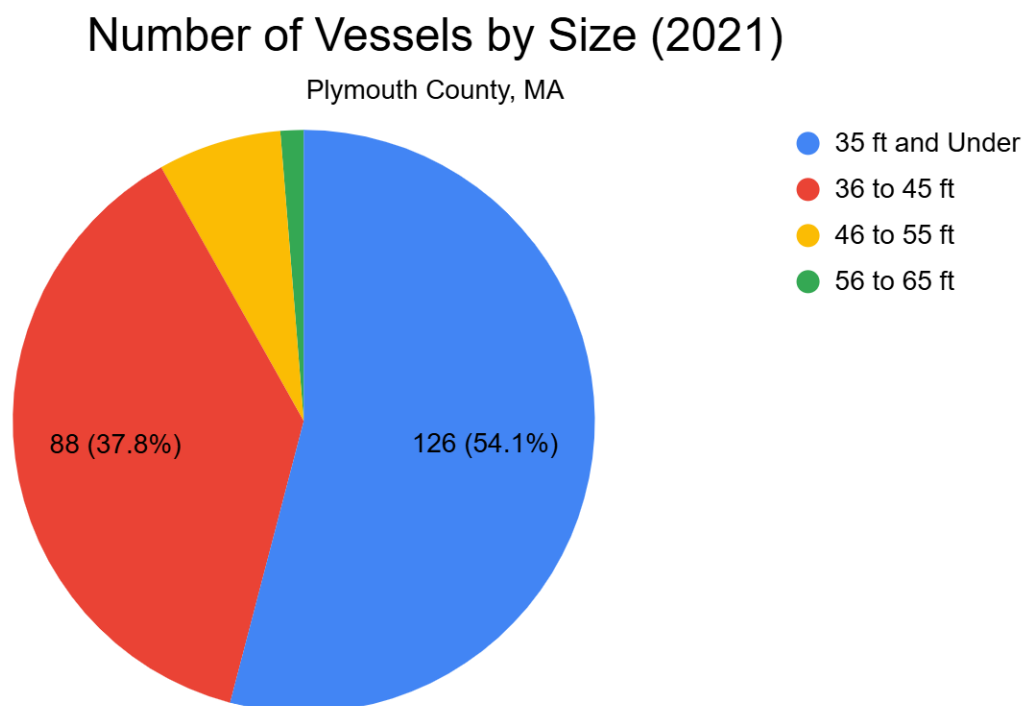


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Plymouth County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

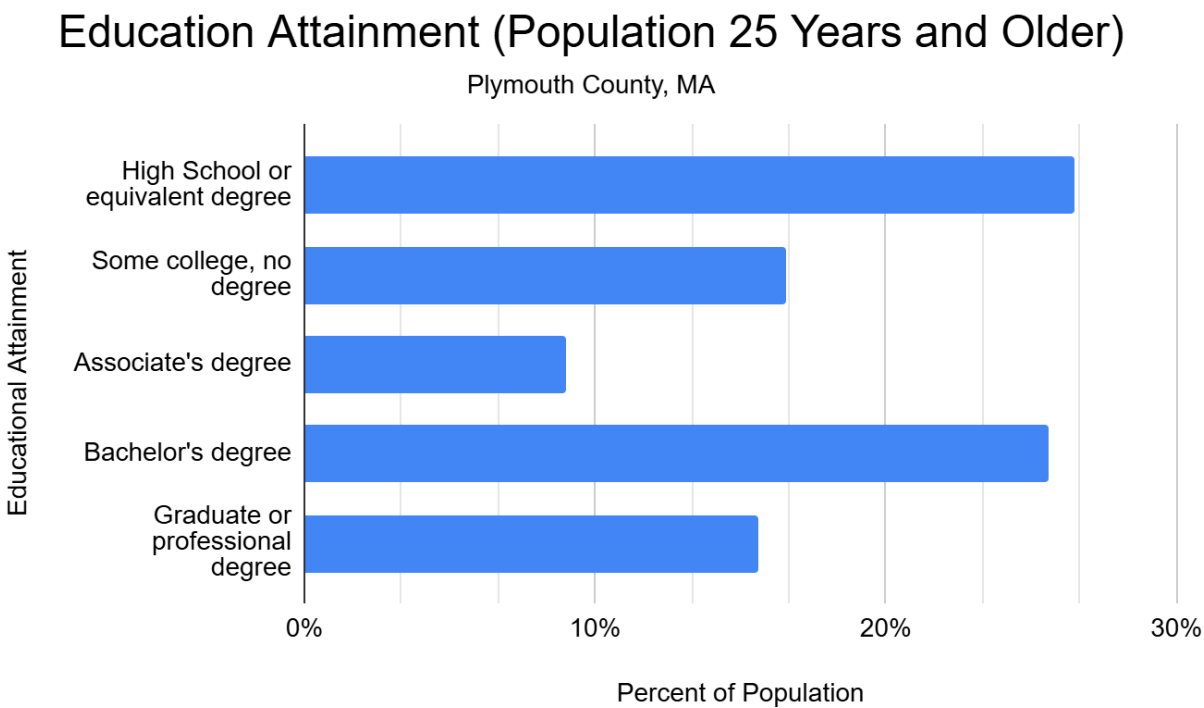


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

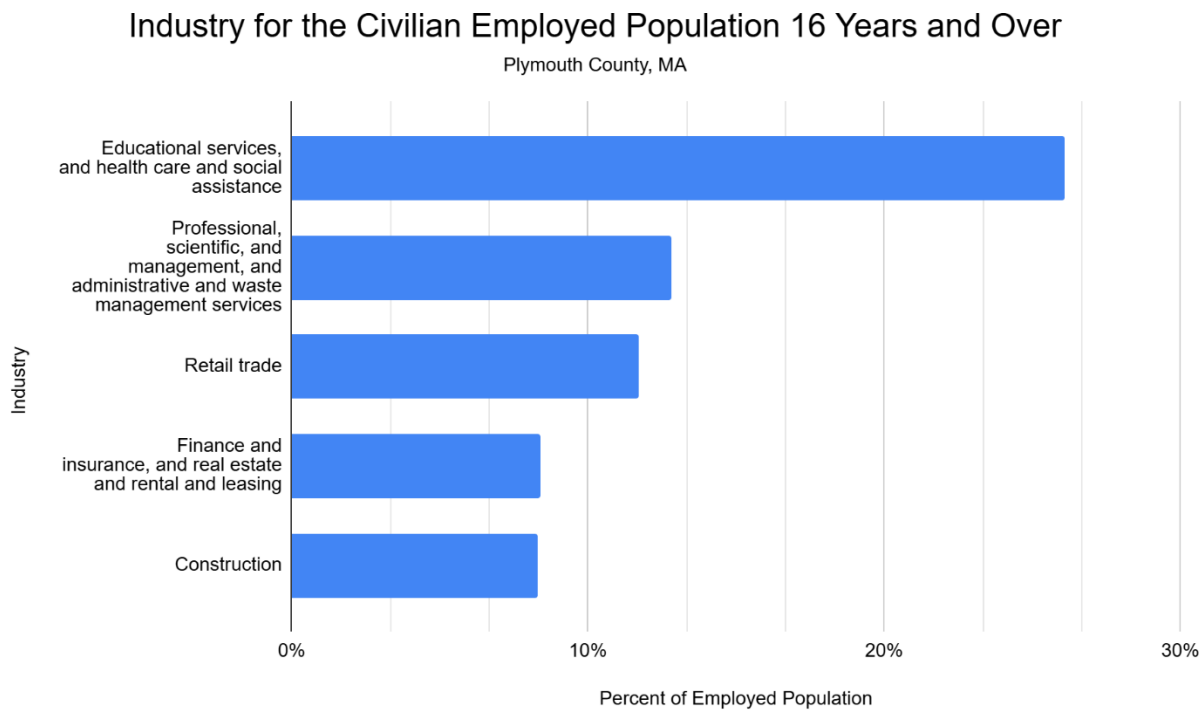
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Plymouth County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 5.1%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$109,698

National Median Household Income: \$78,538³

Individuals Living in Poverty: 7.1%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

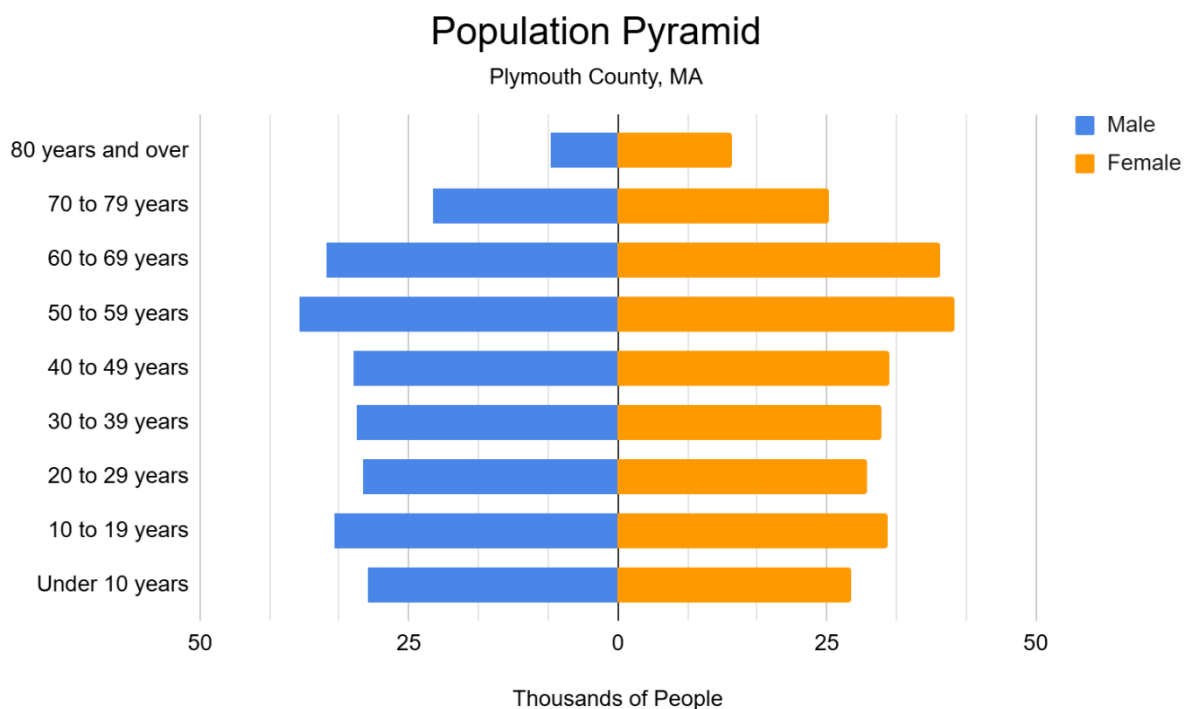
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 42.9⁵

National median: 38.7⁵

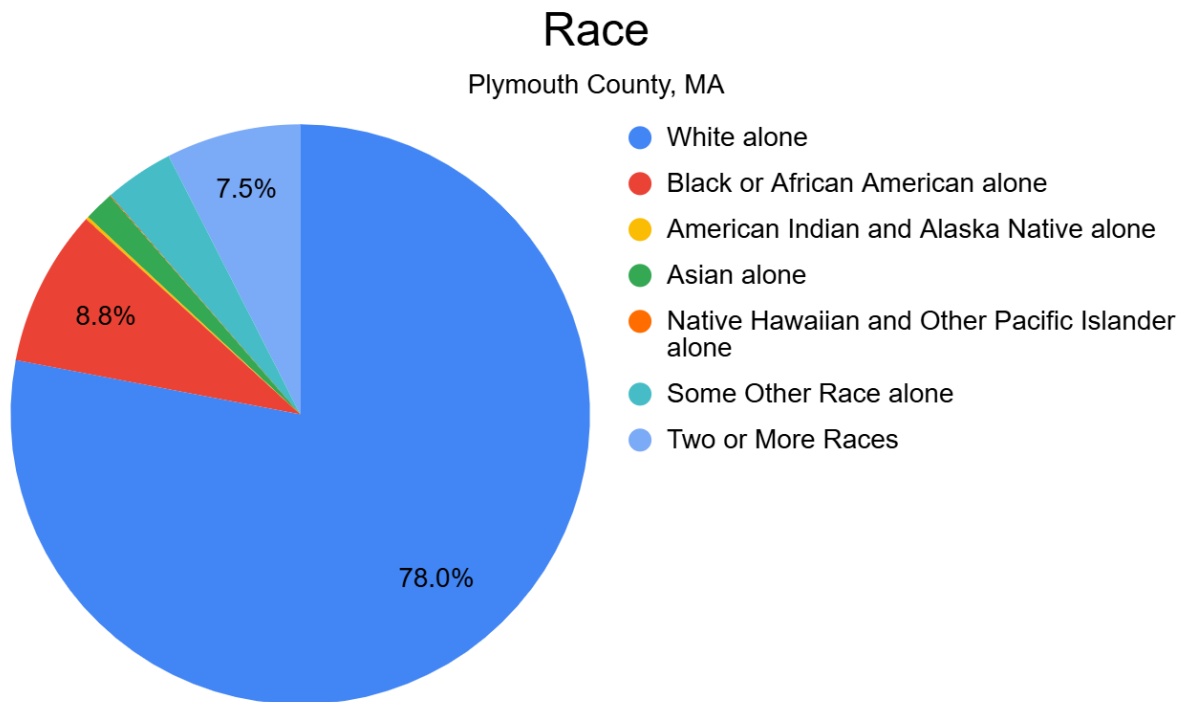


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

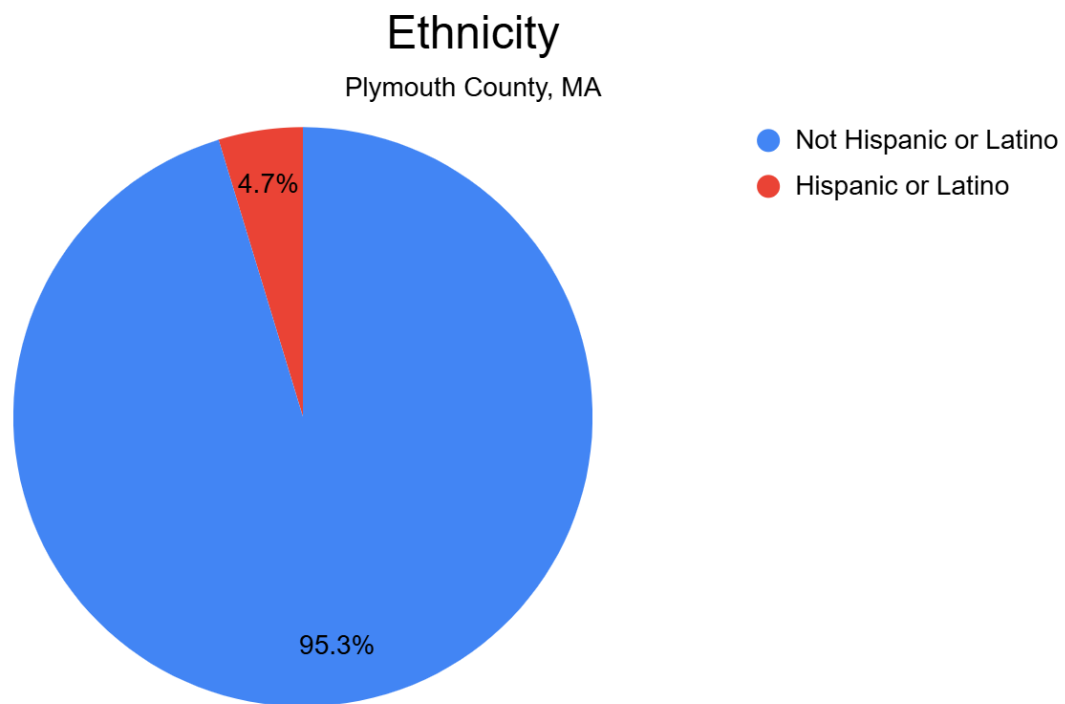
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 10.8%⁶

National Average: 13.9%⁶

Speak English less than very well: 5.8%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

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Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Plymouth County

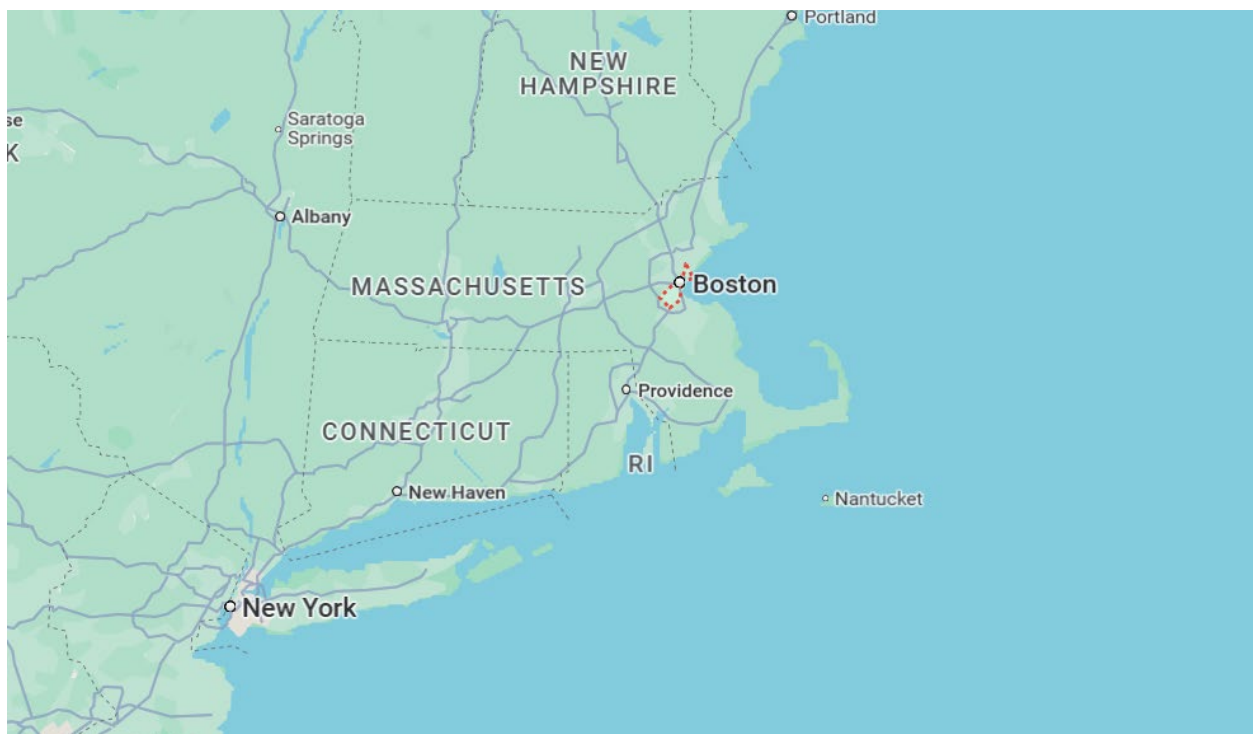
Community Name	Marshfield / Green Harbor-Cedar Crest / Marshfield Hills / Ocean Bluff-Brant Rock	Duxbury	Scituate / North Scituate	Plymouth	Hull
Commercial Engagement	1.295	0.291	1.66	1.089	0.149
Commercial Reliance	-0.038	0.059	-0.031	-0.048	-0.045
Poverty	-0.375	-0.159	-0.696	-0.593	-0.536
Population Composition	-0.876	-1.329	-0.851	-0.795	-0.817
Personal Disruption	-0.753	-0.613	-0.868	-0.501	-0.416
Housing Disruption	0.064	-0.213	0.438	0.491	0.215
Retiree Migration	-0.416	0.05	0.08	0.084	-0.412
Urban Sprawl	0.312	0.973	0.526	0.451	0.649
Labor Force	-0.765	0.179	-0.302	-0.333	-0.854
Housing Characteristics	-0.588	NA	-0.742	-0.272	-0.374
Sea Level Rise Risk	0.825	0.346	0.393	-0.256	0.693
Storm Surge Risk	-0.018	-0.154	-0.378	-0.596	0.066

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Suffolk County, MA

Suffolk County has a population of 782,172¹ and a population per square mile of 13,427². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

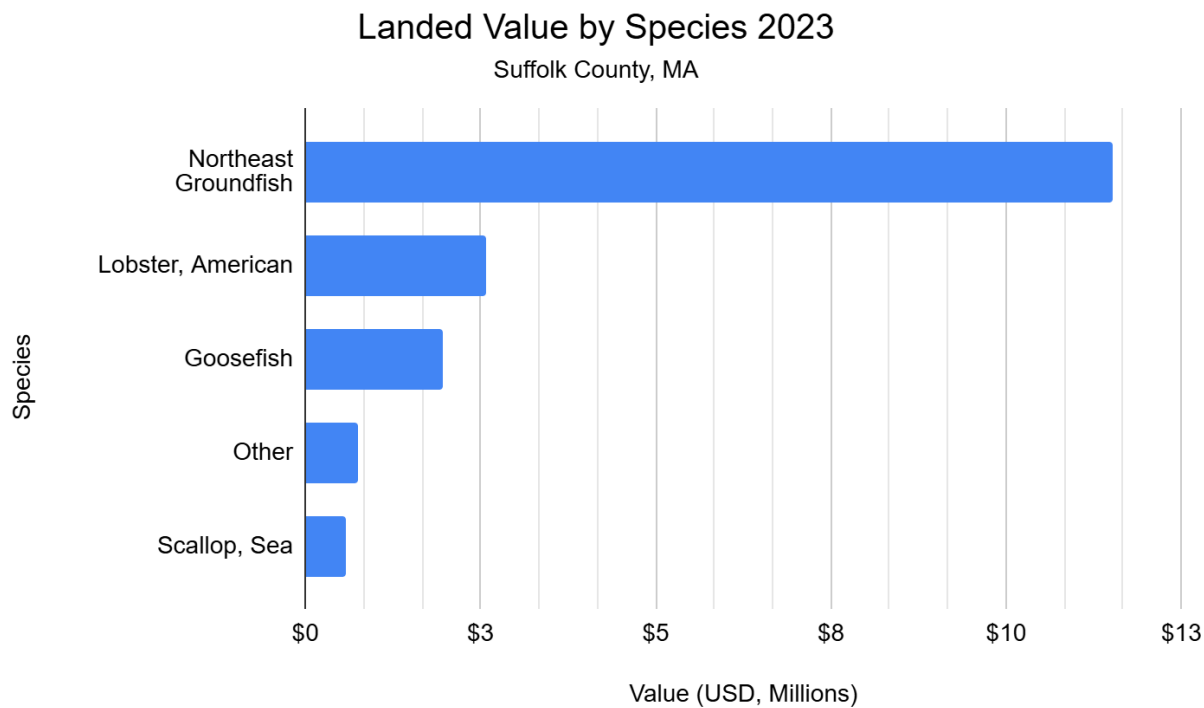
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Suffolk County?

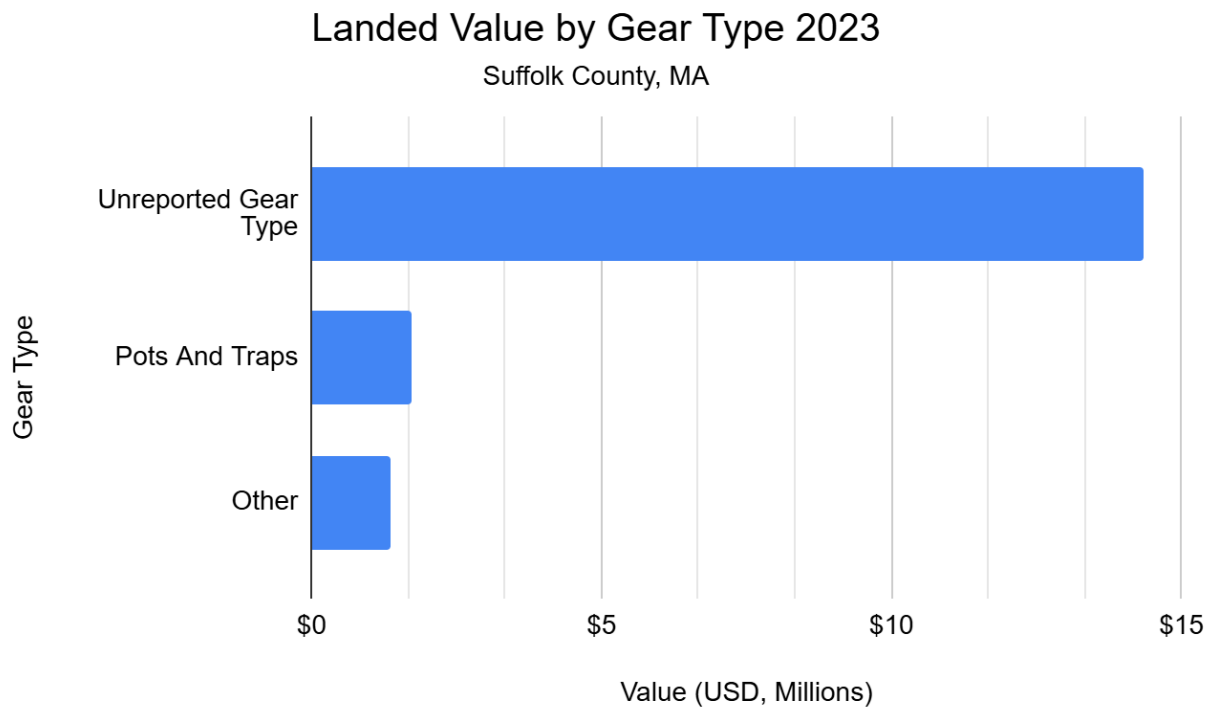
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Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Suffolk County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

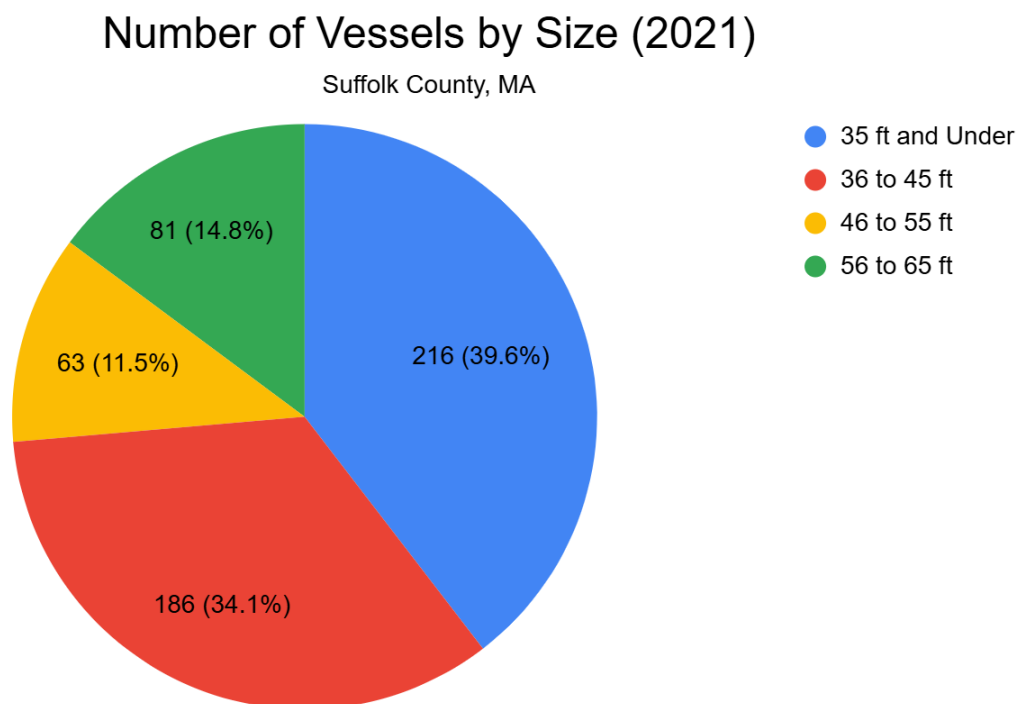


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Suffolk County?

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Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

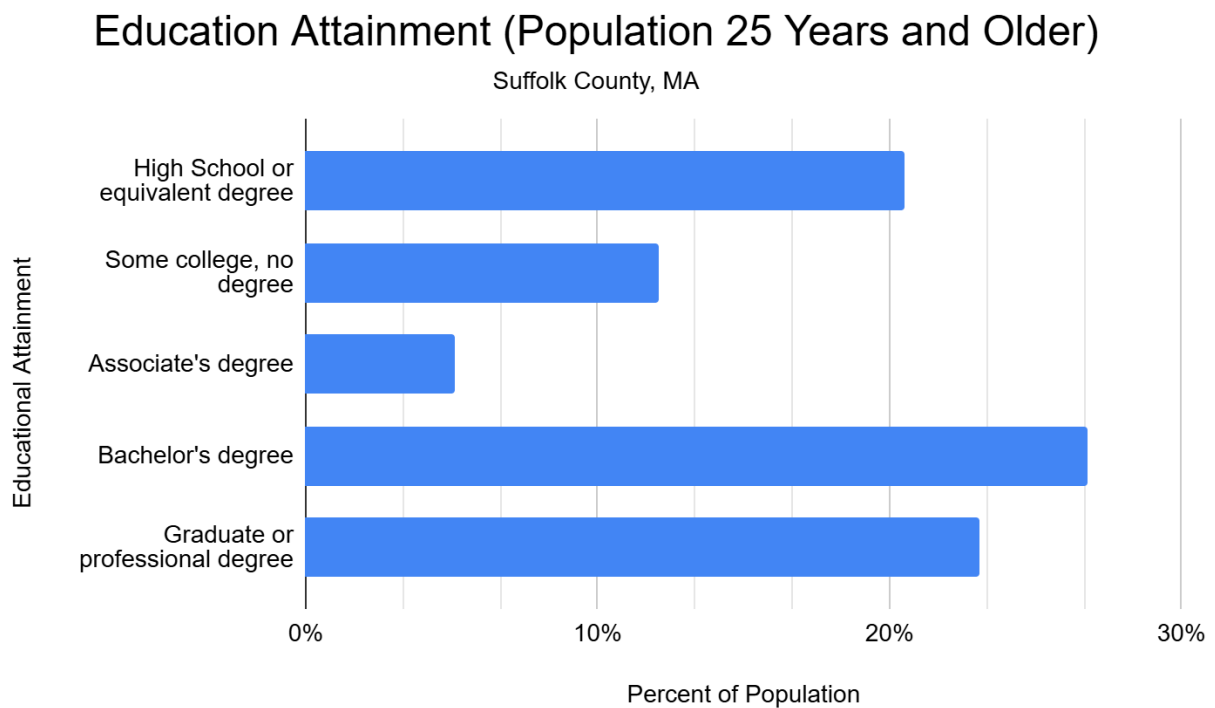


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Demographic Attributes

Educational Attainment

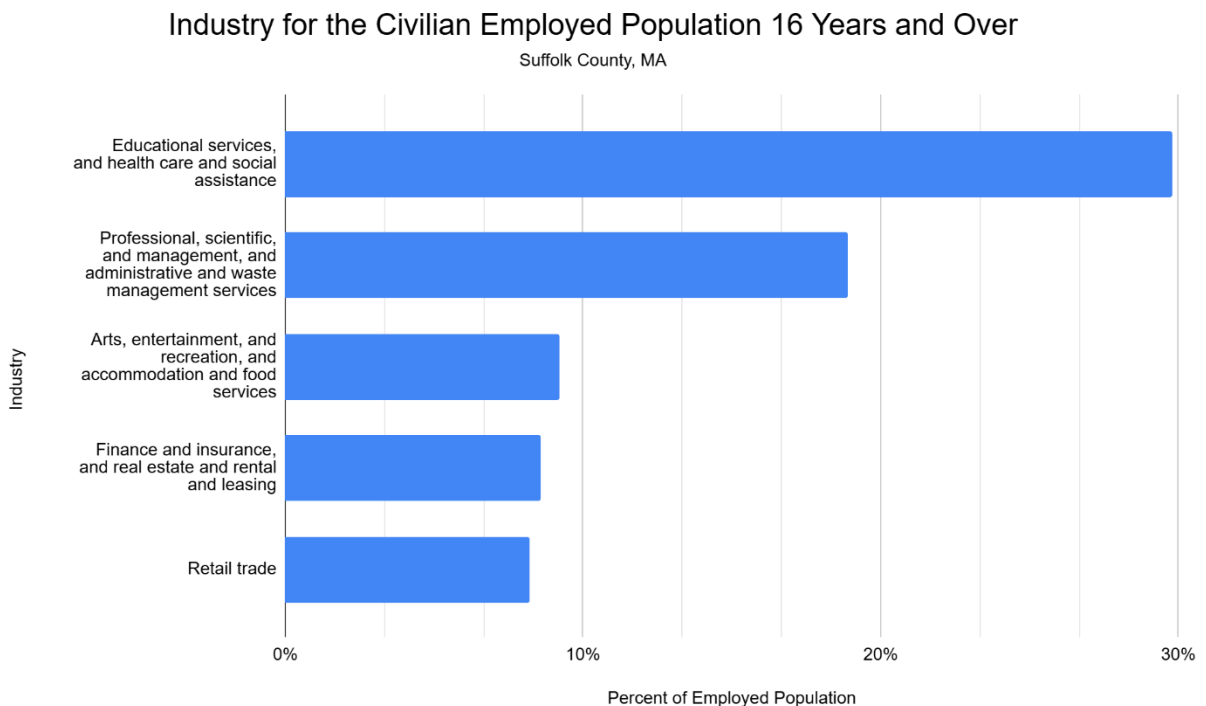
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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Suffolk County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 6.2%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$92,859³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 16.5%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

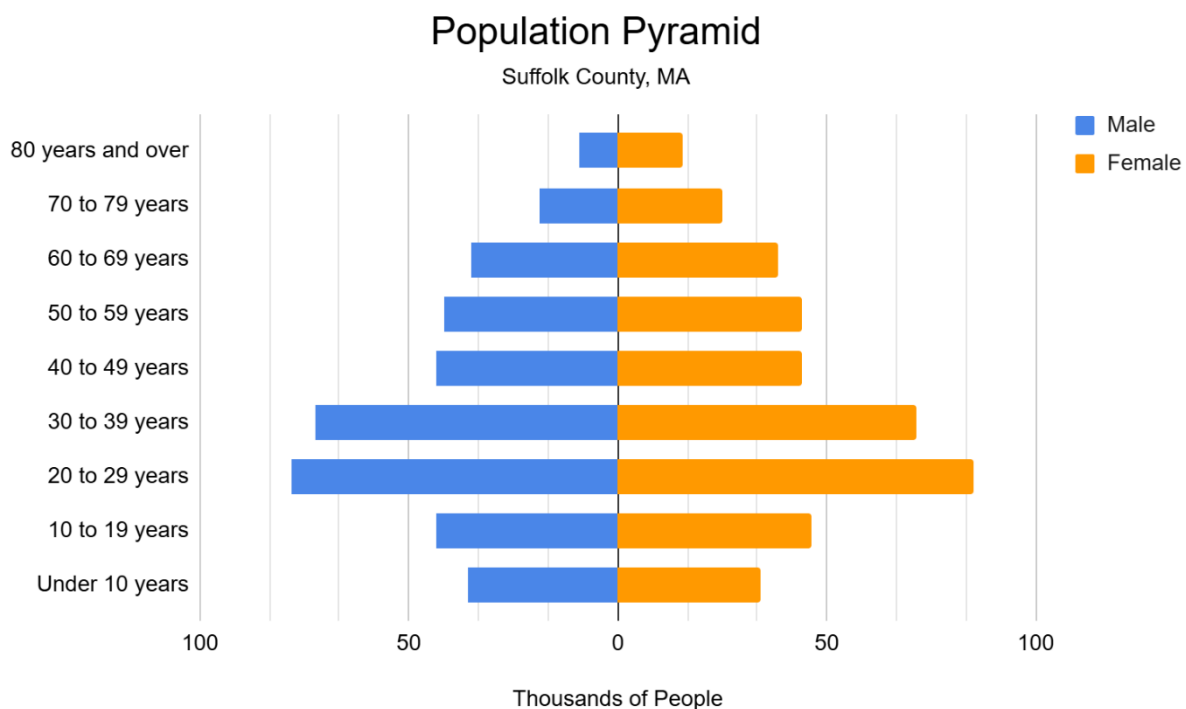
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

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Median age: 33.8⁵

National median: 38.7⁵

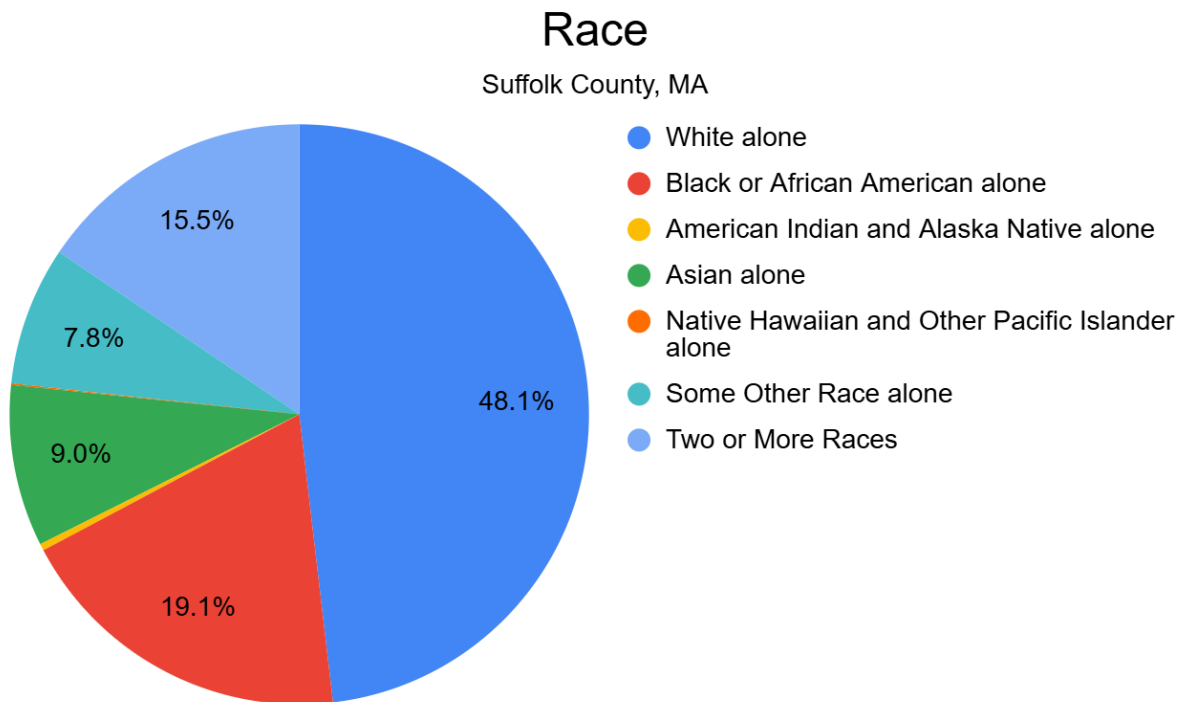


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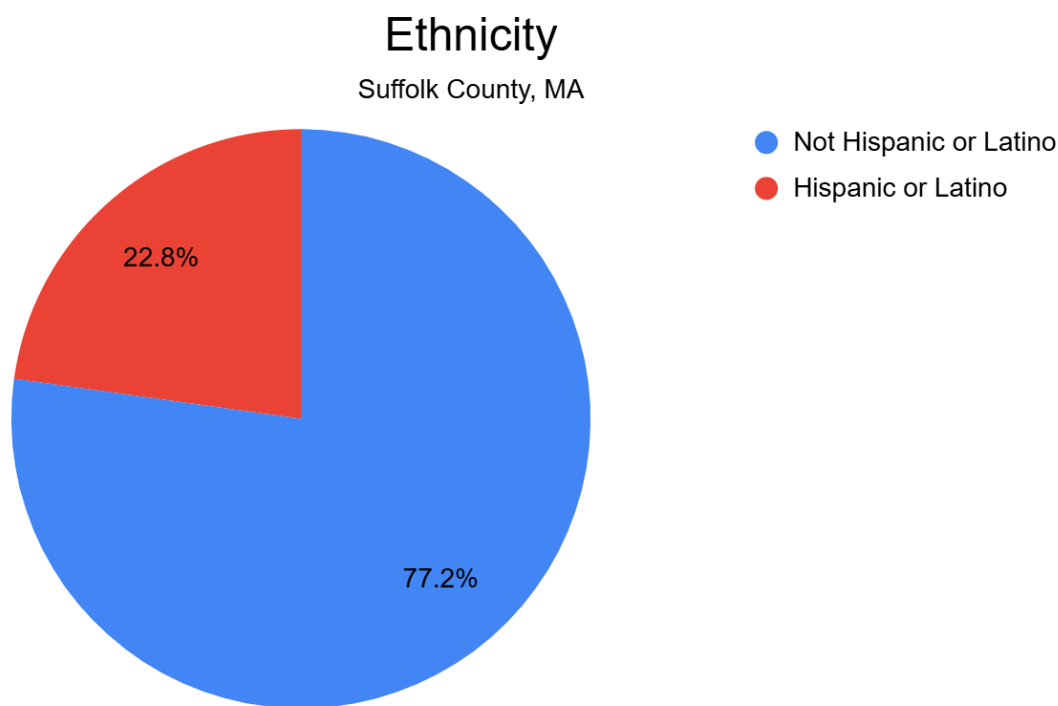
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 29.4%⁶

National Average: 13.9%⁶

Speak English less than very well: 17.9%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Suffolk County

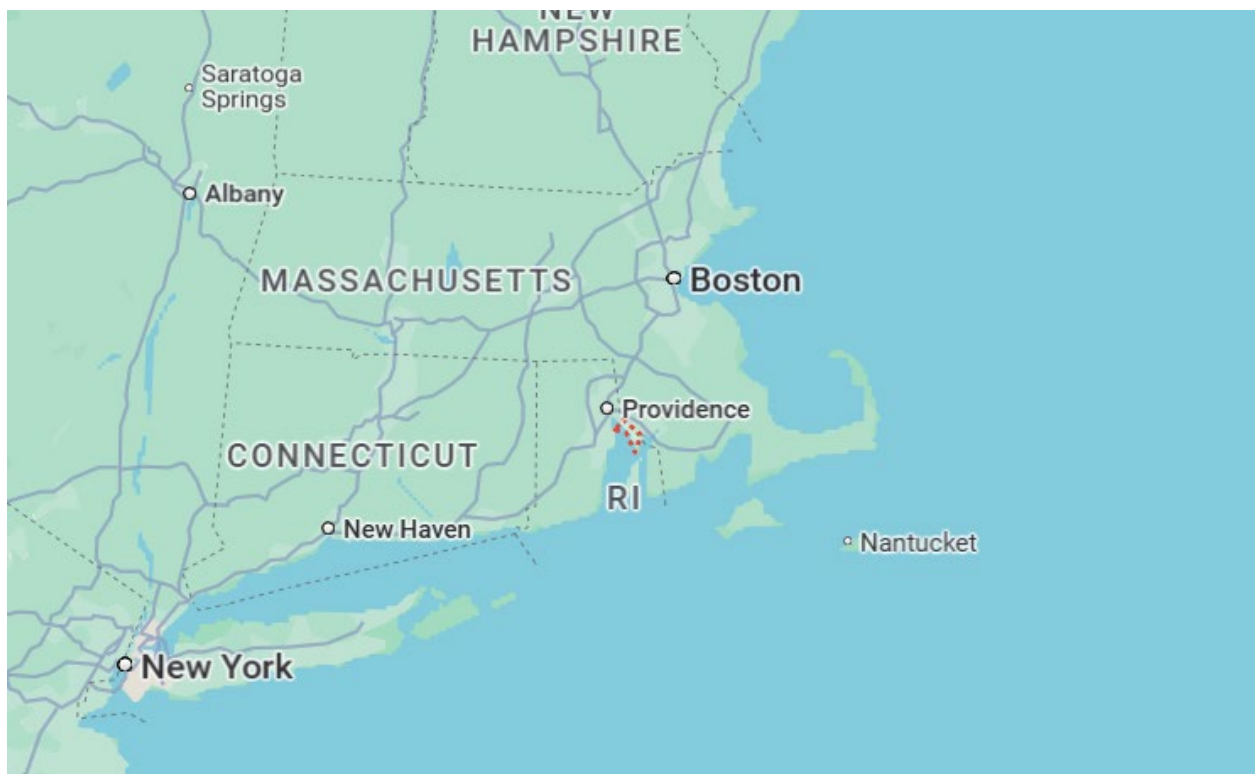
Community Name	Boston	Winthrop Town	Revere	Chelsea
Commercial Engagement	3.237	-0.079	-0.063	-0.076
Commercial Reliance	-0.051	-0.052	-0.053	-0.053
Poverty	0.795	-0.397	0.352	1.029
Population Composition	1.002	-0.247	1.404	2.74
Personal Disruption	0.413	-0.365	0.277	1.186
Housing Disruption	1.326	NA	0.747	0.776
Retiree Migration	-1.116	-0.334	-0.639	-1.067
Urban Sprawl	1.865	1.077	1.19	1.85
Labor Force	-0.938	-0.641	-0.494	-0.693
Housing Characteristics	-0.143	-0.409	0.01	0.112
Sea Level Rise Risk	-0.004	0.326	0.566	0.037
Storm Surge Risk	0.368	0.342	0.28	0.149

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Bristol County, RI

Bristol County has a population of 50,568¹ and a population per square mile of 2,095². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

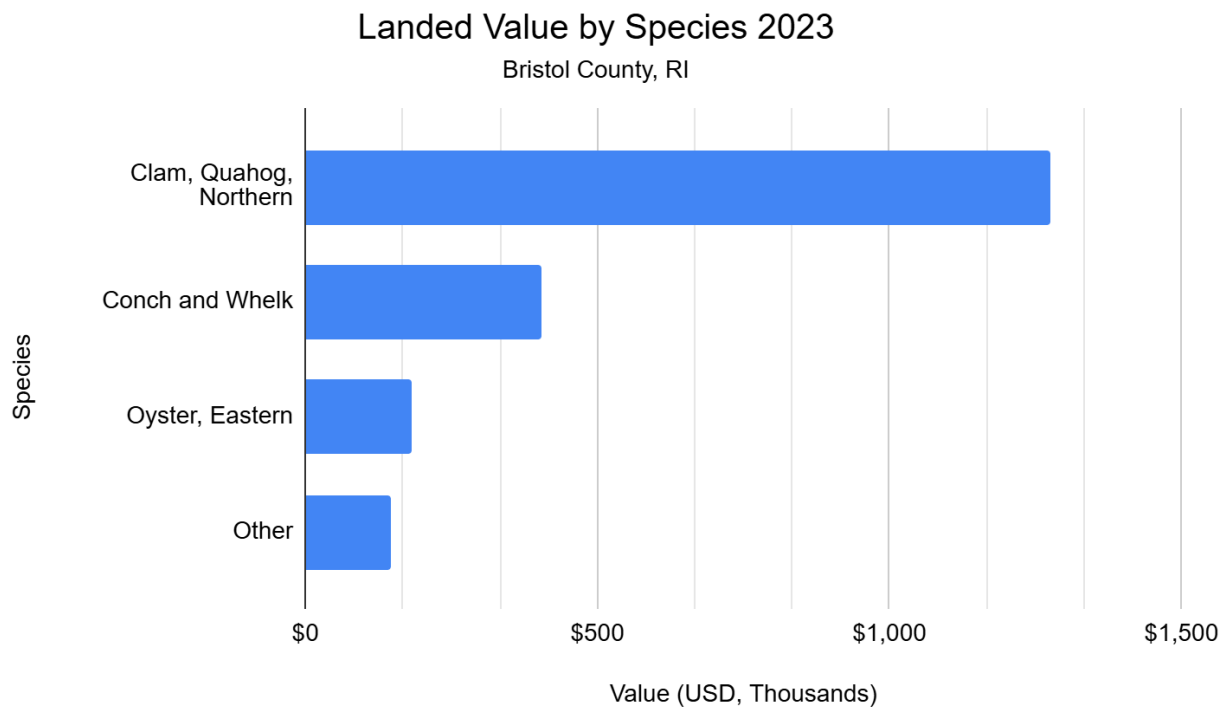
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Cumberland County?

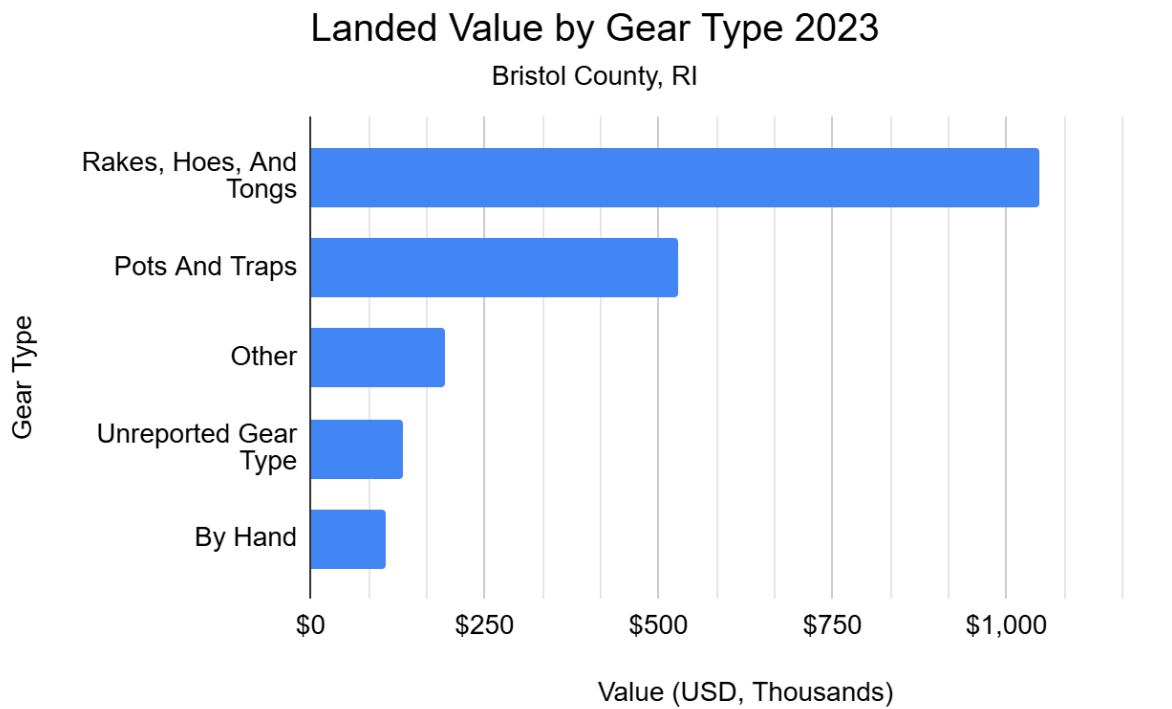
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Bristol County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

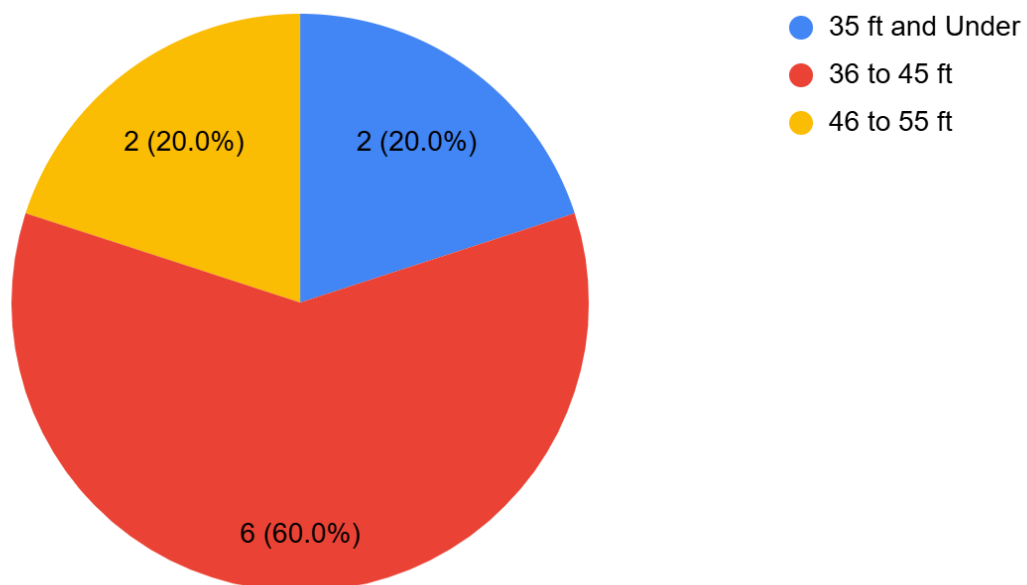
What are the characteristics of the fishing vessels in Bristol County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

Number of Vessels by Size (2021)

Bristol County, RI

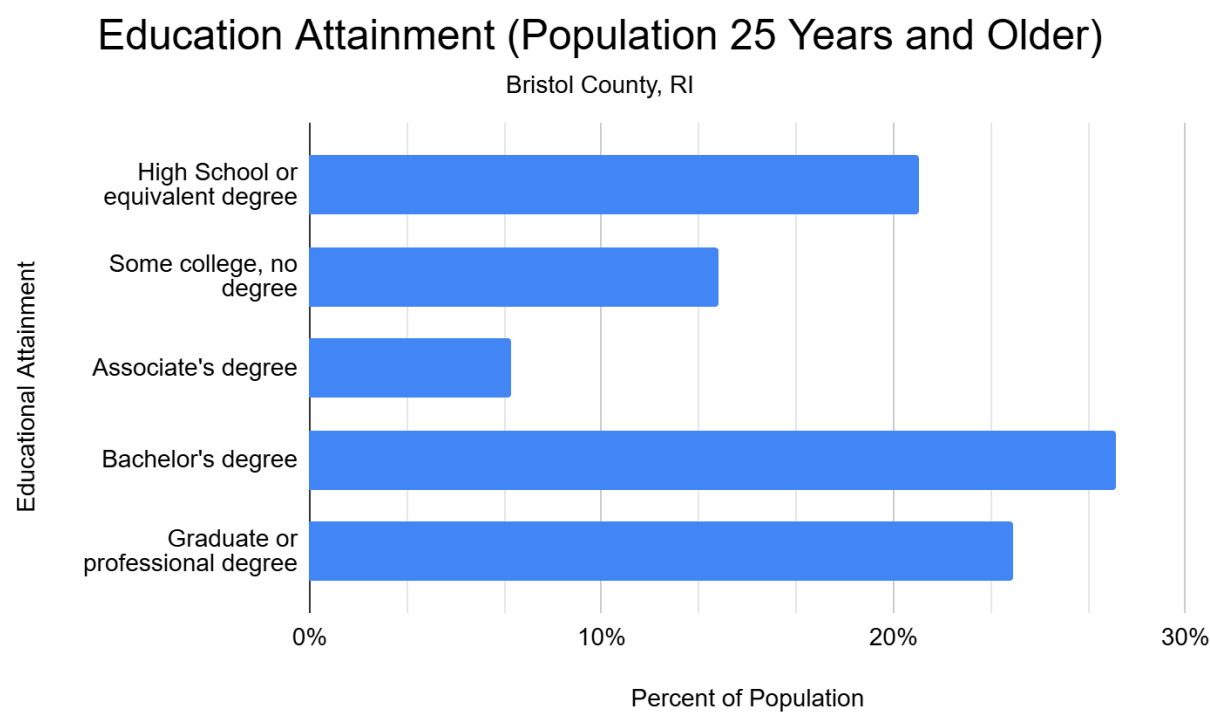


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

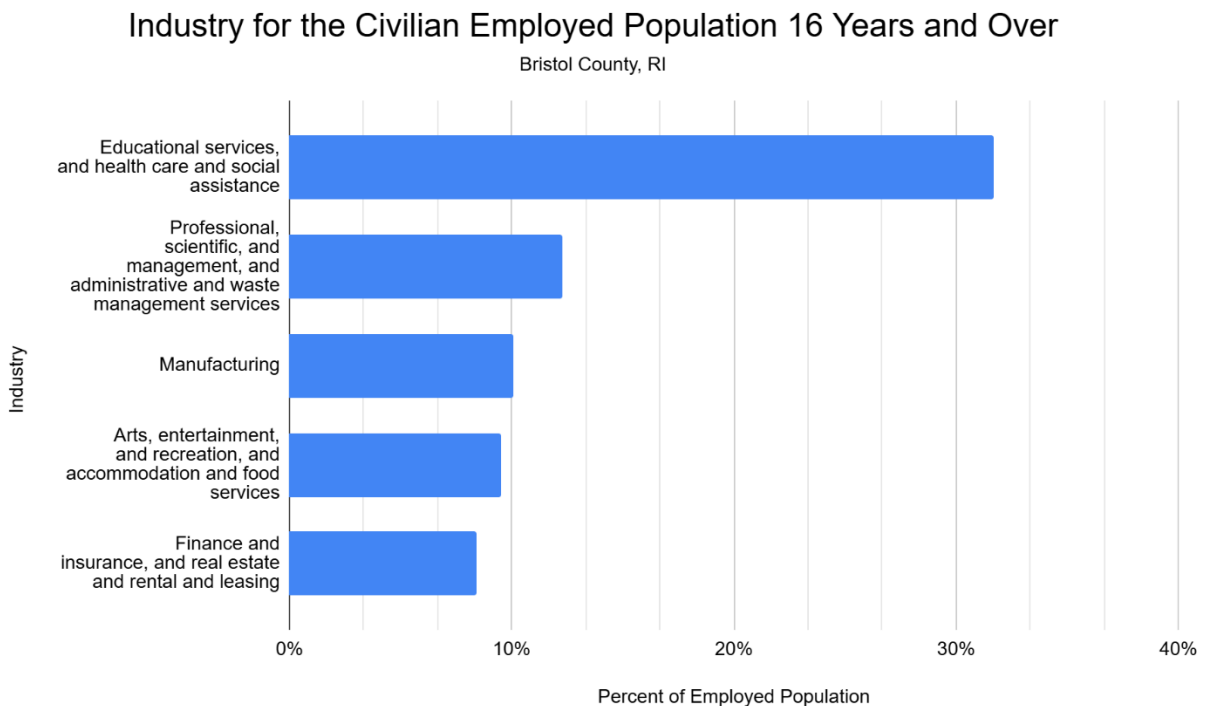
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Bristol County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 3.1%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$110,926³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 6.8%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 44.1⁵

National median: 38.7⁵

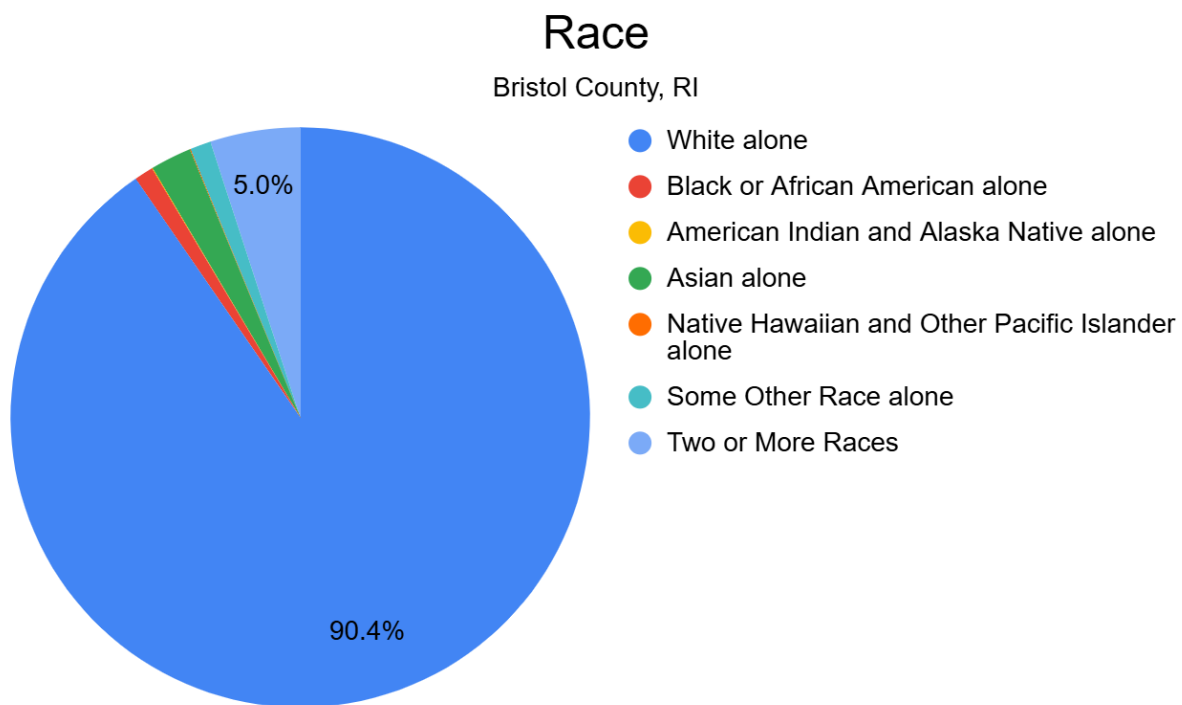


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

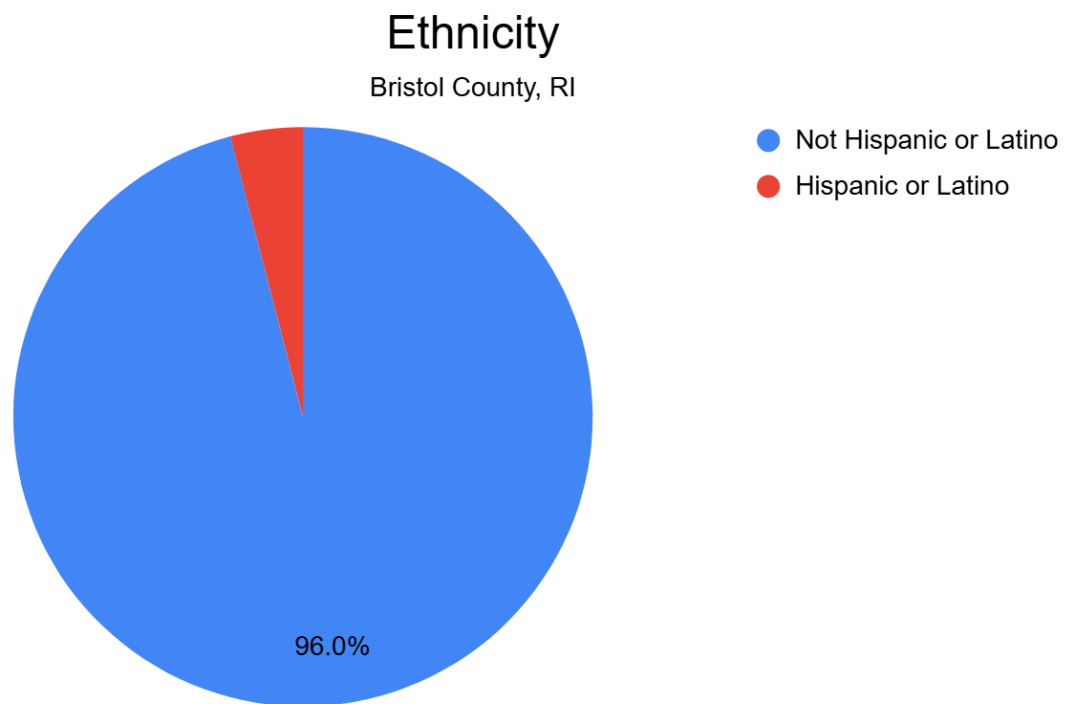
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 9.9%⁶

National Average: 13.9%⁶

Speak English less than very well: 3.8%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Bristol County

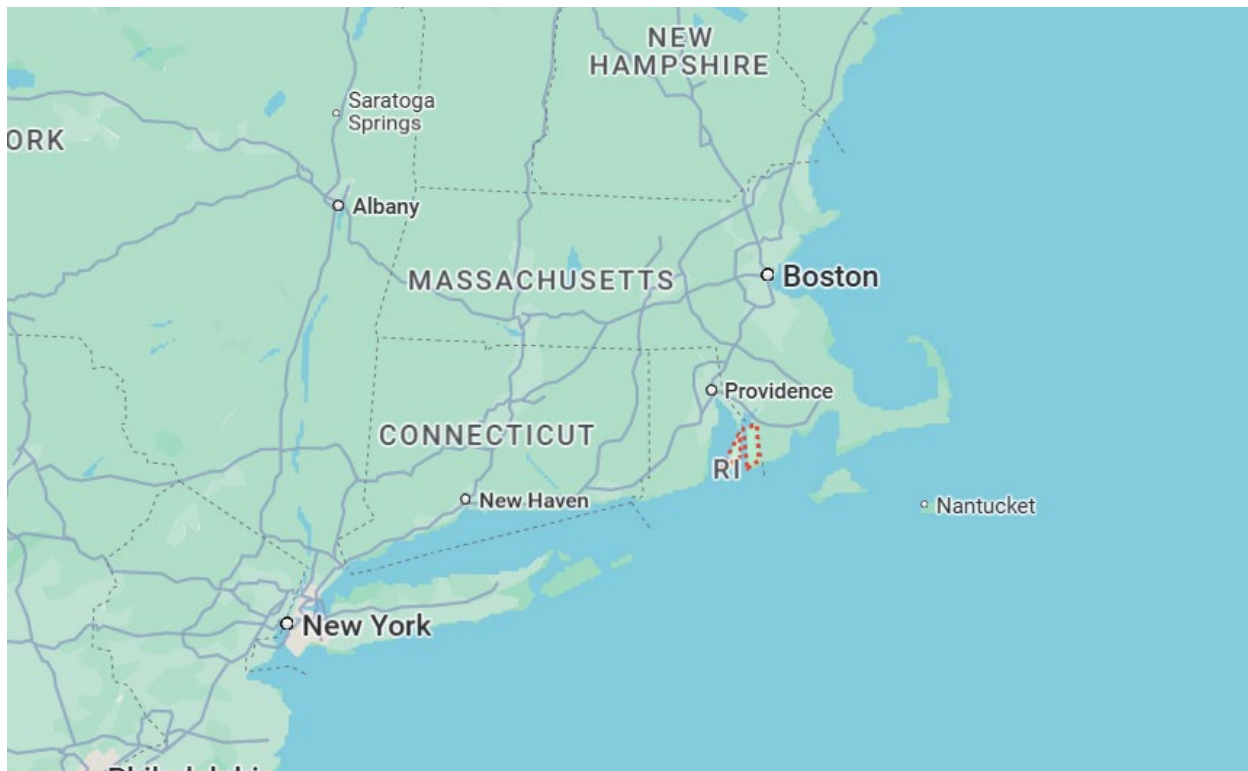
Community Name	Bristol	Warren	Barrington
Commercial Engagement	0.023	-0.101	-0.147
Commercial Reliance	-0.05	-0.051	-0.053
Poverty	-0.449	-0.196	-0.409
Population Composition	-0.705	-0.622	-0.716
Personal Disruption	-0.232	-0.197	-0.734
Housing Disruption	0.089	-0.163	-0.029
Retiree Migration	0.243	-0.253	-0.479
Urban Sprawl	0.026	-0.098	0.107
Labor Force	0.108	-0.423	-0.593
Housing Characteristics	0.044	0.314	-0.754
Sea Level Rise Risk	-0.133	0.075	0.264
Storm Surge Risk	-0.354	0.052	0.509

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Newport County, RI

Newport County has a population of 85,095¹ and a population per square mile of 831². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

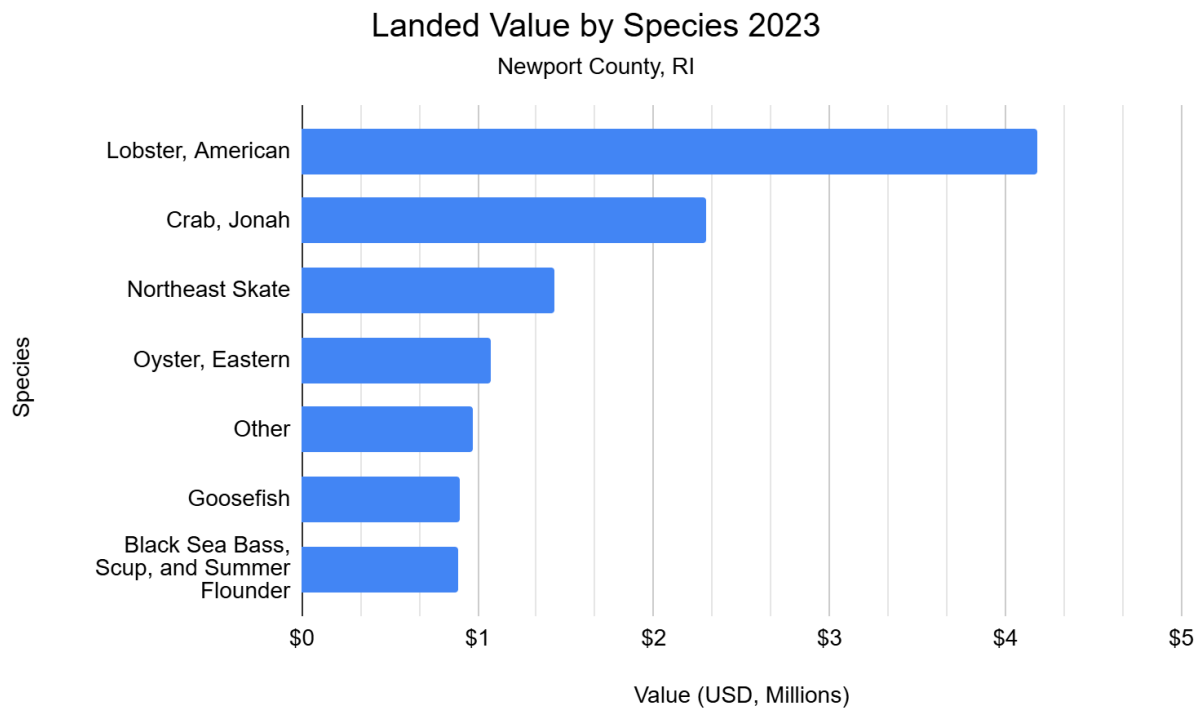
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Newport County?

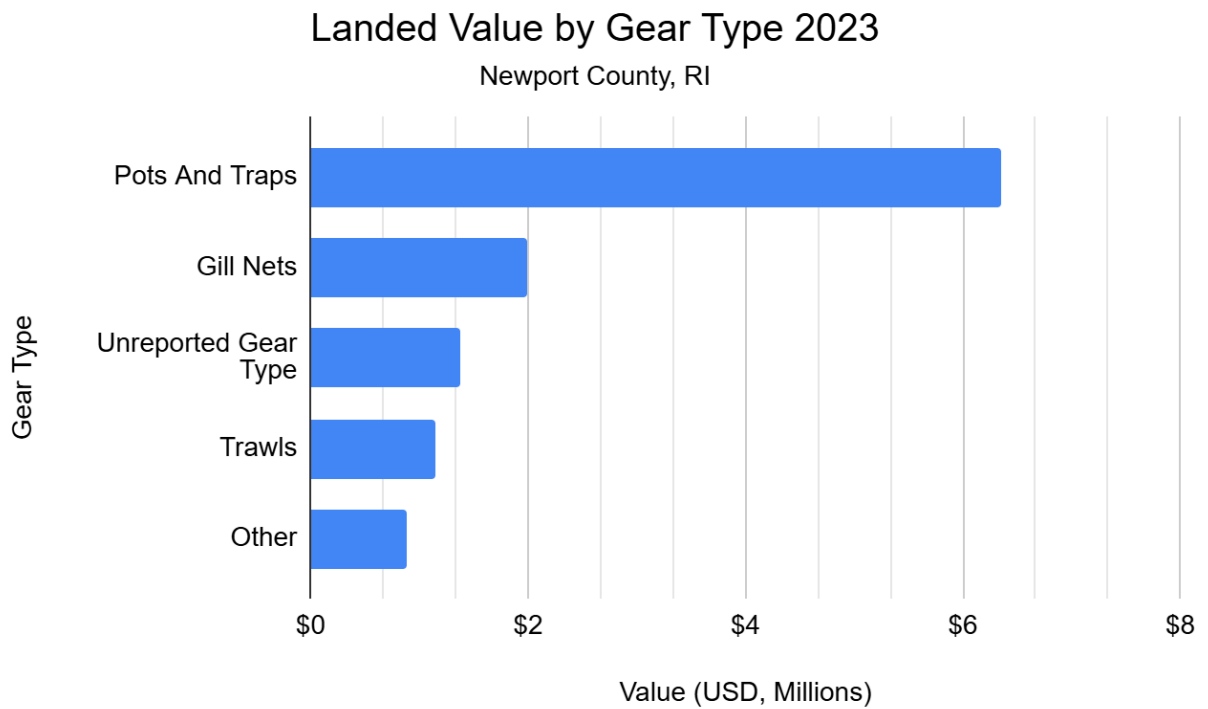
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Newport County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

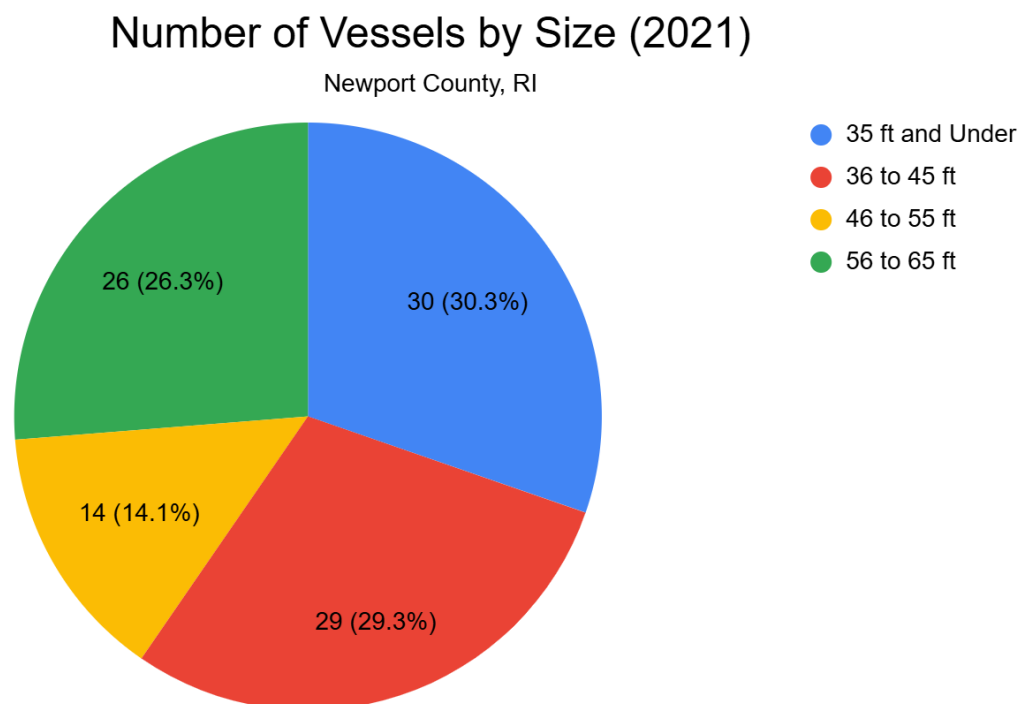


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Newport County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

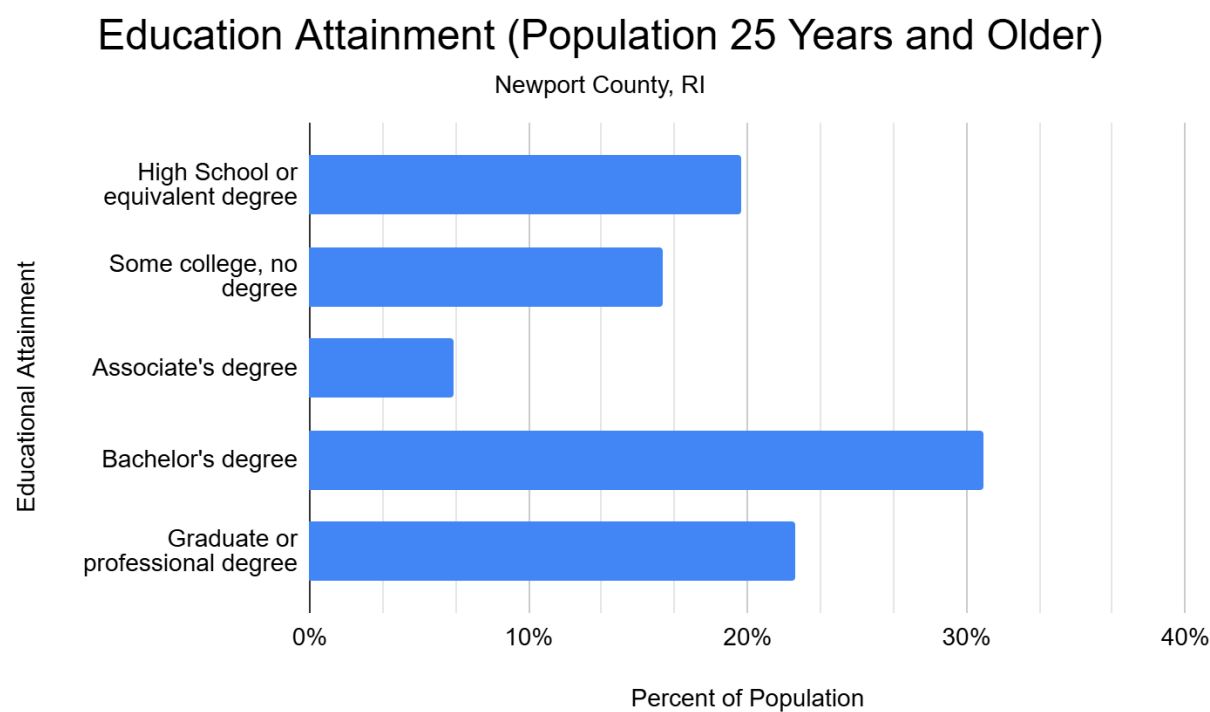


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

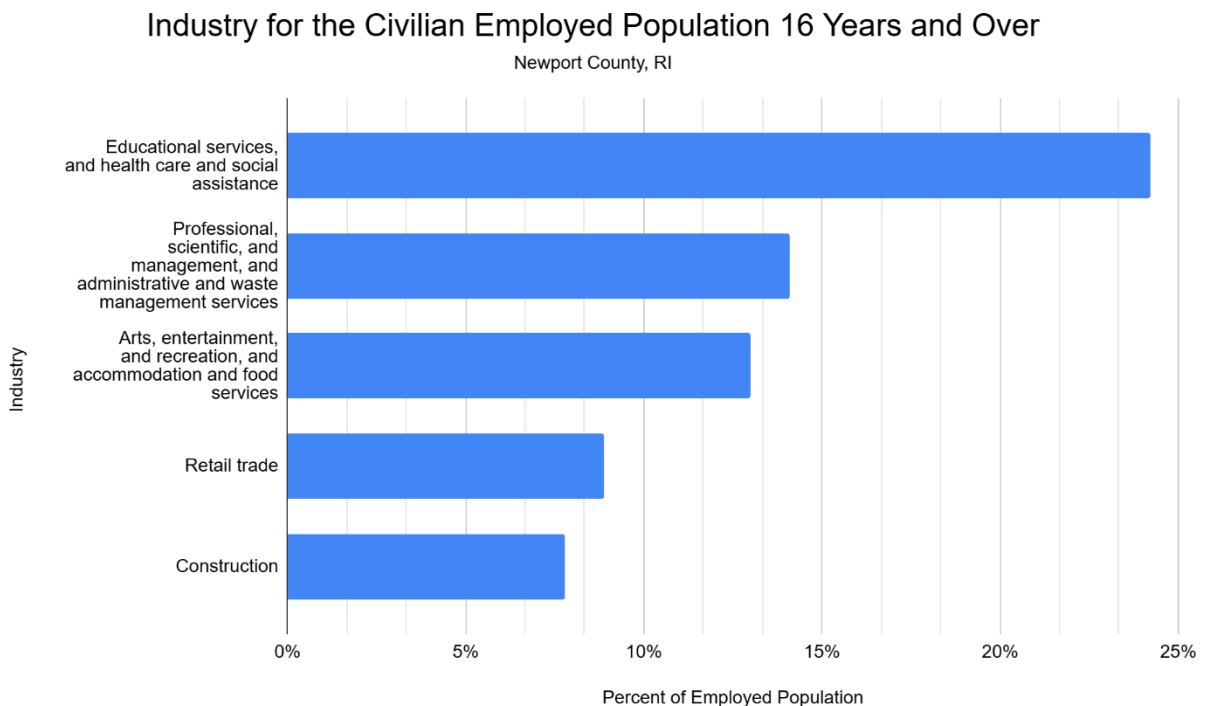
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Newport County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 6.3%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$100,859³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 8.6%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

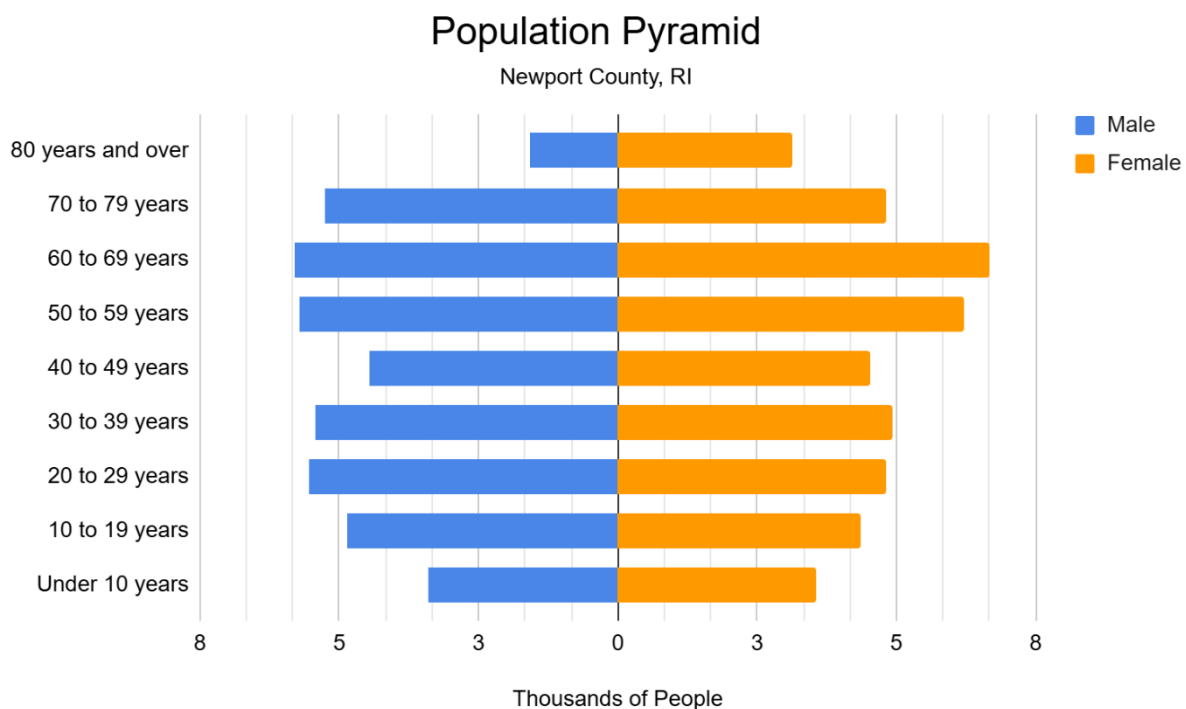
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 46.4⁵

National median: 38.7⁵

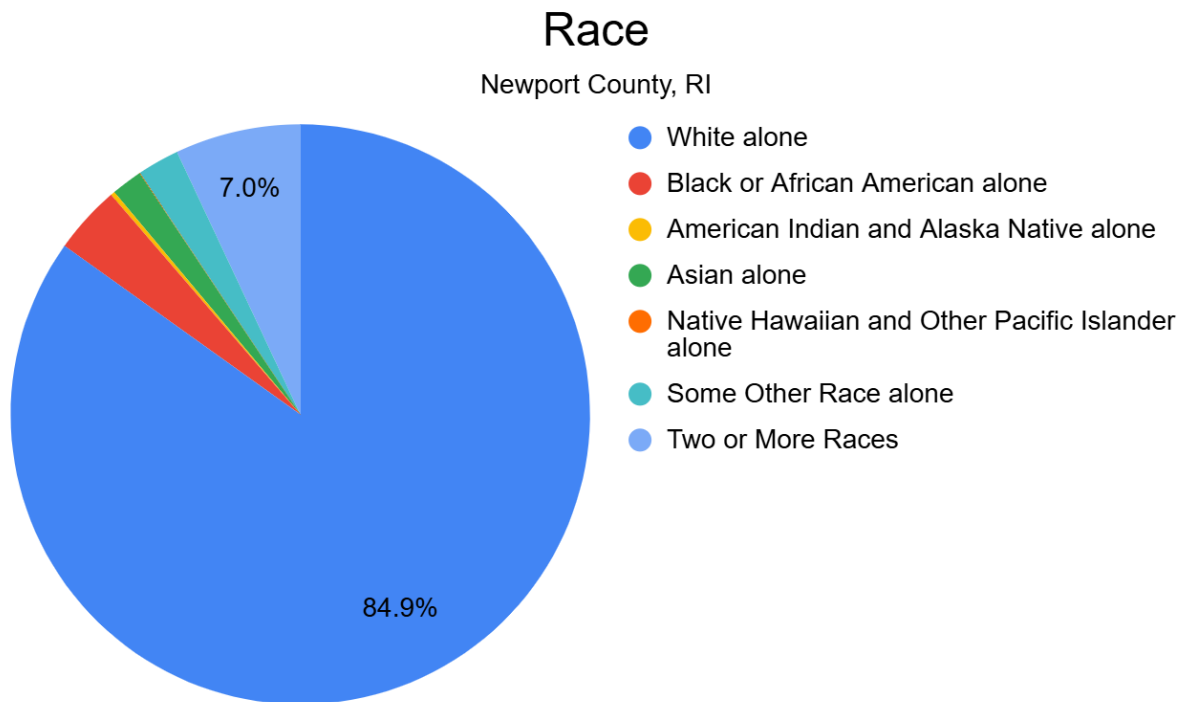


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

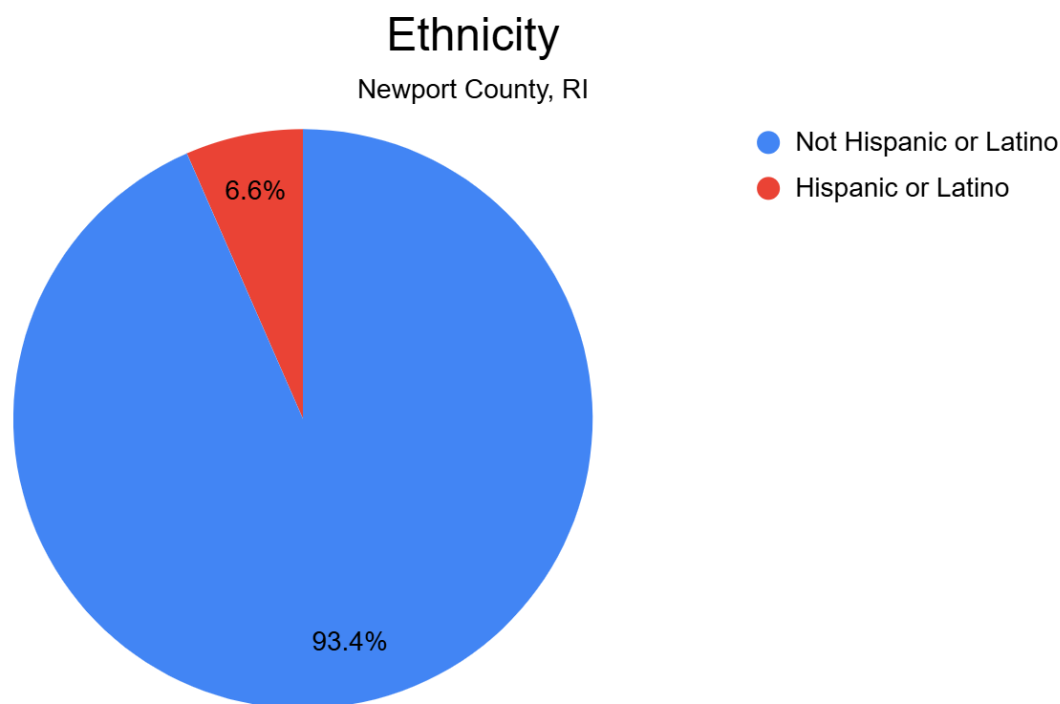
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 7.0%⁶

National Average: 13.9%⁶

Speak English less than very well: 3.1%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

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Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Newport County

Community Name	Newport	Little Compton	Tiverton	Portsmouth / Melville	Jamestown
Commercial Engagement	1.249	0.469	0.097	0.01	-0.007
Commercial Reliance	-0.036	0.004	-0.049	-0.05	-0.045
Poverty	0.538	-0.642	-0.514	-0.64	-1.012
Population Composition	-0.187	-1.319	-0.887	-0.94	-0.901
Personal Disruption	-0.009	-0.617	-0.257	-0.825	-0.728
Housing Disruption	1.446	0.906	-0.363	0.272	1.273
Retiree Migration	-0.395	0.869	-0.086	0.175	0.605
Urban Sprawl	0.222	0.22	-0.134	0.085	0.335
Labor Force	-0.372	0.659	-0.341	-0.27	0.482
Housing Characteristics	-0.079	-0.498	0.319	-0.398	-0.681
Sea Level Rise Risk	-0.129	-0.017	-0.102	0.093	-0.117
Storm Surge Risk	-0.142	-0.404	-0.524	-0.313	-0.442

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Washington County, RI

Washington County has a population of 130,073¹ and a population per square mile of 395². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

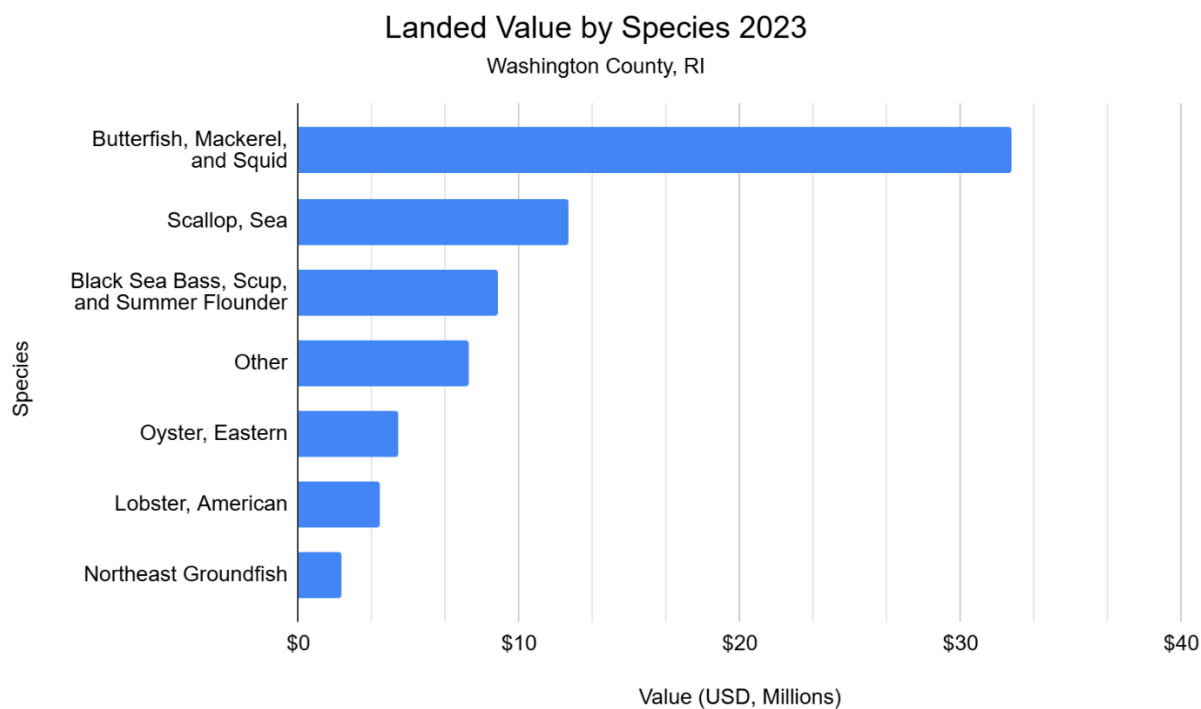
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Washington County?

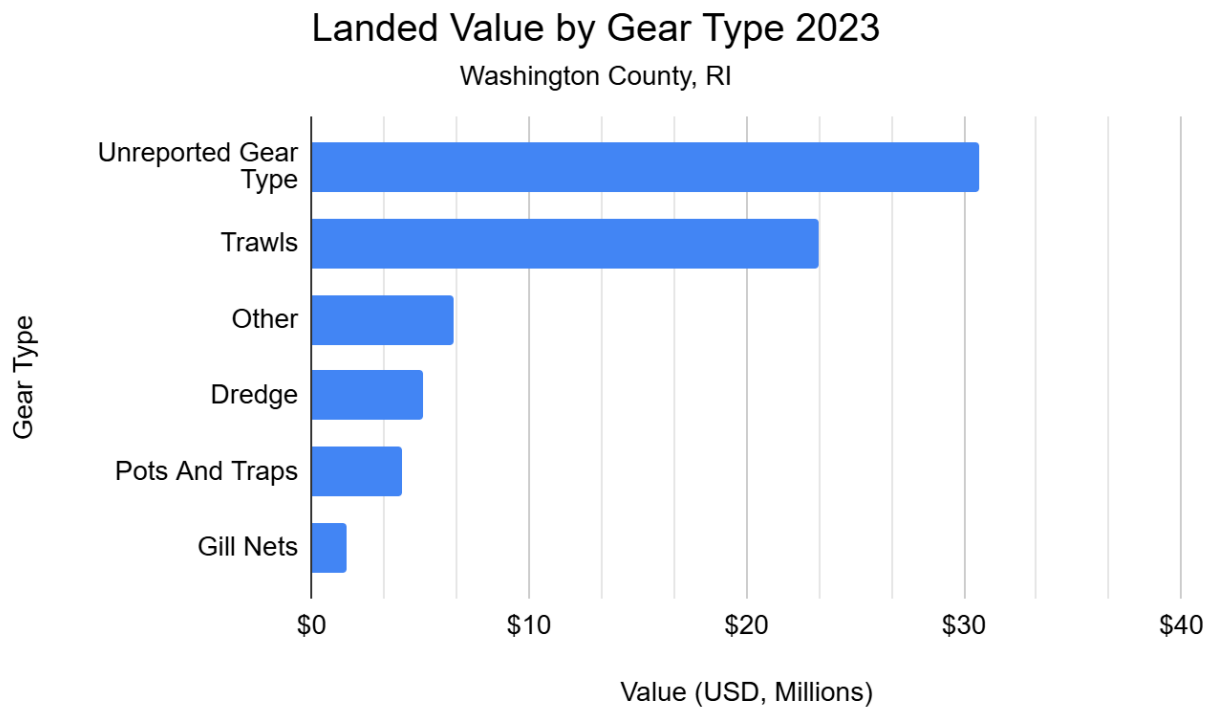
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Washington County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

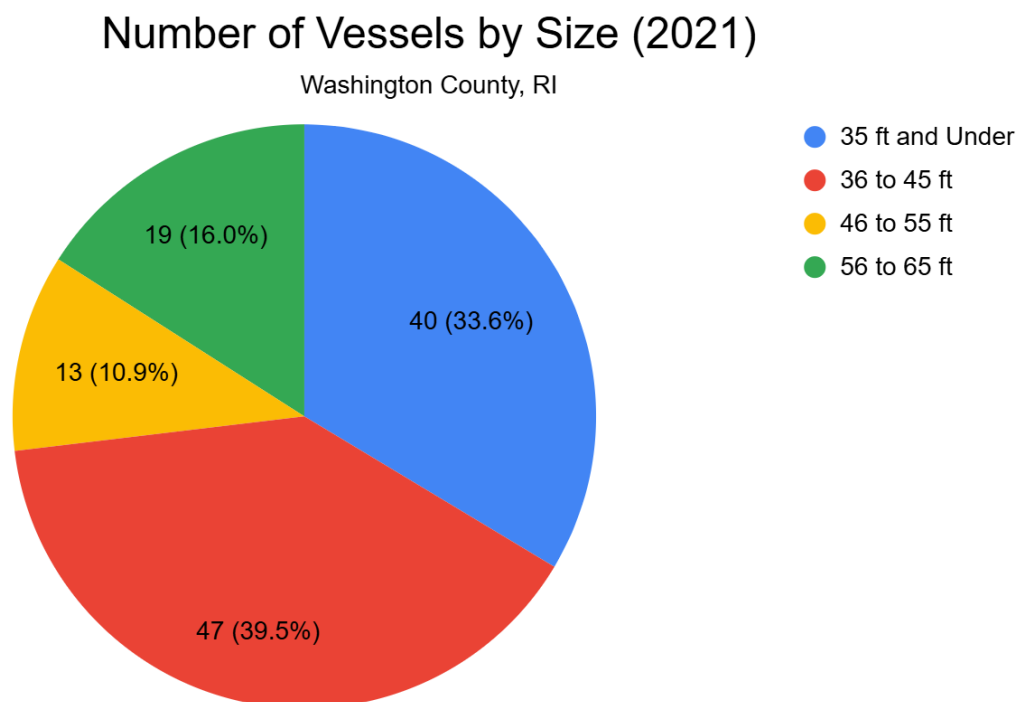


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Washington County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

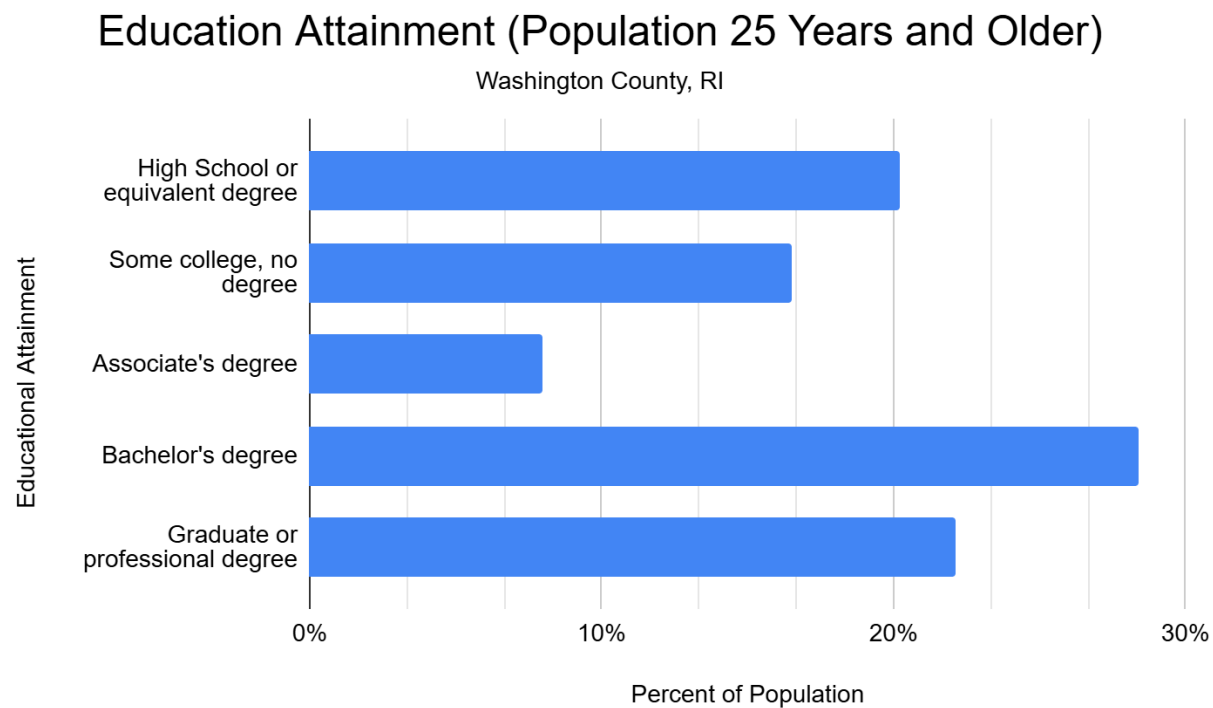


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

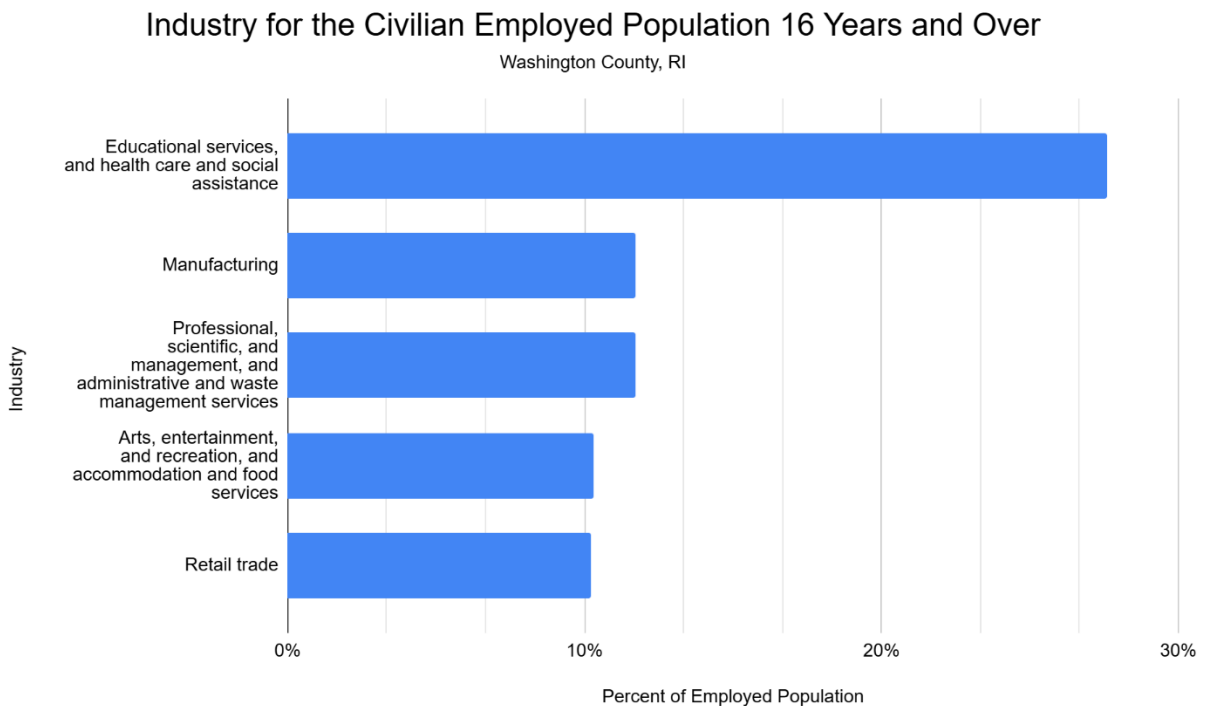
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Washington County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 4.8%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$102,478³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 8.0%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

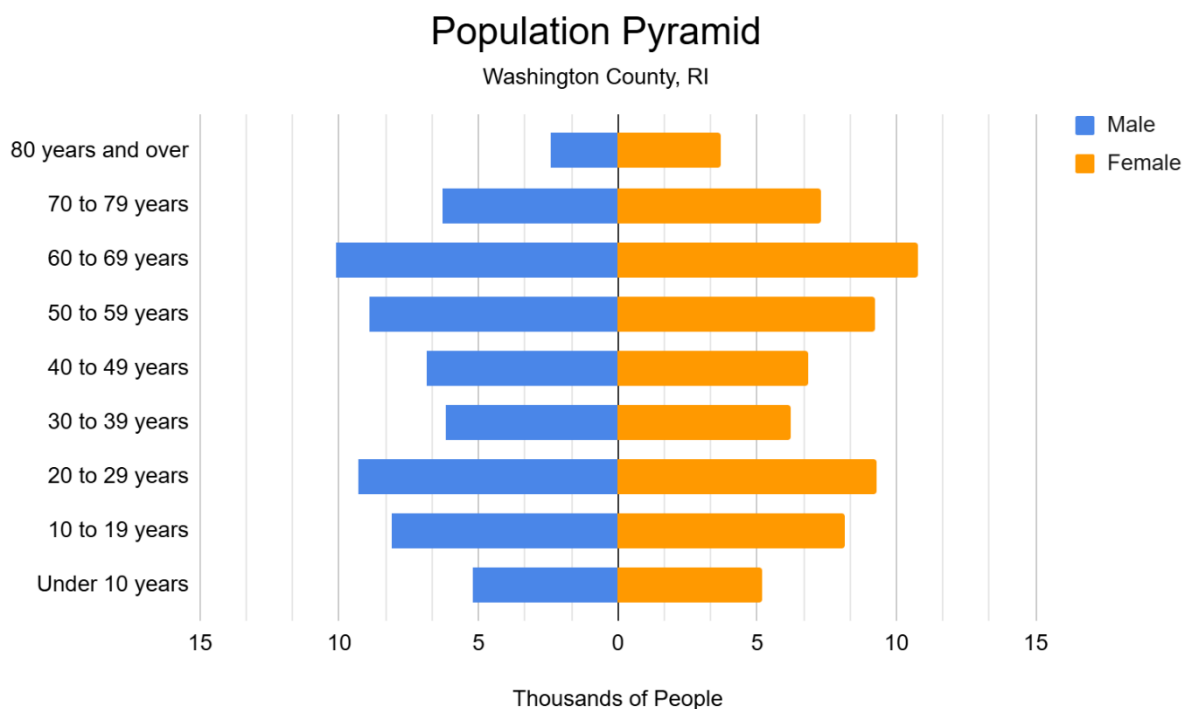
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 45.3⁵

National median: 38.7⁵

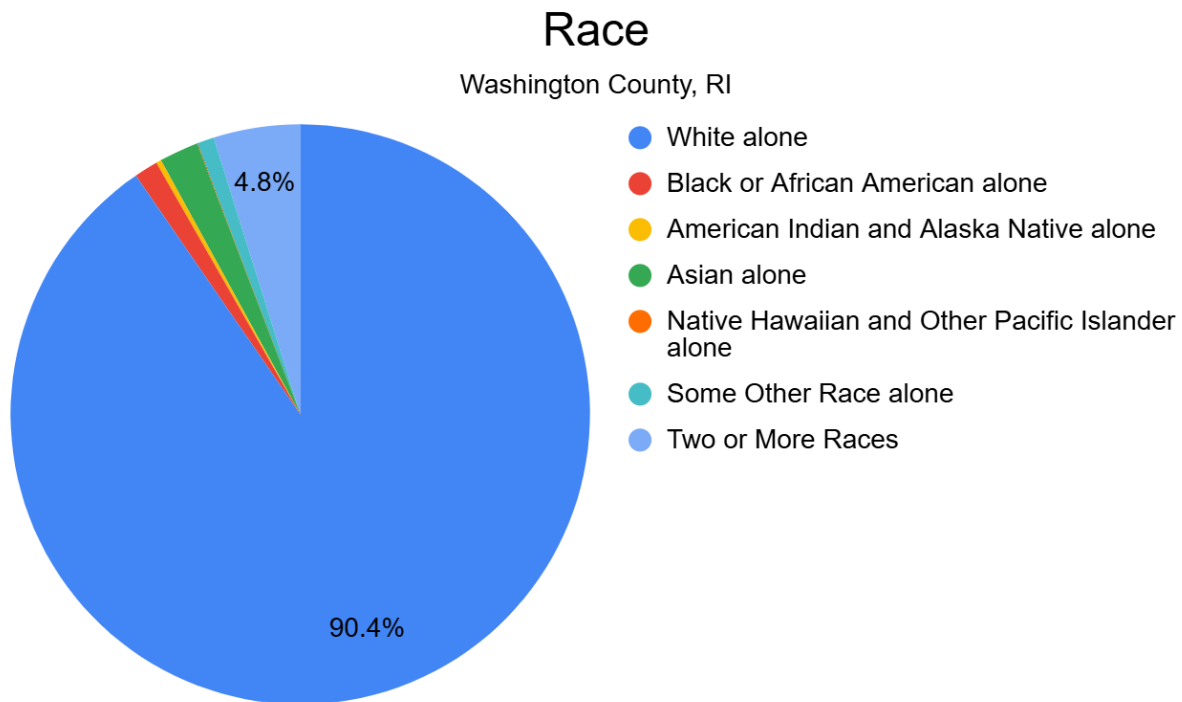


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

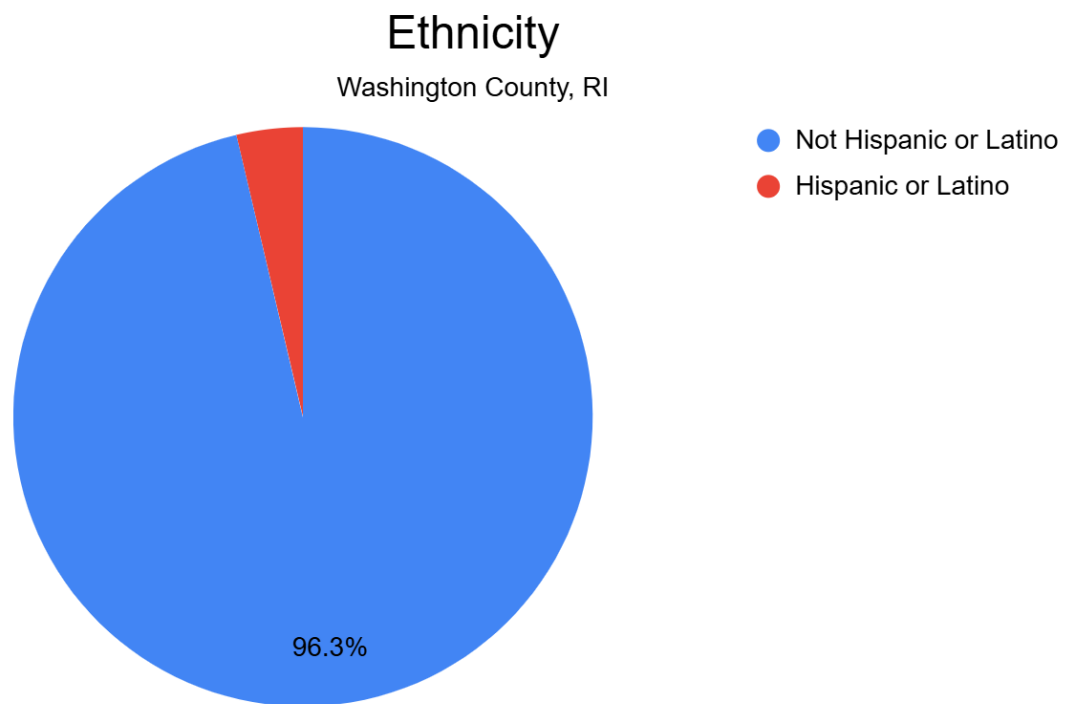
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 4.7%⁶

National Average: 13.9%⁶

Speak English less than very well: 1.9%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retire Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Washington County

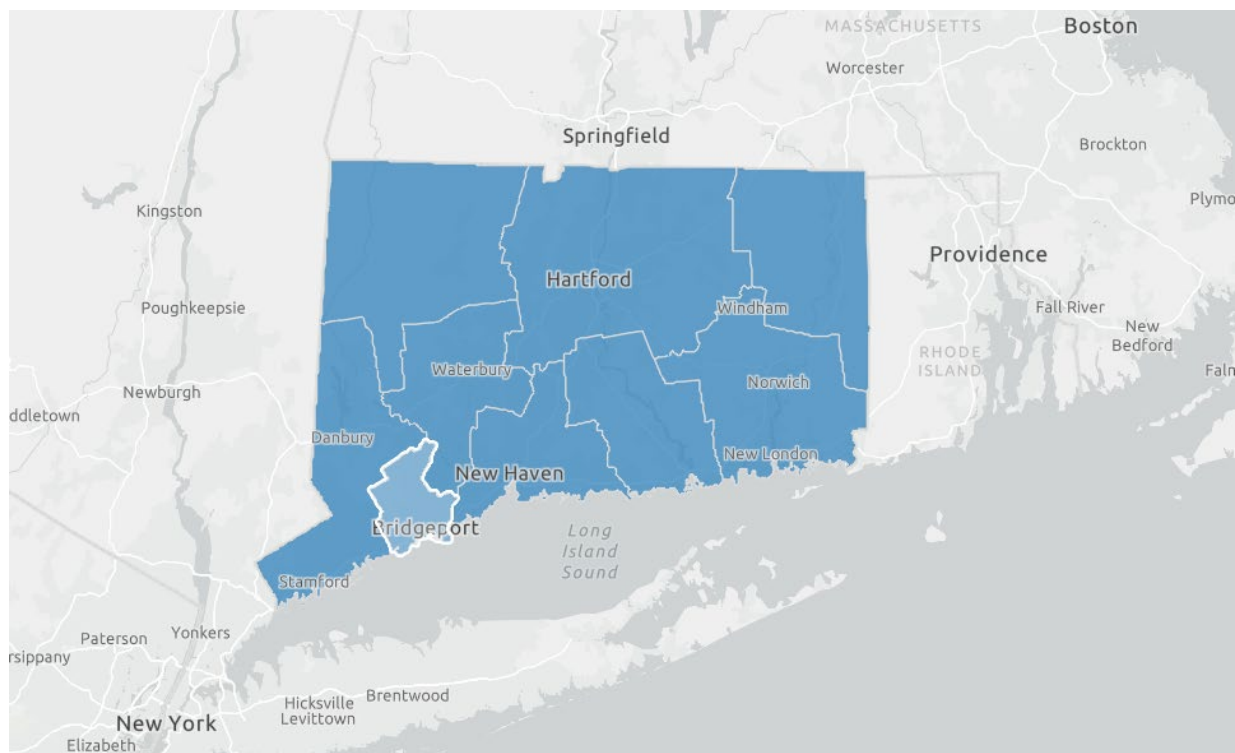
Community Name	Narragansett / Point Judith	North Kingstown / Saunderstown	Charlestown	South Kingstown / Kingston / Wakefield-Peacedale	Westerly / Bradford
Commercial Engagement	9.257	-0.153	0.181	0.793	0.029
Commercial Reliance	0.14	-0.053	-0.039	-0.046	-0.051
Poverty	-0.742	-0.04	-0.275	-0.61	-0.436
Population Composition	-0.714	-0.636	-0.993	-0.794	-0.788
Personal Disruption	-0.162	-0.591	-0.433	-0.376	-0.291
Housing Disruption	0.769	-0.139	-0.234	0.191	-0.206
Retiree Migration	0.243	-0.24	-0.019	0.413	-0.104
Urban Sprawl	-0.054	-0.094	-0.422	-0.197	-0.512
Labor Force	0.441	-0.349	-0.211	0.182	-0.305
Housing Characteristics	-0.101	0.001	0.199	-0.051	0.196
Sea Level Rise Risk	0.542	-0.161	0.391	0.125	0.163
Storm Surge Risk	-0.161	-0.187	-0.384	-0.42	-0.344

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Greater Bridgeport Planning Region, CT

The Greater Bridgeport Planning Region has a population of 326,296¹ and a population per square mile of 2,328². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: CT GIS Office Admin. (2025). CT Geodata Portal. *CT Planning Regions*.

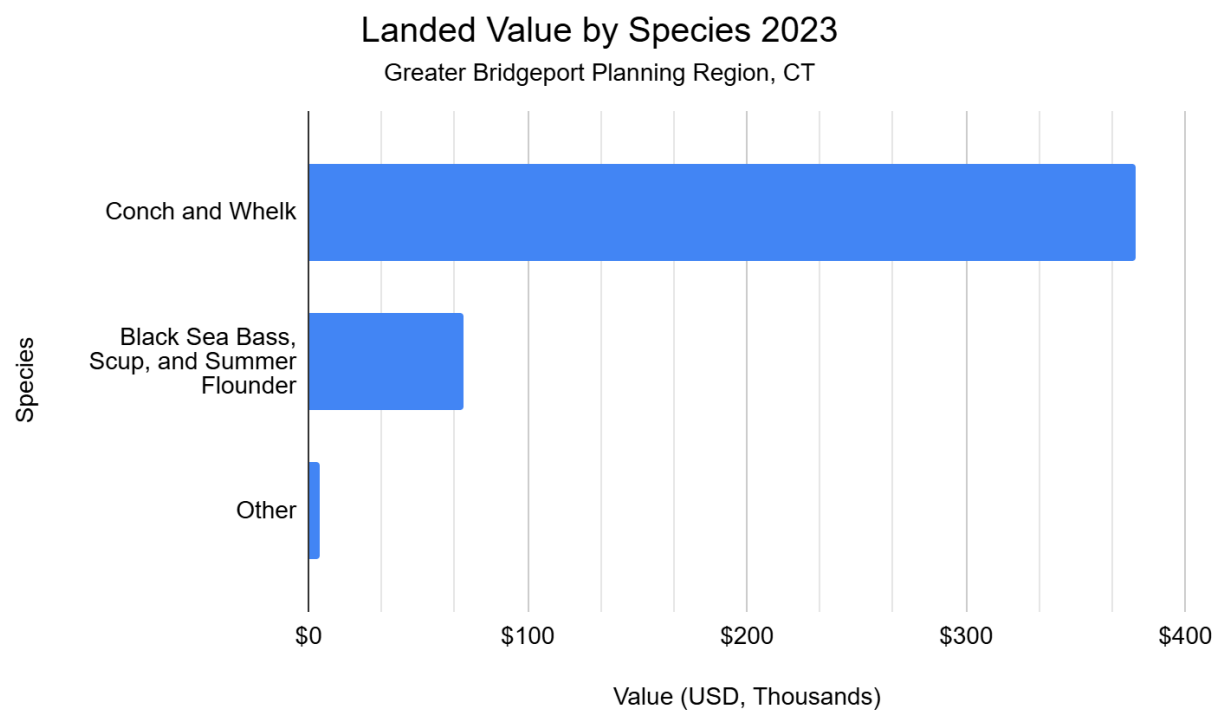
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in the Greater Bridgeport Planning Region?

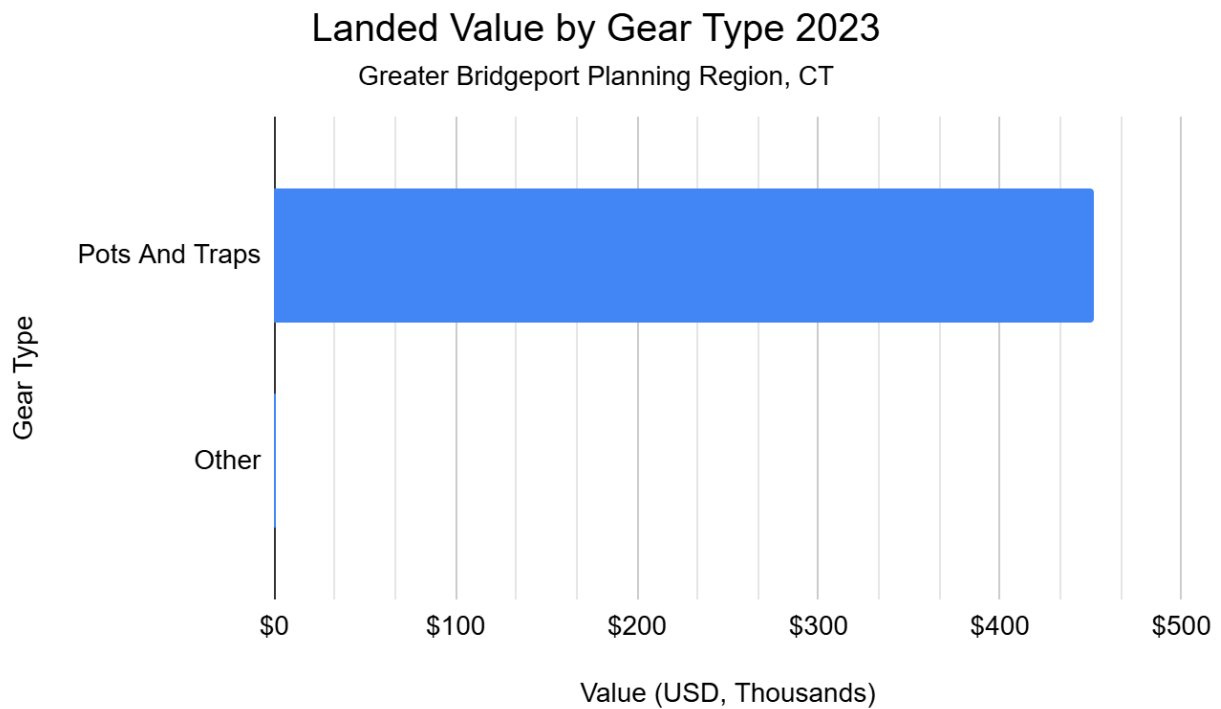
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in the Greater Bridgeport Planning Region?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

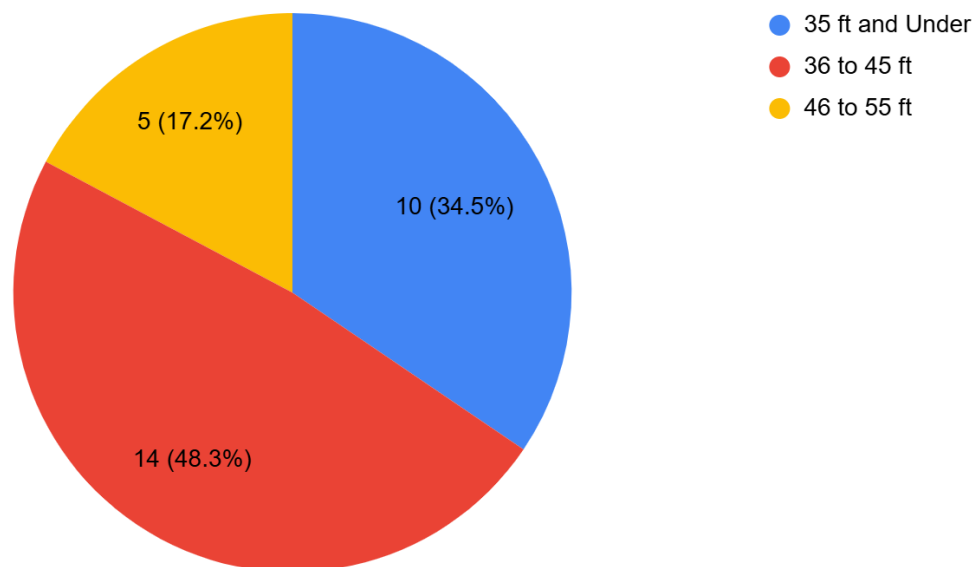
What are the characteristics of the fishing vessels in the Greater Bridgeport Planning Region?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

Number of Vessels by Size (2021)

Greater Bridgeport Planning Region, CT

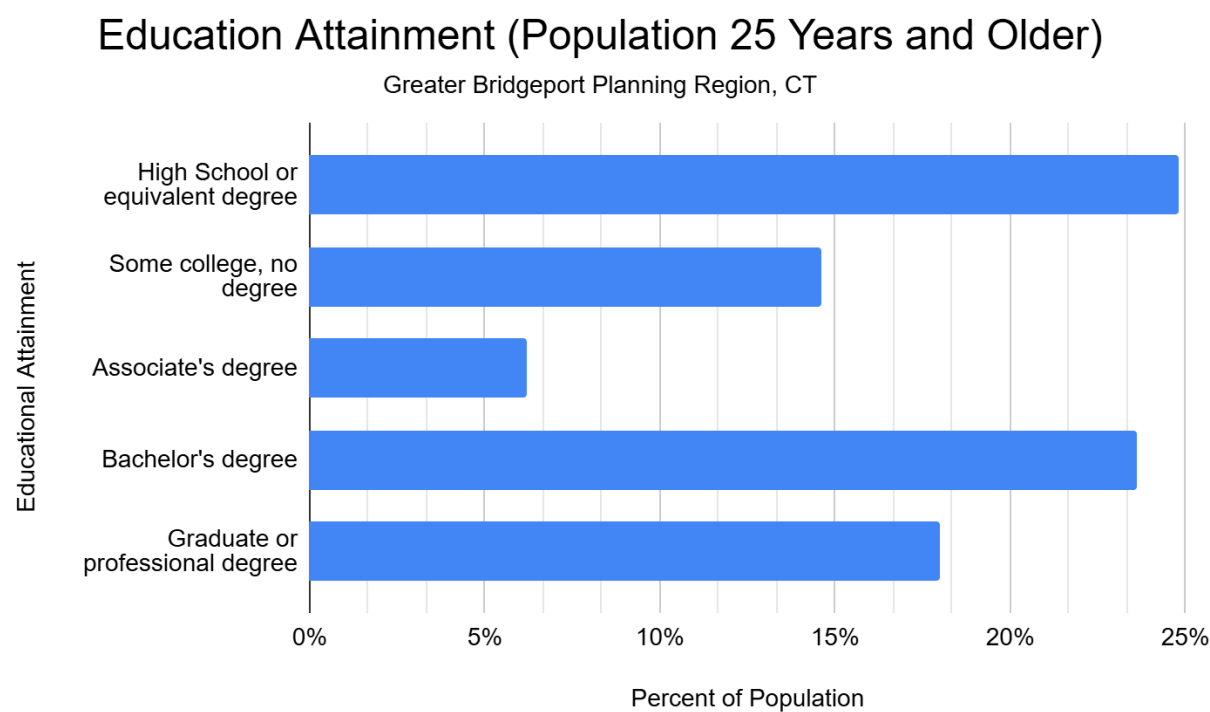


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

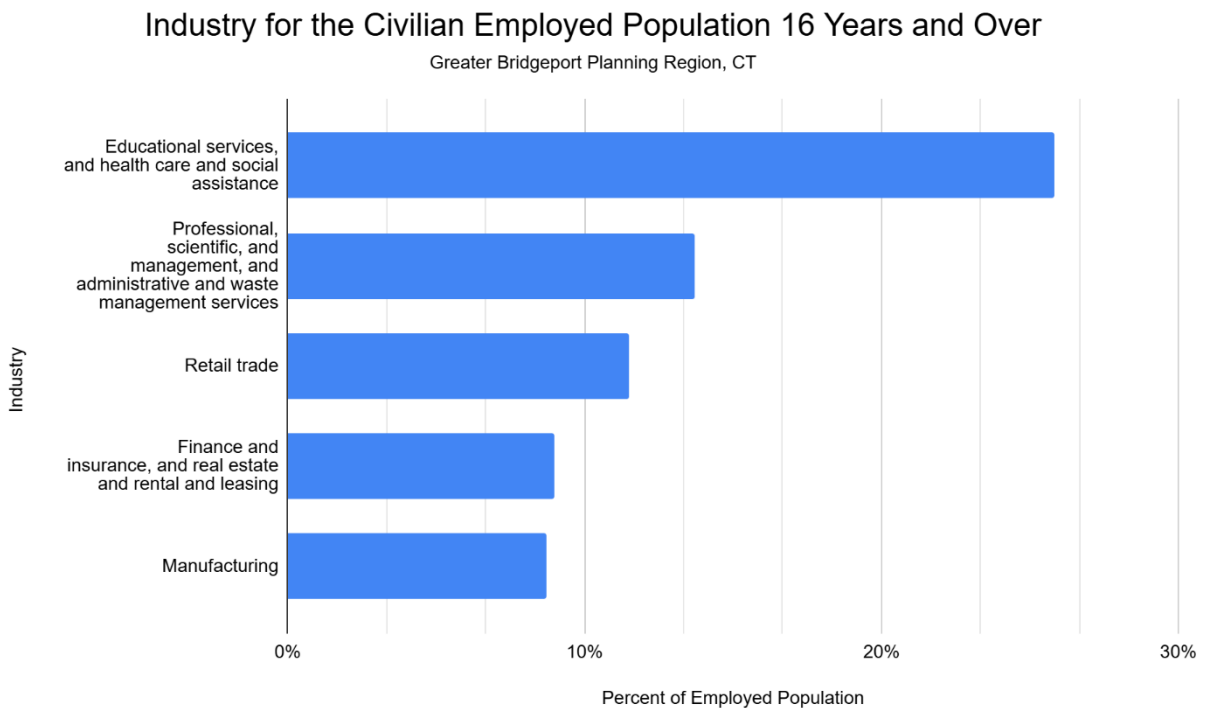
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in the Greater Bridgeport Planning Region?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 7.4%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$87,135 ³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 13.2%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

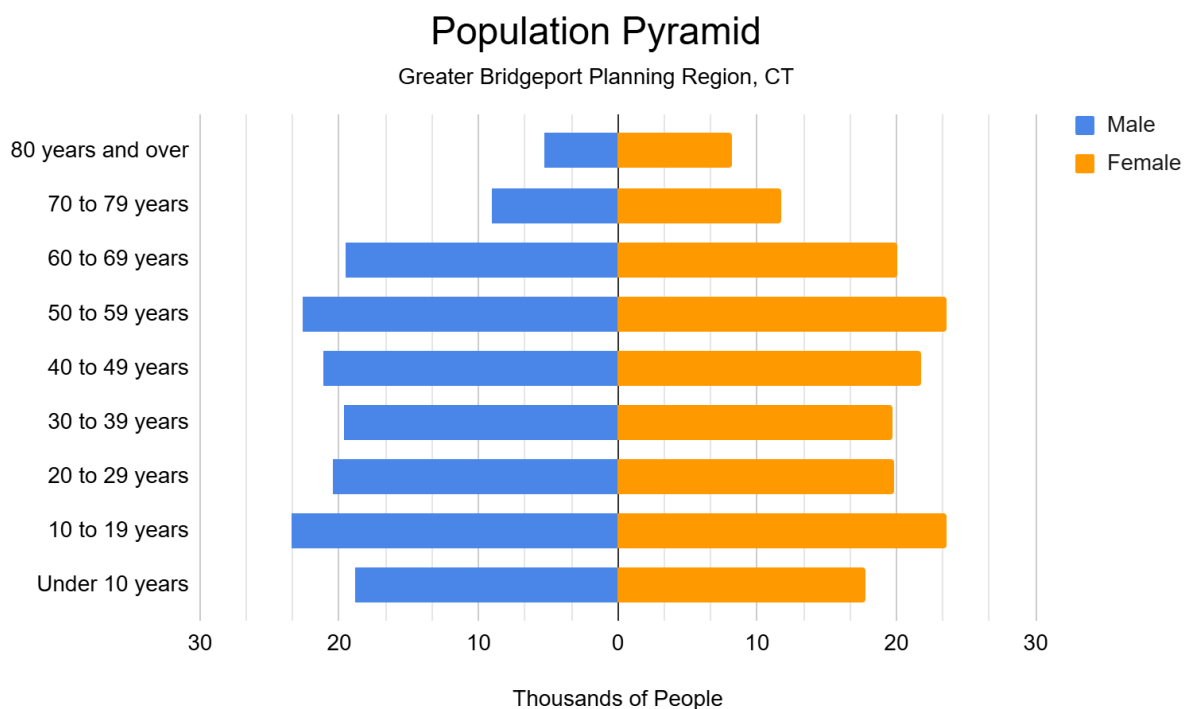
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 40.0 ⁵

National median: 38.7⁵

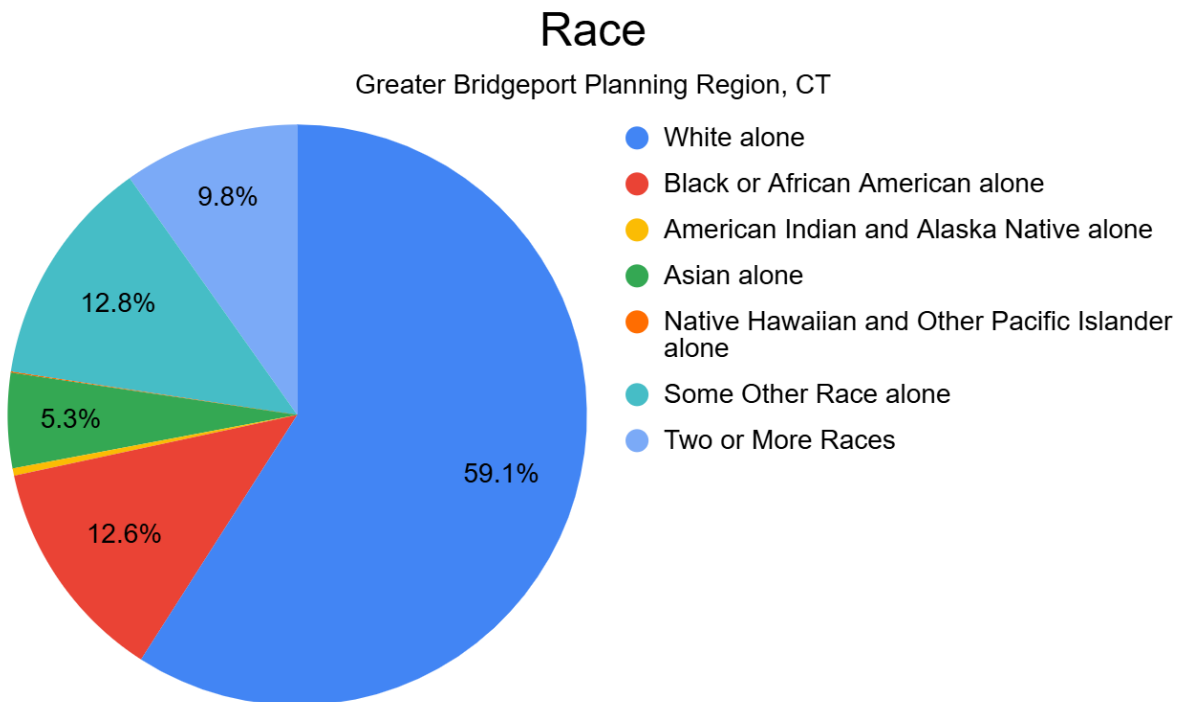


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

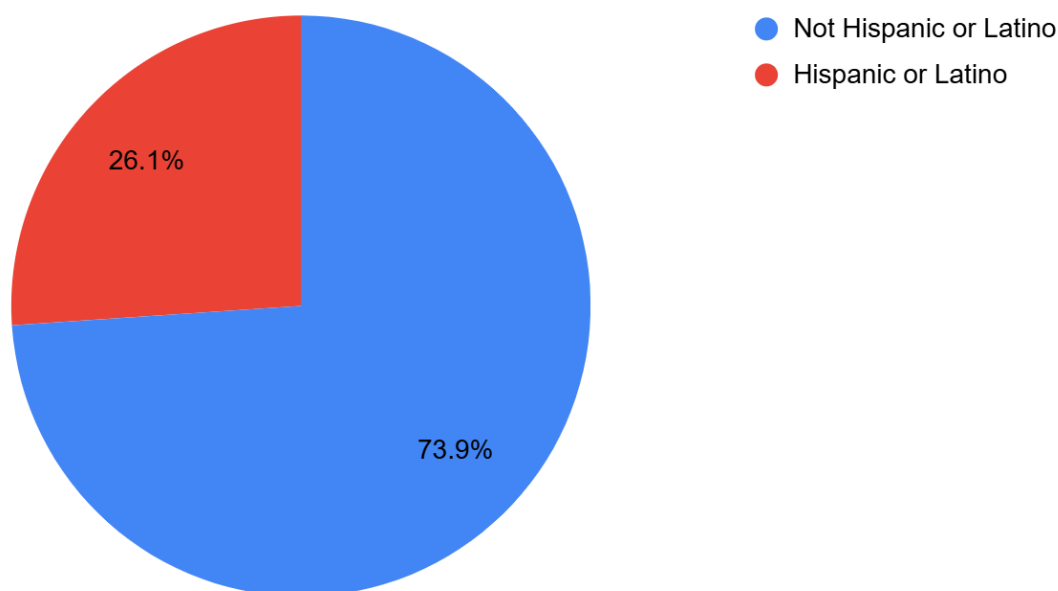
These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Ethnicity

Greater Bridgeport Planning Region, CT



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 22.4%⁶

National Average: 13.9%⁶

Speak English less than very well: 14.6%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in the Greater Bridgeport Planning Region

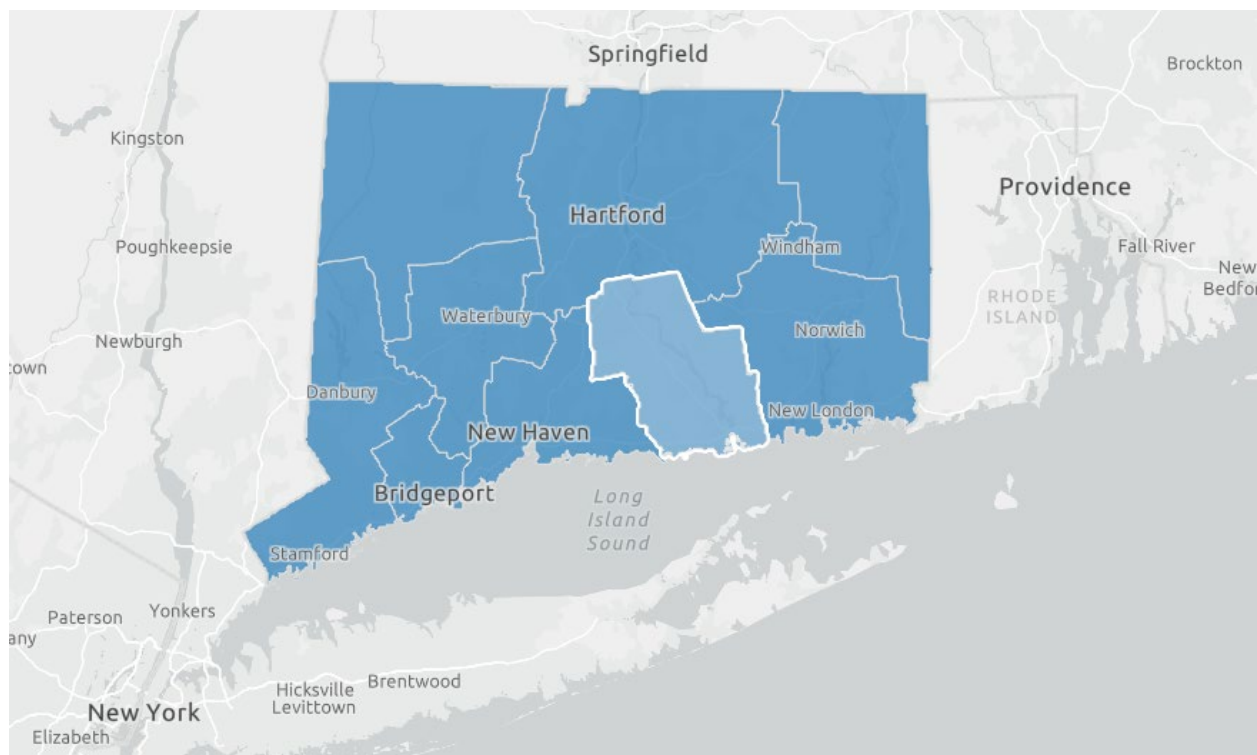
Community Name	Bridgeport	Fairfield	East Village	Oronoque	Daniels Farm
Commercial Engagement	-0.149	-0.153	-0.153	-0.153	-0.153
Commercial Reliance	-0.053	-0.053	-0.053	-0.053	-0.053
Poverty	1.265	-0.718	-0.891	-0.941	-0.627
Population Composition	1.841	-0.467	-0.579	-0.441	-0.696
Personal Disruption	1.227	-0.629	-0.944	-0.698	-0.745
Housing Disruption	-0.443	-0.344	NA	NA	NA
Retiree Migration	-0.79	-0.471	-0.86	2.18	-0.676
Urban Sprawl	0.813	0.937	NA	NA	NA
Labor Force	-0.509	-0.315	-0.793	1.83	-0.566
Housing Characteristics	0.325	-1.386	-0.957	-0.352	-2.235
Sea Level Rise Risk	-0.215	-0.09	-0.346	-0.142	-0.346
Storm Surge Risk	-0.247	-0.358	NA	NA	NA

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Lower Connecticut River Valley Planning Region, CT

The Lower Connecticut River Valley Planning Region has a population of 174,983¹ and a population per square mile of 413². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: CT GIS Office Admin. (2025). CT Geodata Portal. *CT Planning Regions*.

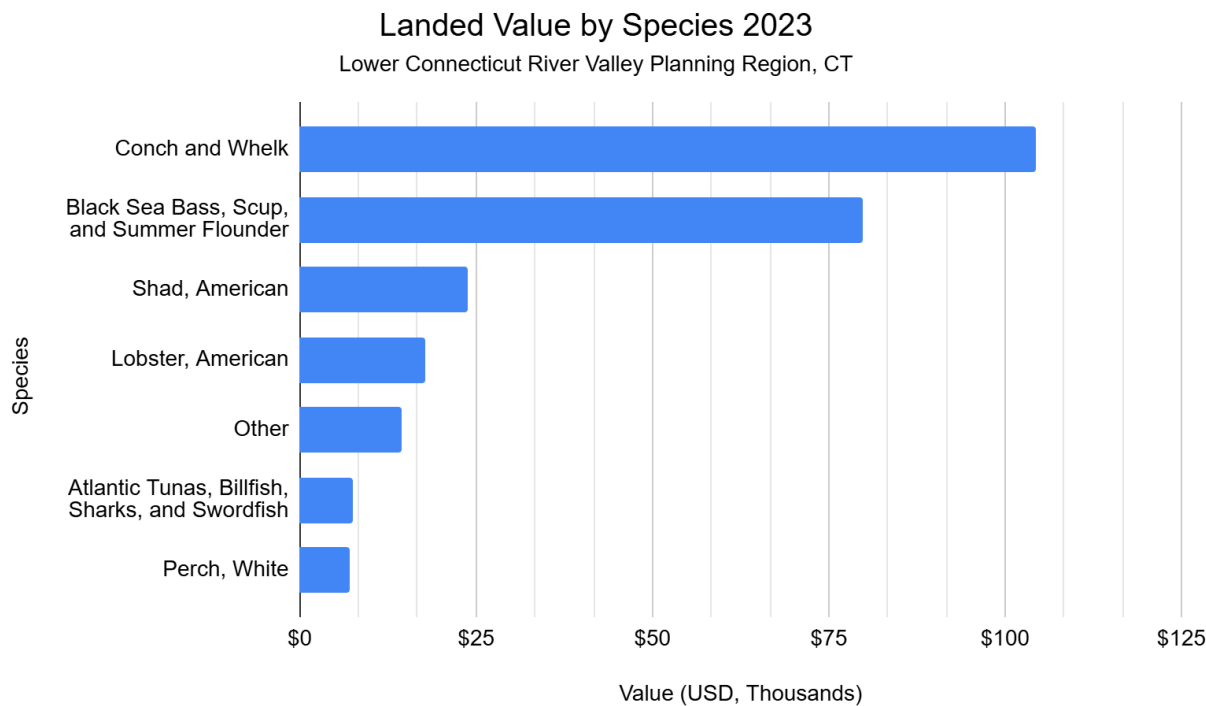
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in the Lower Connecticut River Valley Planning Region?

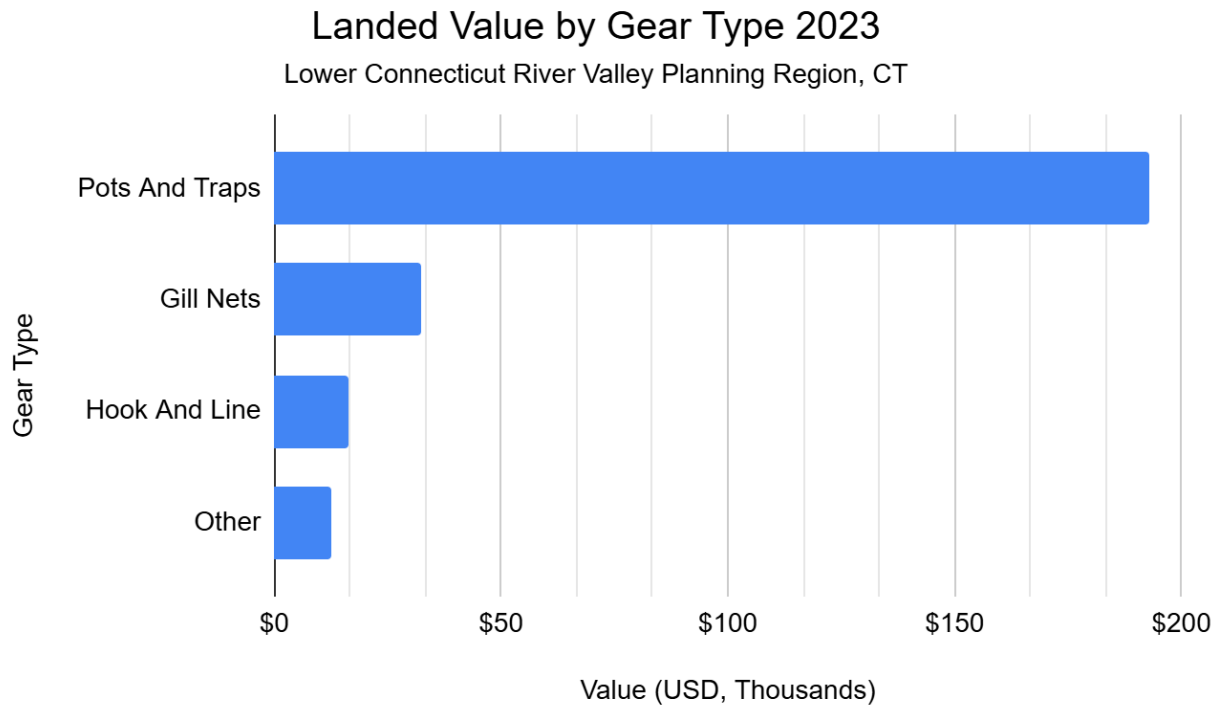
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in the Lower Connecticut River Valley Planning Region?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

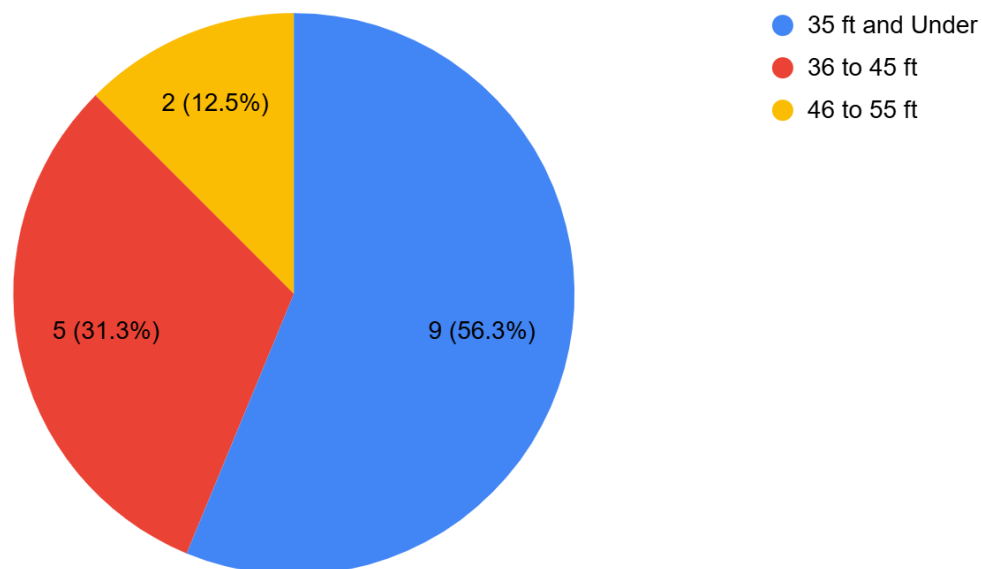
What are the characteristics of the fishing vessels in the Lower Connecticut River Valley Planning Region?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

Number of Vessels by Size (2021)

Lower Connecticut River Valley Planning Region, CT

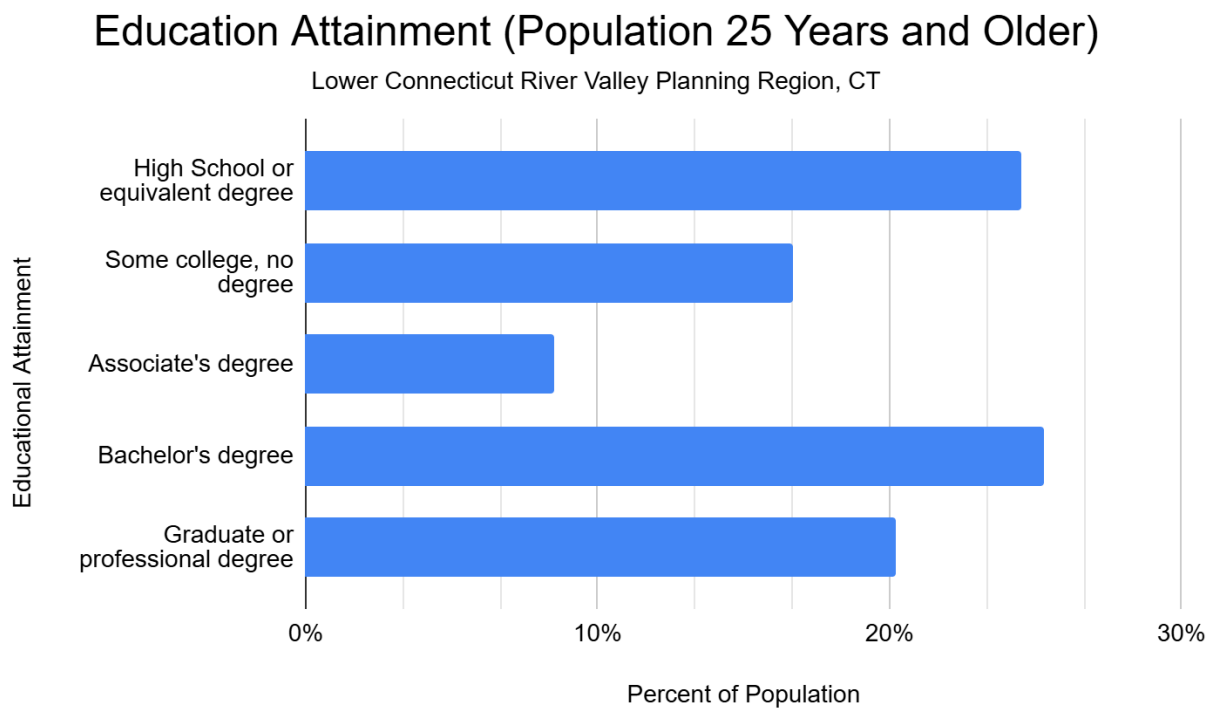


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

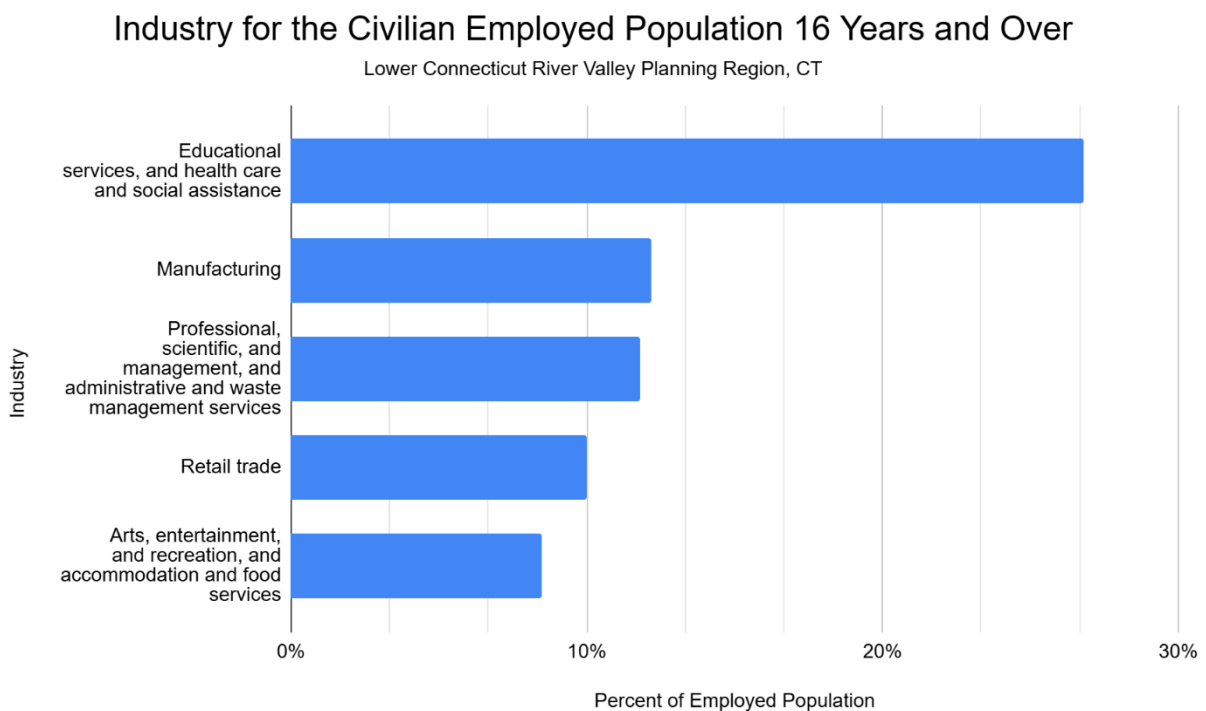
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in the Lower Connecticut River Valley Planning Region?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 3.9%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$101,117³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 6.9%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

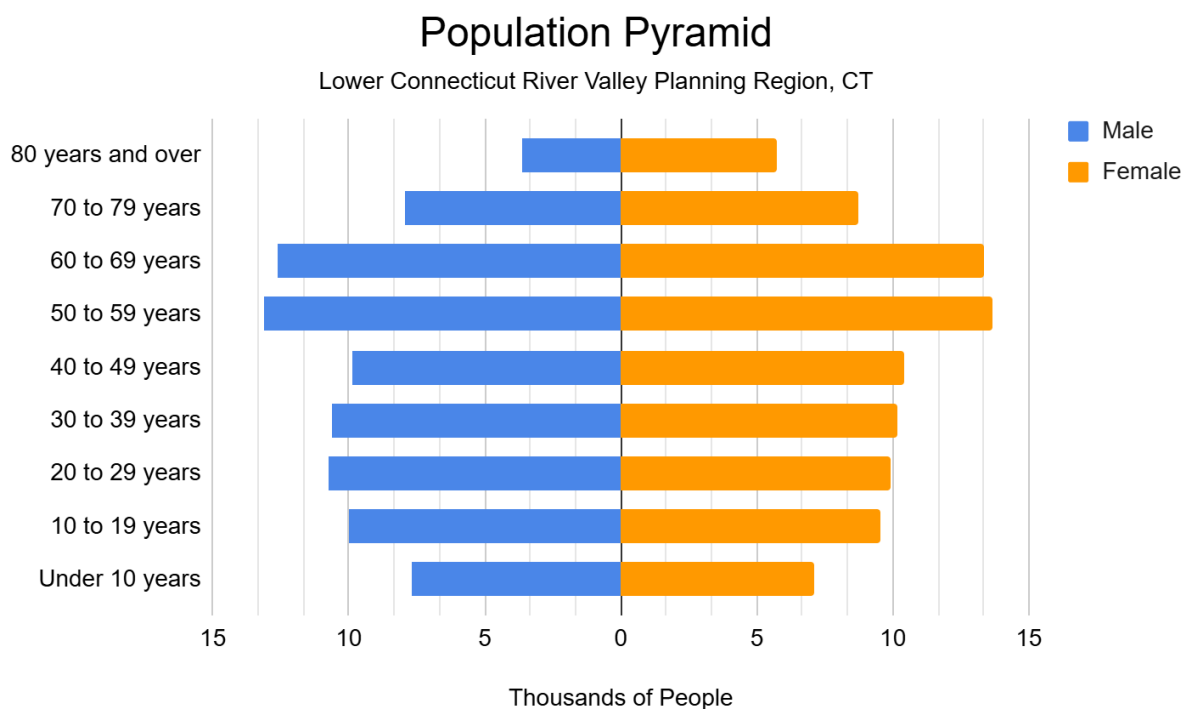
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 45.8⁵

National median: 38.7⁵

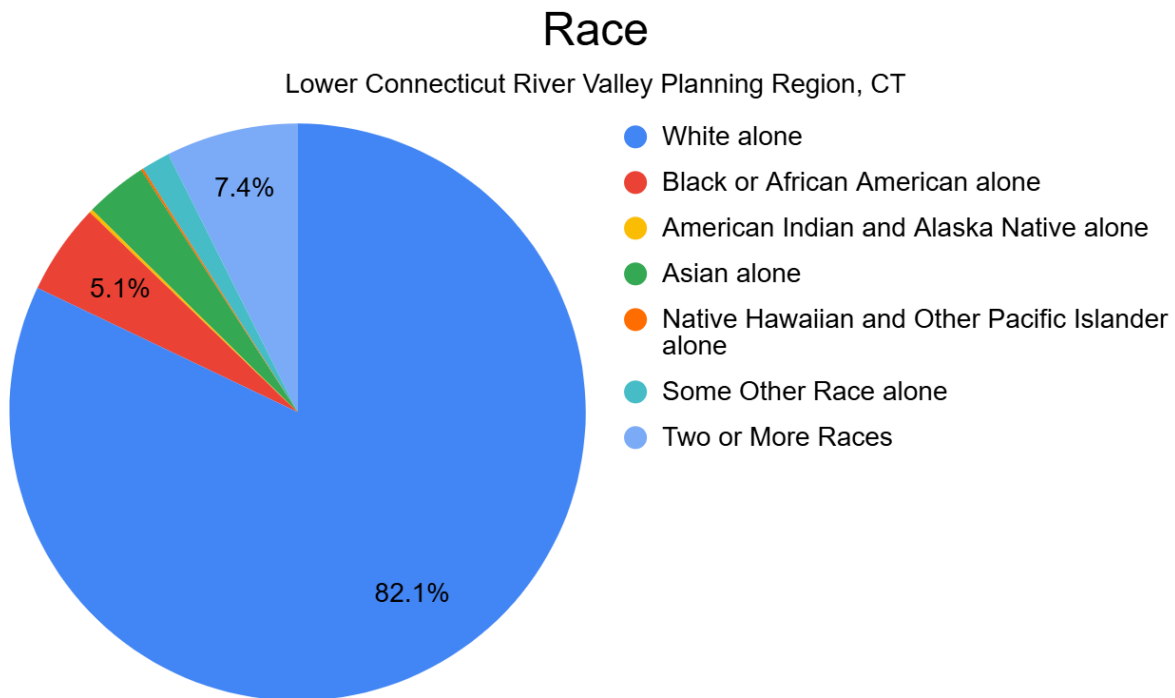


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

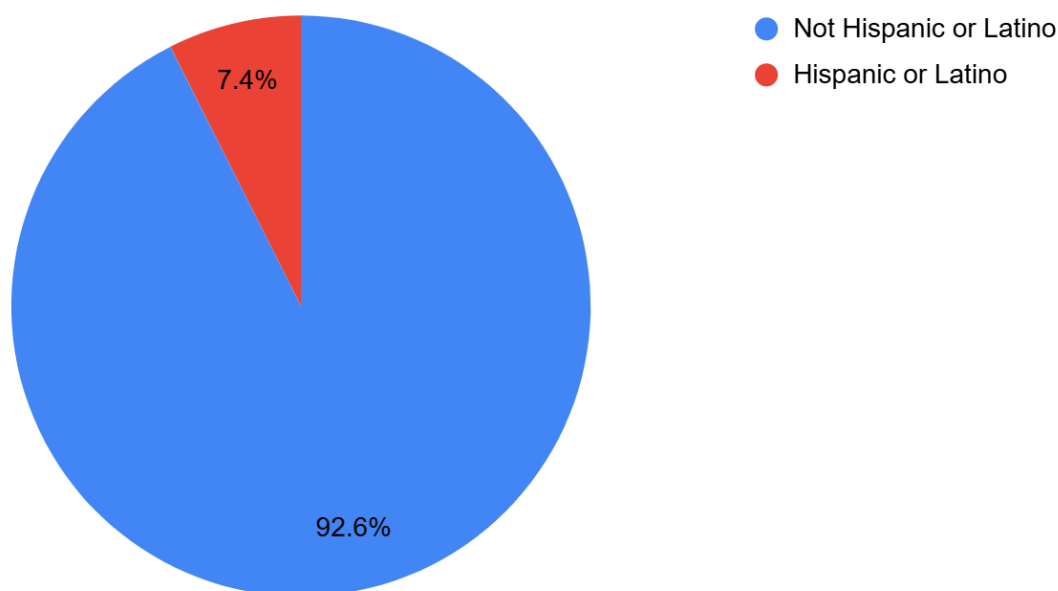
These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Ethnicity

Lower Connecticut River Valley Planning Region, CT



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 8.1%⁶

National Average: 13.9%⁶

Speak English less than very well: 3.7%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in the Lower Connecticut River Valley Planning Region

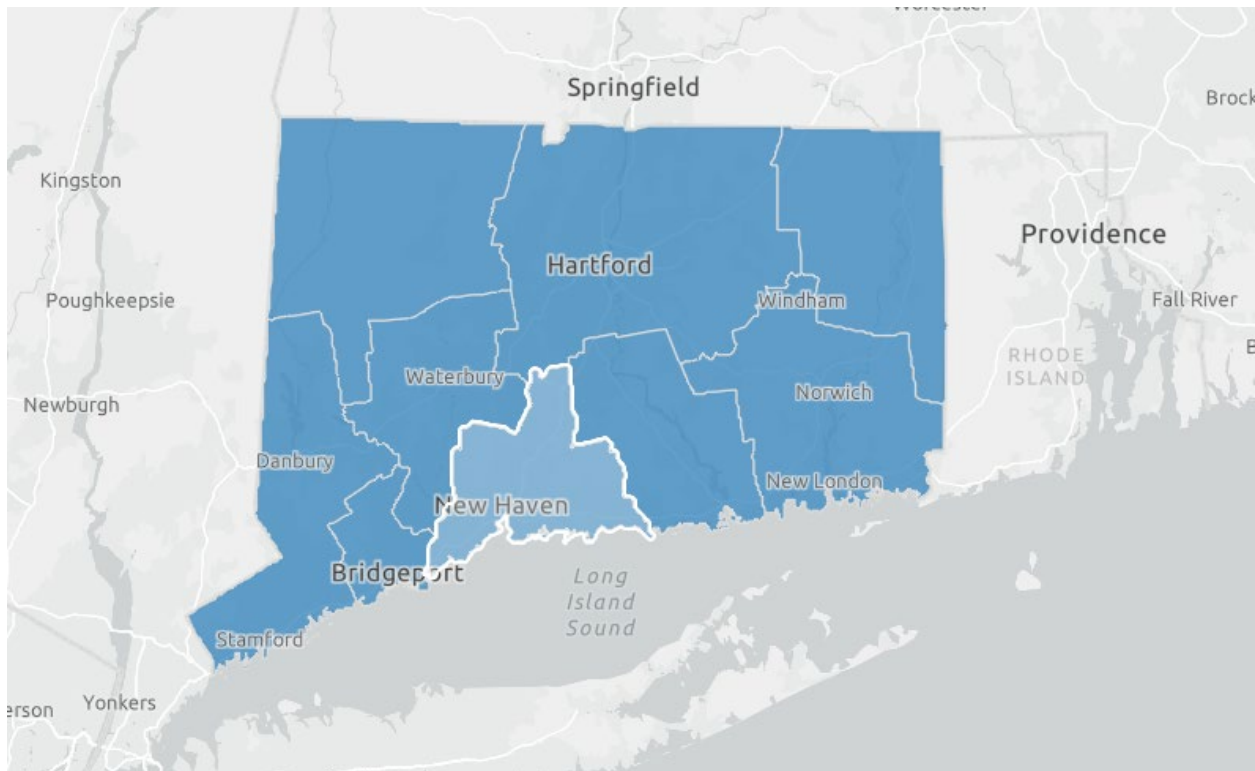
Community Name	Clinton	Old Saybrook	Westbrook	Portland	Haddam / Higganum
Commercial Engagement	-0.151	-0.148	-0.148	-0.153	-0.153
Commercial Reliance	-0.053	-0.053	-0.053	-0.053	-0.053
Poverty	-0.396	-0.583	-0.745	-0.18	-0.697
Population Composition	-0.571	-0.784	-0.558	-0.621	-0.899
Personal Disruption	-0.204	-0.841	-0.561	0.071	-0.781
Housing Disruption	-0.571	0.091	-0.497	-0.945	-0.498
Retiree Migration	-0.336	0.394	0.286	-0.264	-0.41
Urban Sprawl	-0.017	0.126	0.092	-0.005	0.007
Labor Force	-0.48	0.048	-0.171	-0.46	-0.439
Housing Characteristics	0.299	-0.441	0.048	0.12	0.013
Sea Level Rise Risk	0.463	0.626	-0.093	0.125	0.043
Storm Surge Risk	0.045	-0.044	-0.461	-0.456	-0.615

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

South Central Connecticut Planning Region, CT

The South Central Connecticut Planning Region has a population of 566,803¹ and a population per square mile of 1,544². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: CT GIS Office Admin. (2025). CT Geodata Portal. *CT Planning Regions*.

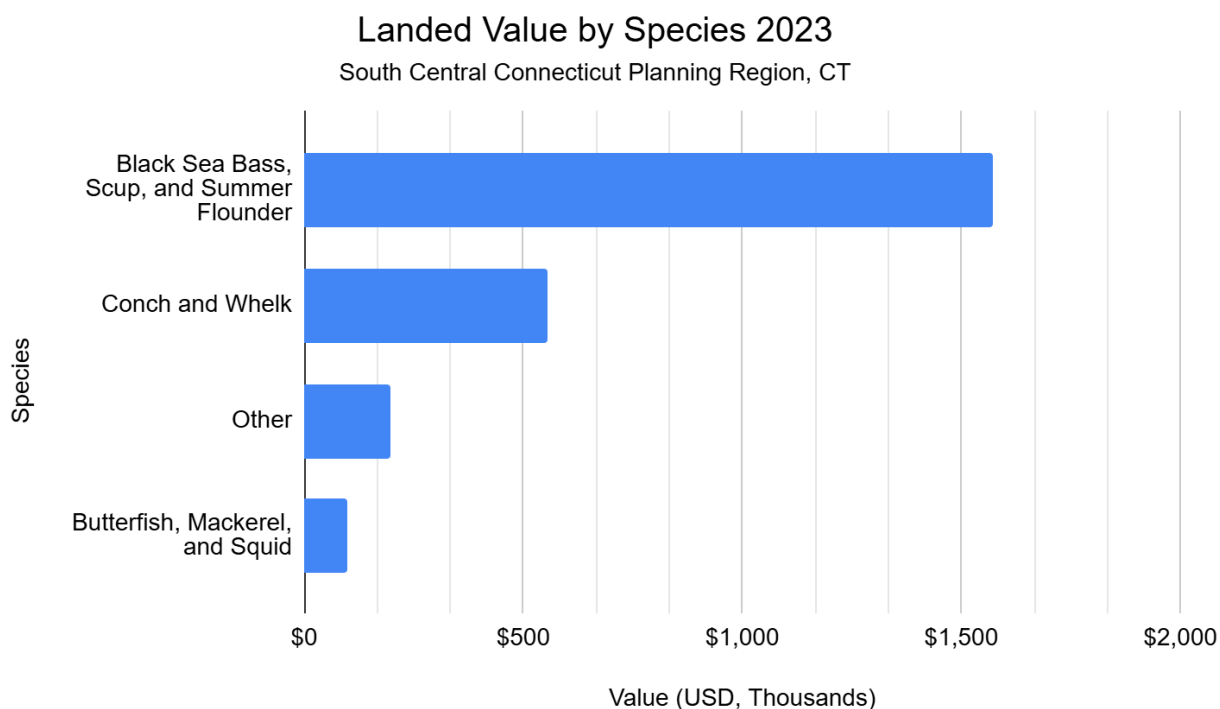
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in the South Central Connecticut Planning Region?

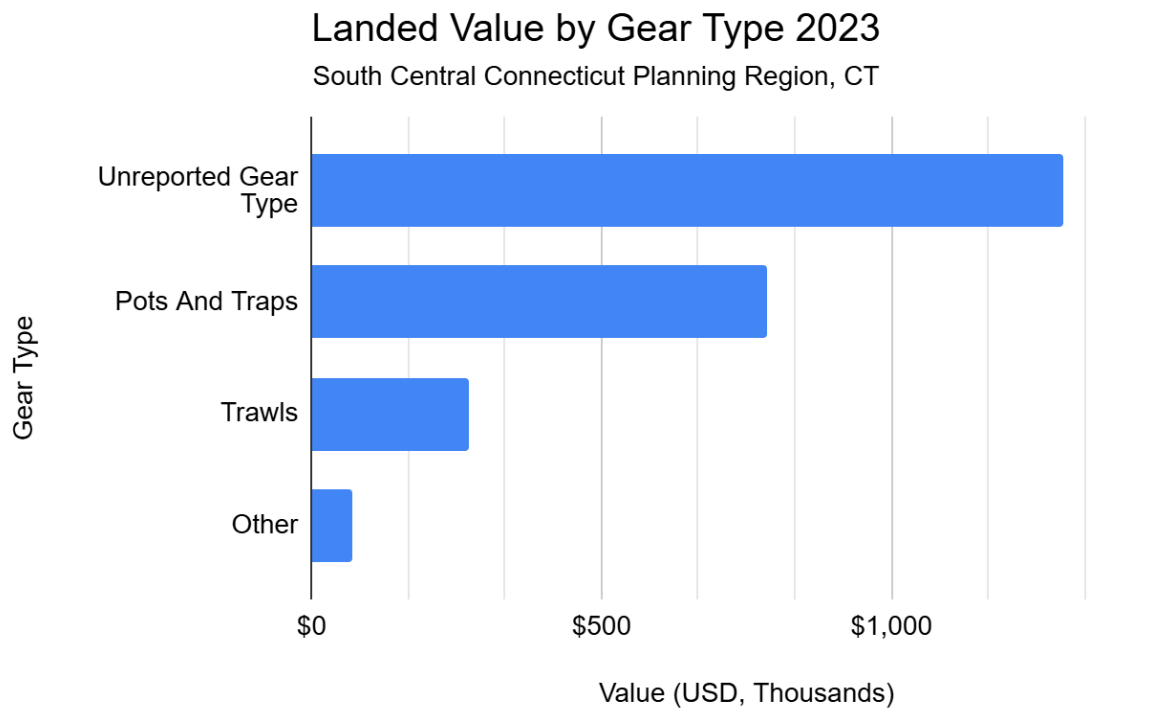
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community's ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in the South Central Connecticut Planning Region?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

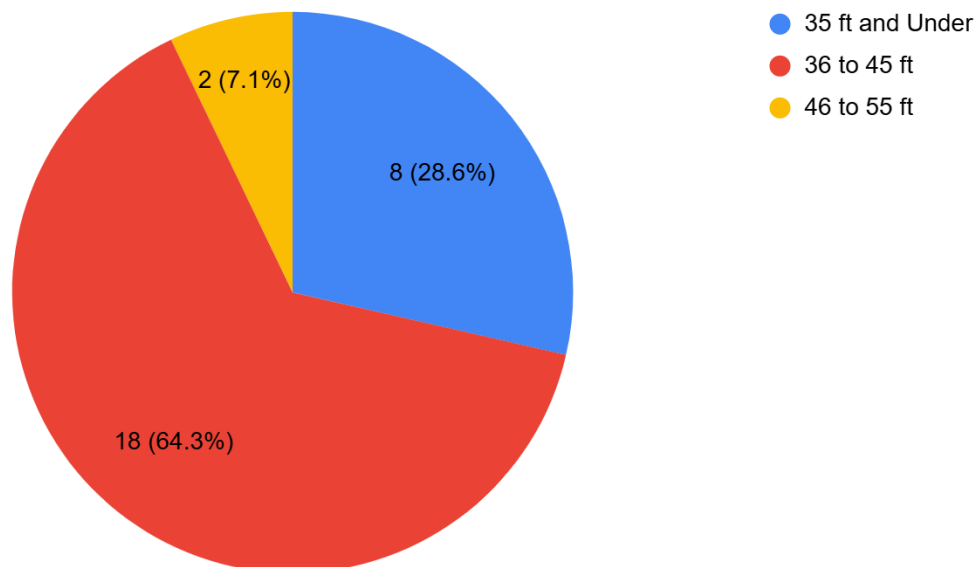
What are the characteristics of the fishing vessels in the South Central Connecticut Planning Region?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

Number of Vessels by Size (2021)

South Central Connecticut Planning Region, CT

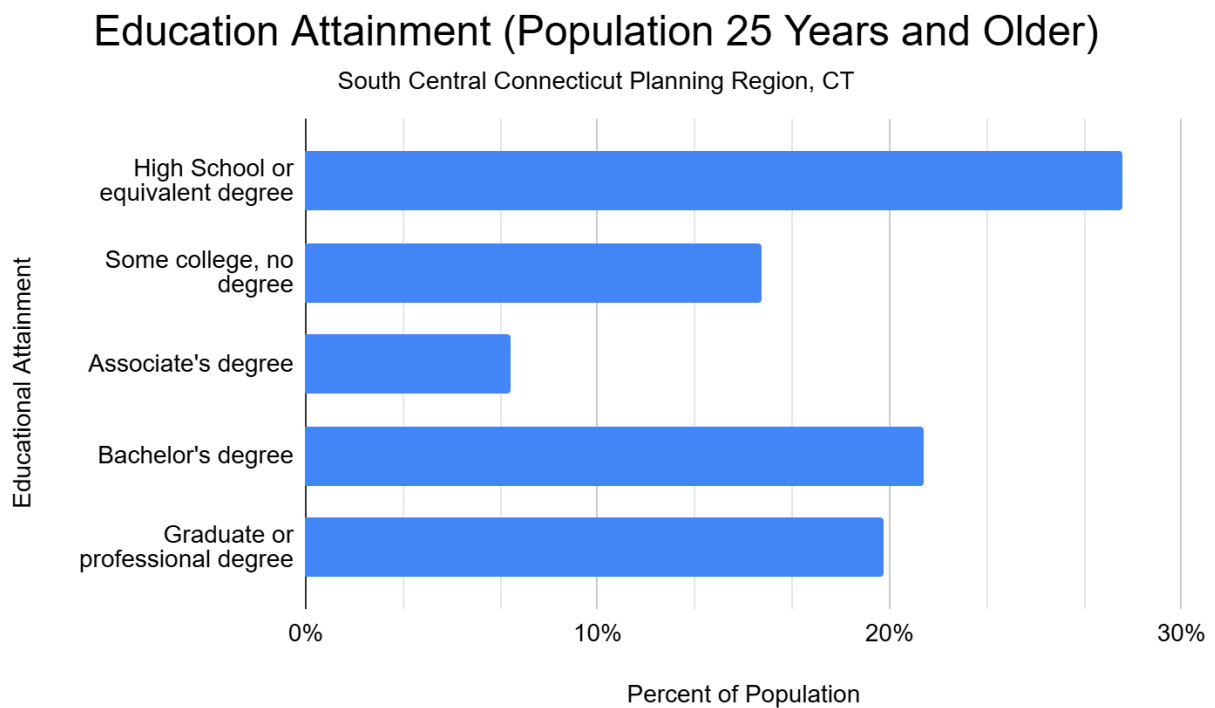


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

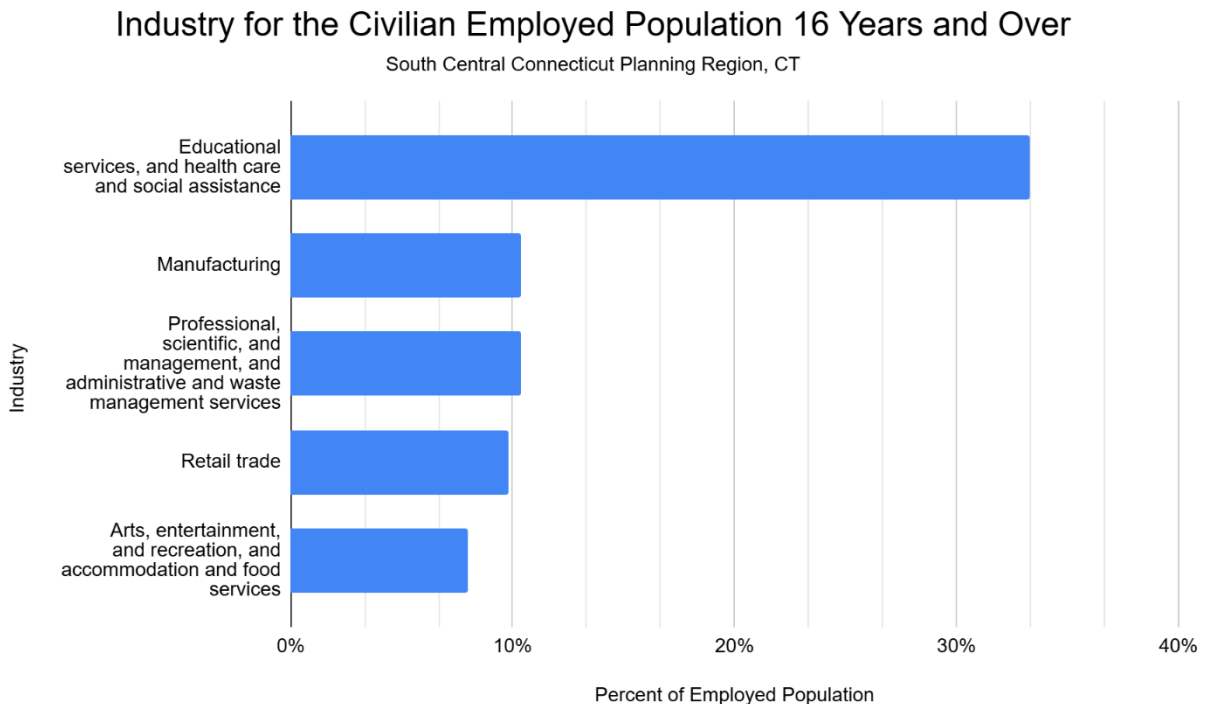
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in the South Central Connecticut Planning Region?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 5.9%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$86,266³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 11.6%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

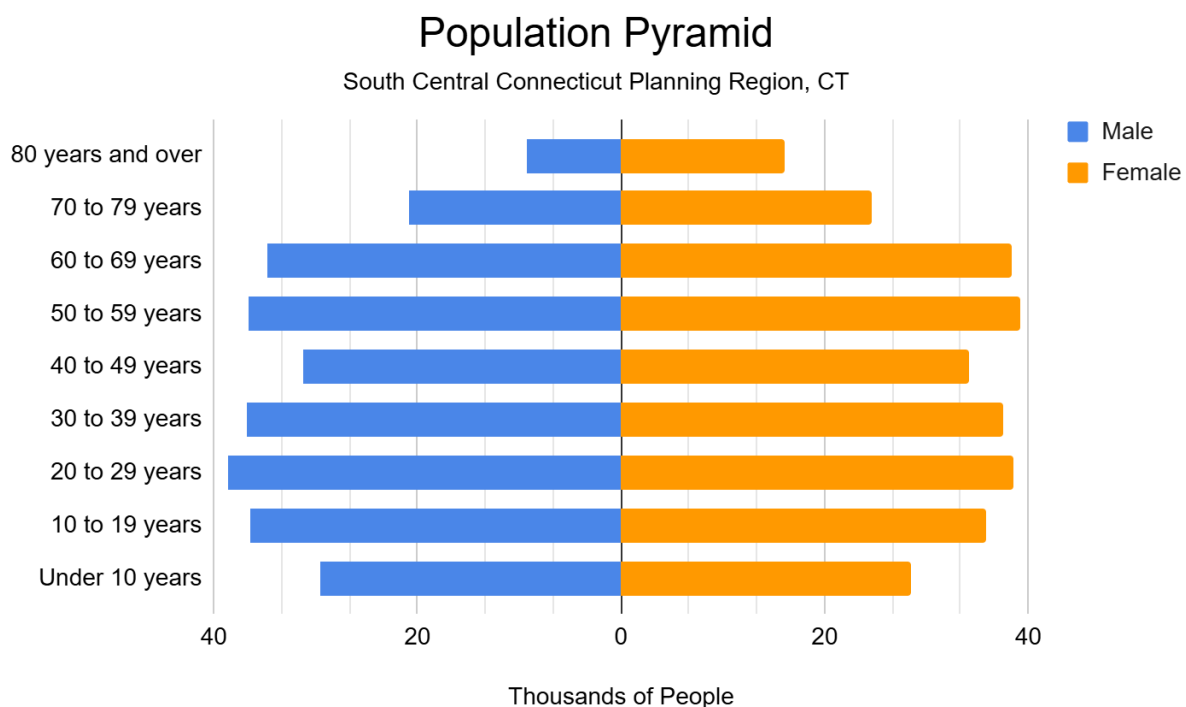
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 40.2⁵

National median: 38.7⁵

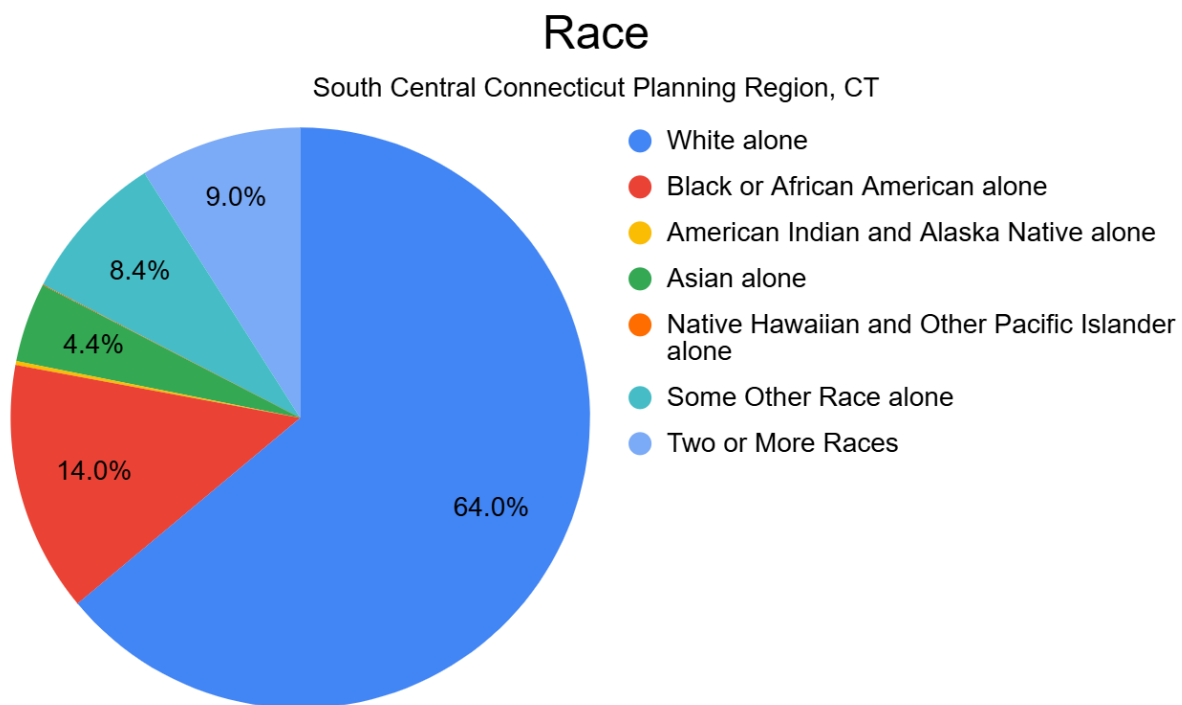


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

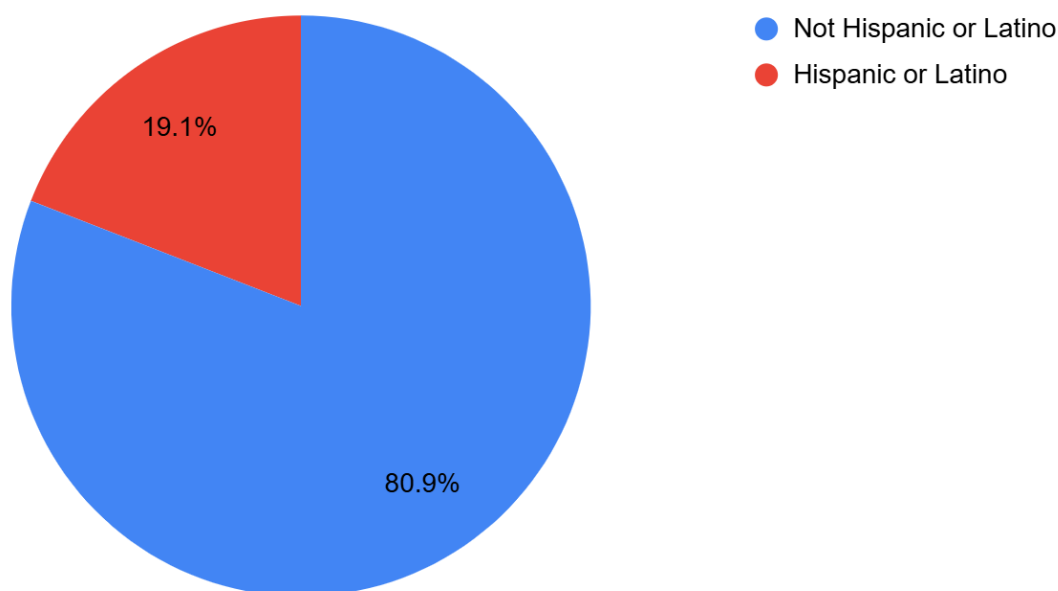
These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Ethnicity

South Central Connecticut Planning Region, CT



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 13.4%⁶

National Average: 13.9%⁶

Speak English less than very well: 8.1%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in the South Central Connecticut Planning Region

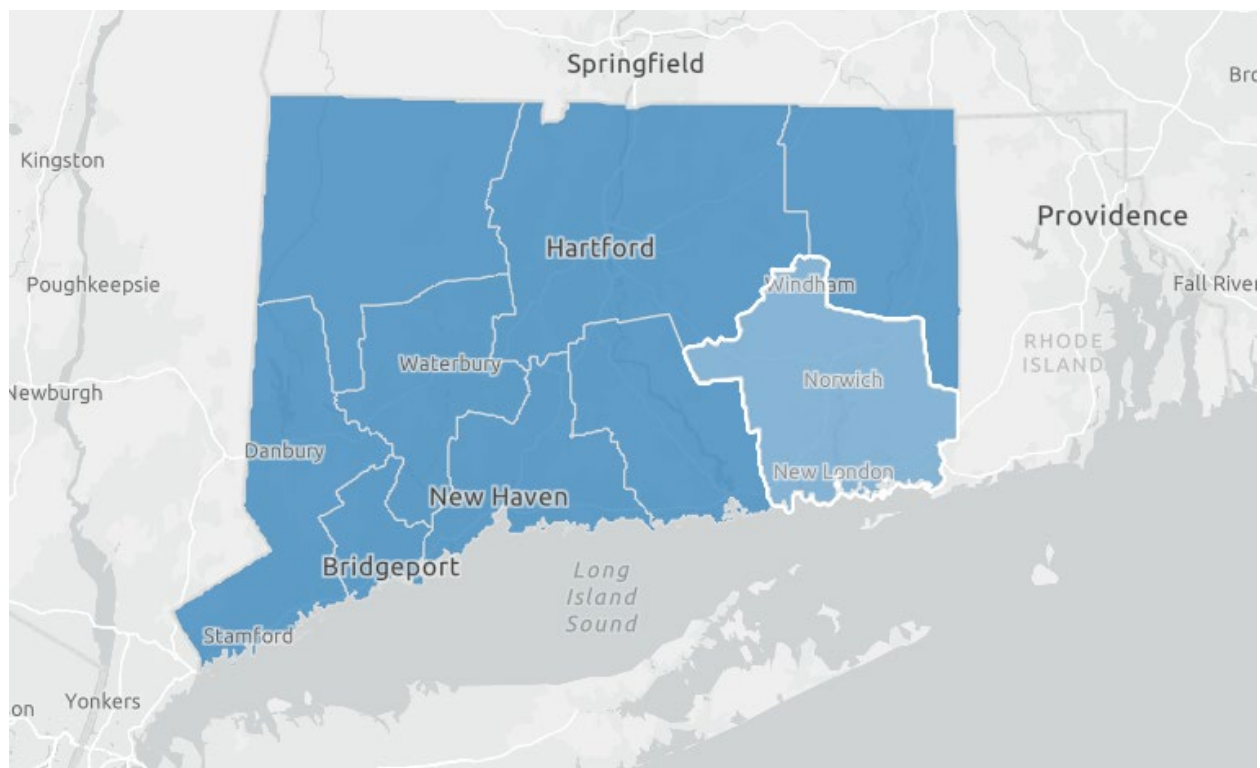
Community Name	East Haven	Branford	Guilford	New Haven	Milford / Woodmont
Commercial Engagement	-0.064	-0.043	-0.141	-0.146	-0.112
Commercial Reliance	-0.052	-0.052	-0.053	-0.053	-0.053
Poverty	-0.14	-0.612	-0.783	1.348	-0.633
Population Composition	-0.069	-0.532	-0.608	1.248	-0.429
Personal Disruption	-0.025	-0.688	-0.833	0.921	-0.64
Housing Disruption	-0.479	-0.746	-0.618	-0.1	-0.386
Retiree Migration	-0.167	-0.035	0.183	-0.963	-0.312
Urban Sprawl	0.231	0.353	0.332	0.653	0.425
Labor Force	-0.064	-0.239	-0.082	-0.639	-0.525
Housing Characteristics	0.149	-0.037	-0.635	0.358	-0.333
Sea Level Rise Risk	-0.023	0.066	0.016	0.06	0.369
Storm Surge Risk	-0.239	-0.308	-0.439	-0.143	-0.225

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Southeastern Connecticut Planning Region, CT

The Southeastern Connecticut Planning Region has a population of 279,025¹ and a population per square mile of 466². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: CT GIS Office Admin. (2025). CT Geodata Portal. *CT Planning Regions*.

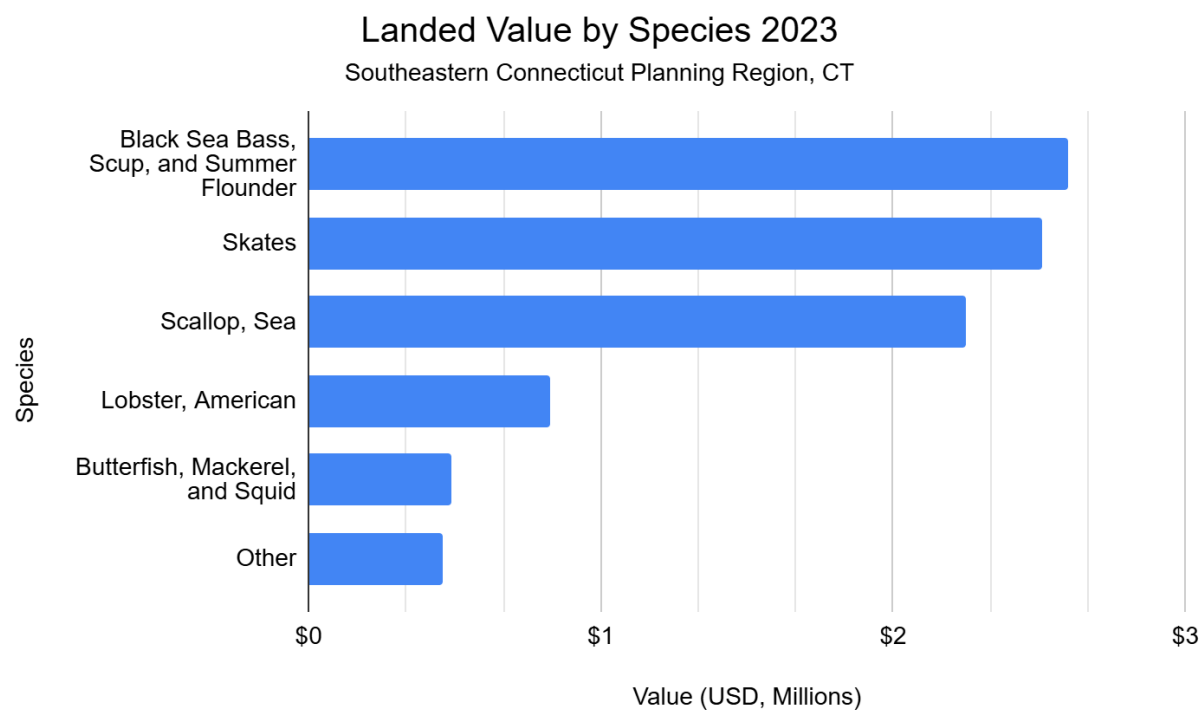
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in the Southeastern Connecticut Planning Region?

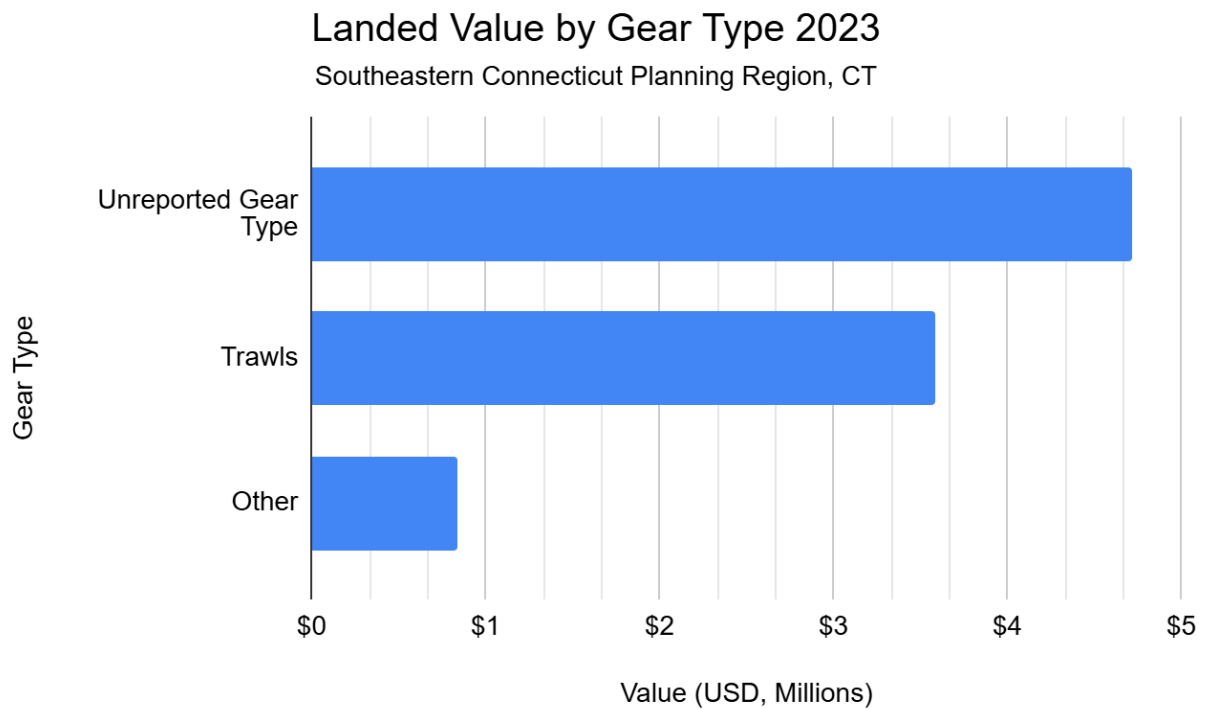
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in the Southeastern Connecticut Planning Region?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

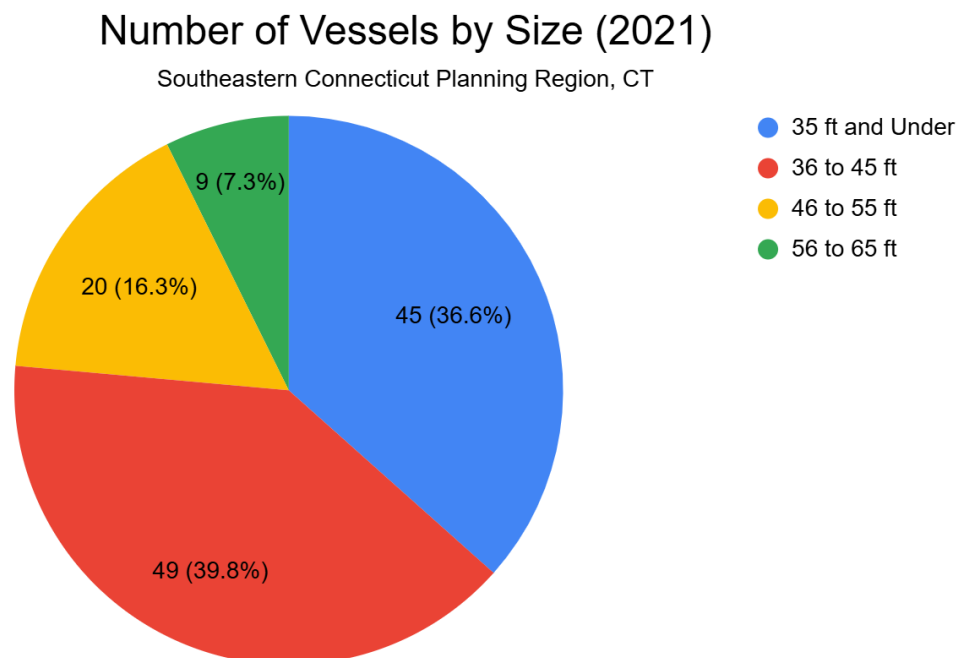


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in the Southeastern Connecticut Planning Region?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

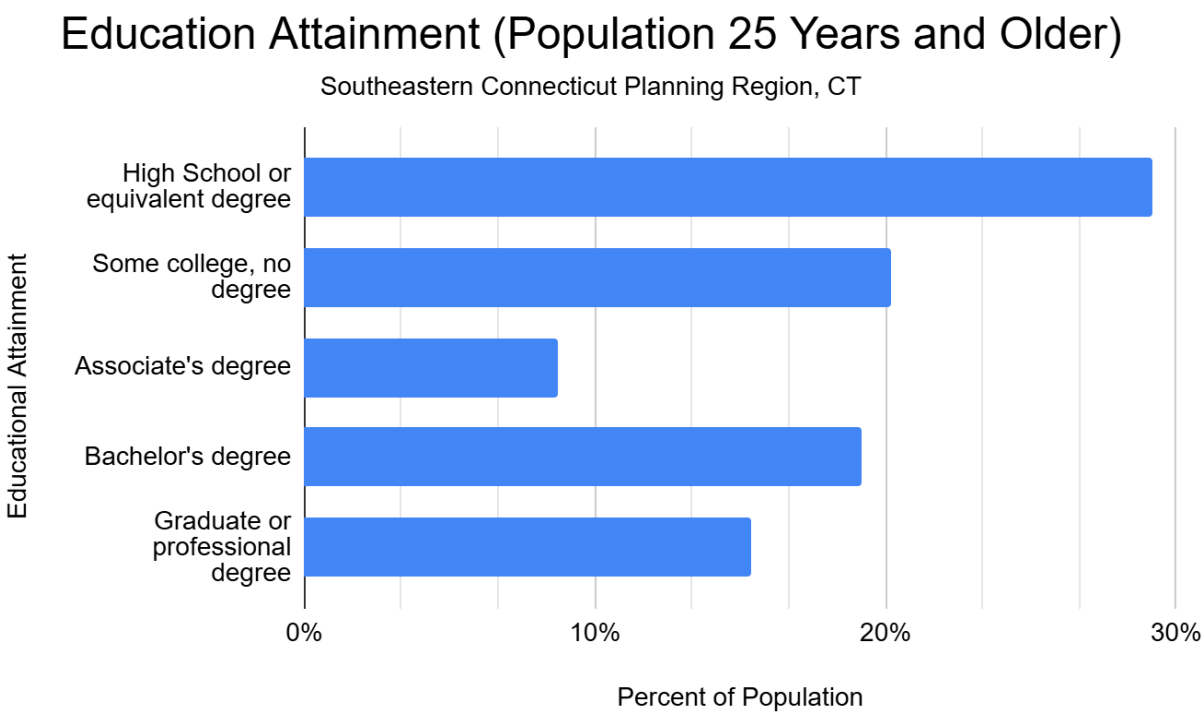


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

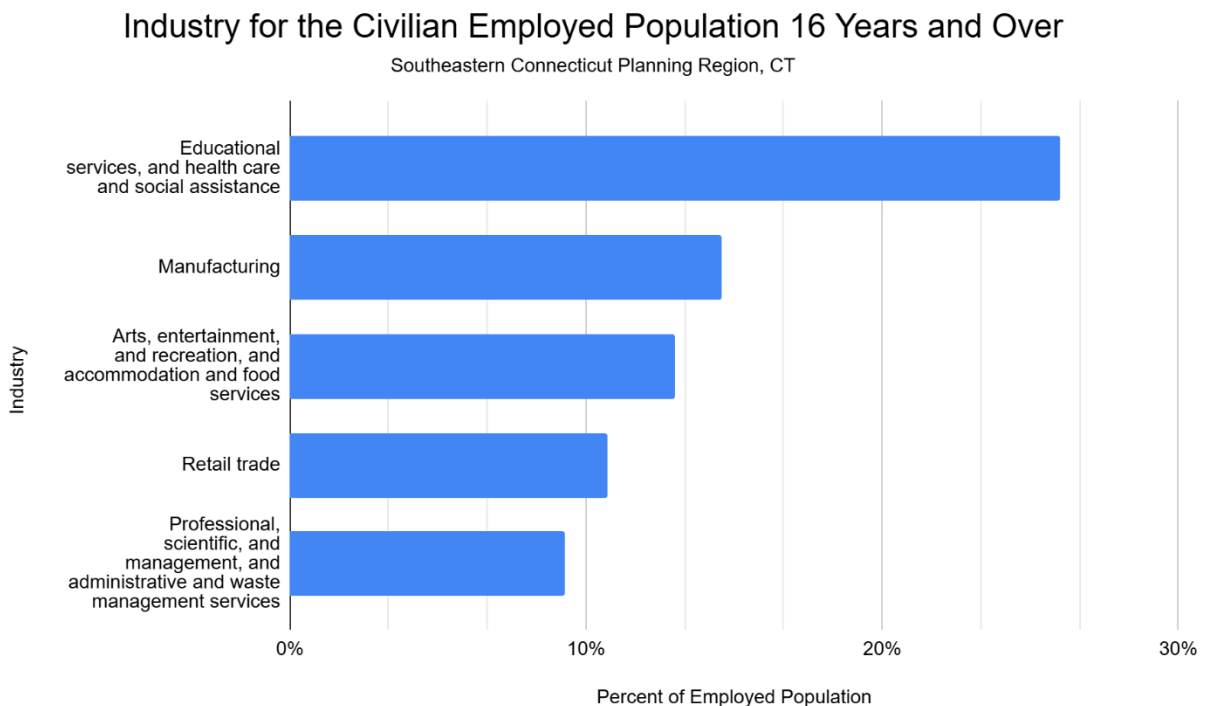
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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in the Southeastern Connecticut Planning Region?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 5.1%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$84,185³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 10.6%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

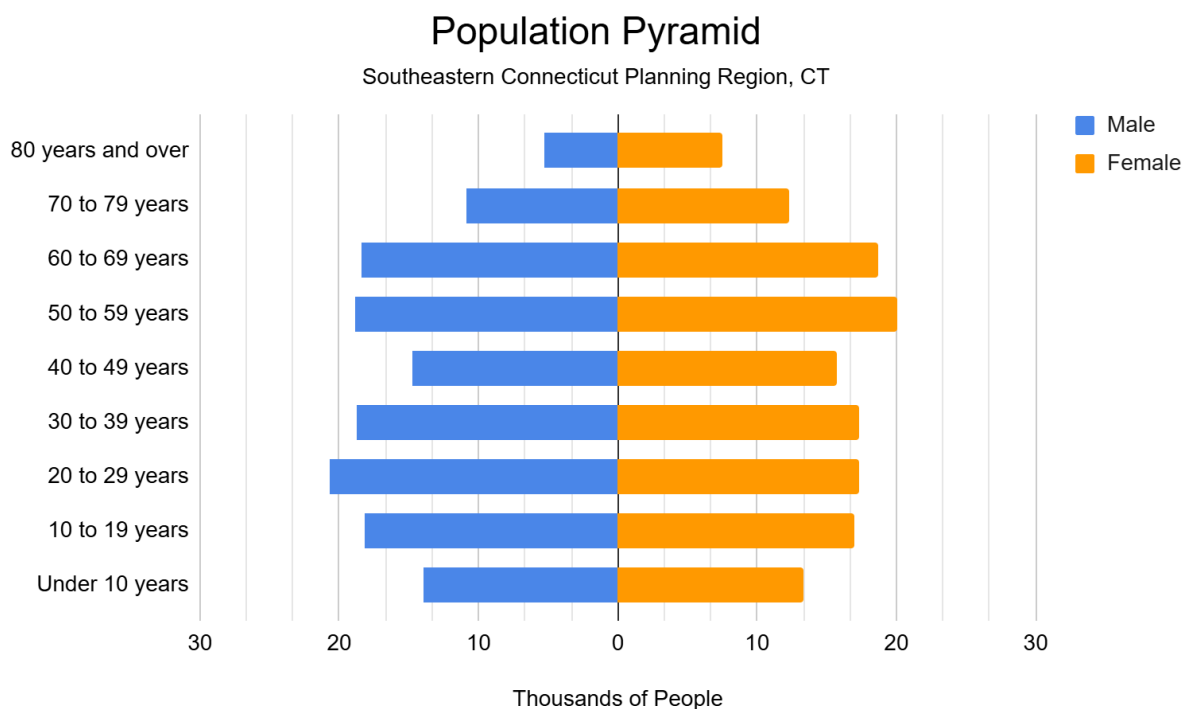
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 41.0⁵

National median: 38.7⁵

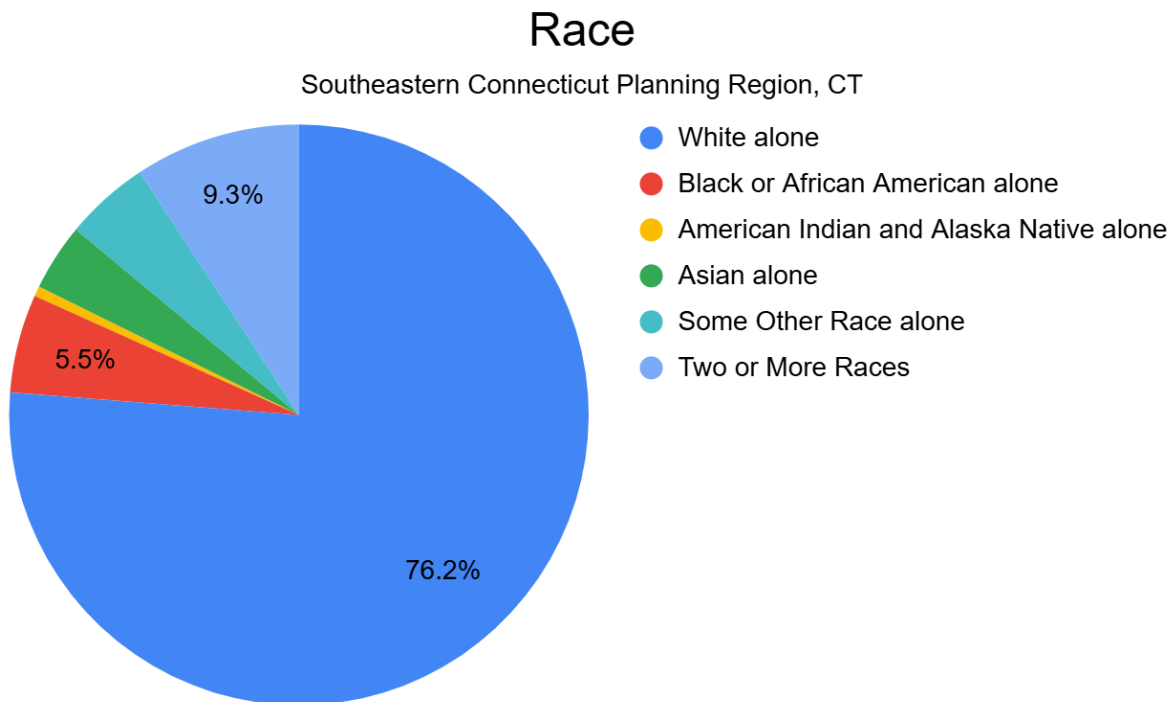


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

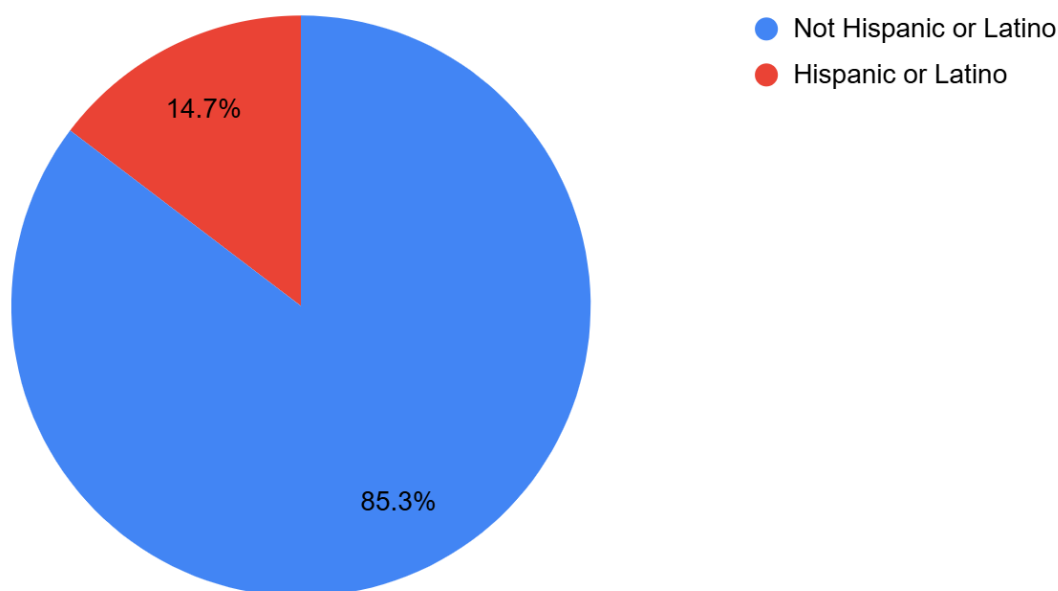
These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Ethnicity

Southeastern Connecticut Planning Region, CT



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 8.8%⁶

National Average: 13.9%⁶

Speak English less than very well: 5.8%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

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Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in the Southeastern Connecticut Planning Region

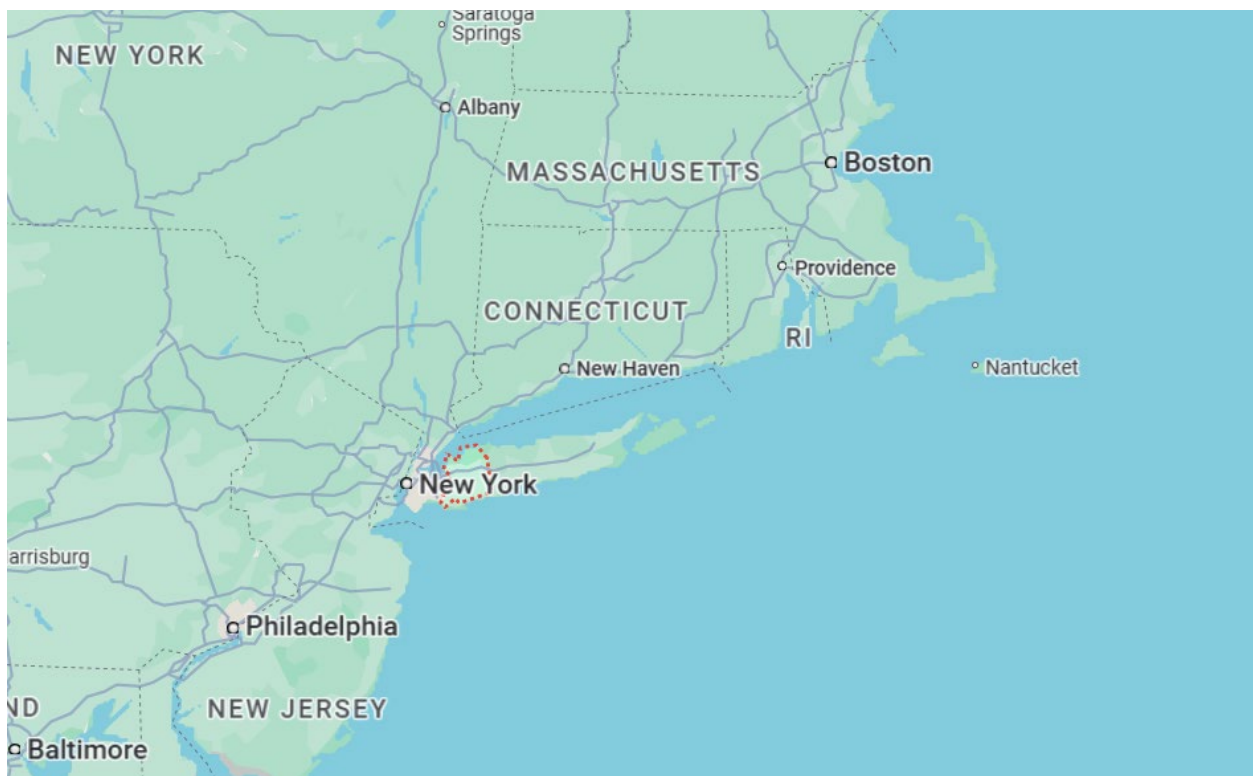
Community Name	Stonington / Mystic / Pawcatuck	New London	Noank	Groton	East Lyme / Niantic
Commercial Engagement	0.756	0.405	0.04	-0.113	-0.126
Commercial Reliance	-0.04	-0.047	-0.03	-0.052	-0.053
Poverty	-0.617	1.306	-0.892	0.397	-0.595
Population Composition	-0.754	0.914	-0.757	0.272	-0.604
Personal Disruption	-0.819	0.754	-1.079	-0.143	-0.557
Housing Disruption	0.08	-0.721	-1.525	-0.261	-0.313
Retiree Migration	0.068	-0.707	0.217	-0.931	0.333
Urban Sprawl	-0.405	-0.361	-0.524	-0.482	-0.44
Labor Force	-0.175	-0.523	-0.128	-0.992	0.409
Housing Characteristics	-0.101	0.518	-0.127	0.593	-0.316
Sea Level Rise Risk	0.146	0.531	0.078	0.4	-0.146
Storm Surge Risk	-0.151	-0.468	-0.455	-0.43	-0.549

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Nassau County, NY

Nassau County has a population of 1,388,138¹ and a population per square mile of 4,878². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

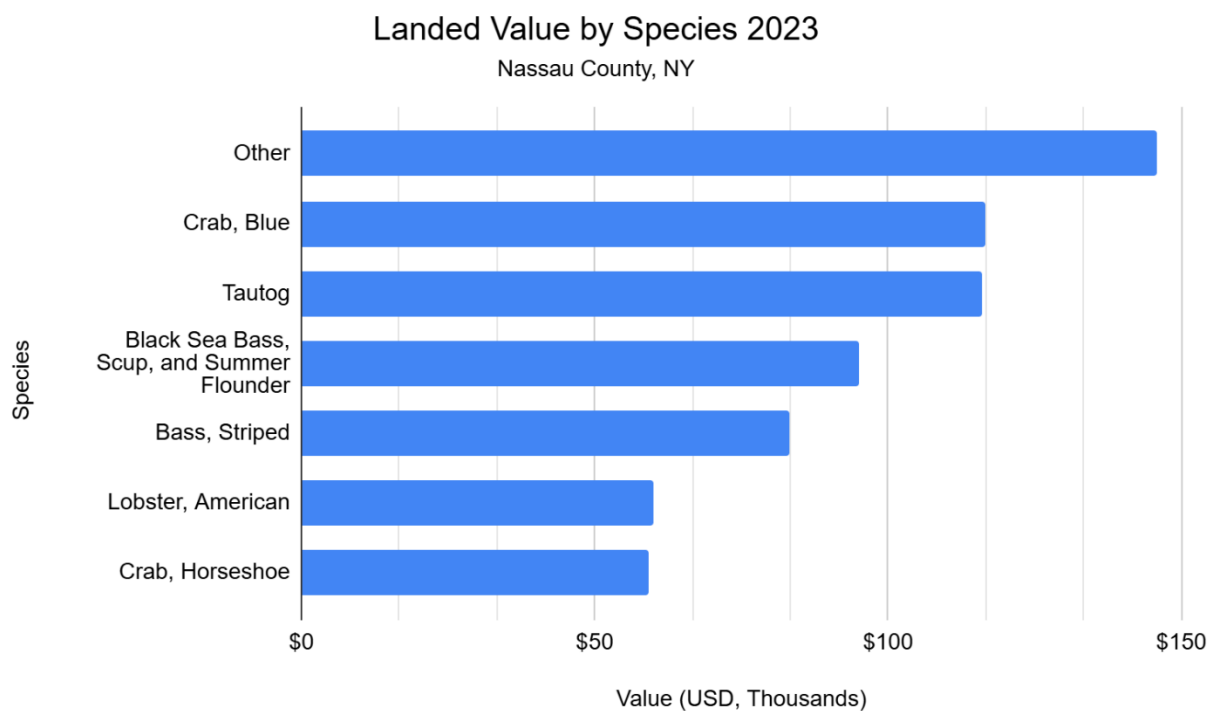
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Nassau County?

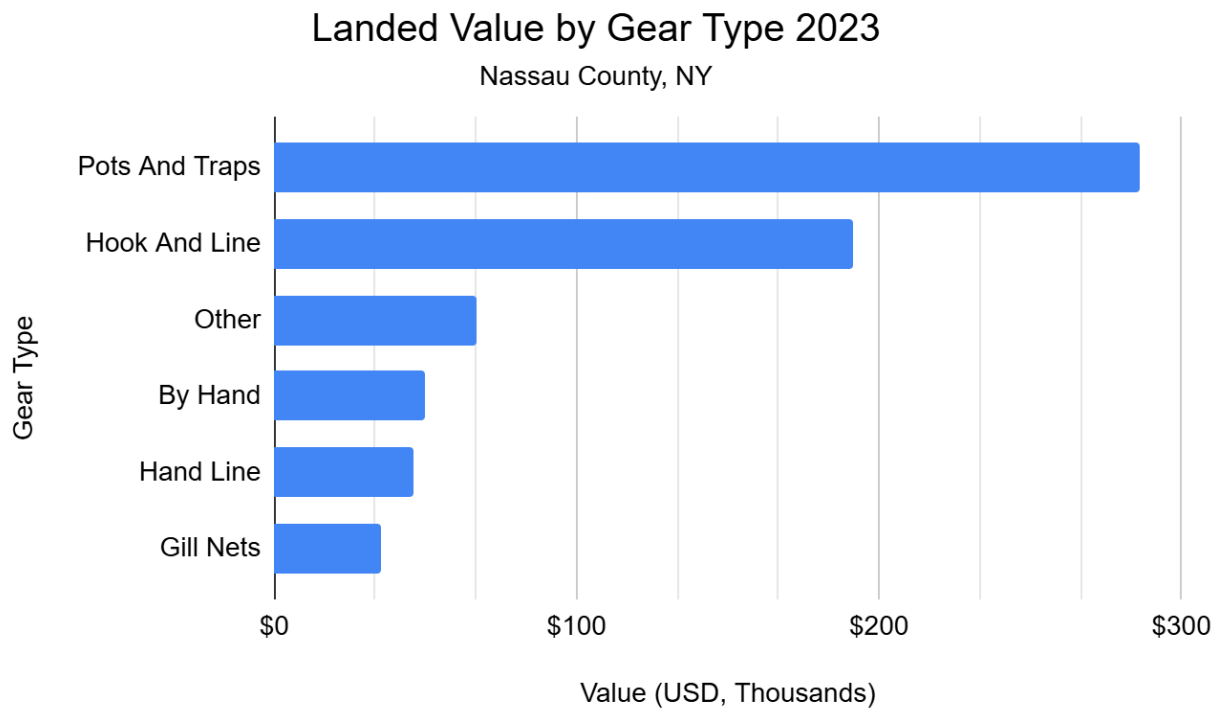
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Nassau County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

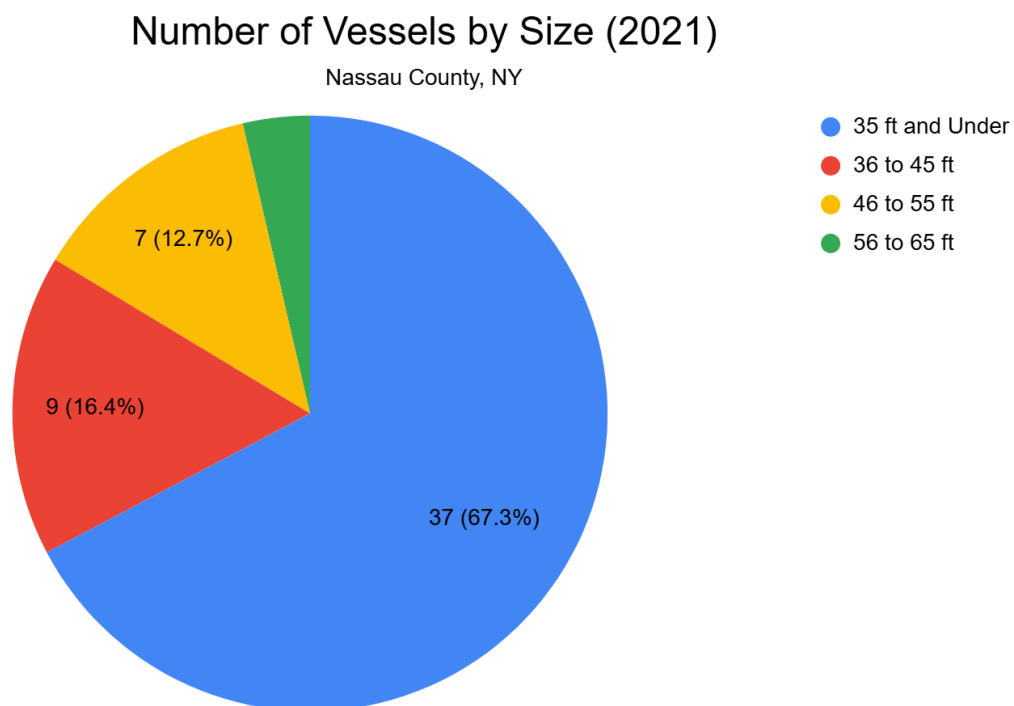


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Nassau County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

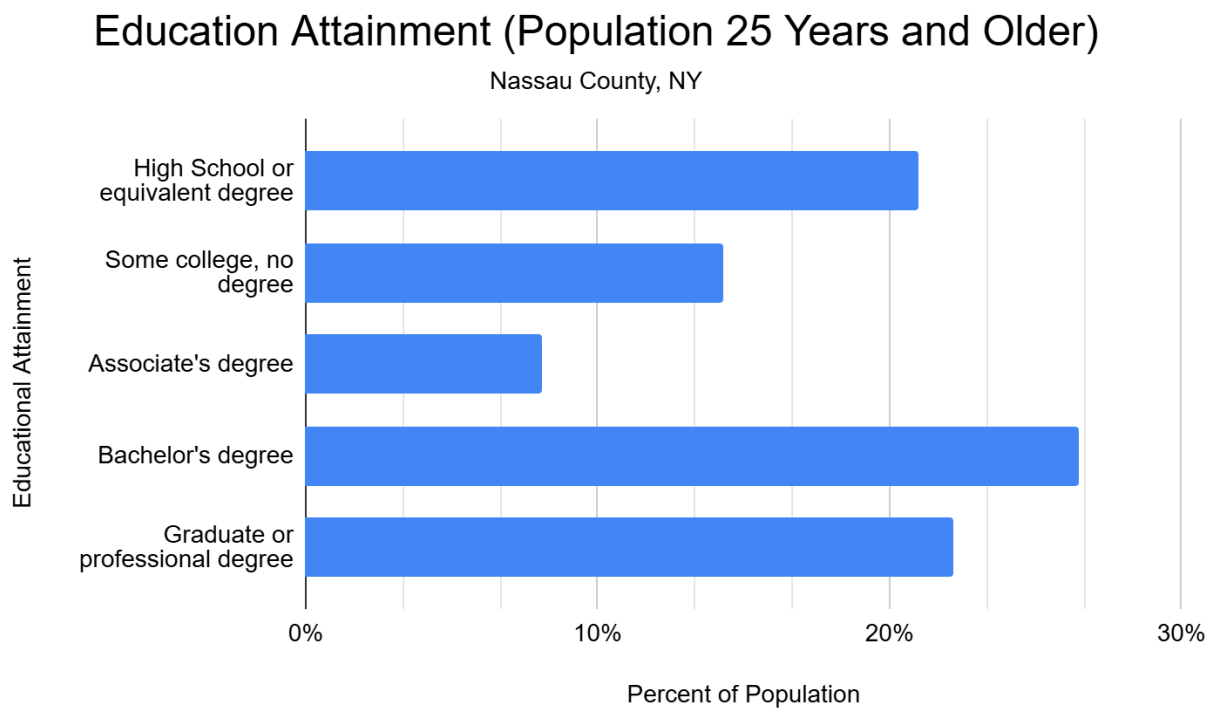


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

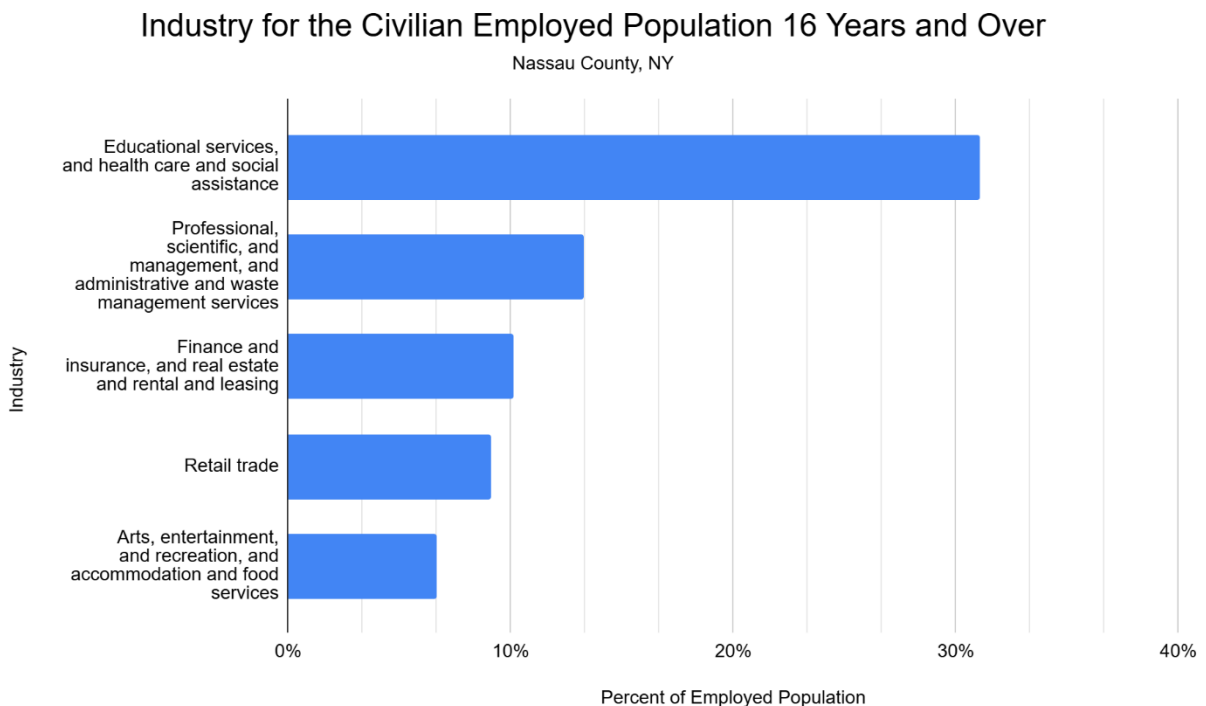
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Nassau County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 4.8%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$143,408³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 5.3%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

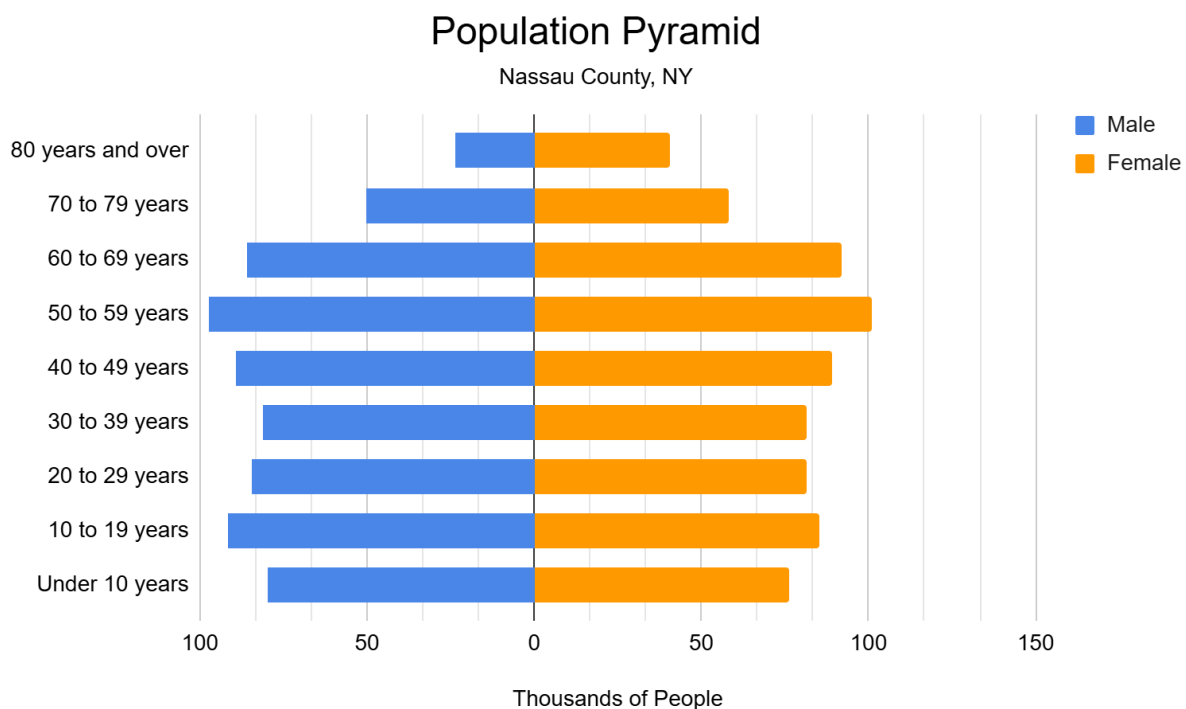
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 41.8⁵

National median: 38.7⁵

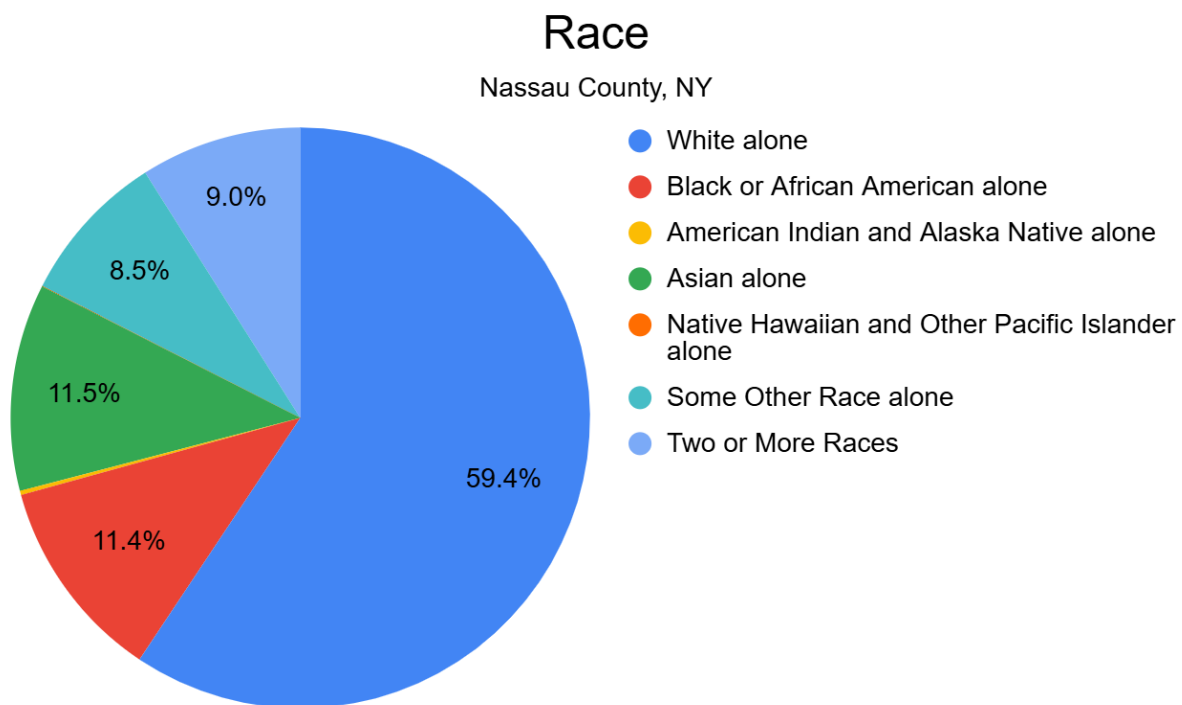


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

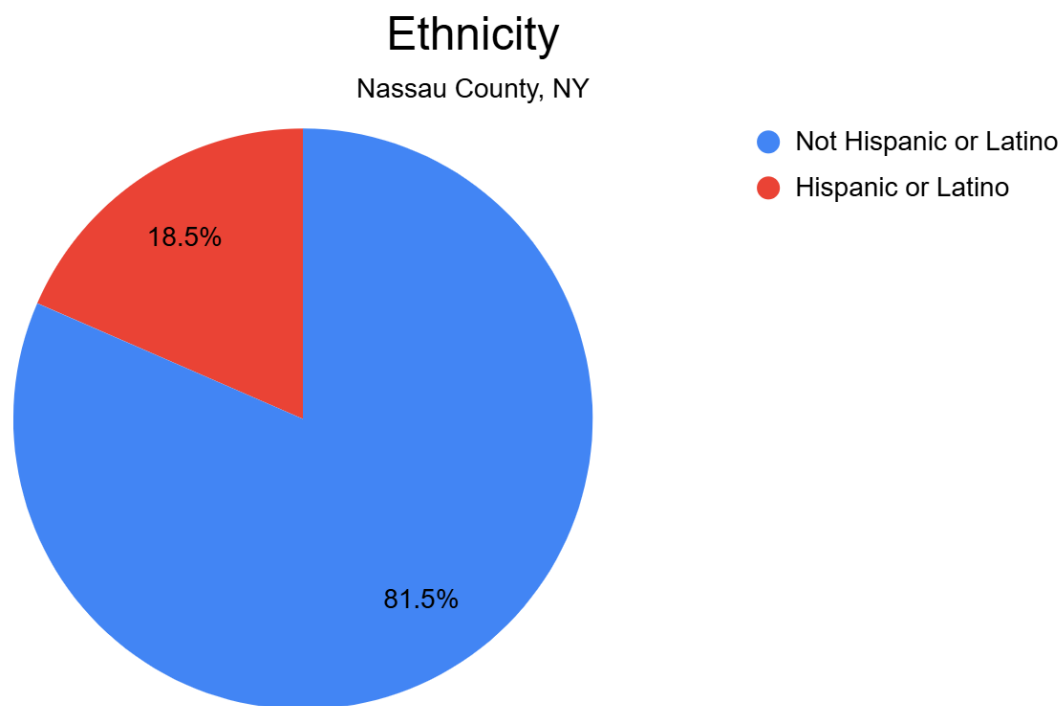
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 22.9%⁶

National Average: 13.9%⁶

Speak English less than very well: 11.2%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Nassau County

Community Name	Seaford	Freeport	Point Lookout	Island Park	Oceanside
Commercial Engagement	0.024	0.548	-0.098	0.073	-0.069
Commercial Reliance	-0.05	-0.05	-0.04	-0.043	-0.053
Poverty	-0.838	-0.197	-0.813	-0.64	-0.762
Population Composition	-0.685	1.641	-1.074	1.092	-0.411
Personal Disruption	-0.863	-0.003	0.187	-0.418	-0.672
Housing Disruption	0.322	0.162	1.367	0.662	0.342
Retiree Migration	-0.22	-0.09	1.092	-0.303	0.155
Urban Sprawl	1.187	1.292	1.491	1.454	1.146
Labor Force	-0.572	-0.306	1.043	-0.257	-0.29
Housing Characteristics	-1.537	-0.714	-2.35	-0.702	-1.182
Sea Level Rise Risk	0.251	0.366	0.056	1.067	0.325
Storm Surge Risk	0.232	0.382	0.539	0.826	0.743

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Suffolk County, NY

Suffolk County has a population of 1,525,680¹ and a population per square mile of 1,675². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

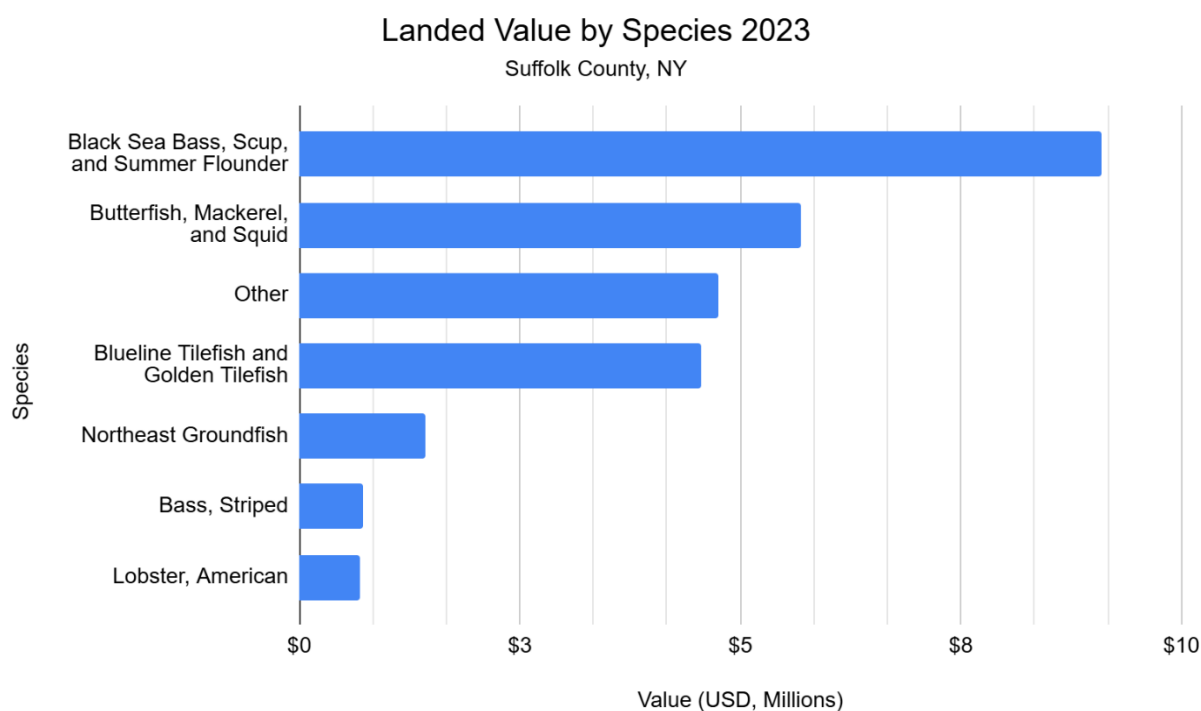
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Suffolk County?

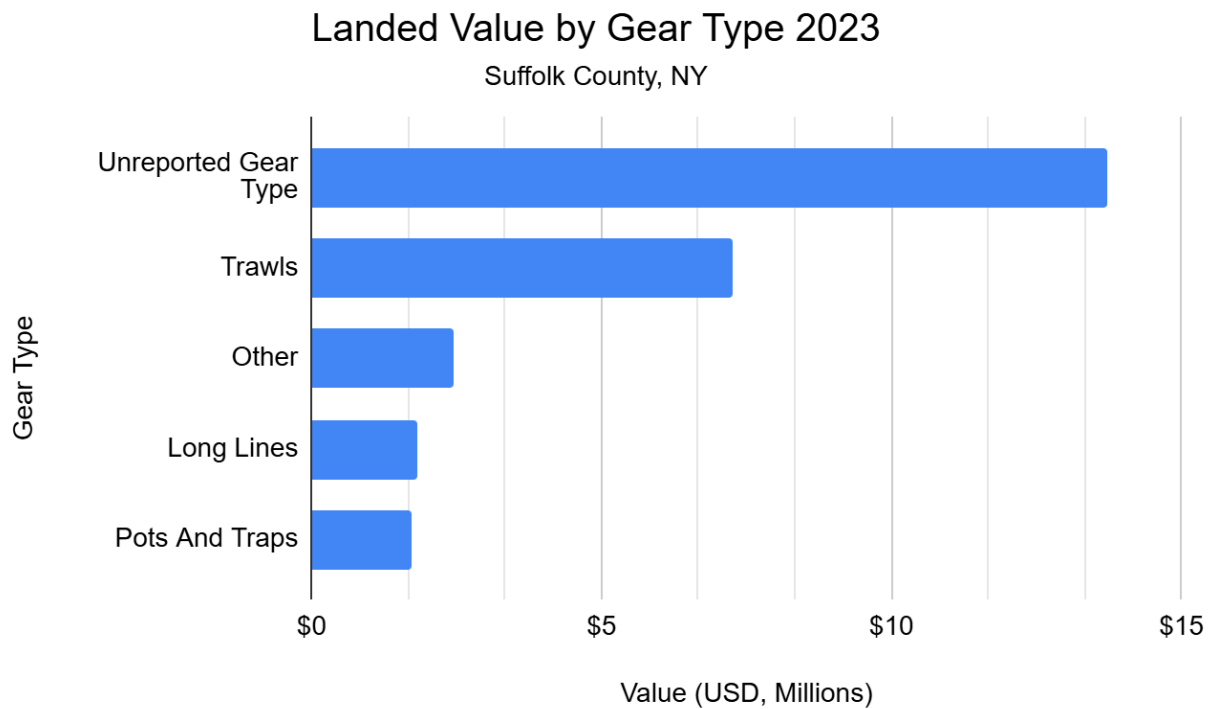
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Suffolk County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

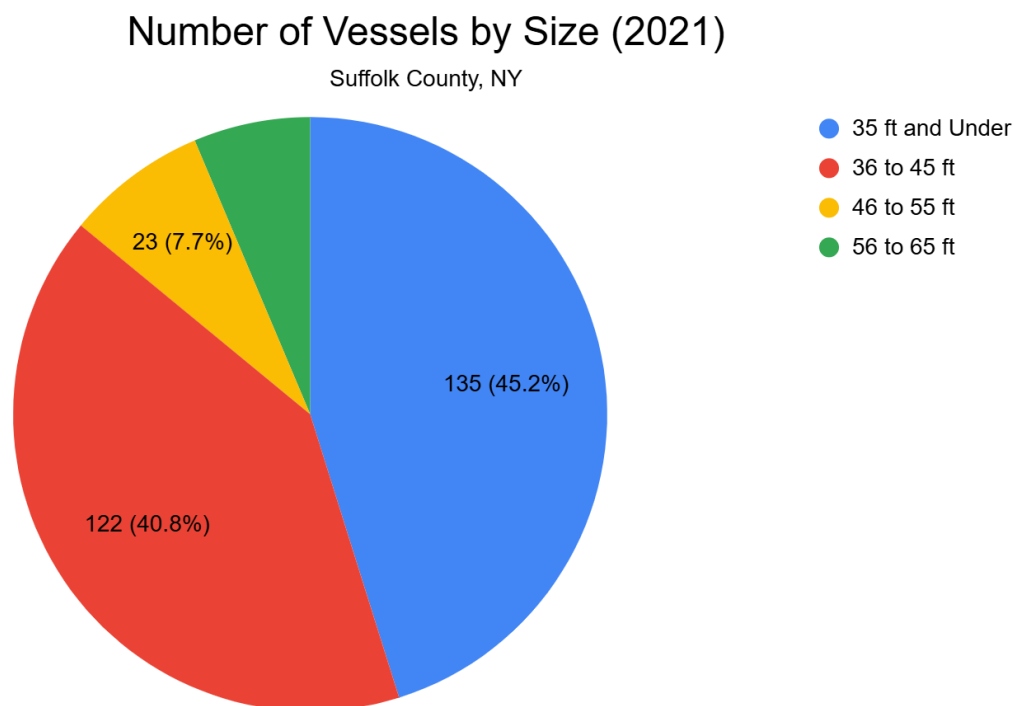


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Suffolk County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

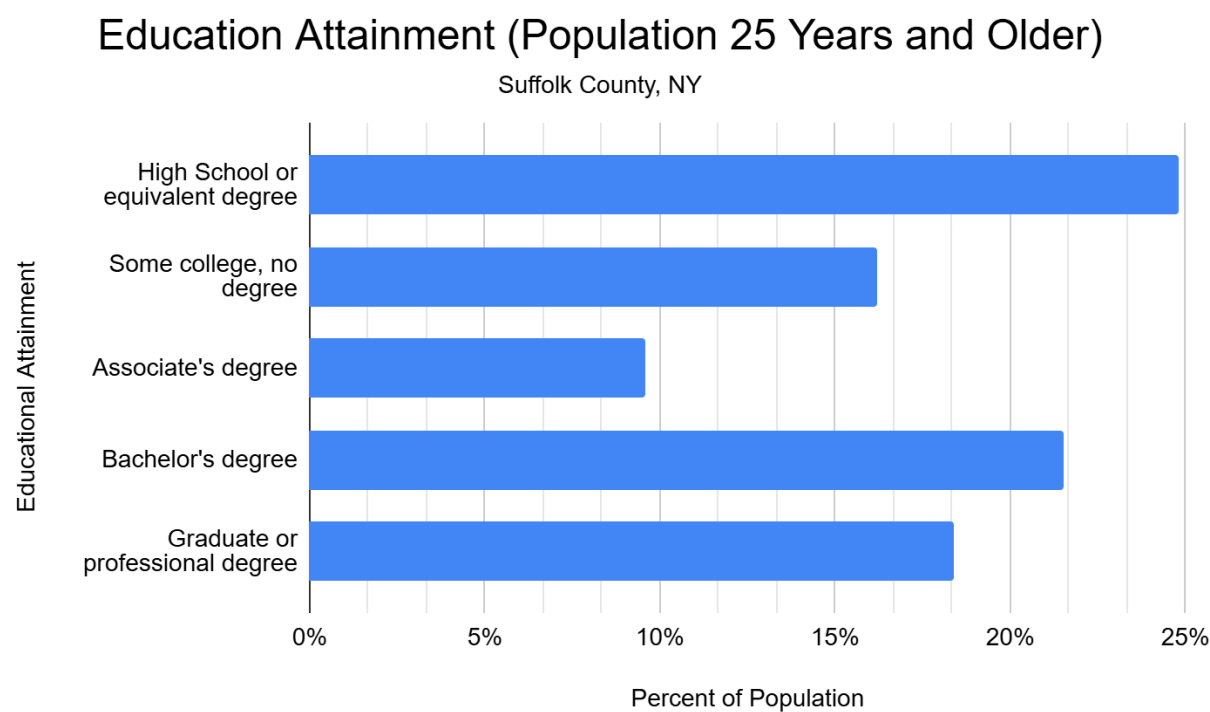


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

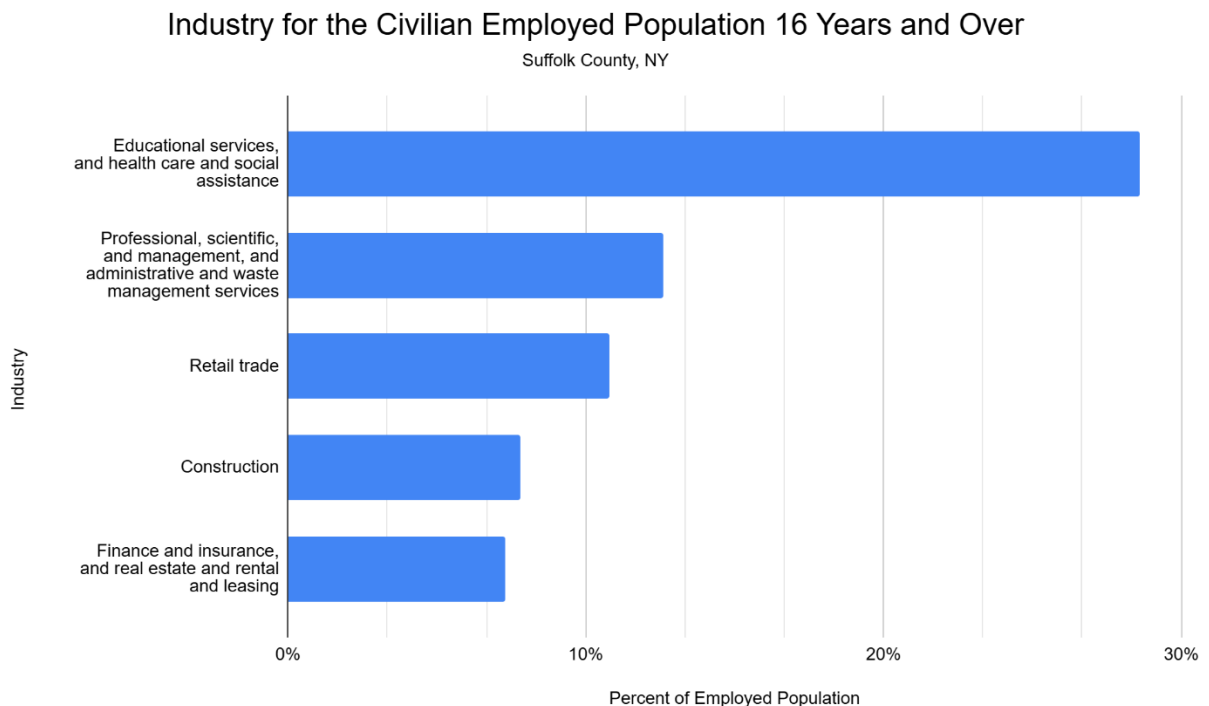
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Suffolk County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 4.6%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$128,329³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 6.4%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

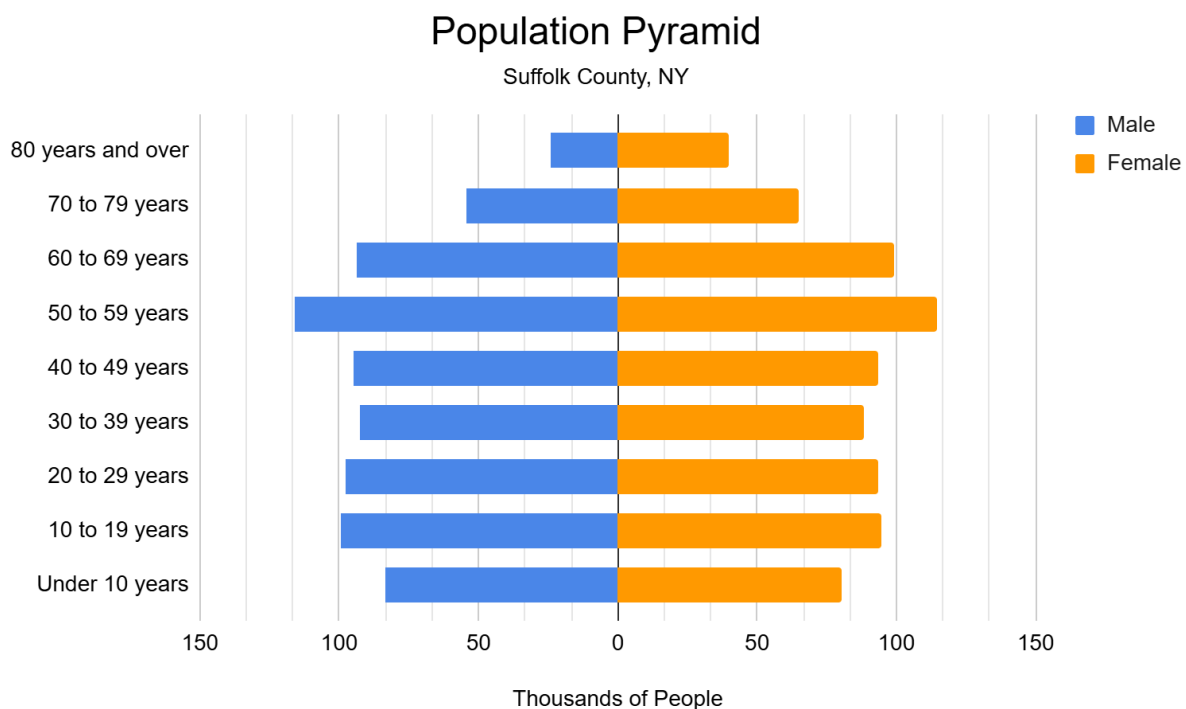
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 41.7⁵

National median: 38.7⁵

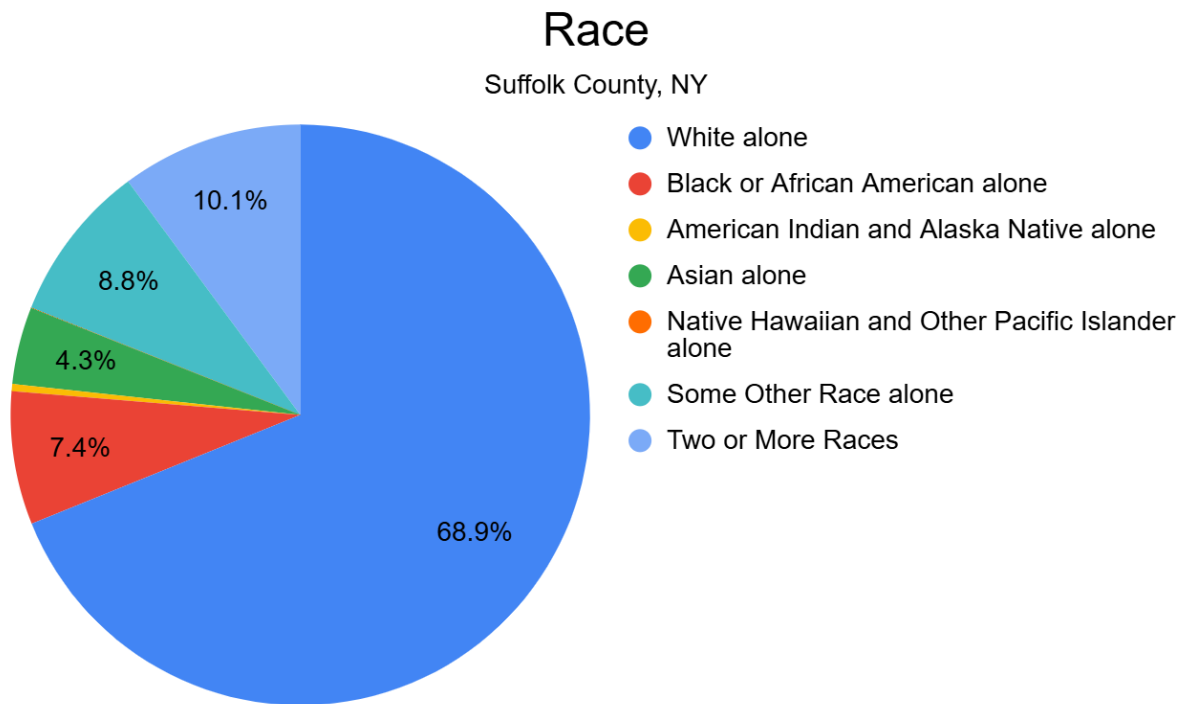


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

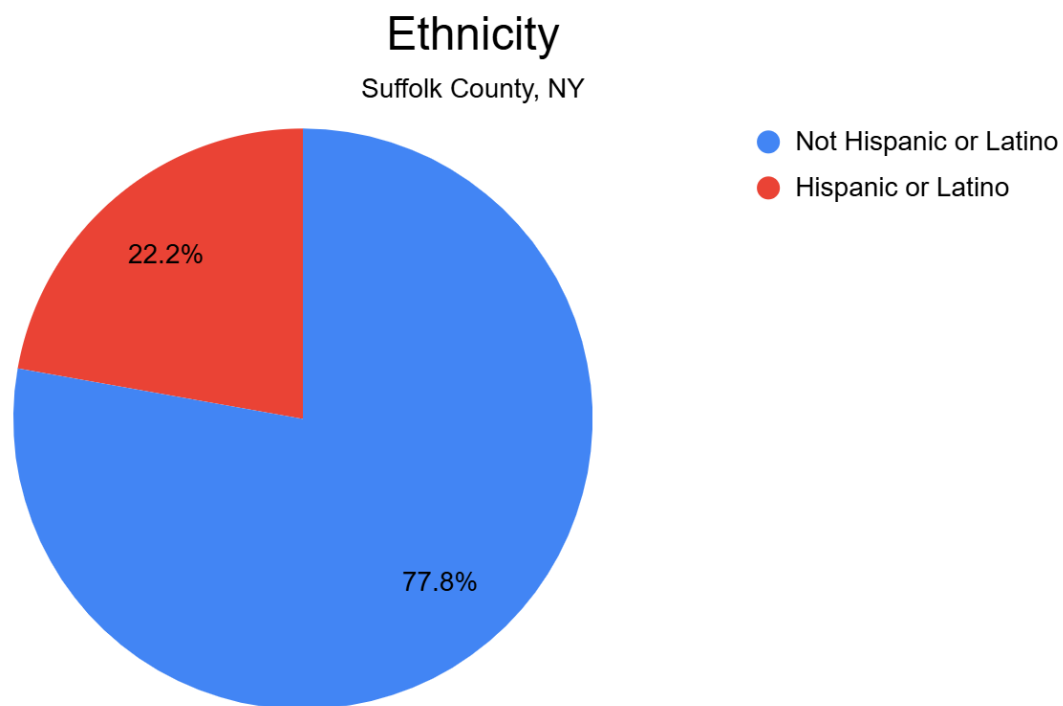
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 16.6%⁶

National Average: 13.9%⁶

Speak English less than very well: 9.3%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

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Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Suffolk County

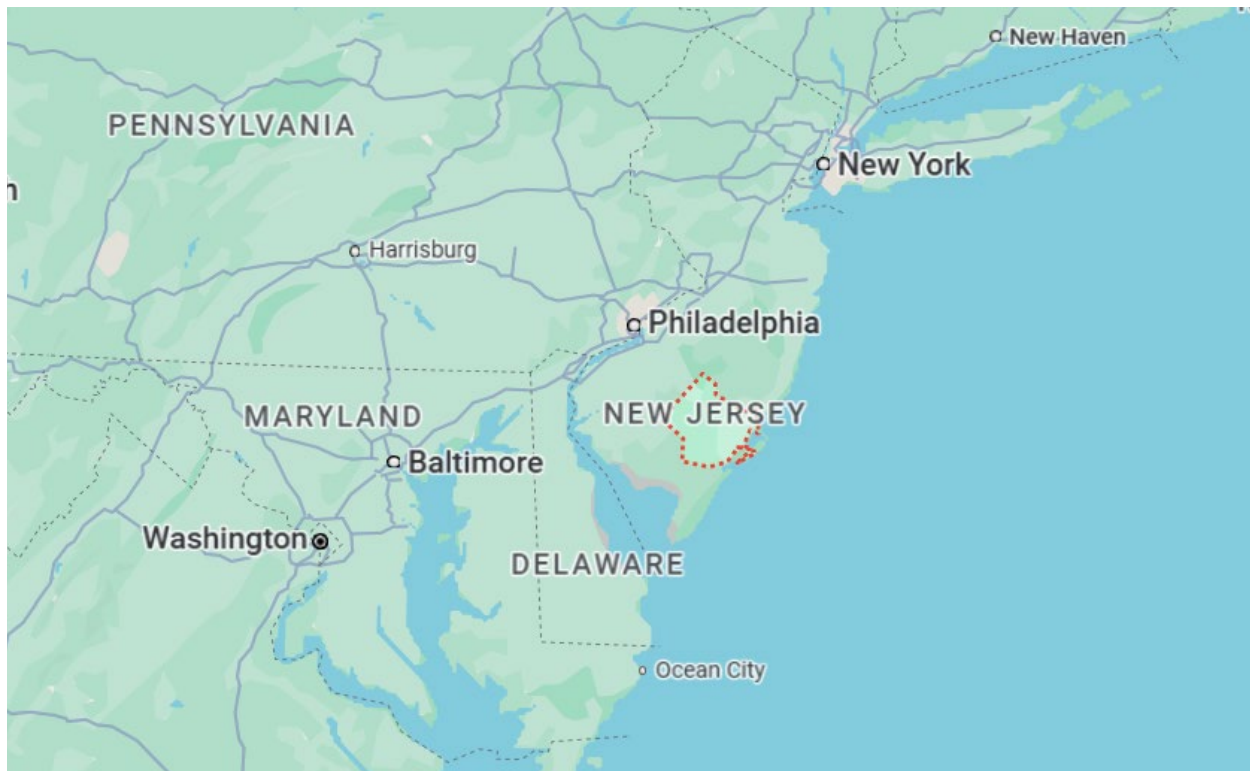
Community Name	Montauk	Hampton Bays / Shinnecock	Mattituck	Amagansett	Greenport
Commercial Engagement	5.593	1.955	-0.047	-0.043	-0.053
Commercial Reliance	0.347	-0.014	-0.044	0.011	-0.041
Poverty	-0.879	-0.14	-0.835	-0.558	-0.597
Population Composition	-0.572	0.498	-0.843	-0.676	0.386
Personal Disruption	-0.746	-0.336	-0.759	-0.698	-0.396
Housing Disruption	2.059	1.791	0.945	1.975	1.922
Retiree Migration	0.569	-0.046	0.37	0.782	0.381
Urban Sprawl	0.726	0.453	0.515	1.535	0.66
Labor Force	0.811	-0.176	-0.09	0.742	0.335
Housing Characteristics	-0.972	-0.712	-0.429	NA	-0.433
Sea Level Rise Risk	0.347	0.034	-0.027	-0.266	0.07
Storm Surge Risk	-0.285	-0.394	-0.484	-0.433	0.342

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

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Atlantic County, NJ

Atlantic County has a population of 274,704¹ and a population per square mile of 494². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

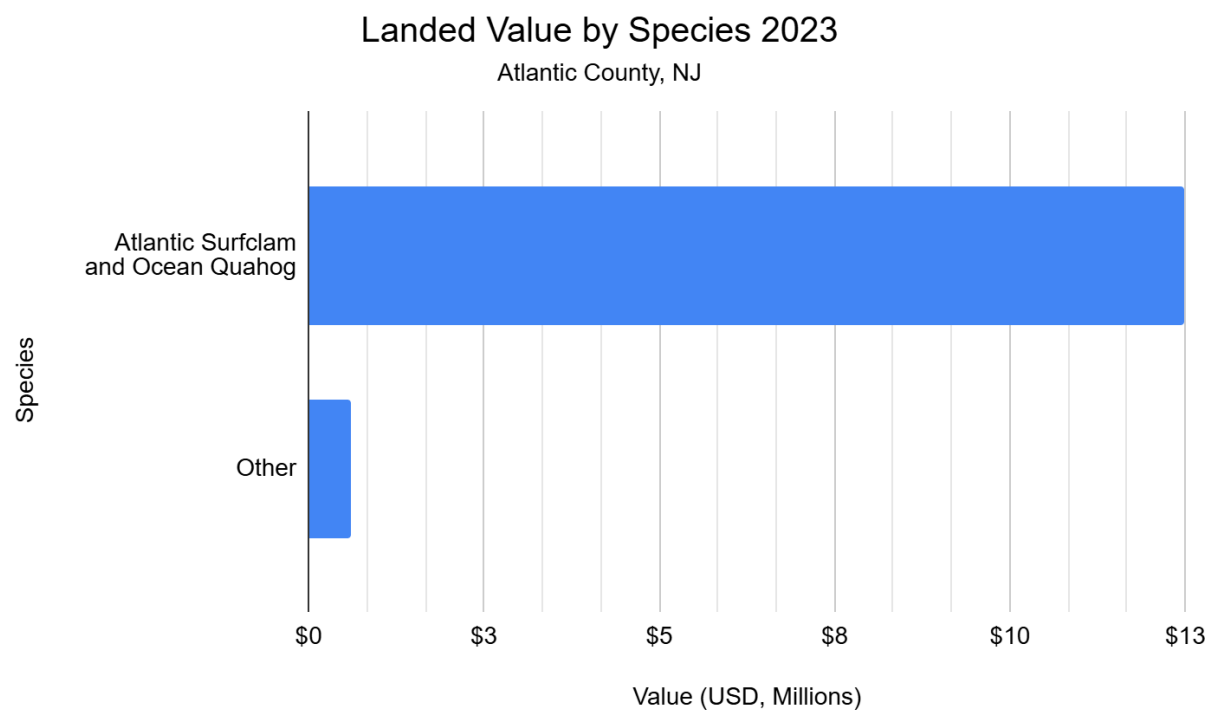
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Cumberland County?

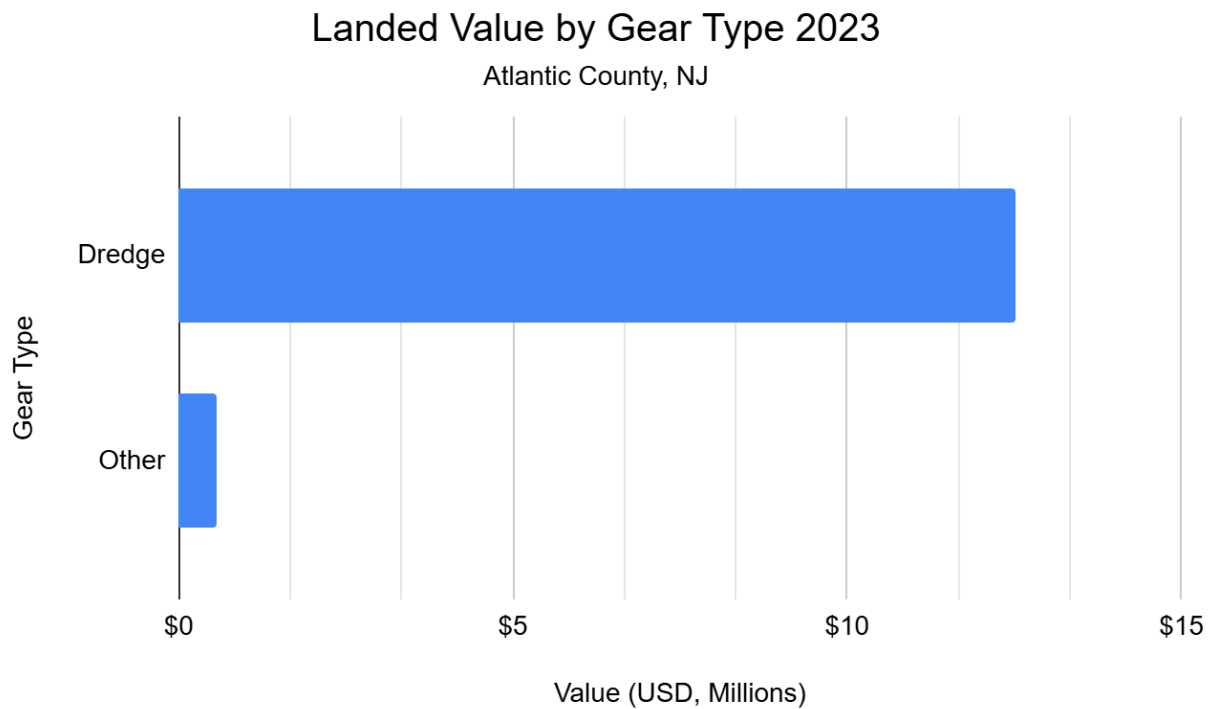
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Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Atlantic County?

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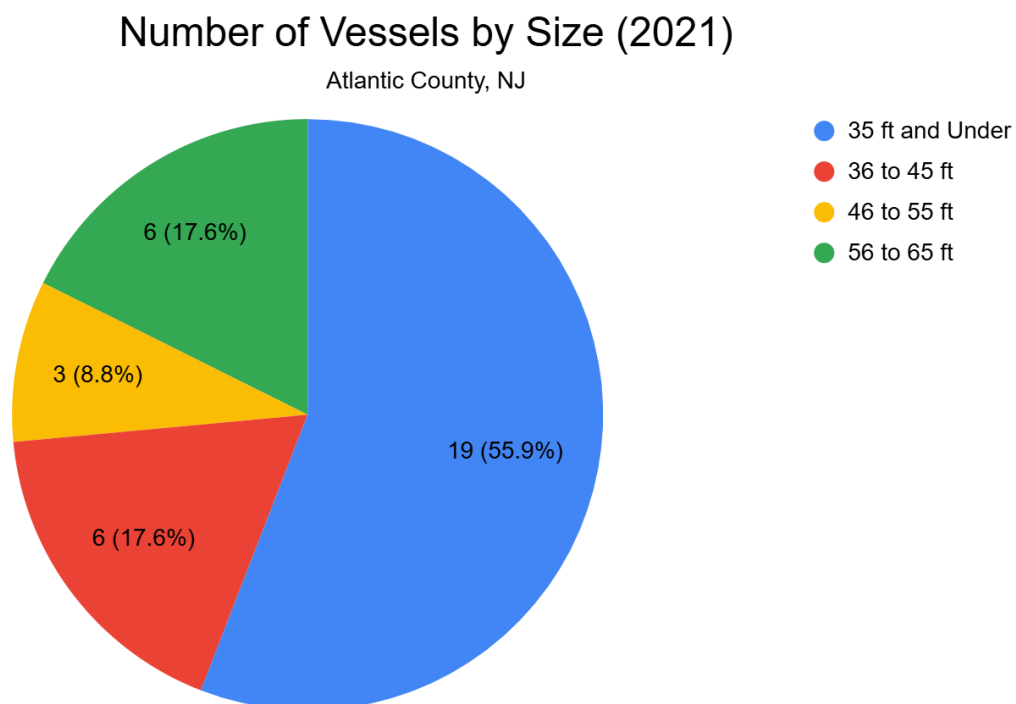


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Atlantic County?

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Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

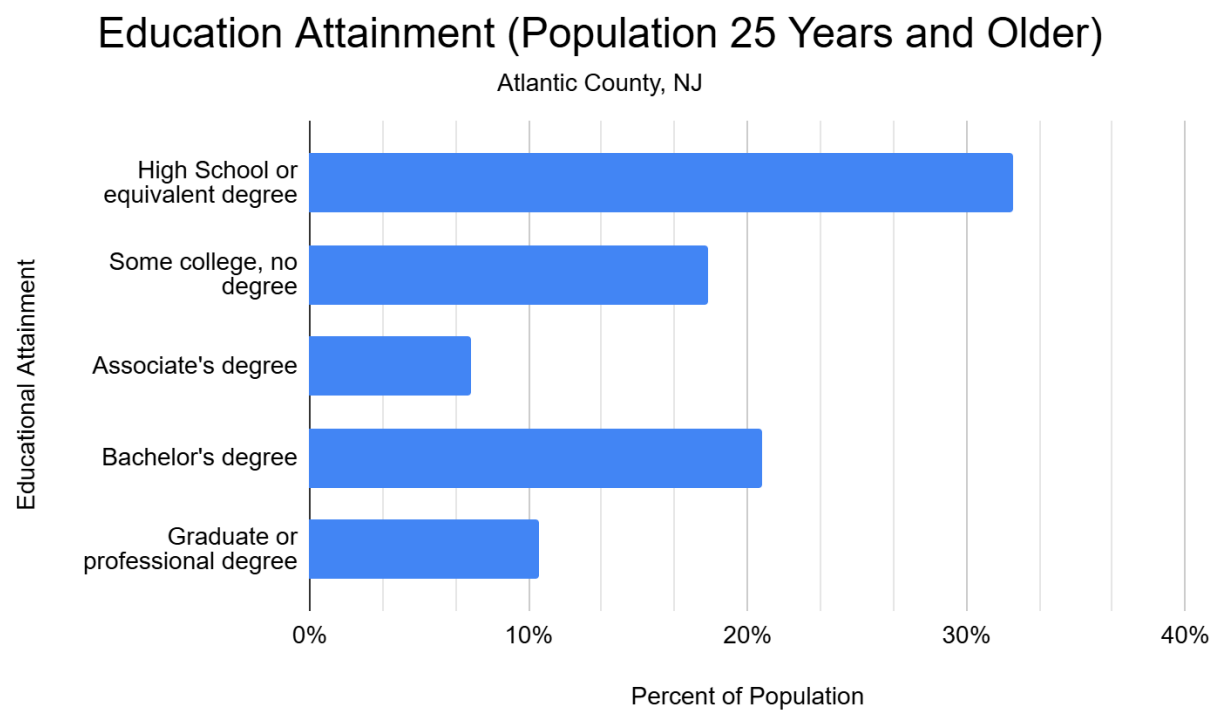


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Demographic Attributes

Educational Attainment

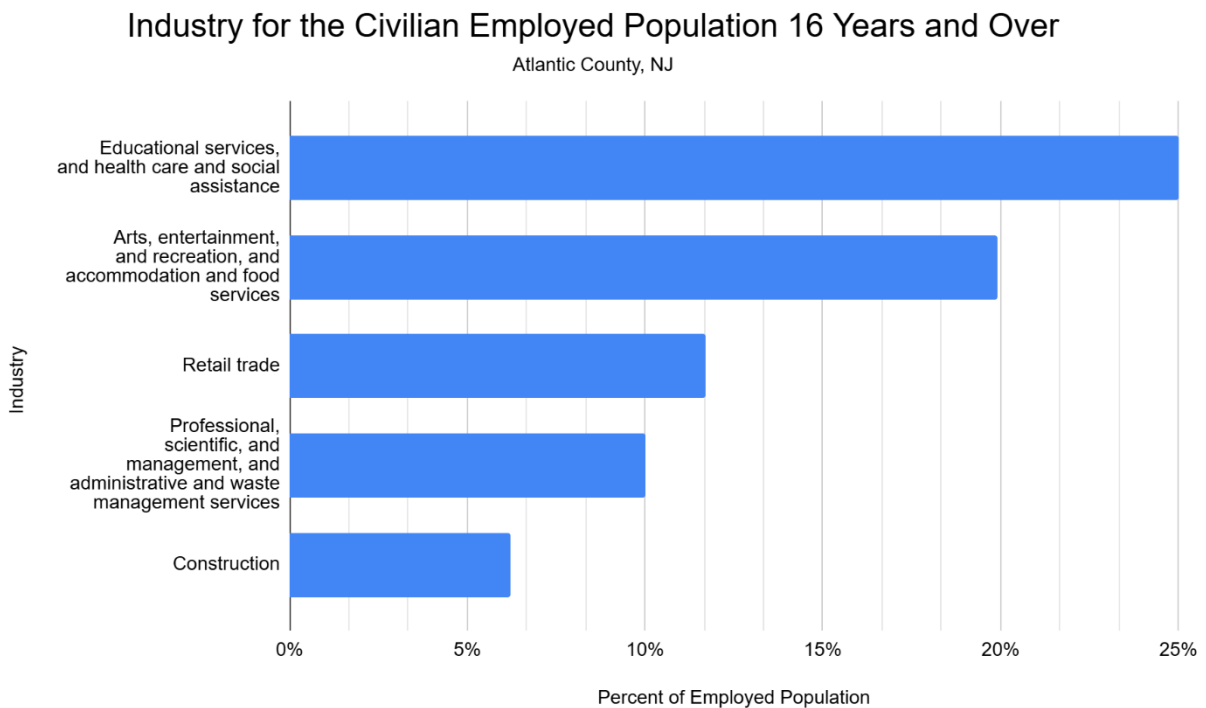
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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Atlantic County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 8.1%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$76,819³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 13.1%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

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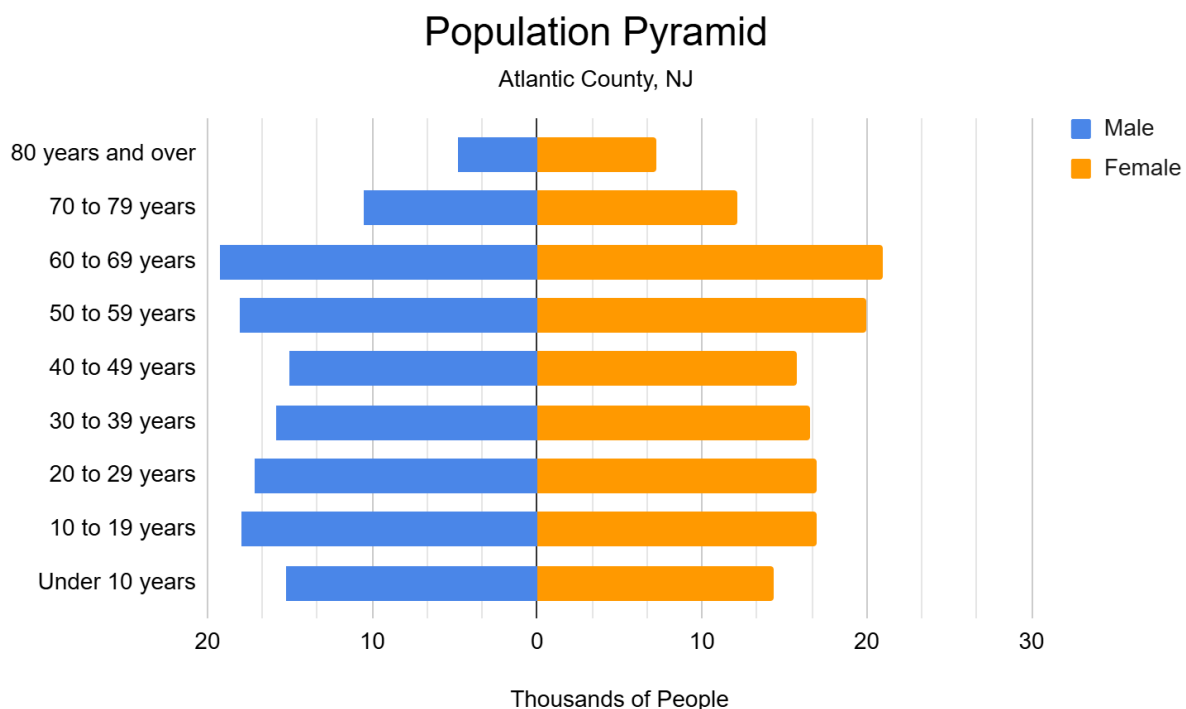
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Median age: 42.2⁵

National median: 38.7⁵

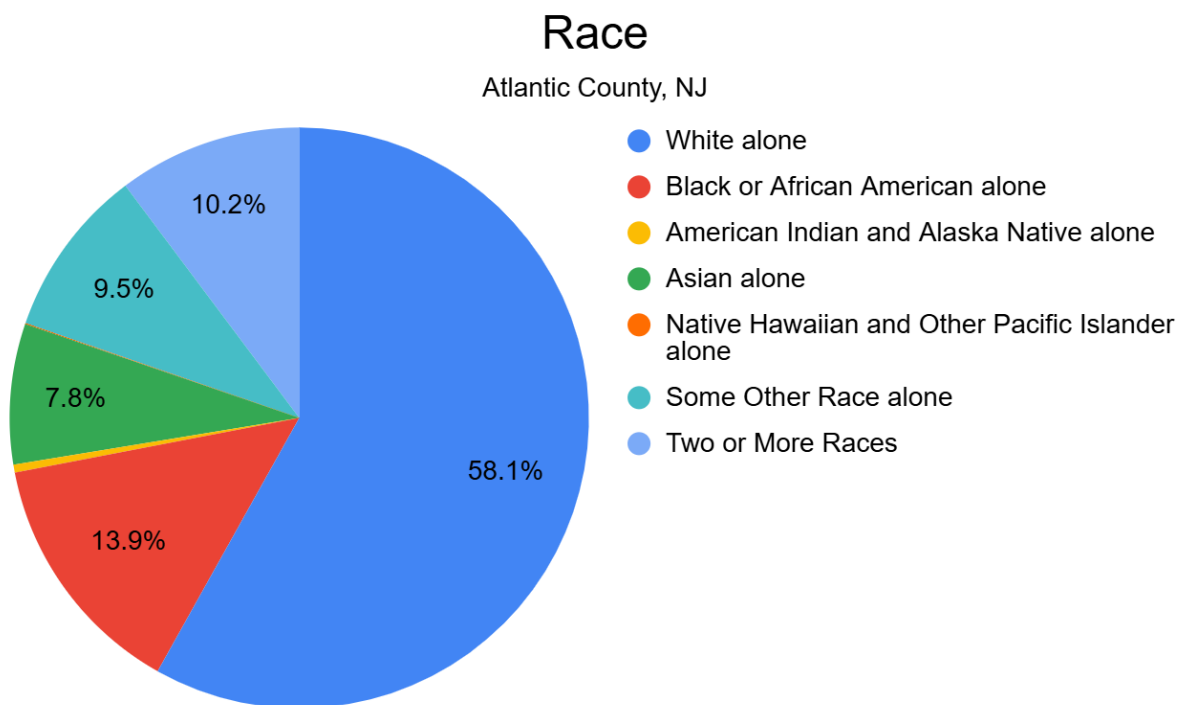


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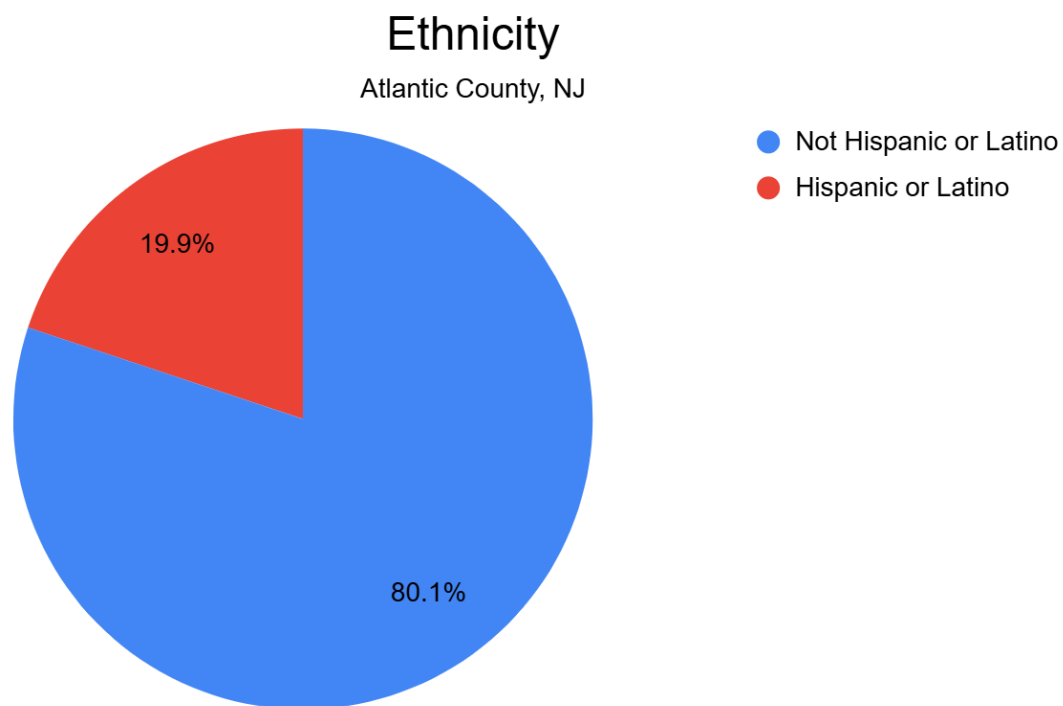
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



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Language and Marginalization

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Foreign Born: 16.1%⁶

National Average: 13.9%⁶

Speak English less than very well: 11.3%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Atlantic County

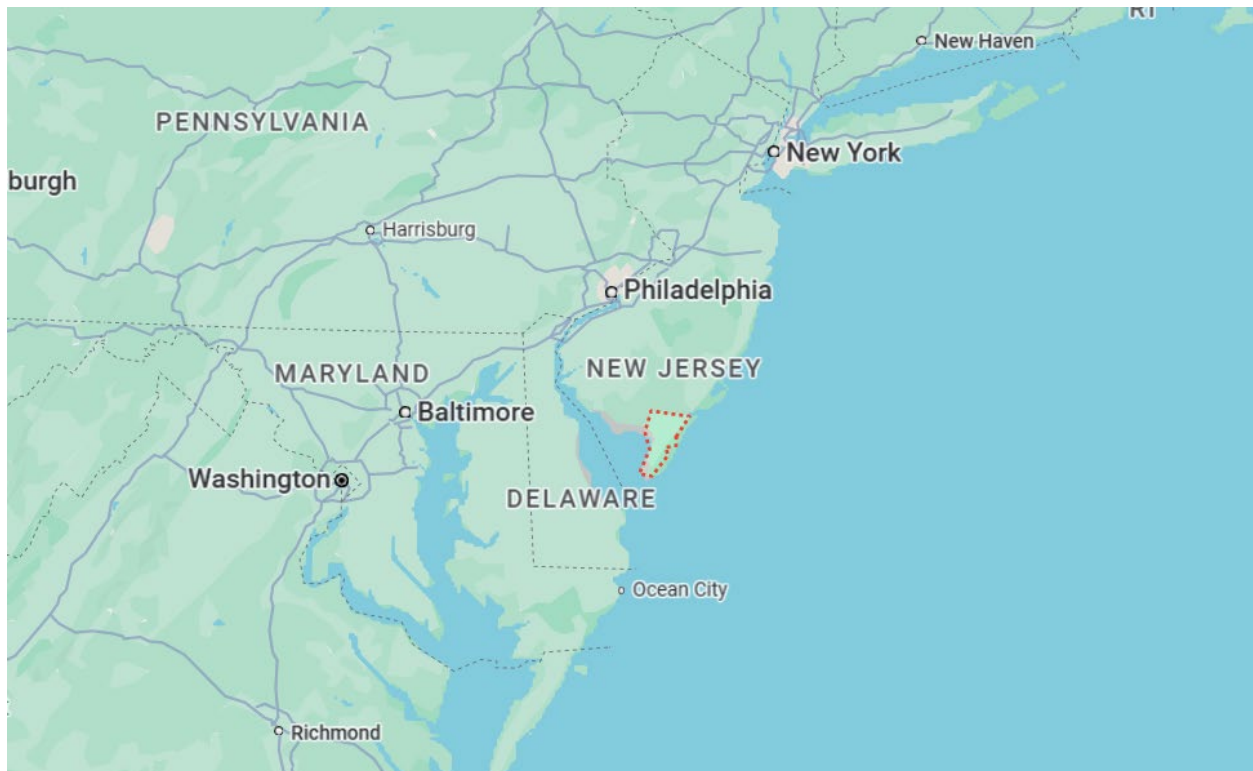
Community Name	Atlantic City	Port Republic	East Vineland	Milmay	Hammonton
Commercial Engagement	1.888	-0.147	-0.153	-0.153	-0.153
Commercial Reliance	-0.033	-0.051	-0.053	-0.053	-0.053
Poverty	2.278	-0.886	-1.066	0.011	0.455
Population Composition	2.221	-1.128	-0.991	-0.332	-0.164
Personal Disruption	2.306	-0.728	-1.224	0.608	0.093
Housing Disruption	0.179	-0.663	NA	NA	-0.609
Retiree Migration	-0.419	-0.016	1.43	0.551	0.072
Urban Sprawl	-0.506	-0.595	NA	NA	-0.499
Labor Force	0.12	-0.436	0.579	0.459	-0.125
Housing Characteristics	0.771	-0.506	NA	-0.432	-0.139
Sea Level Rise Risk	2	1.338	-0.346	-0.346	-0.346
Storm Surge Risk	1.283	0.671	NA	NA	-0.669

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Cape May County, NJ

Cape May County has a population of 95,236¹ and a population per square mile of 379². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

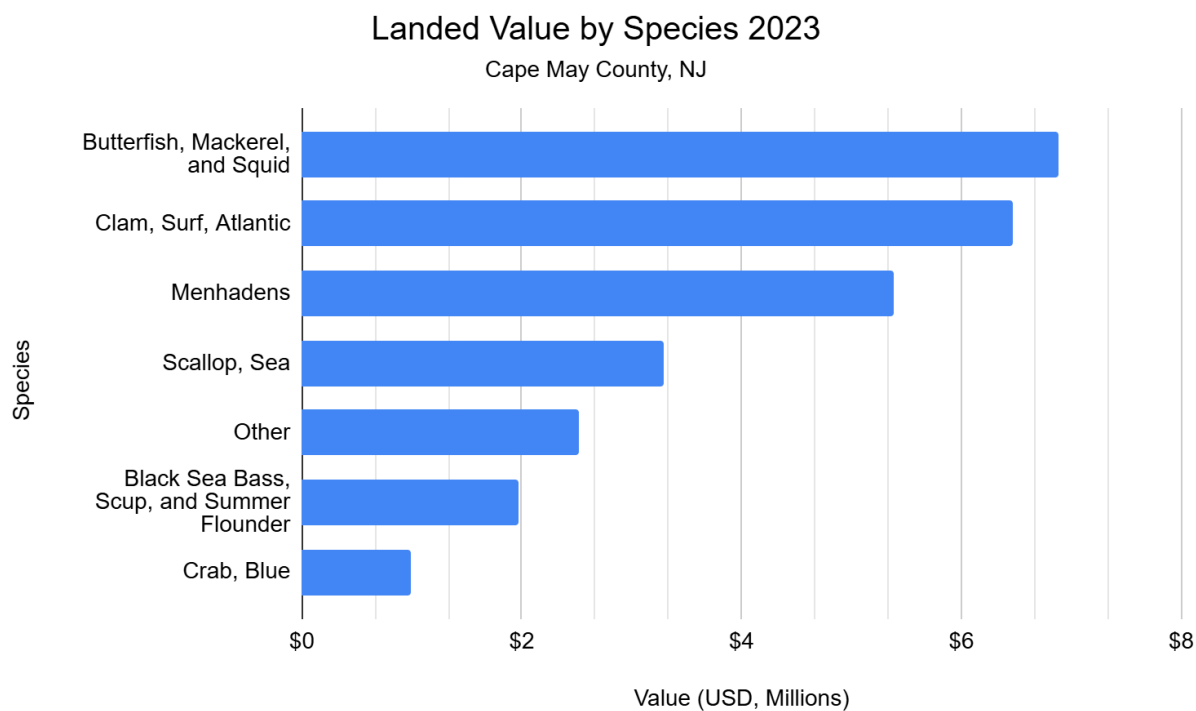
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Cape May County?

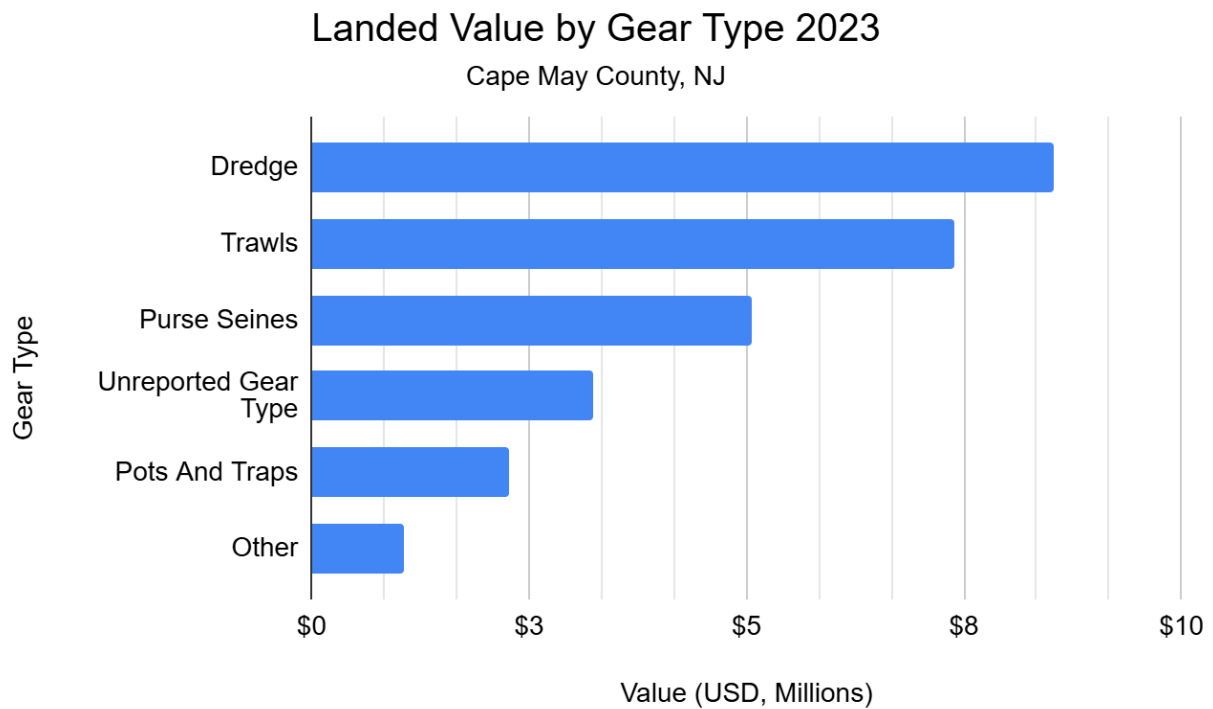
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Cape May County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

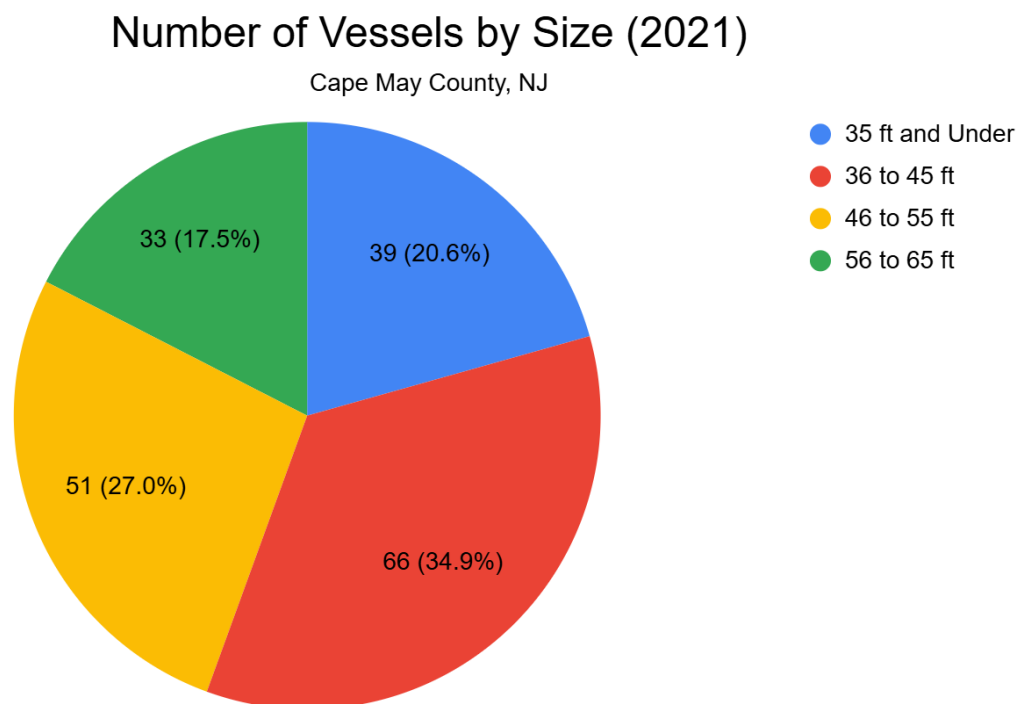


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Cape May County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

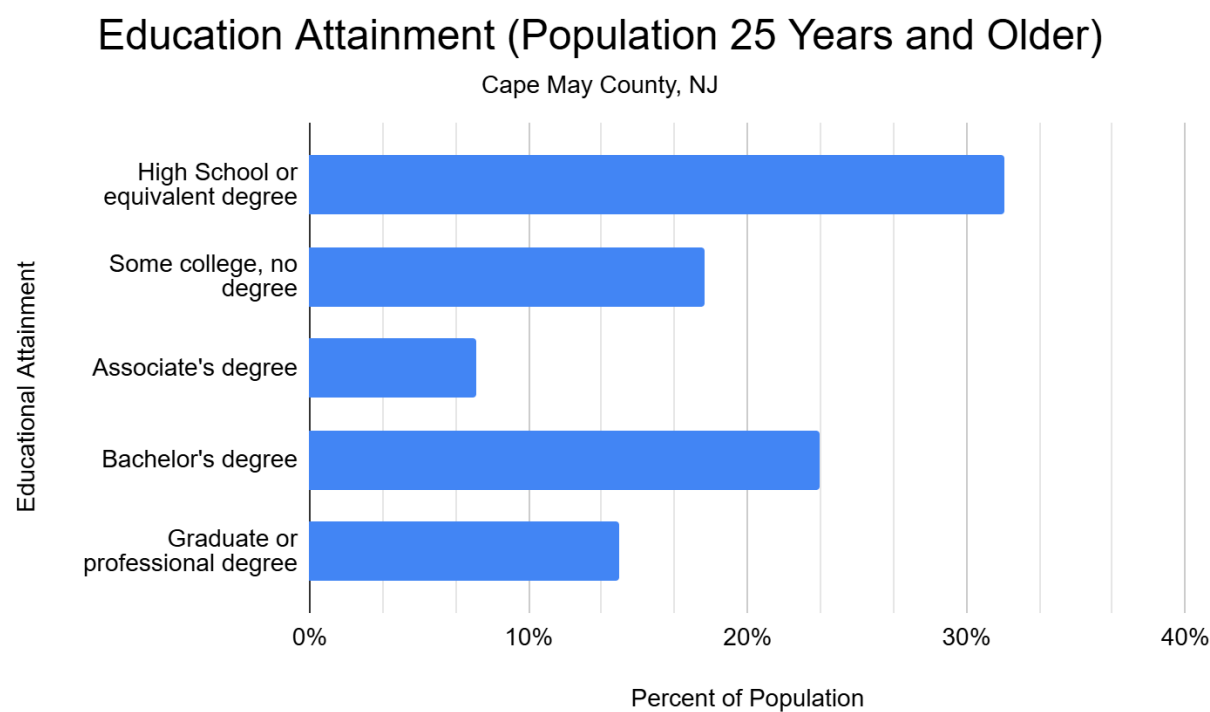


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

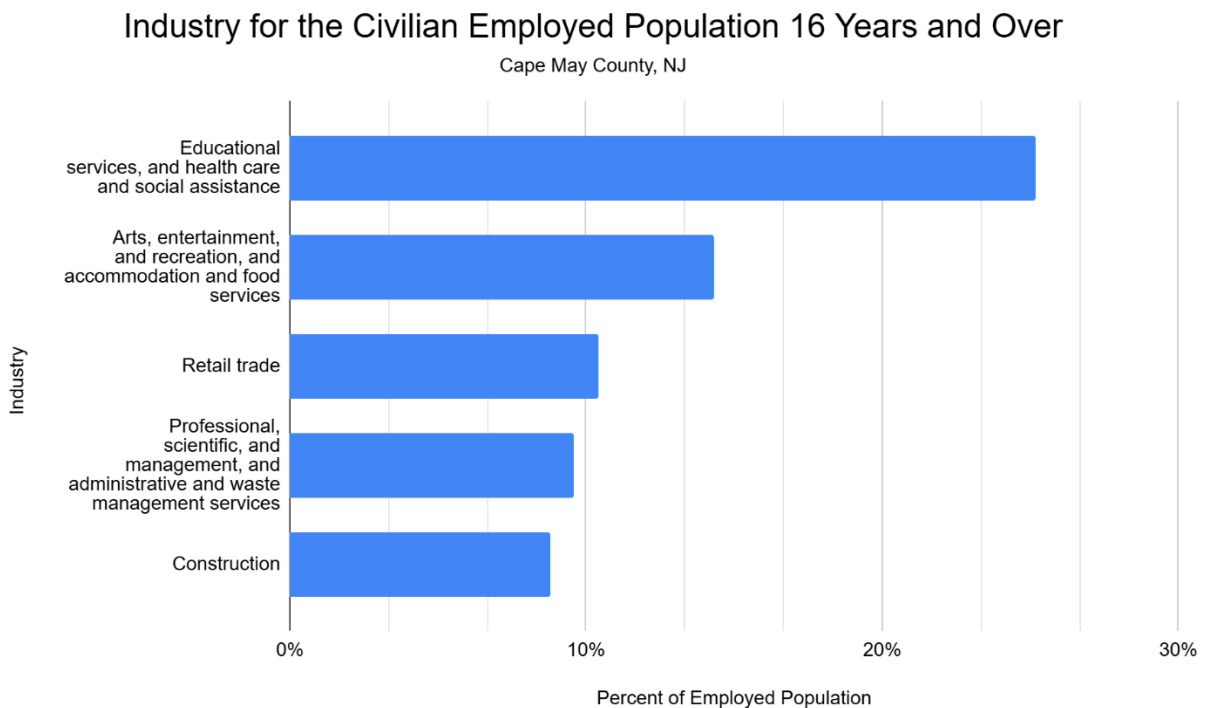
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Cape May County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 6.0%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$88,046³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 8.7%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

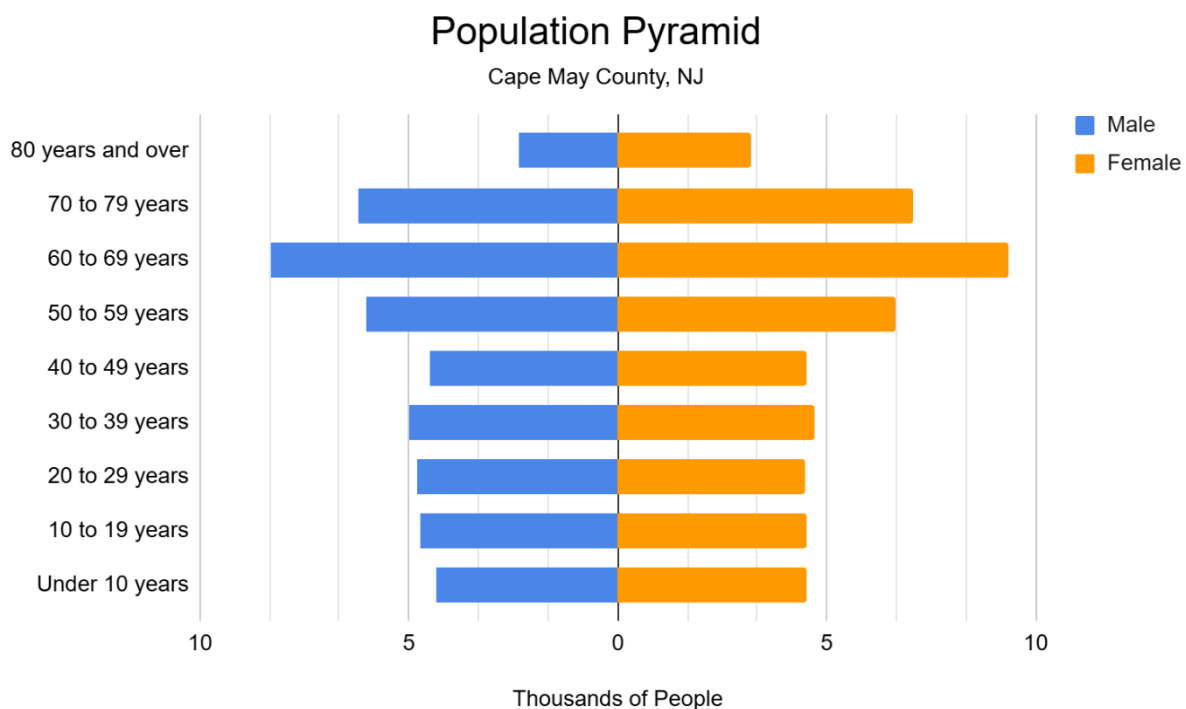
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 51.4⁵

National median: 38.7⁵

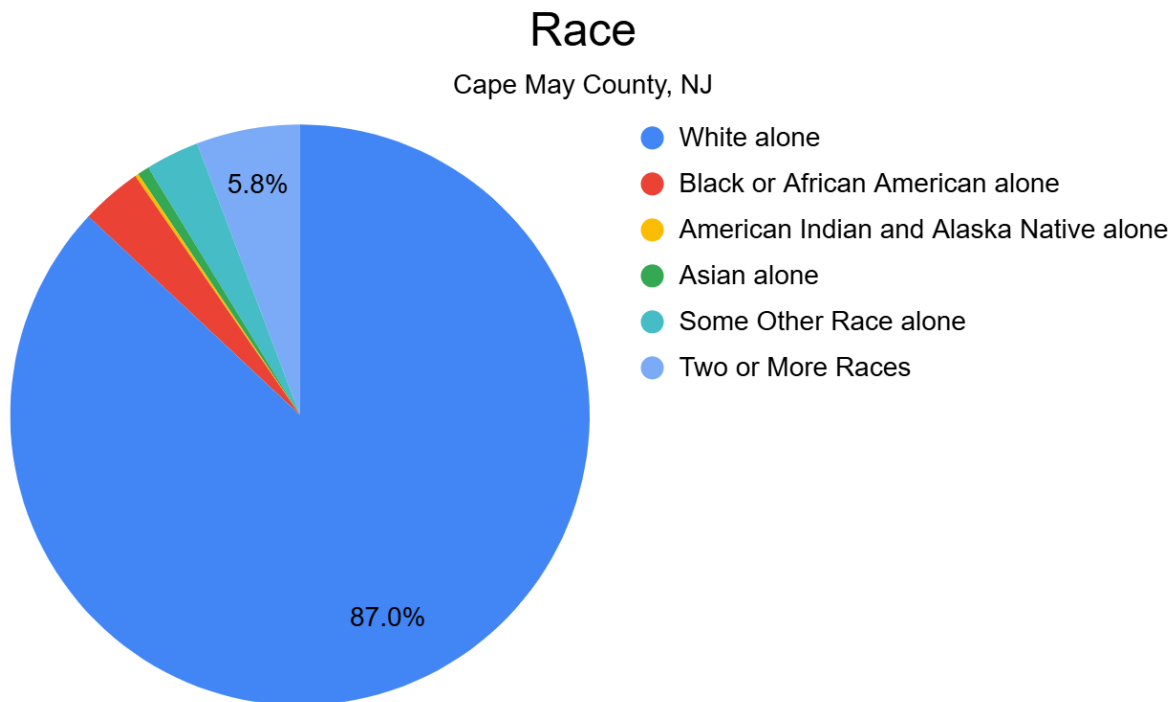


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

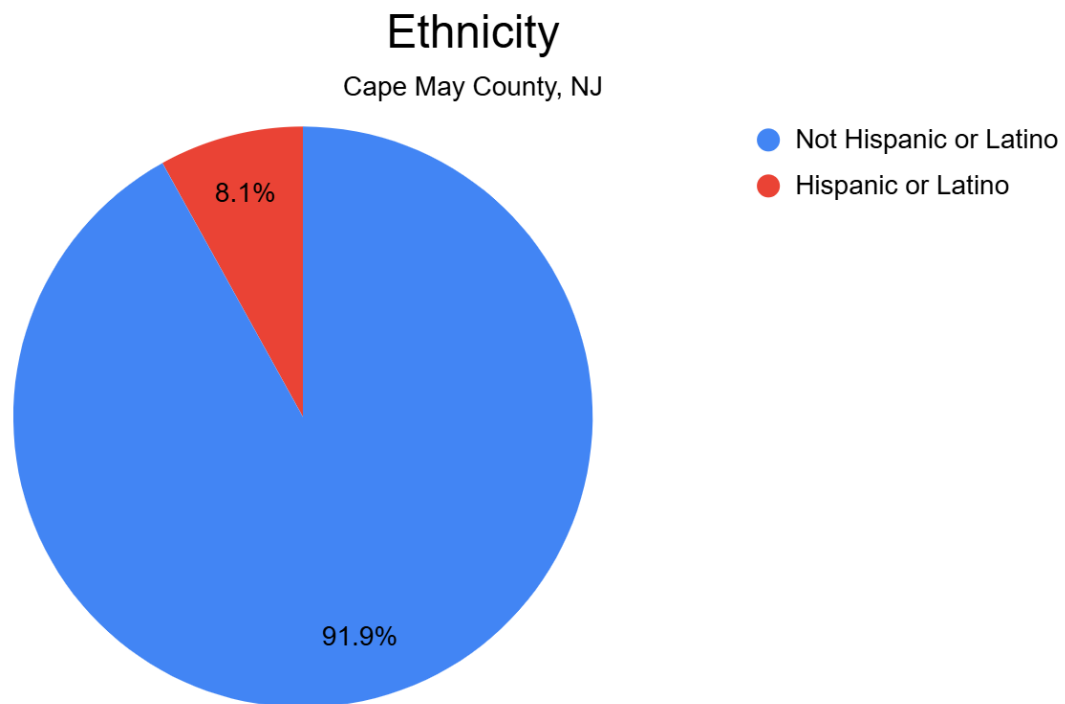
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 4.8%⁶

National Average: 13.9%⁶

Speak English less than very well: 3.1%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

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Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

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The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Cape May County

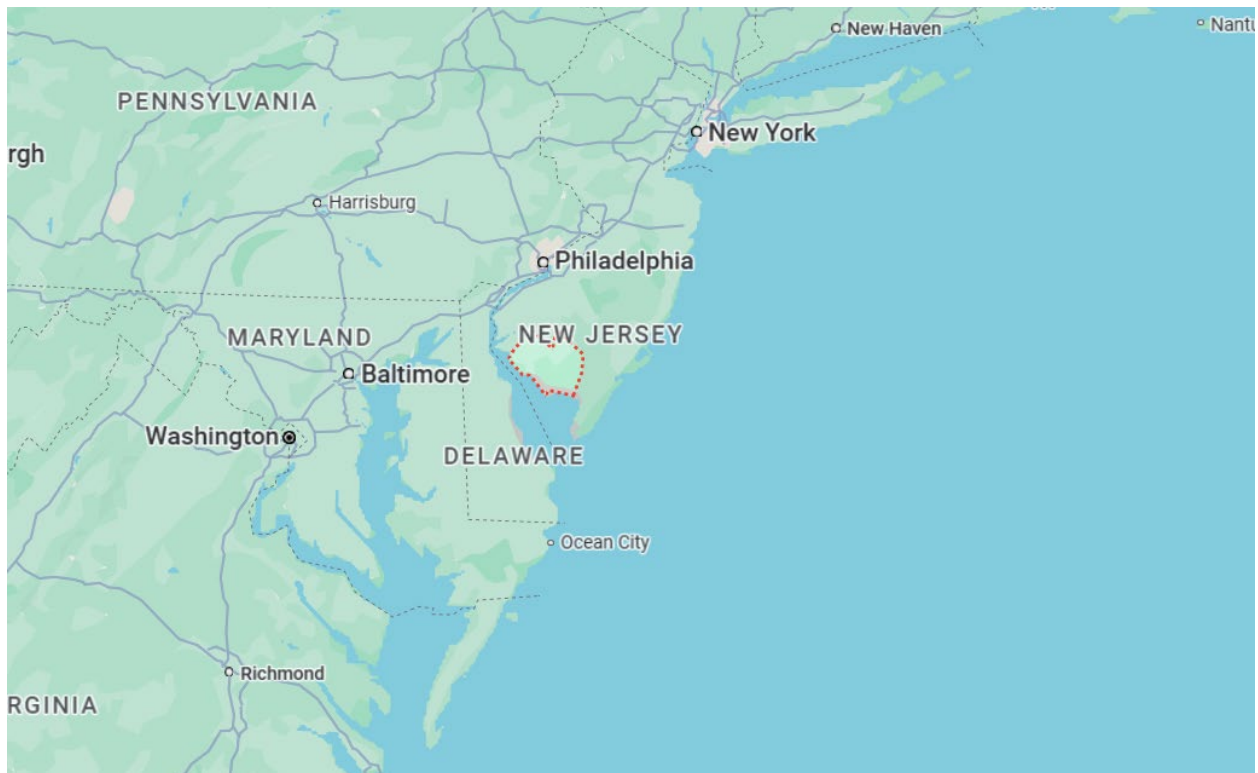
Community Name	Cape May	Wildwood	Sea Isle City	Ocean City	North Wildwood
Commercial Engagement	12.556	0.36	0.359	-0.127	-0.12
Commercial Reliance	1.259	-0.016	0.012	-0.053	-0.052
Poverty	-0.876	0.691	-0.589	-0.348	-0.574
Population Composition	-0.29	-0.06	-1.235	-0.716	-1.135
Personal Disruption	-0.899	0.761	-0.776	-0.61	-0.03
Housing Disruption	1.152	1.809	1.588	0.938	0.148
Retiree Migration	0.675	-0.482	1.979	0.924	1.898
Urban Sprawl	-0.142	-0.472	0.014	-0.117	-0.43
Labor Force	0.632	0.145	1.698	0.697	1.455
Housing Characteristics	0.08	0.326	-0.687	-0.133	0.407
Sea Level Rise Risk	0.366	0.892	1.495	1.891	1.171
Storm Surge Risk	0.726	0.876	0.893	1.124	0.891

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Cumberland County, NJ

Cumberland County has a population of 152,915¹ and a population per square mile of 316². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

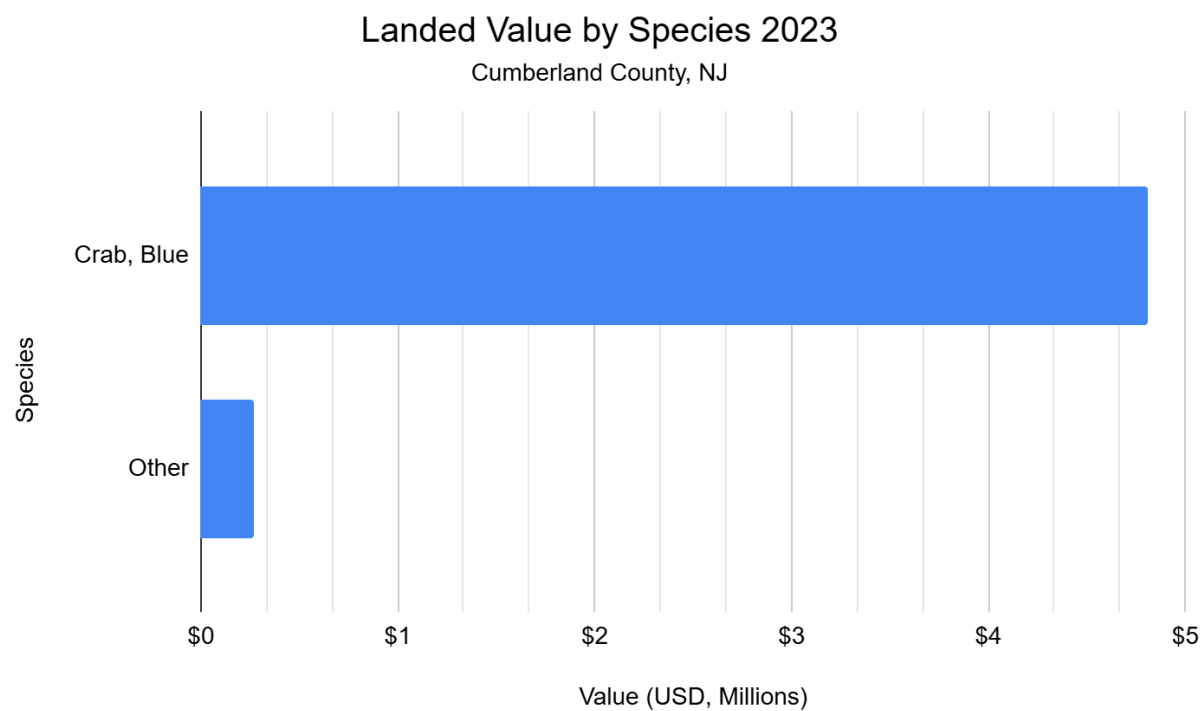
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Cumberland County?

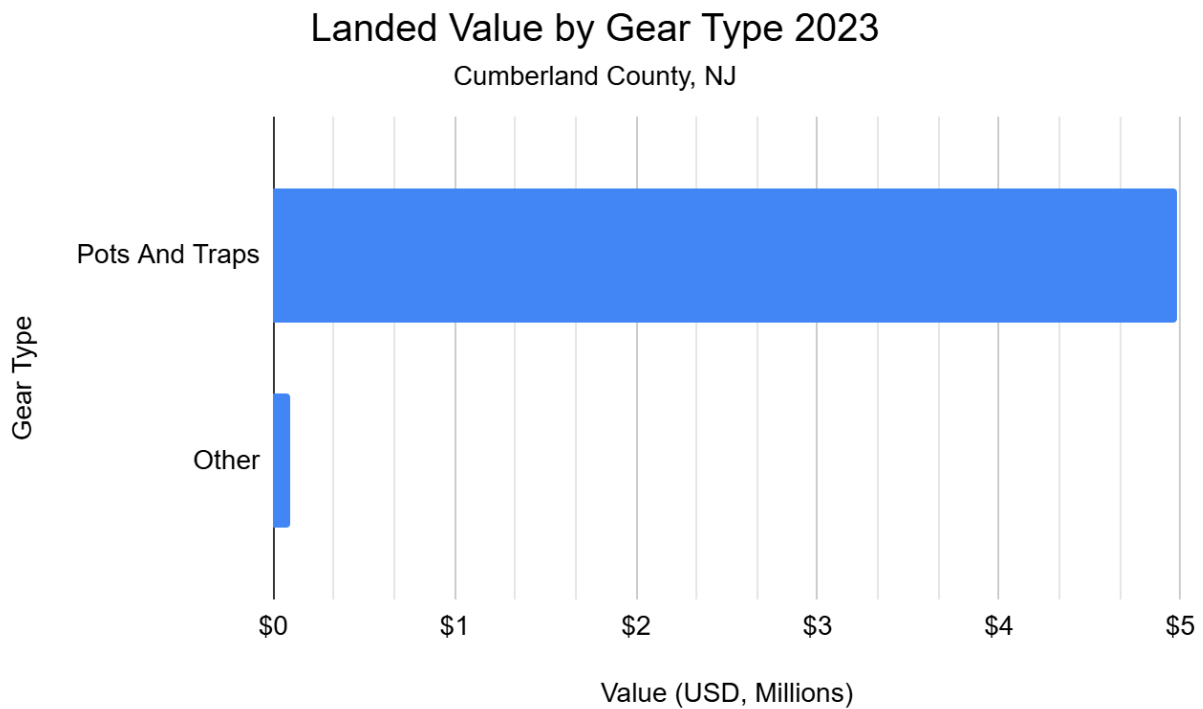
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Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

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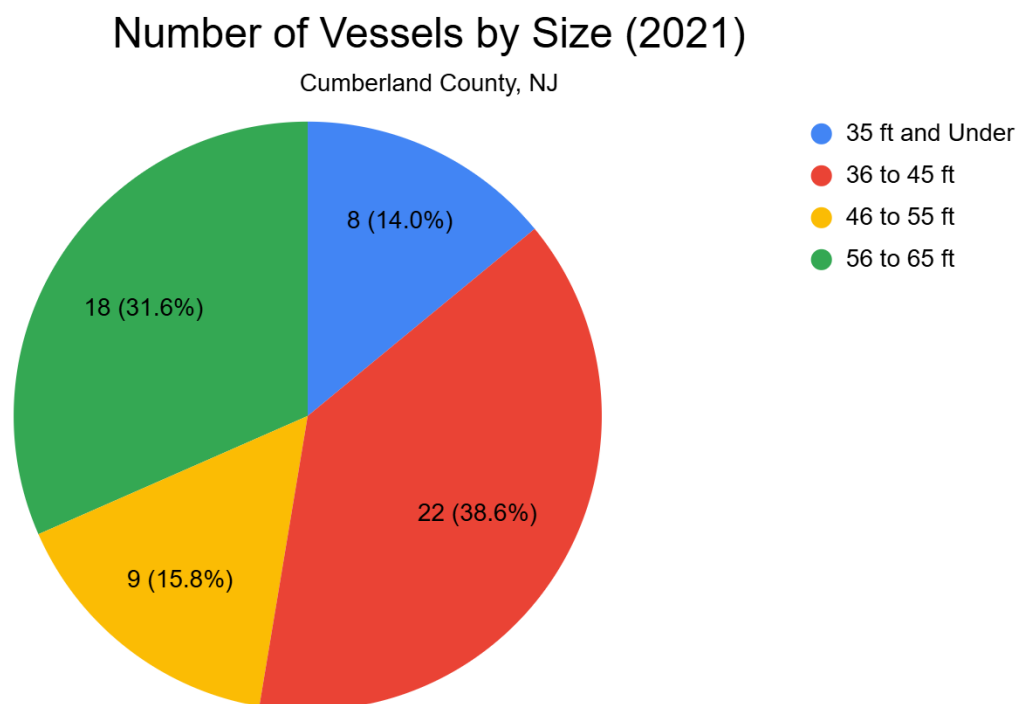


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Cumberland County?

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Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

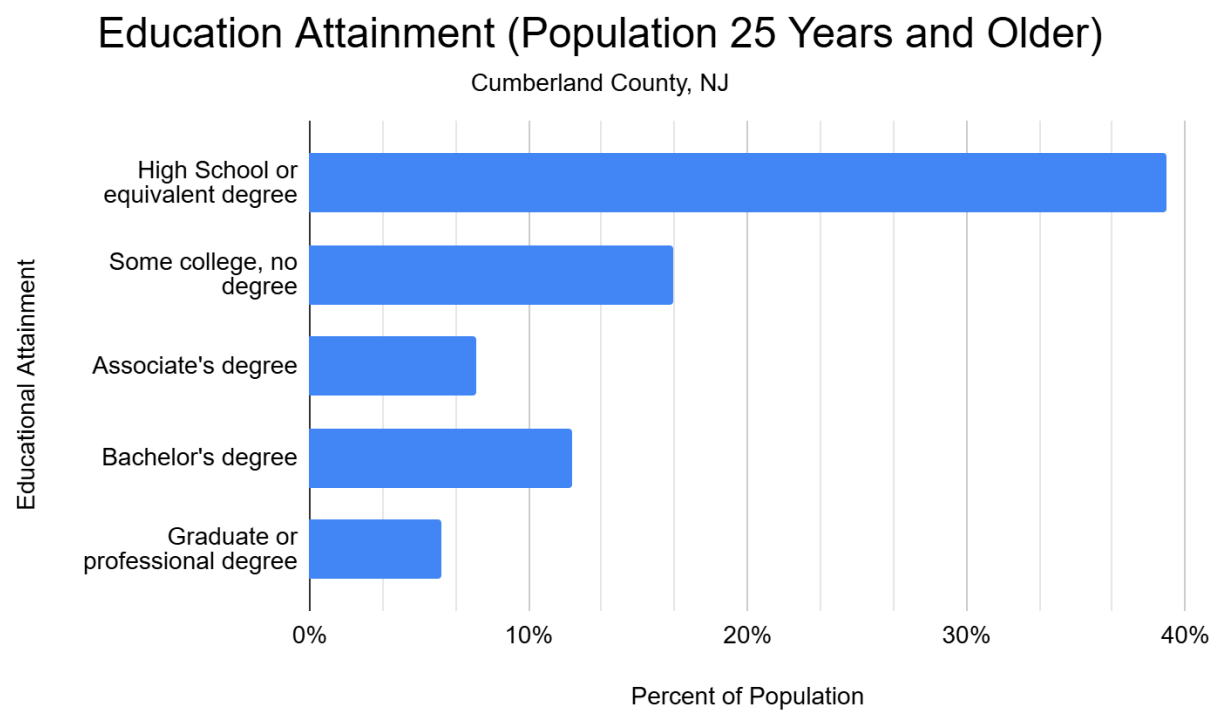


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

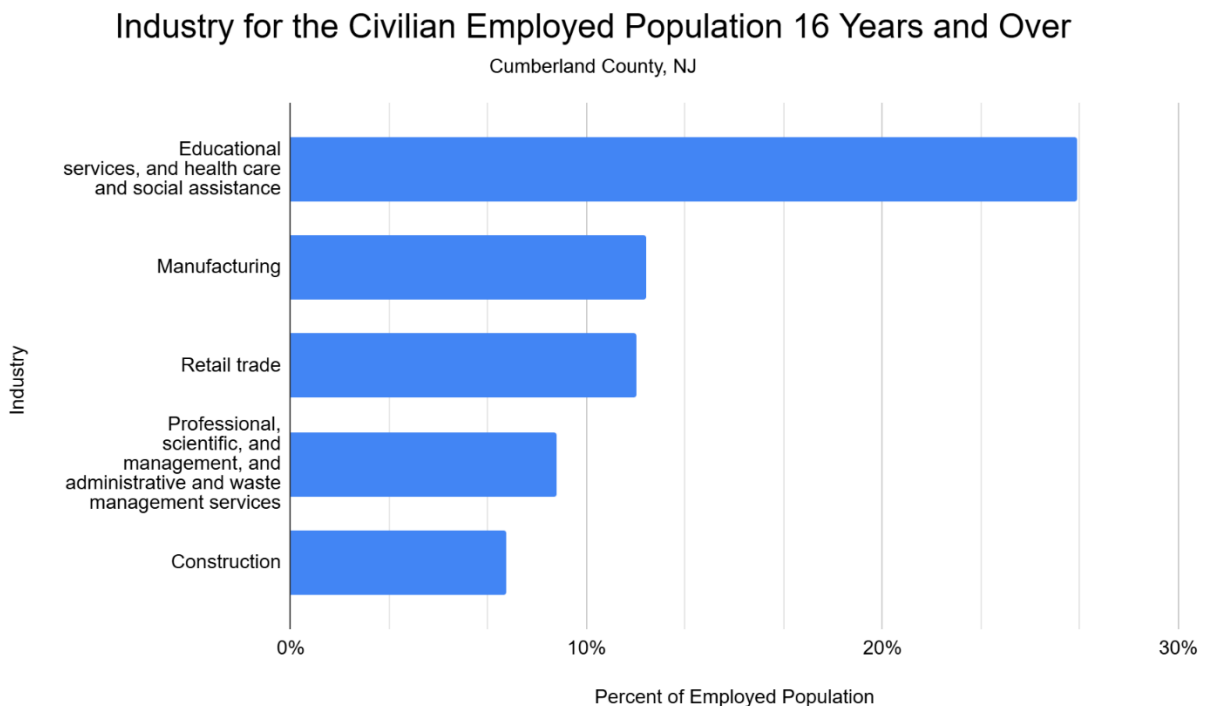
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How do people make a living in Cumberland County?

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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 7.5%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$64,499³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 16.3%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

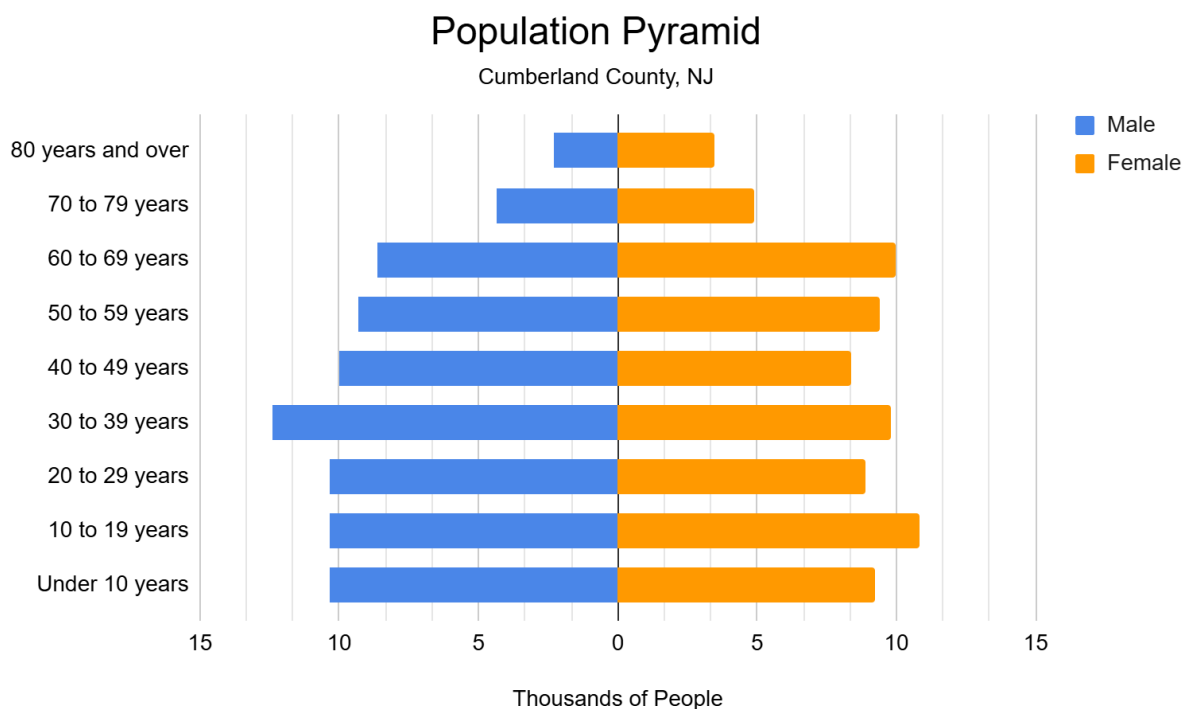
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Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 37.6⁵

National median: 38.7⁵

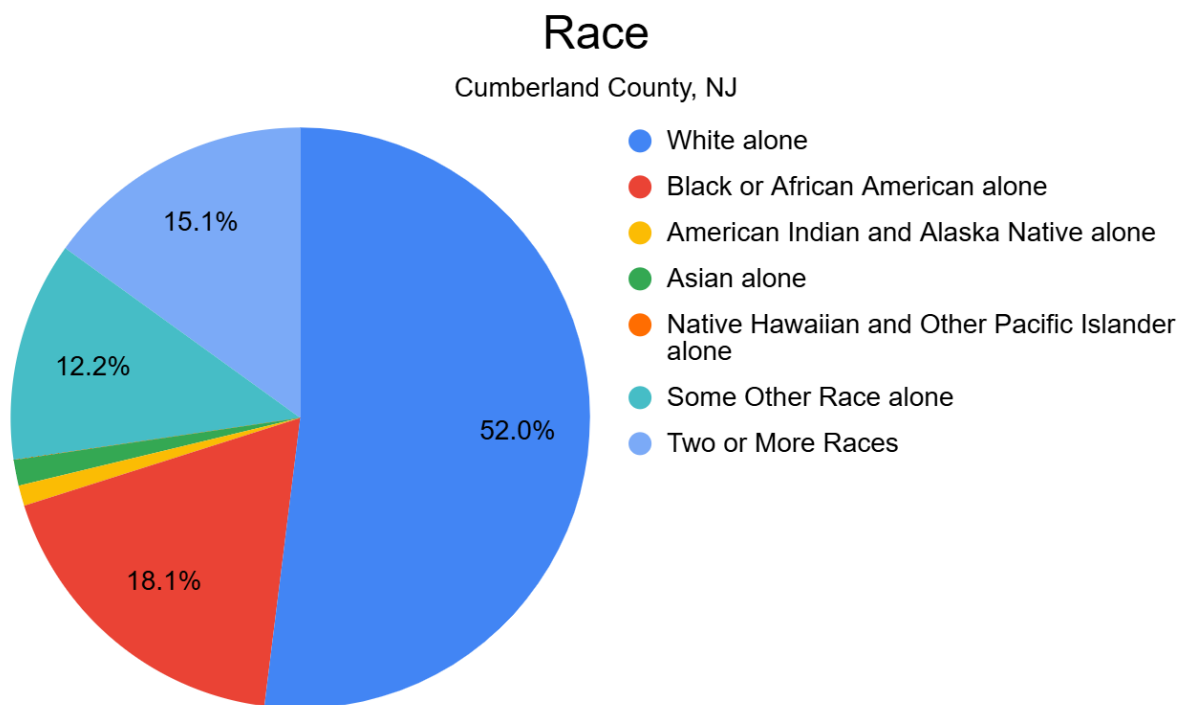


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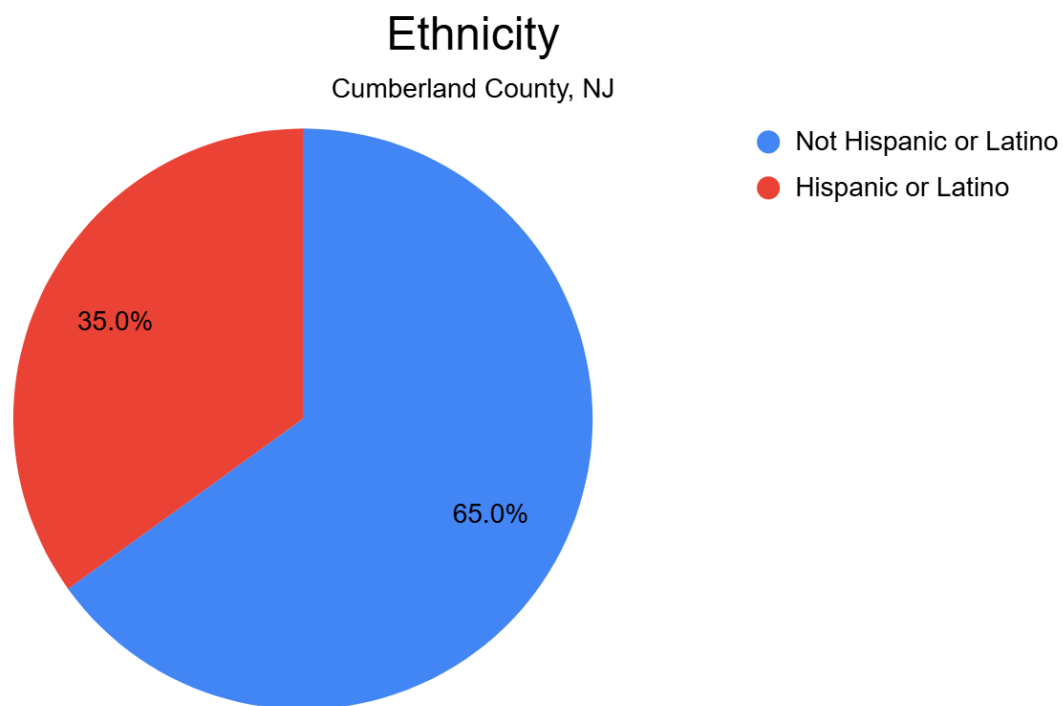
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 12.1%⁶

National Average: 13.9%⁶

Speak English less than very well: 13.5%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

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Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Cumberland County

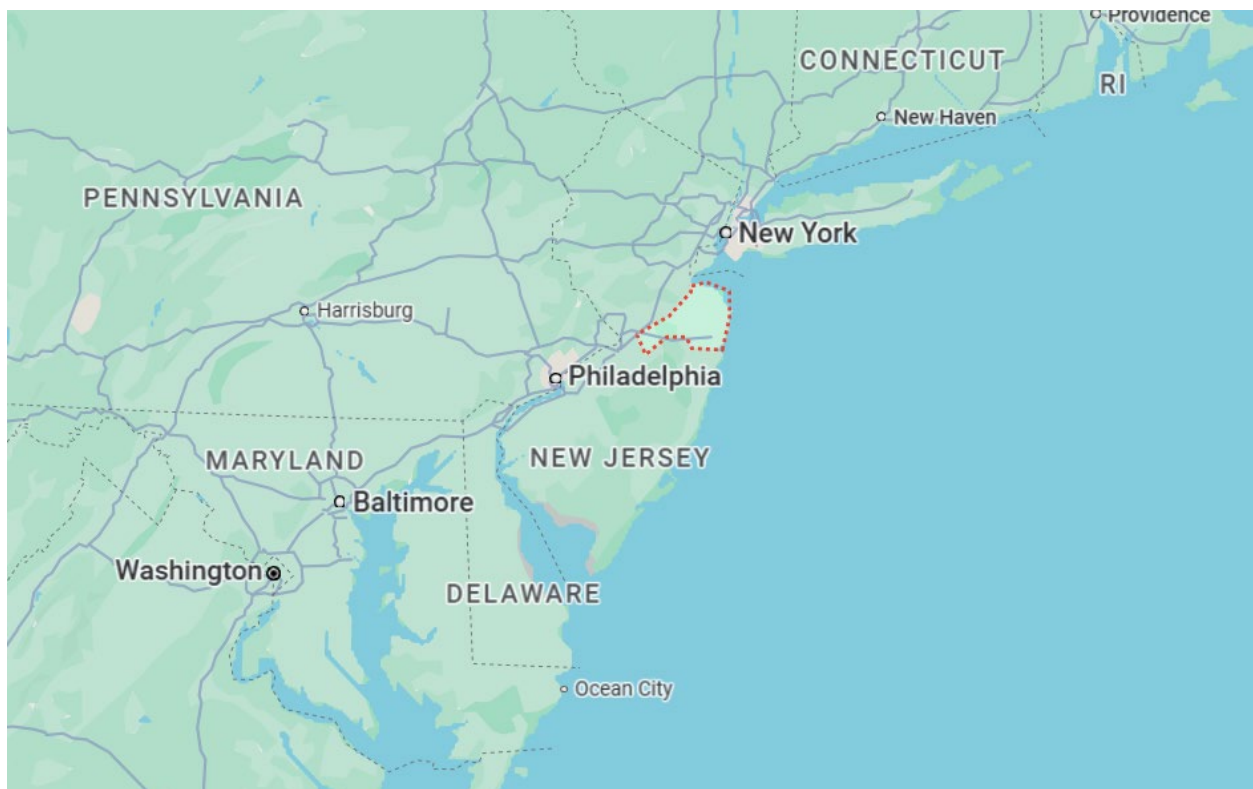
Community Name	Downe / Fortescue / Newport	Commercial / Port Norris	Lakeside- Beebe Run	Sheppards Mill	Marlboro
Commercial Engagement	-0.127	-0.028	-0.153	-0.153	-0.153
Commercial Reliance	-0.05	-0.048	-0.053	-0.053	-0.053
Poverty	0.193	0.608	-0.708	-1.066	-1.066
Population Composition	-0.712	-0.122	-0.197	-1.587	-0.723
Personal Disruption	0.32	0.614	-0.671	6.467	0.682
Housing Disruption	-0.126	-0.392	NA	NA	NA
Retiree Migration	0.948	-0.013	-1.573	-1.559	-0.273
Urban Sprawl	NA	NA	NA	NA	NA
Labor Force	1.112	0.546	-1.962	-1.044	0.209
Housing Characteristics	0.998	0.691	NA	NA	NA
Sea Level Rise Risk	4.358	2.168	-0.346	-0.312	-0.346
Storm Surge Risk	2.232	0.742	NA	NA	NA

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Monmouth County, NJ

Monmouth County has a population of 643,615¹ and a population per square mile of 1,375². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

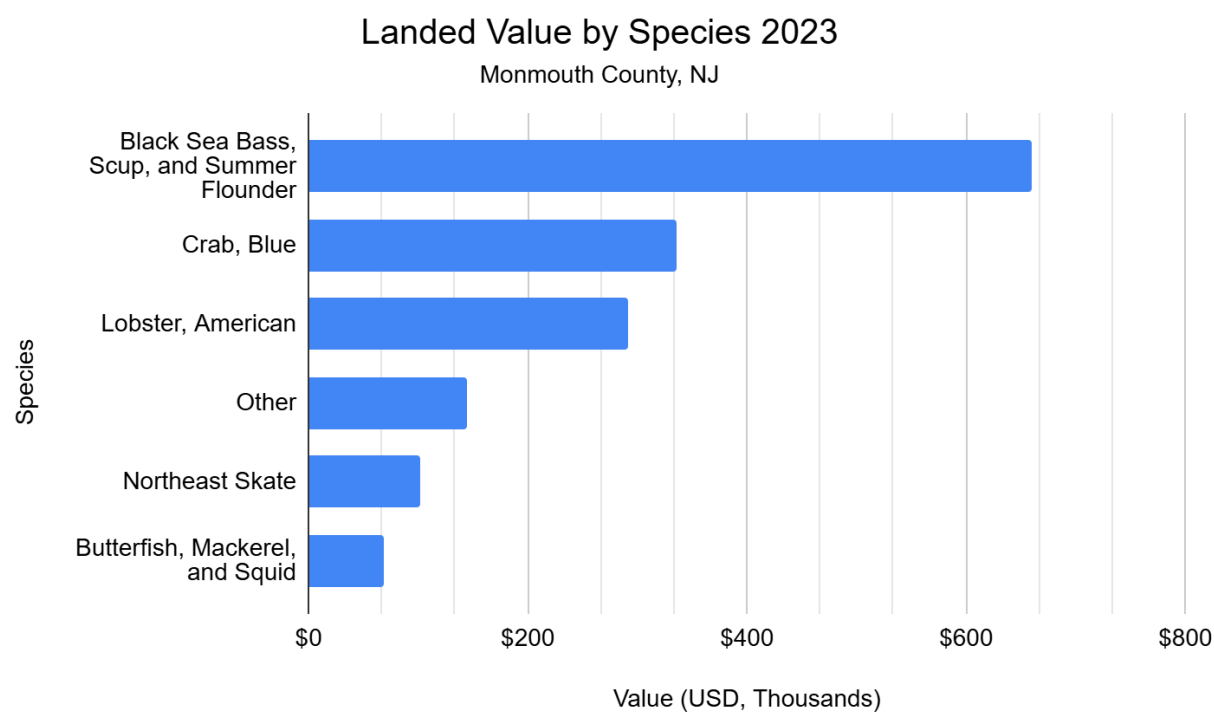
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Monmouth County?

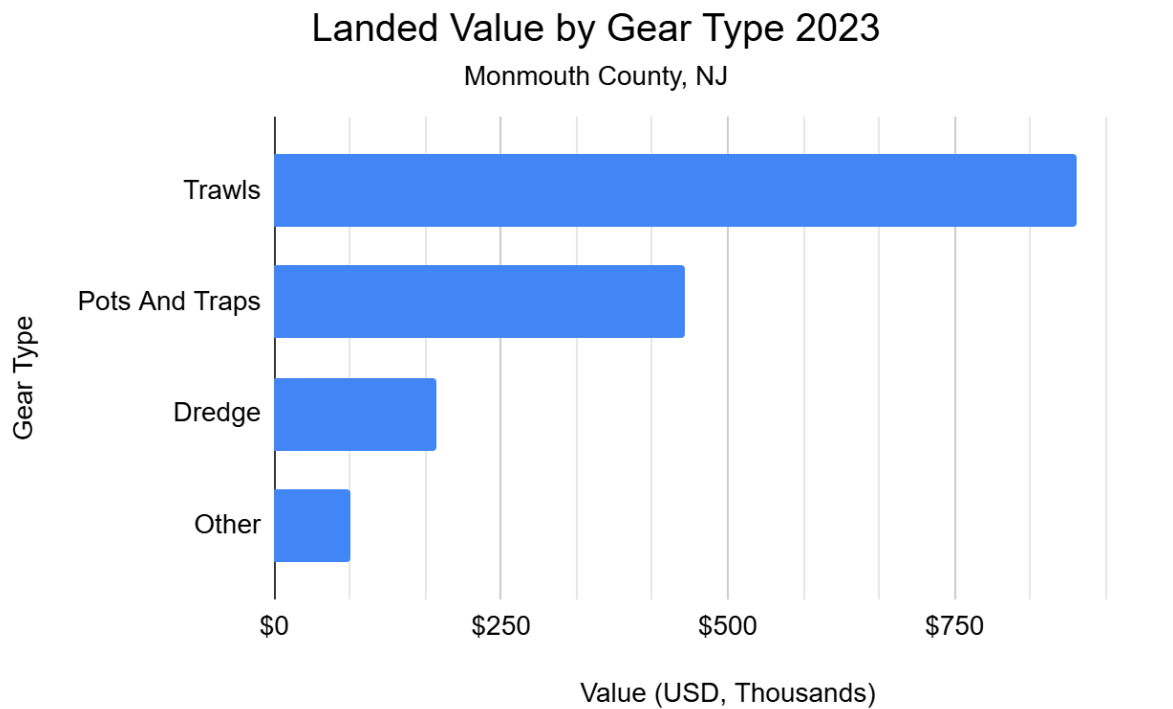
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Monmouth County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

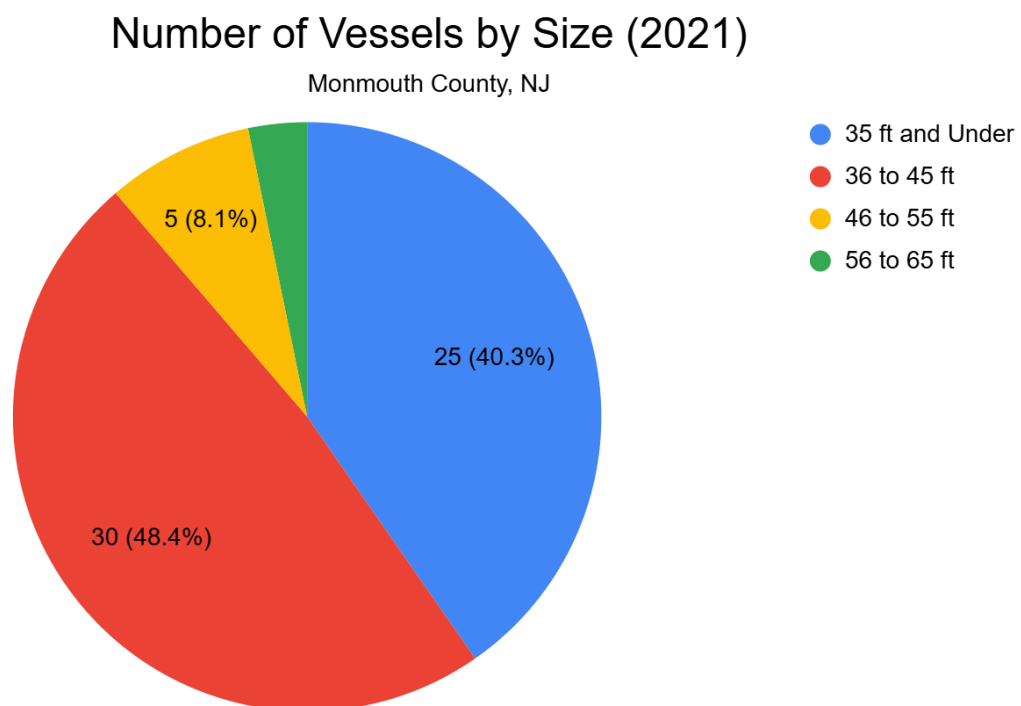


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Monmouth County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

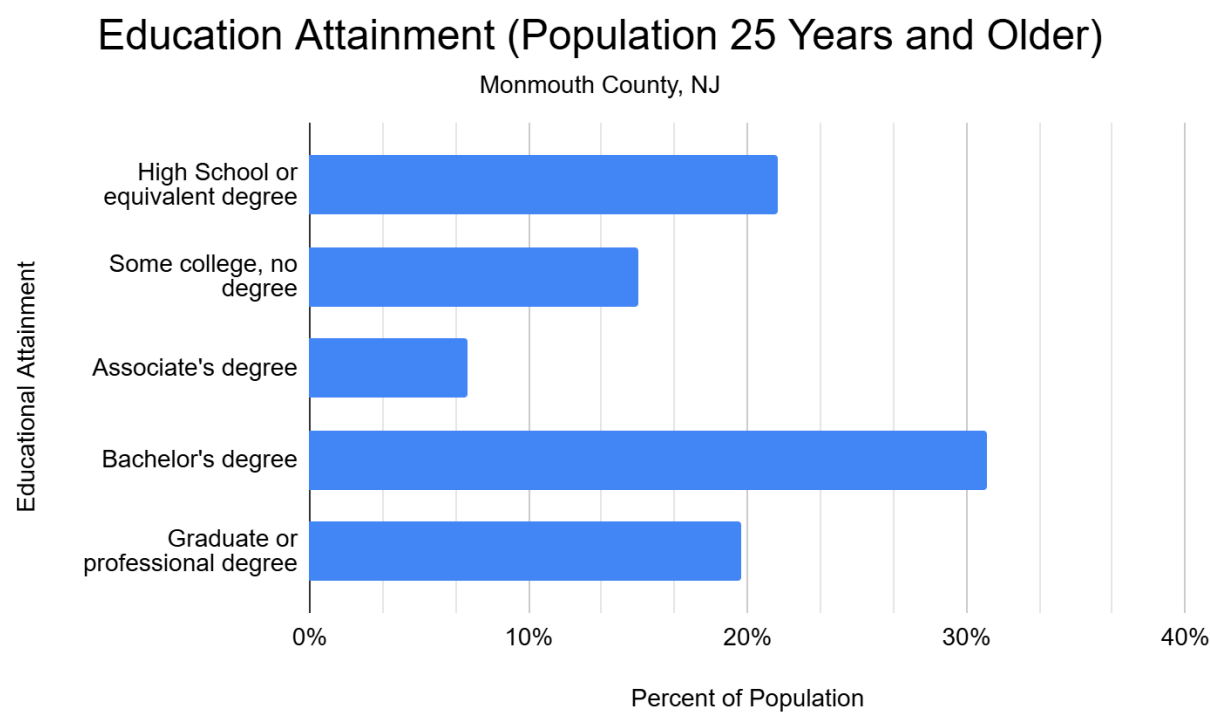


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

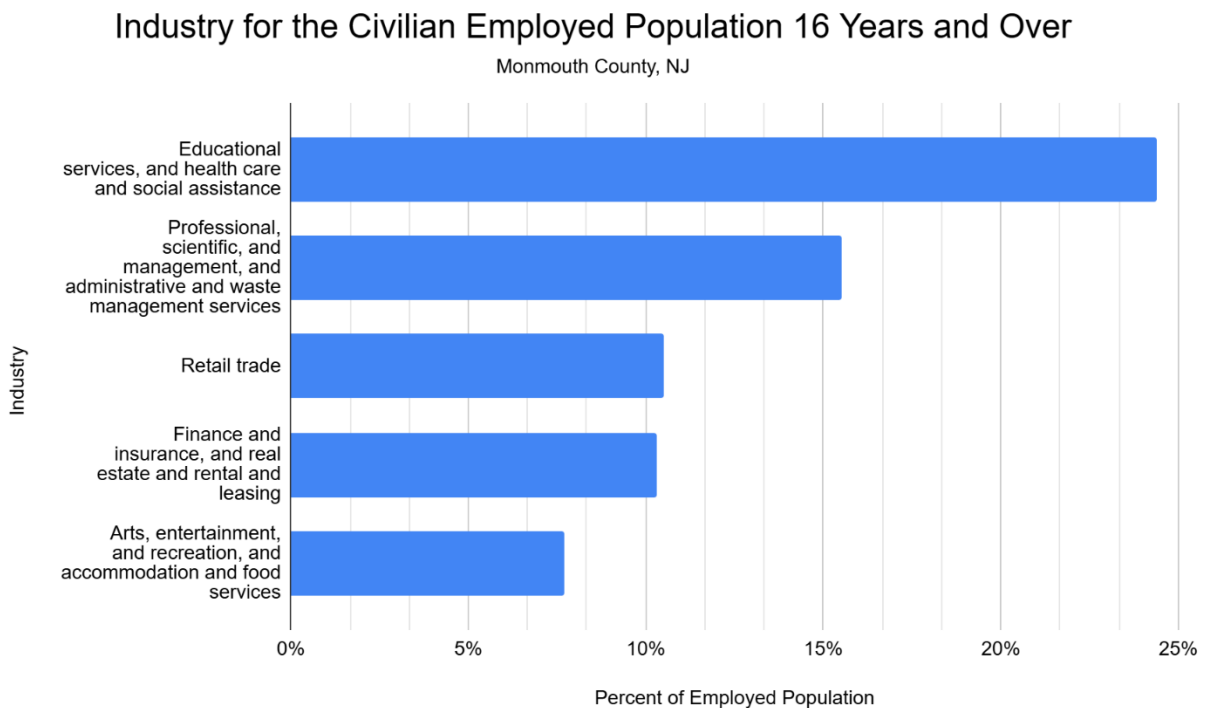
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Monmouth County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 5.2%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$122,727³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 6.4%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

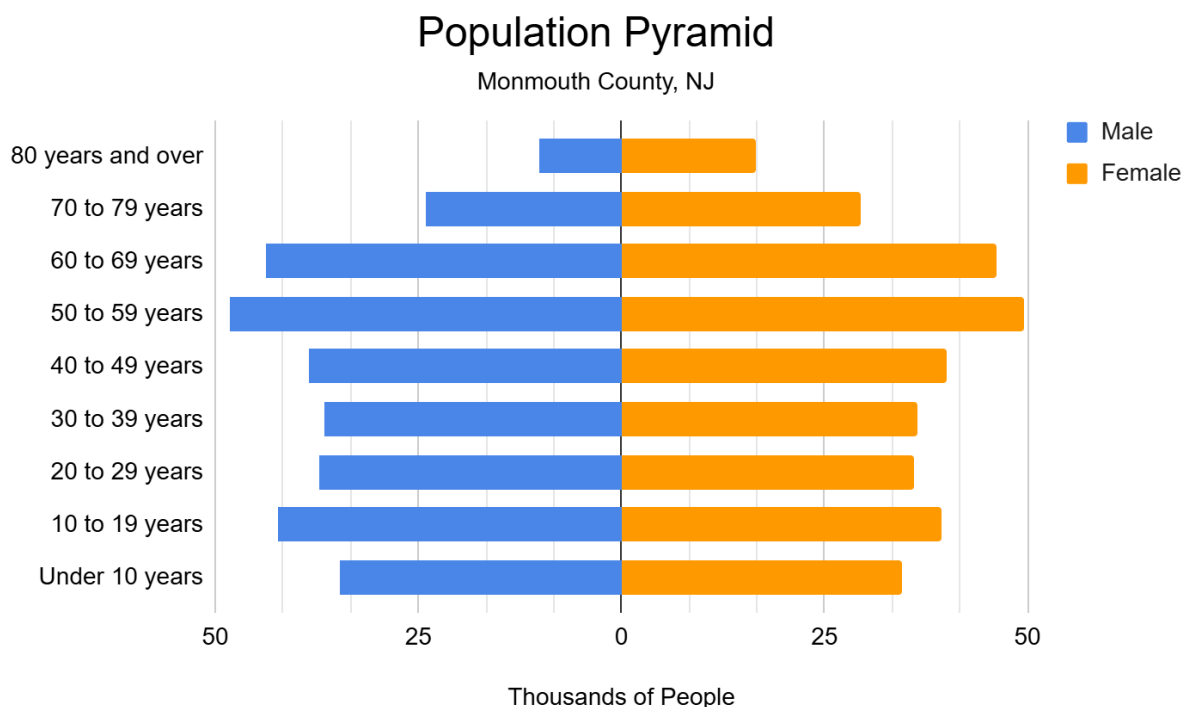
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 43.2⁵

National median: 38.7⁵

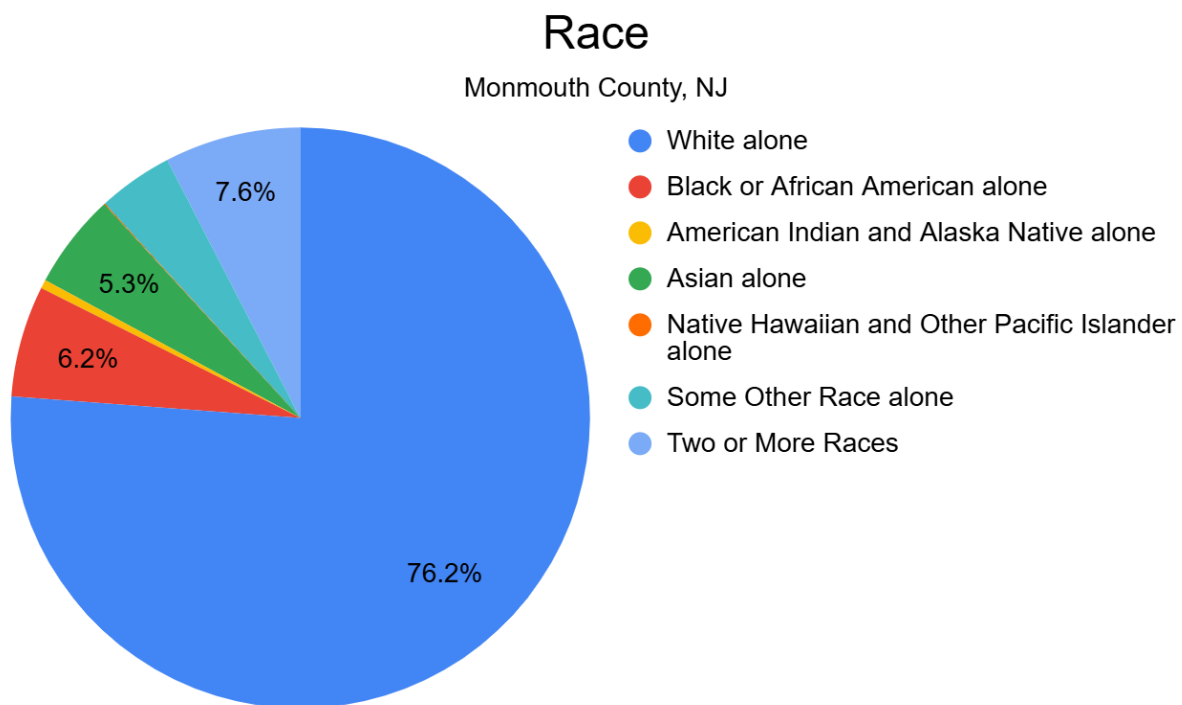


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

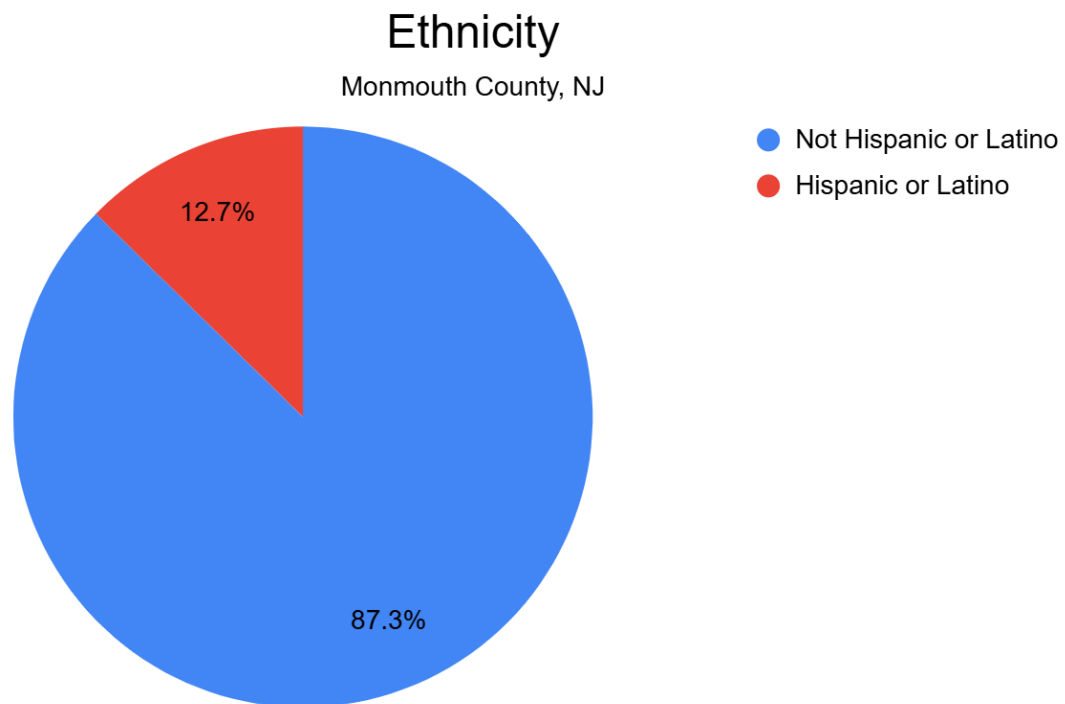
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 13.6%⁶

National Average: 13.9%⁶

Speak English less than very well: 6.3%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Monmouth County

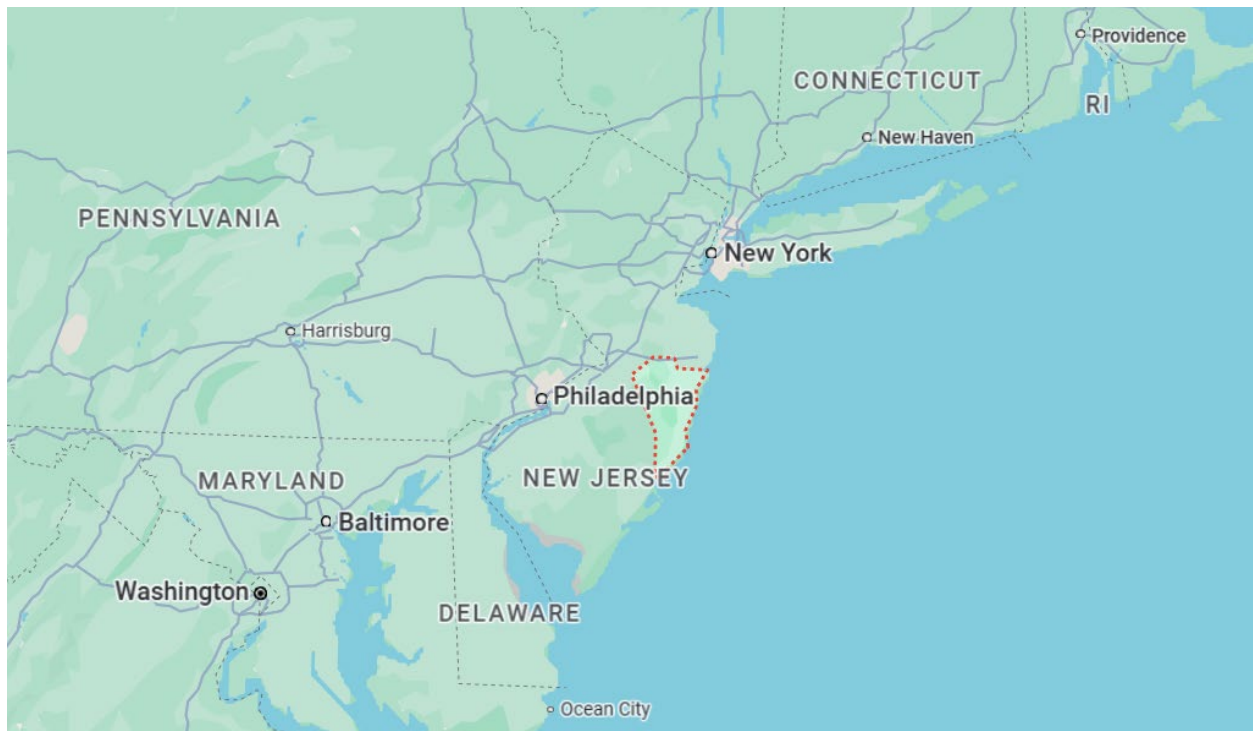
Community Name	Belford	Belmar / South Belmar	Neptune	Keyport	Manasquan
Commercial Engagement	0.917	0.51	0.1	-0.061	0.078
Commercial Reliance	0.068	-0.033	-0.051	-0.051	-0.037
Poverty	-0.726	-0.288	-0.058	-0.045	-0.789
Population Composition	-0.514	-0.293	0.185	0.351	-0.851
Personal Disruption	-0.296	0.048	-0.116	-0.165	-0.758
Housing Disruption	1.527	1.896	0.097	-0.02	1.023
Retiree Migration	-0.782	-0.579	-0.1	-0.016	-0.467
Urban Sprawl	0.086	0.664	NA	0.267	0.655
Labor Force	-0.764	-0.669	-0.284	0.095	-0.753
Housing Characteristics	-1.096	-0.313	-0.123	0.186	-0.737
Sea Level Rise Risk	0.749	0.673	-0.005	0.014	0.562
Storm Surge Risk	0.703	0.315	-0.496	0.067	0.263

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Ocean County, NJ

Ocean County has a population of 646,434¹ and a population per square mile of 1,029². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

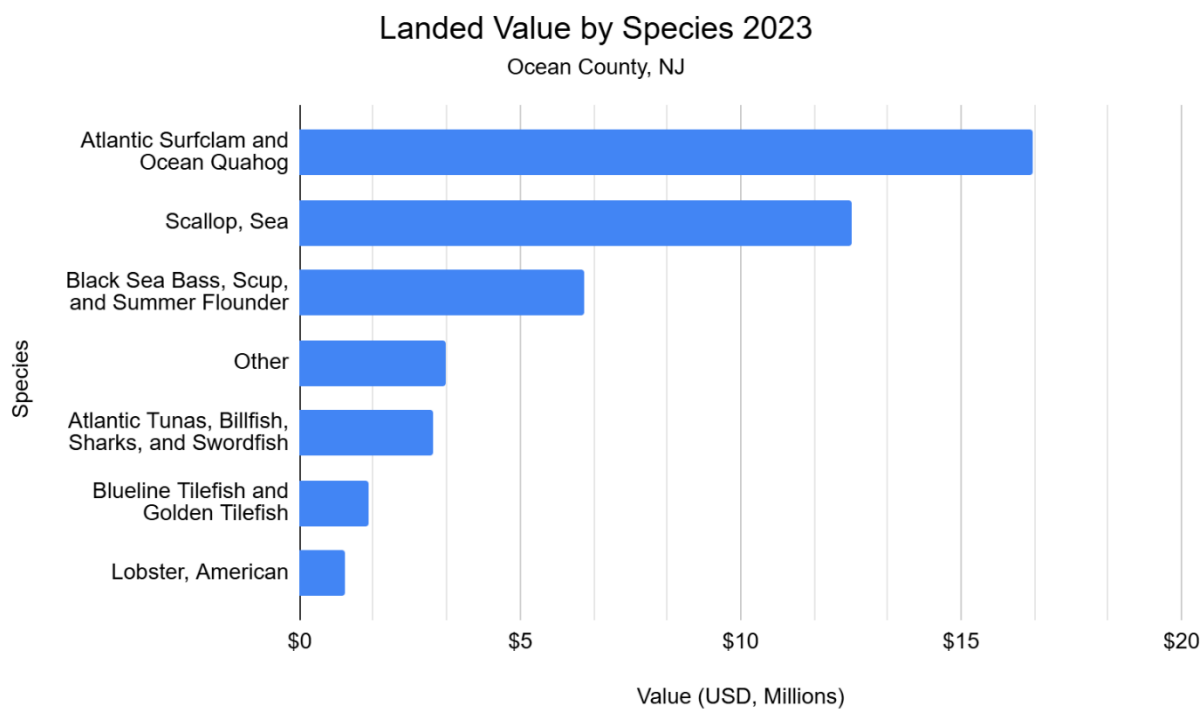
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Ocean County?

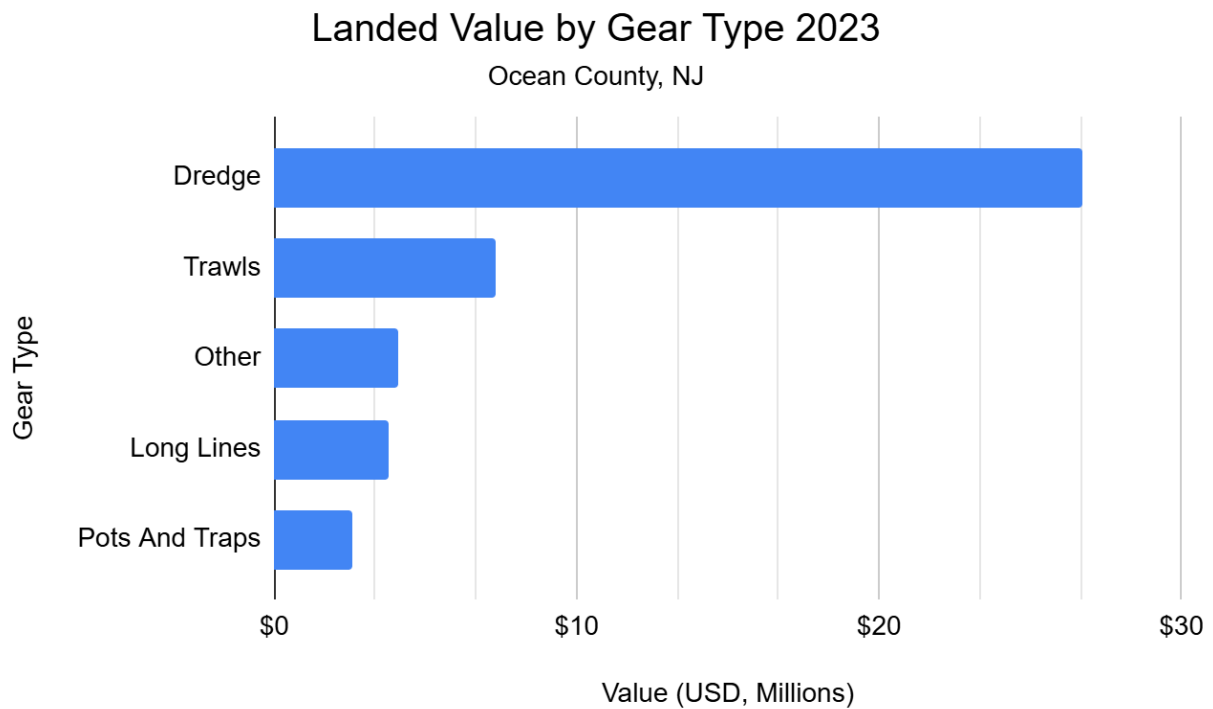
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Ocean County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

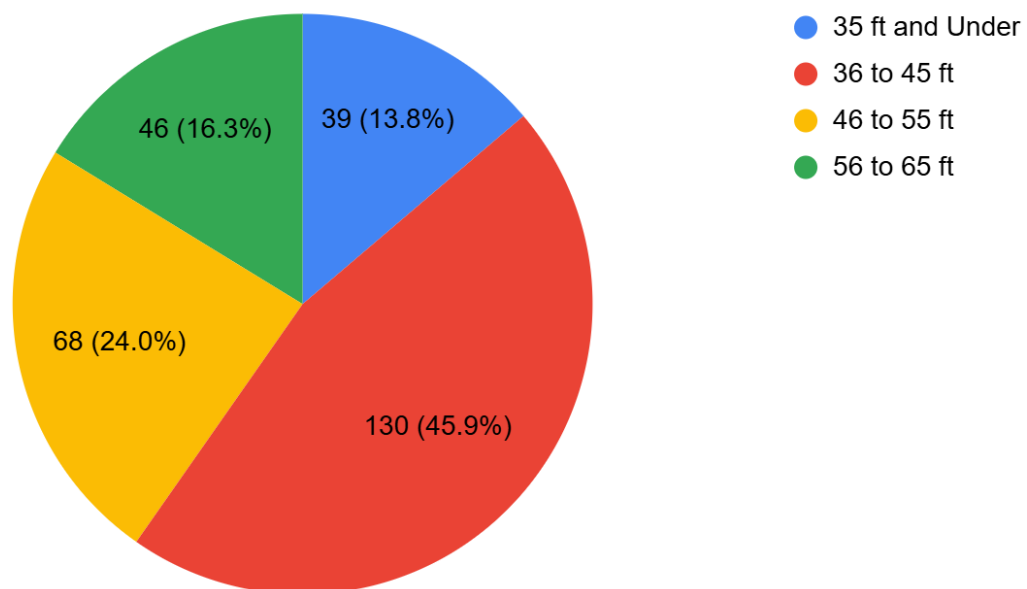
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The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

Number of Vessels by Size (2021)

Ocean County, NJ

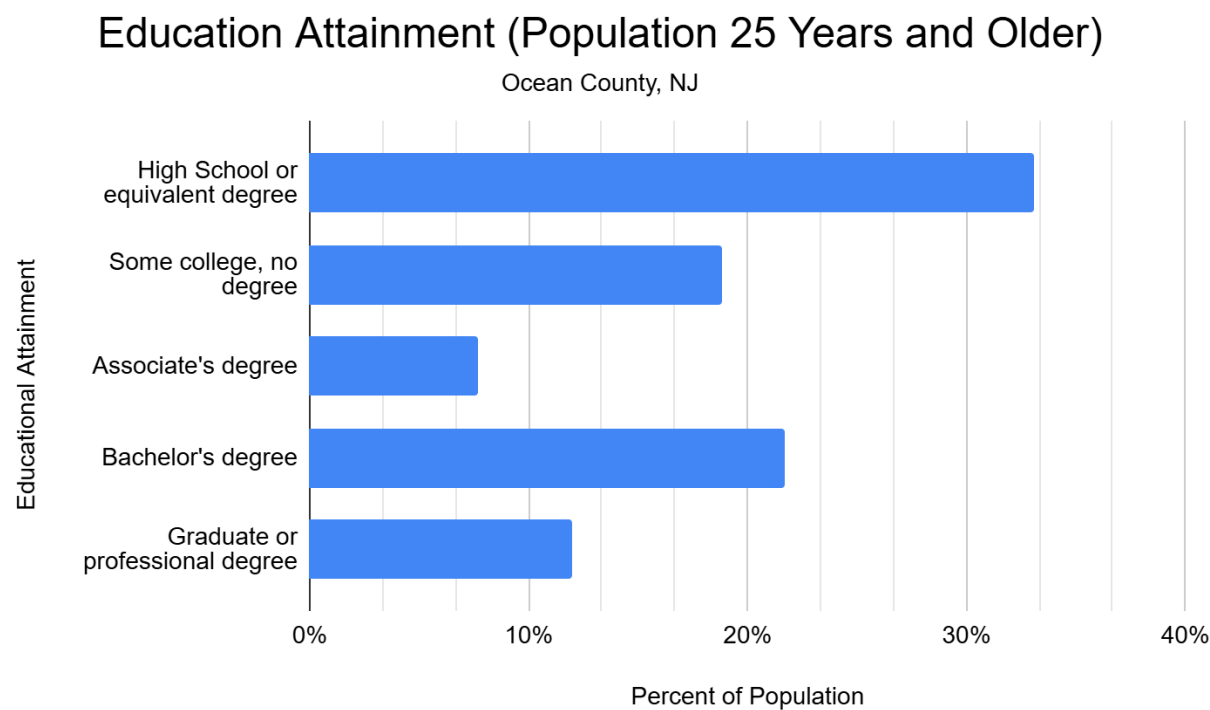


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

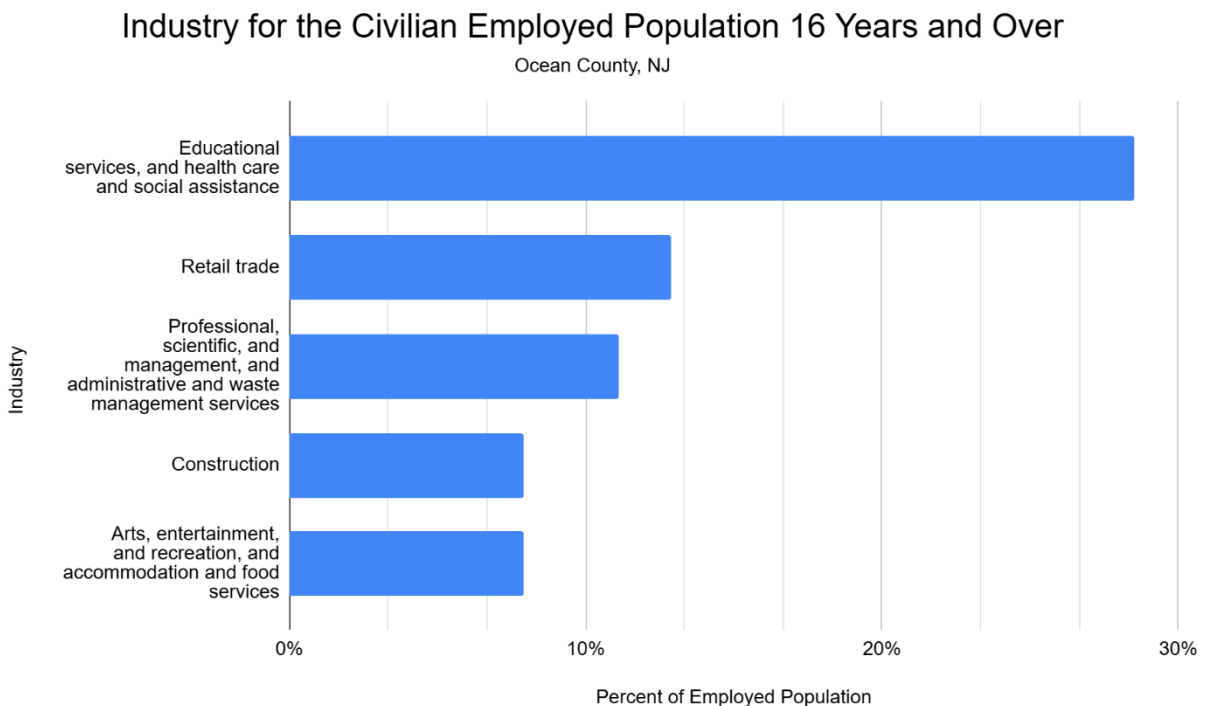
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How do people make a living in Ocean County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 5.5%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$86,411³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 10.4%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

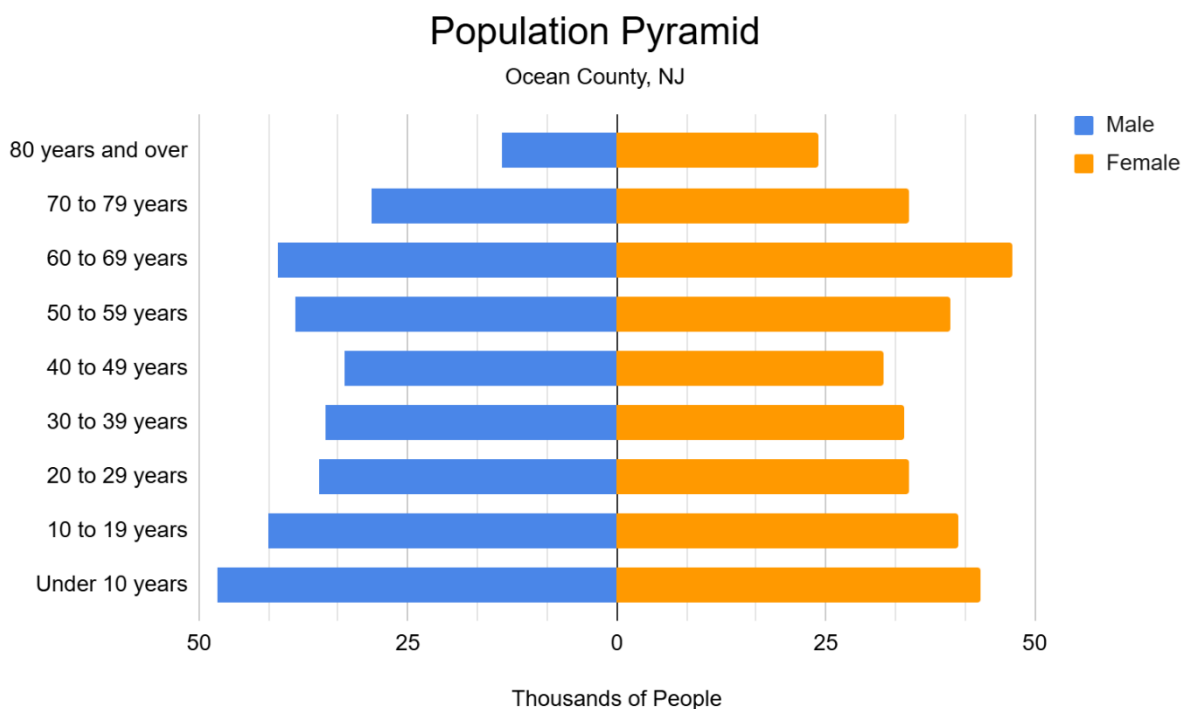
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

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Median age: 41.4⁵

National median: 38.7⁵

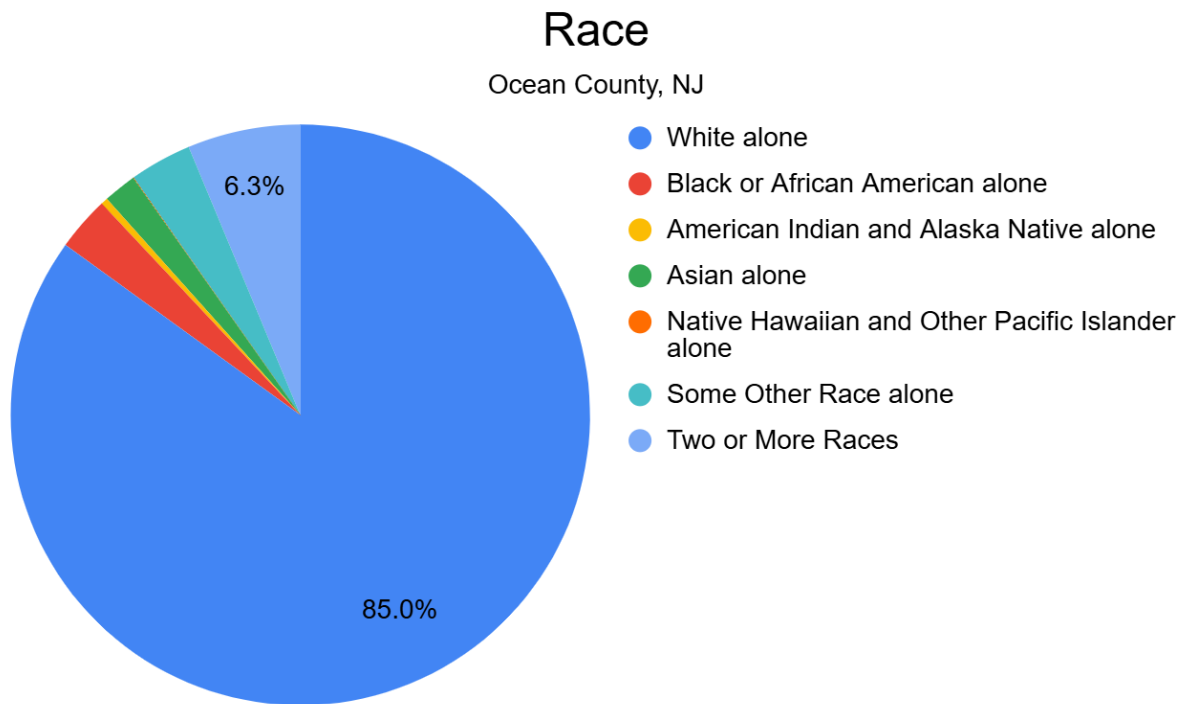


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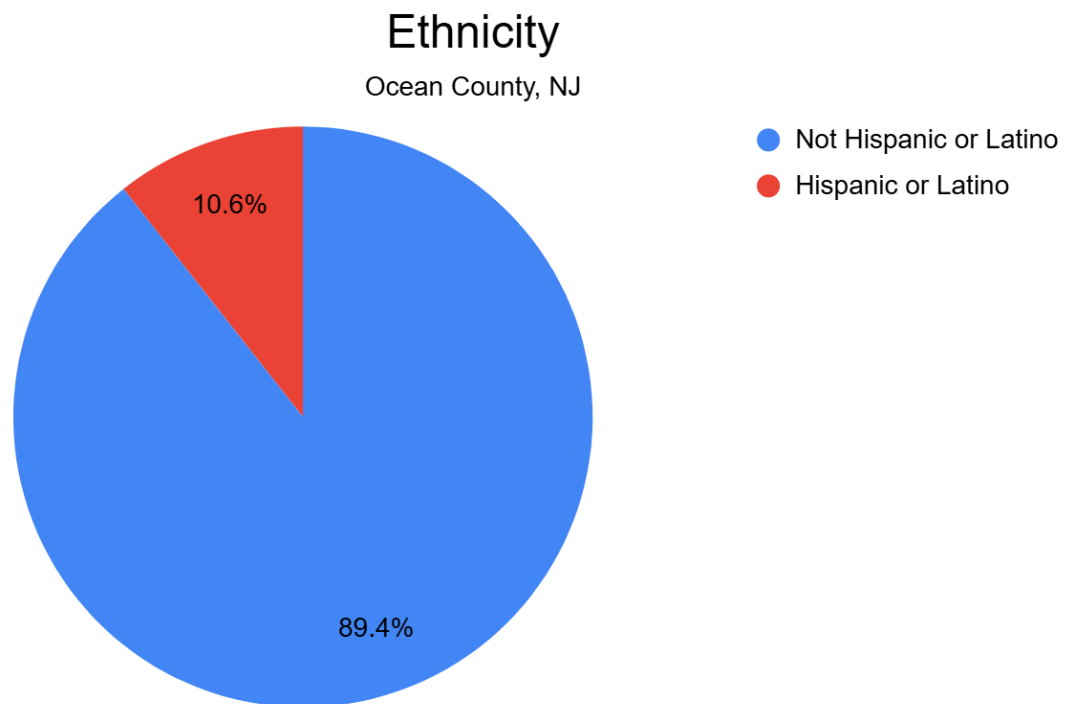
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 8.0%⁶

National Average: 13.9%⁶

Speak English less than very well: 4.1%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

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Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Ocean County

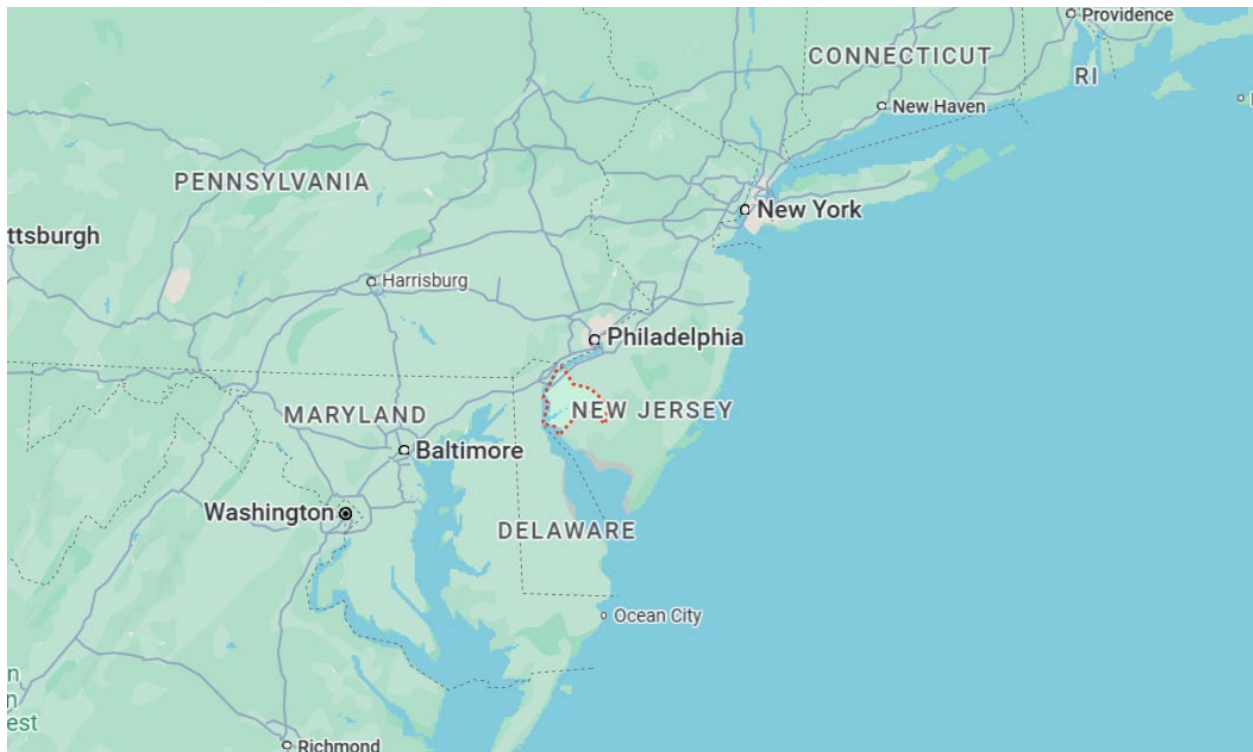
Community Name	Point Pleasant	Barnegat Light	Point Pleasant Beach	Brick	Barnegat
Commercial Engagement	-0.153	3.469	4.742	0.017	0.009
Commercial Reliance	-0.053	2.321	0.33	-0.053	-0.043
Poverty	-0.719	-0.882	-0.842	-0.583	-0.482
Population Composition	-0.502	-1.052	-0.85	-0.417	-0.382
Personal Disruption	-0.754	-0.512	-0.604	-0.401	-0.834
Housing Disruption	0.194	0.877	1.006	0.061	0.197
Retiree Migration	-0.689	1.767	0.449	0.007	-0.668
Urban Sprawl	0.439	0.383	0.495	NA	-0.114
Labor Force	-0.995	1.731	0.16	-0.208	-0.831
Housing Characteristics	-0.545	NA	-0.649	-0.265	-0.658
Sea Level Rise Risk	0.377	0.609	0.759	0.6	0.043
Storm Surge Risk	0.398	0.523	0.636	0.572	-0.296

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Salem County, NJ

Salem County has a population of 64,973¹ and a population per square mile of 196². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

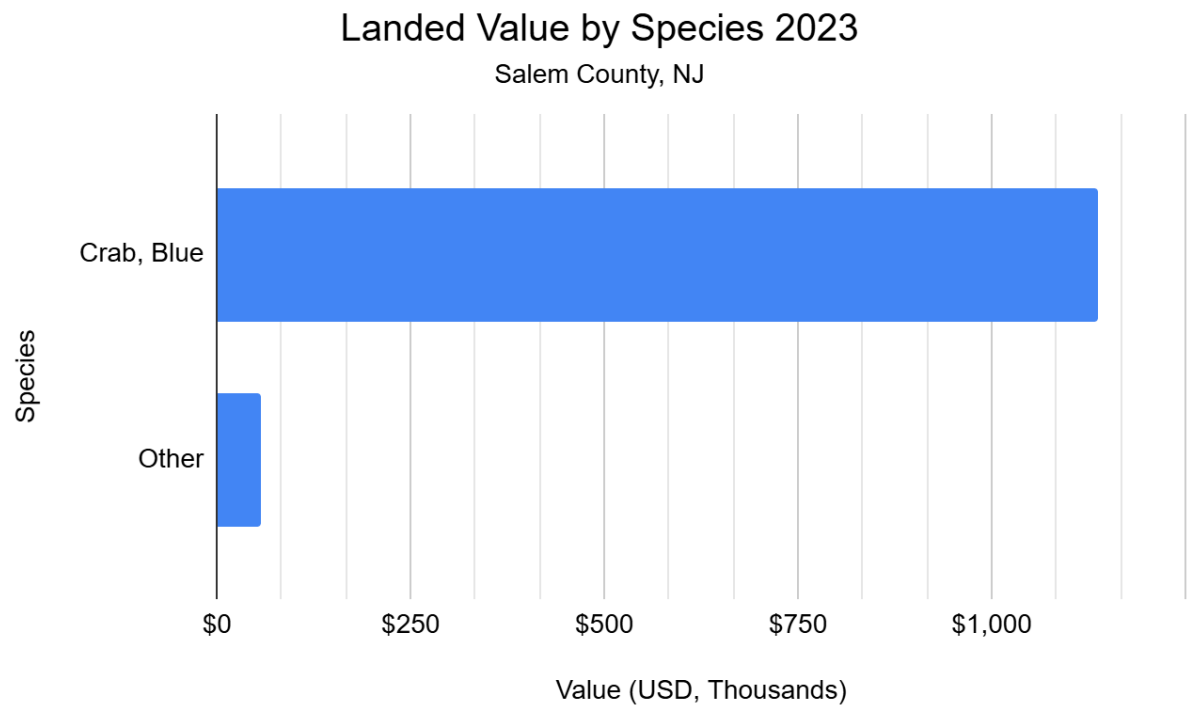
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² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Salem County?

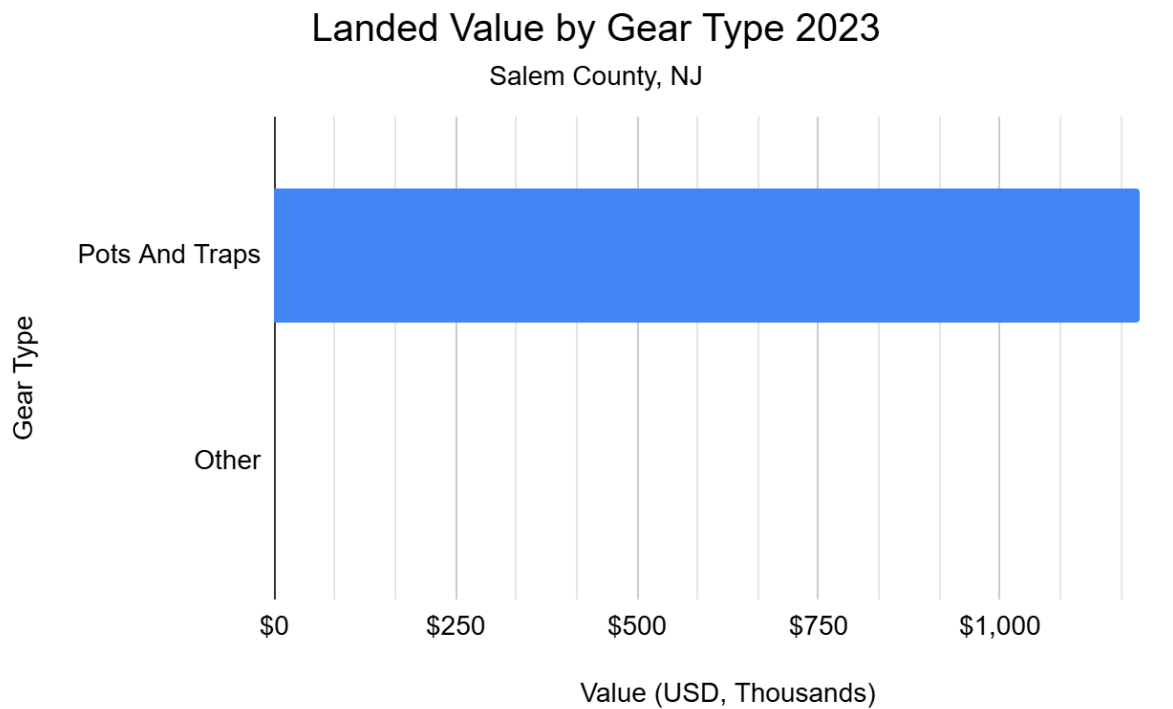
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Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Salem County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

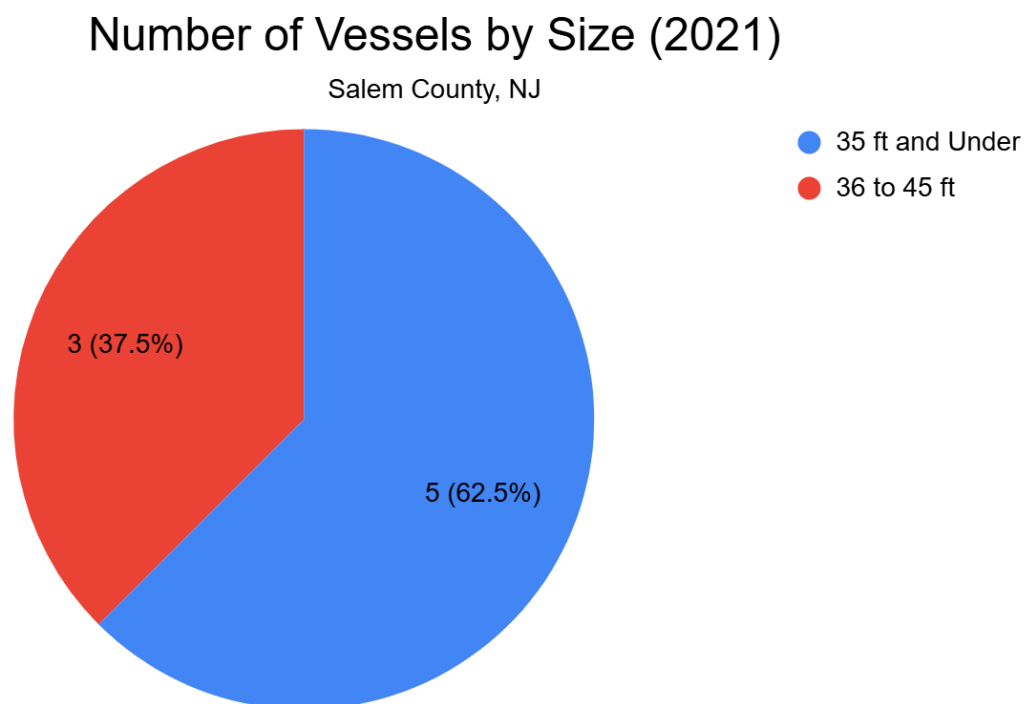


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Salem County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

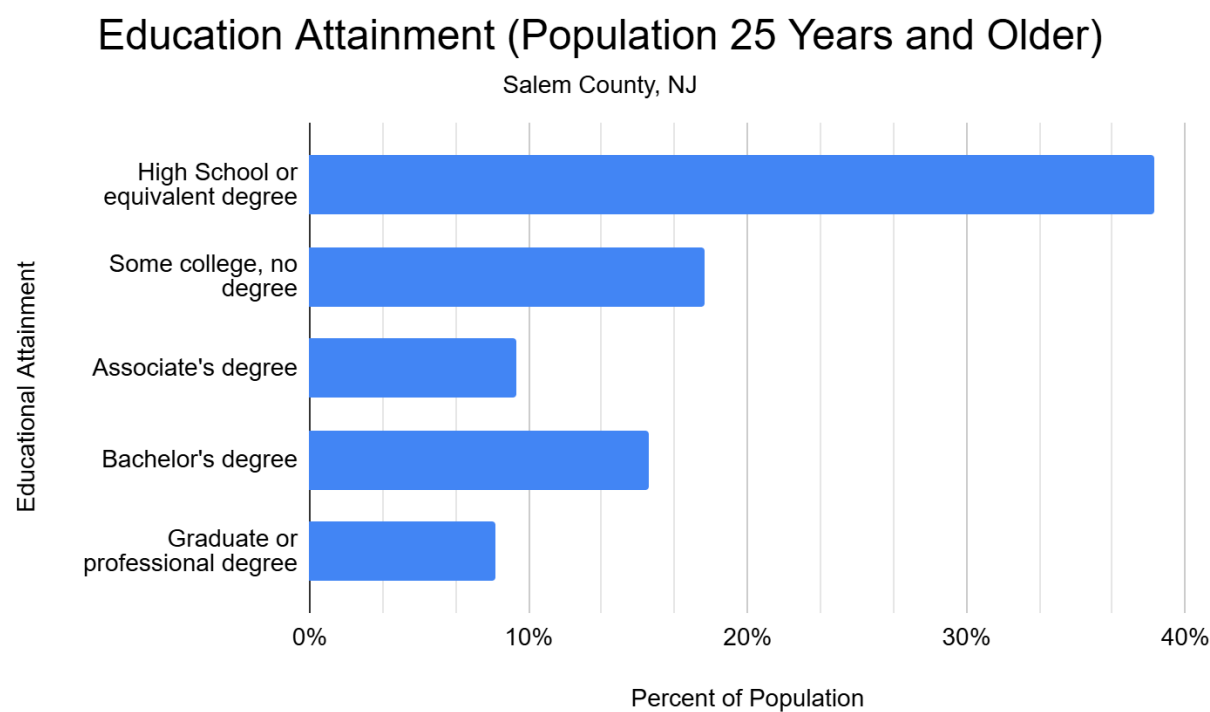


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

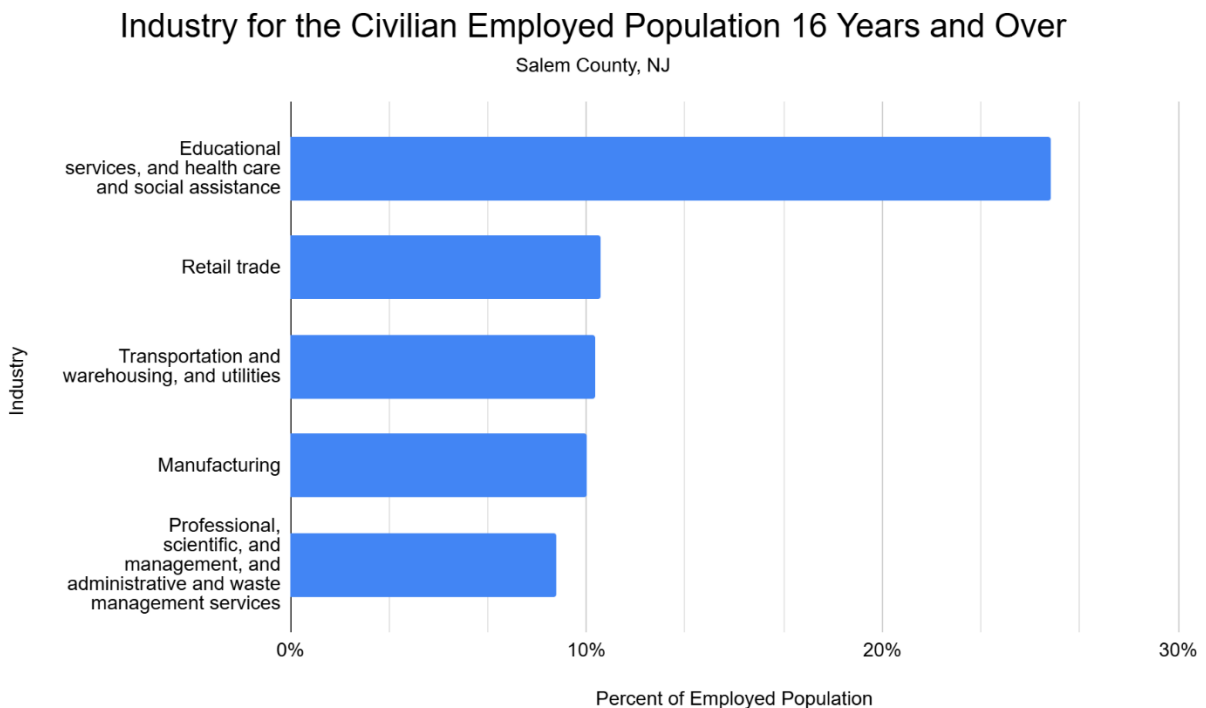
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How do people make a living in Salem County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 7.5%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$78,412³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 12.8%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

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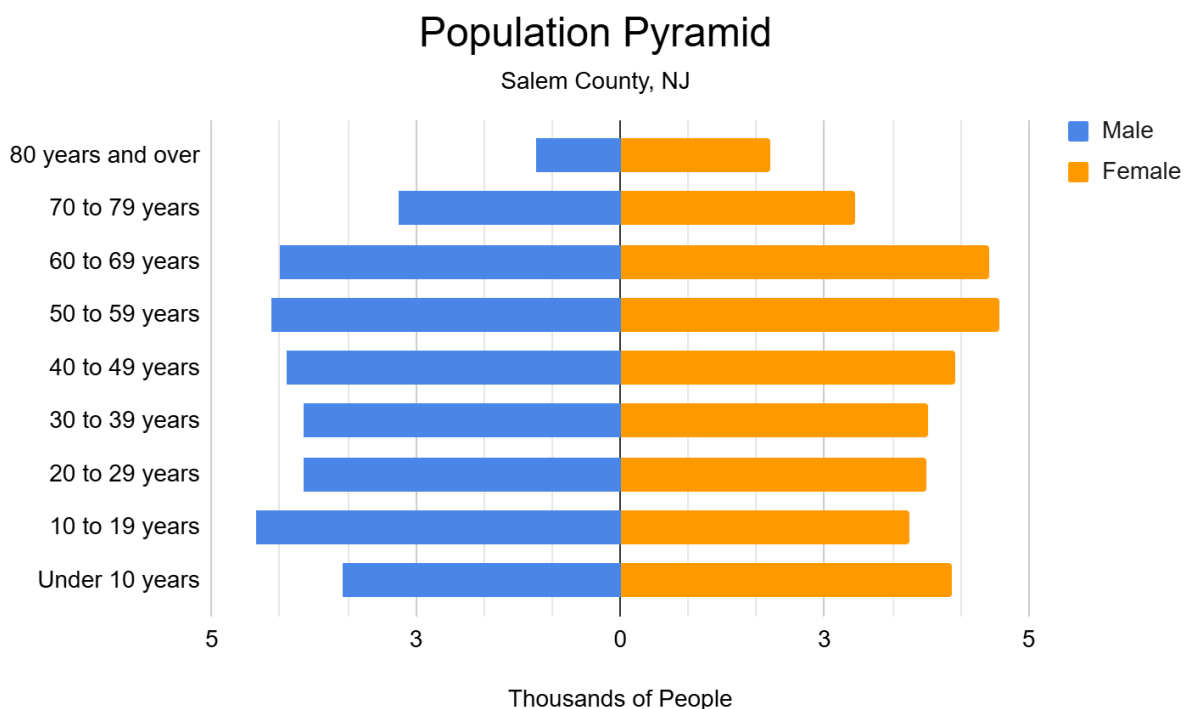
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Median age: 41.9⁵

National median: 38.7⁵

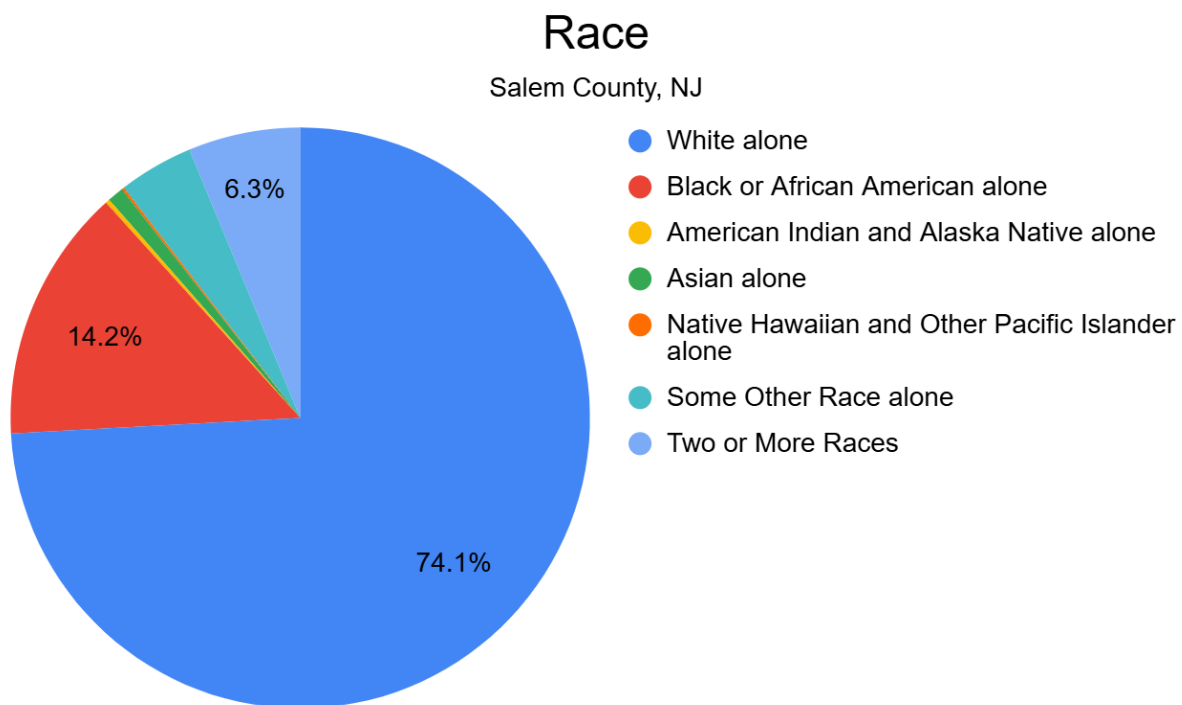


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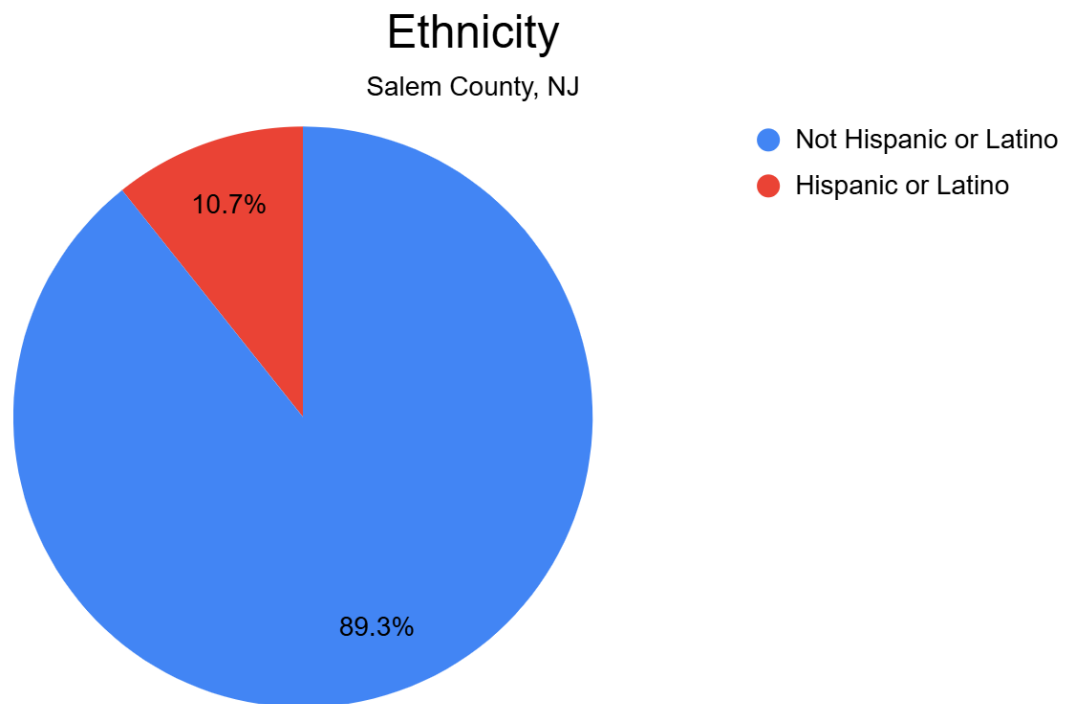
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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



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Language and Marginalization

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Foreign Born: 3.0%⁶

National Average: 13.9%⁶

Speak English less than very well: 3.3%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retire Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Salem County

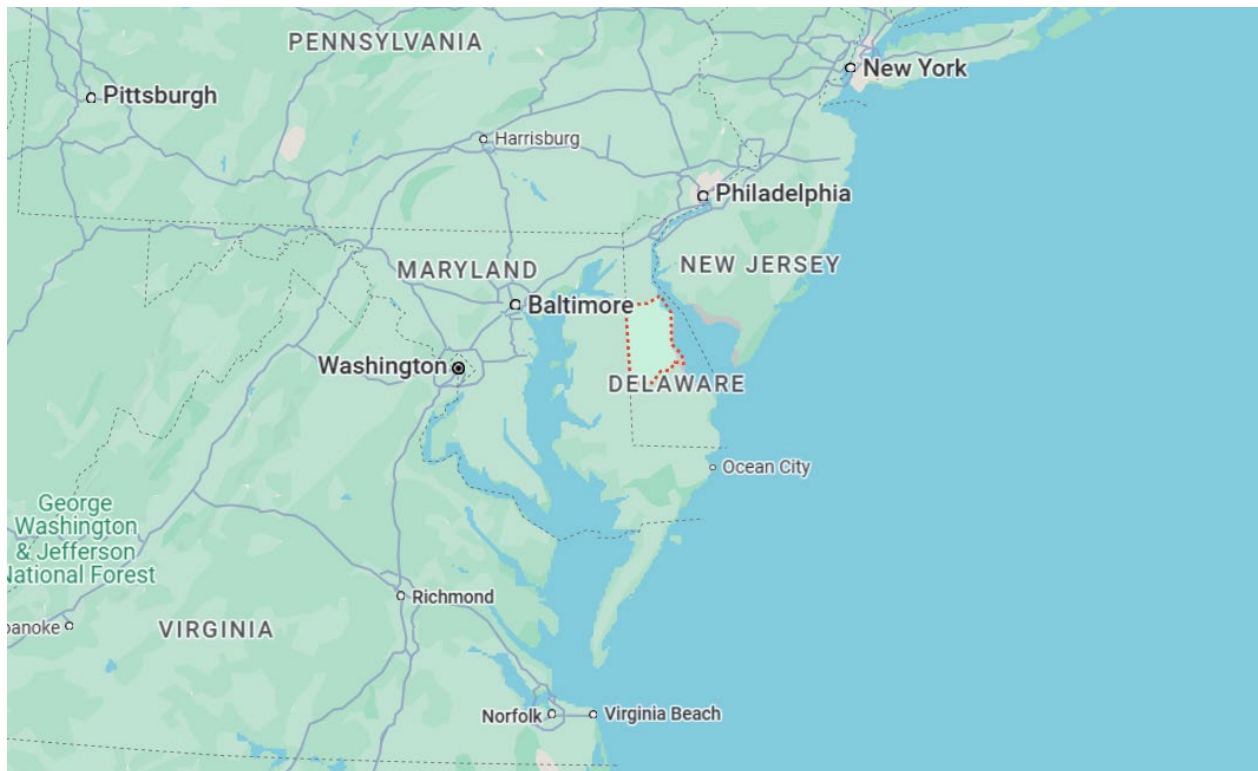
Community Name	Pedricktown	Auburn	Carneys Point	Hancocks Bridge	Salem
Commercial Engagement	-0.153	-0.153	-0.153	-0.153	-0.153
Commercial Reliance	-0.053	-0.053	-0.053	-0.053	-0.053
Poverty	1.549	-1.066	0.273	-0.964	2.528
Population Composition	0.387	-1.199	0.178	-0.848	1.785
Personal Disruption	1.883	-1.082	0.214	0.139	2.674
Housing Disruption	NA	NA	-0.693	NA	-1.466
Retiree Migration	-0.743	-0.678	0.17	-2.222	0.197
Urban Sprawl	-0.52	NA	-0.457	-0.625	-0.552
Labor Force	-0.261	-1.075	0.005	-1.91	0.666
Housing Characteristics	0.104	NA	0.408	0.159	0.636
Sea Level Rise Risk	0.549	-0.235	0.857	2.098	1.653
Storm Surge Risk	NA	NA	0.681	NA	0.845

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Kent County, DE

Kent County has a population of 185,043¹ and a population per square mile of 316². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

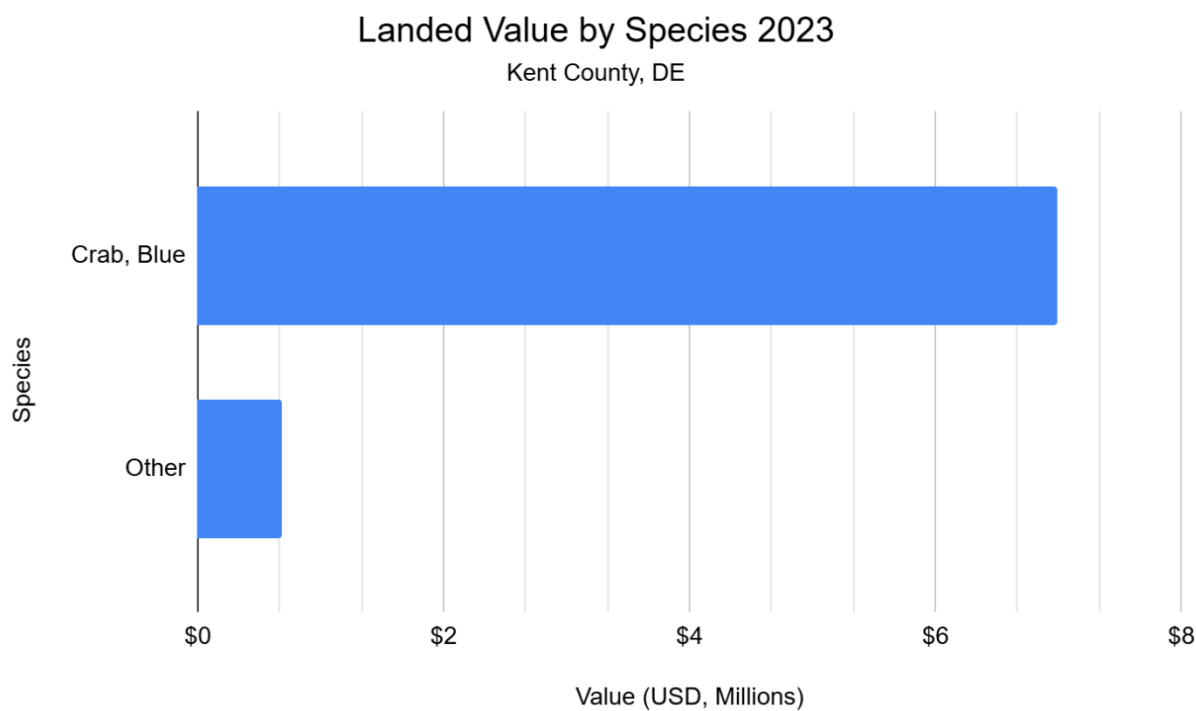
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Kent County?

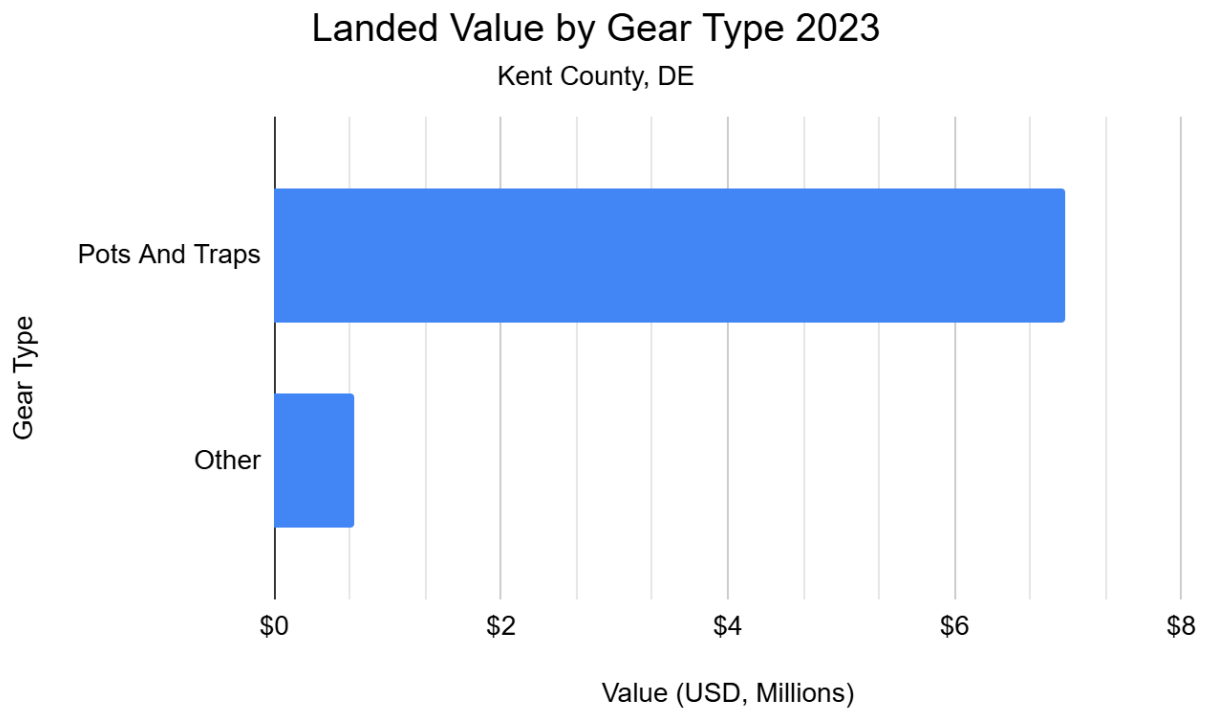
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Kent County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

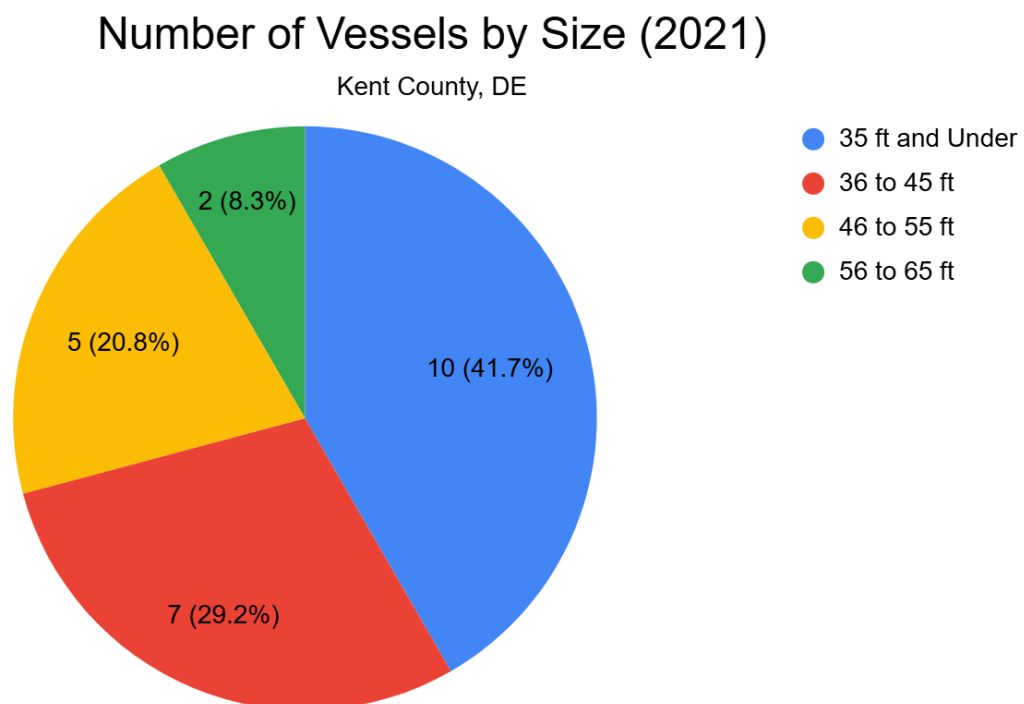


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Kent County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

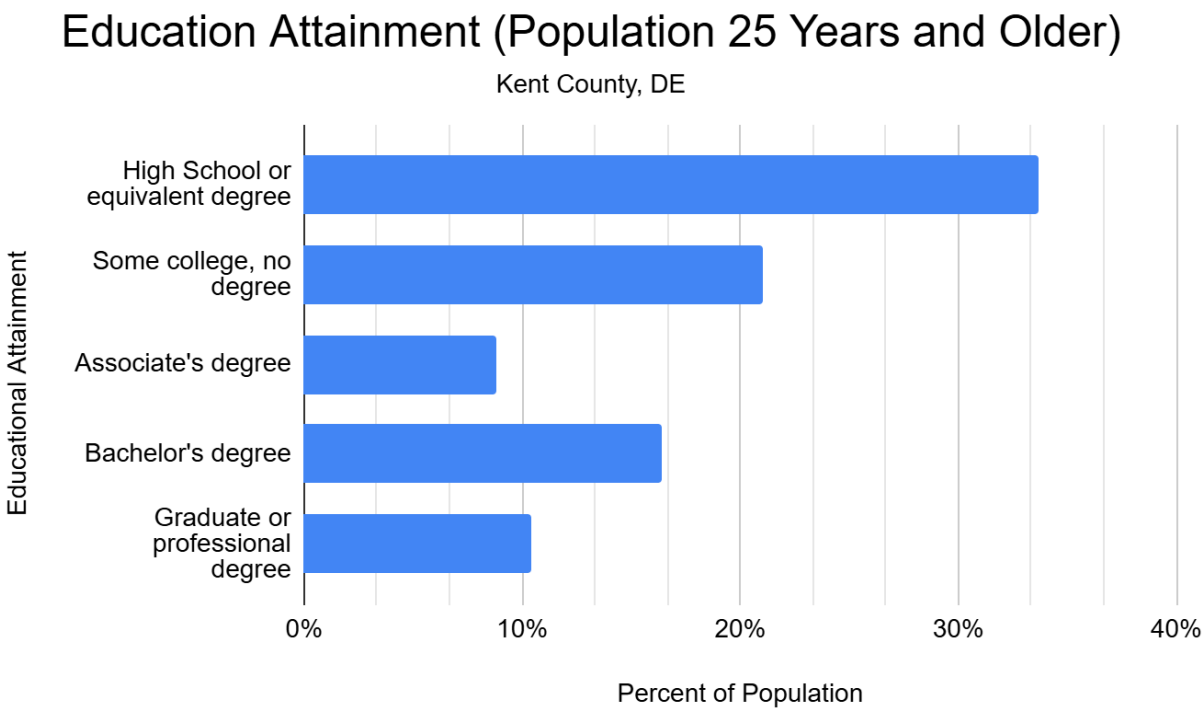


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

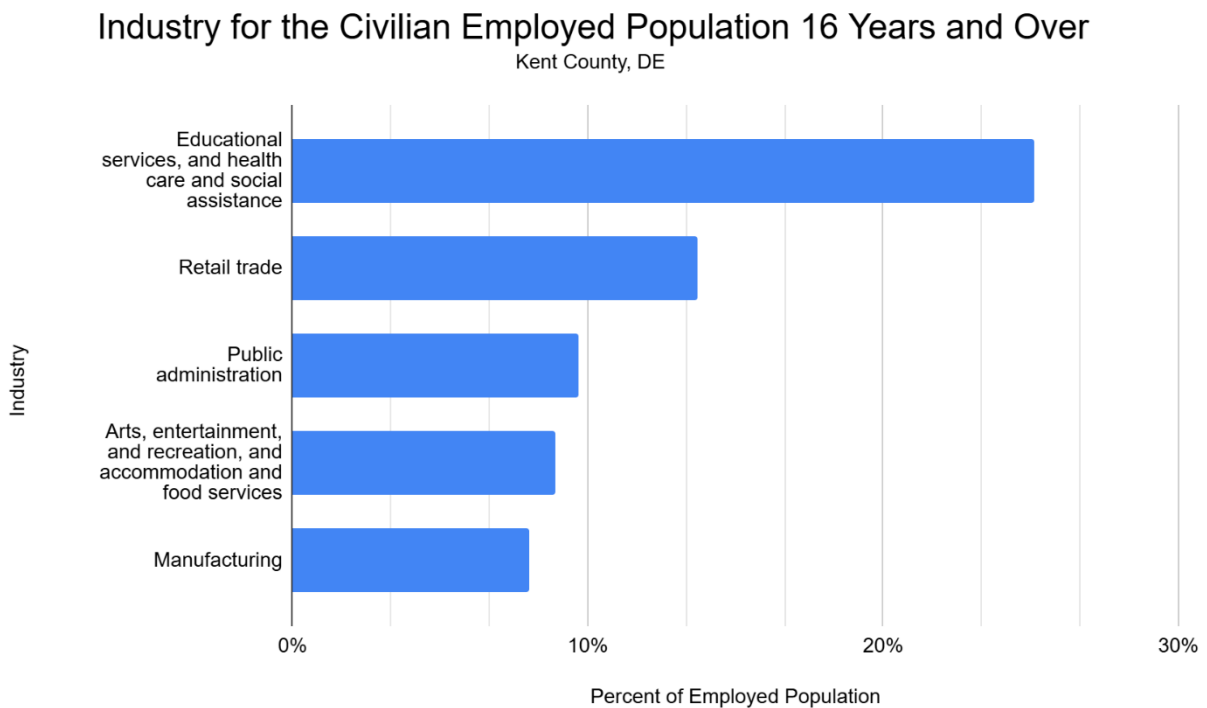
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Kent County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 5.5%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$72,872³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 11.3%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

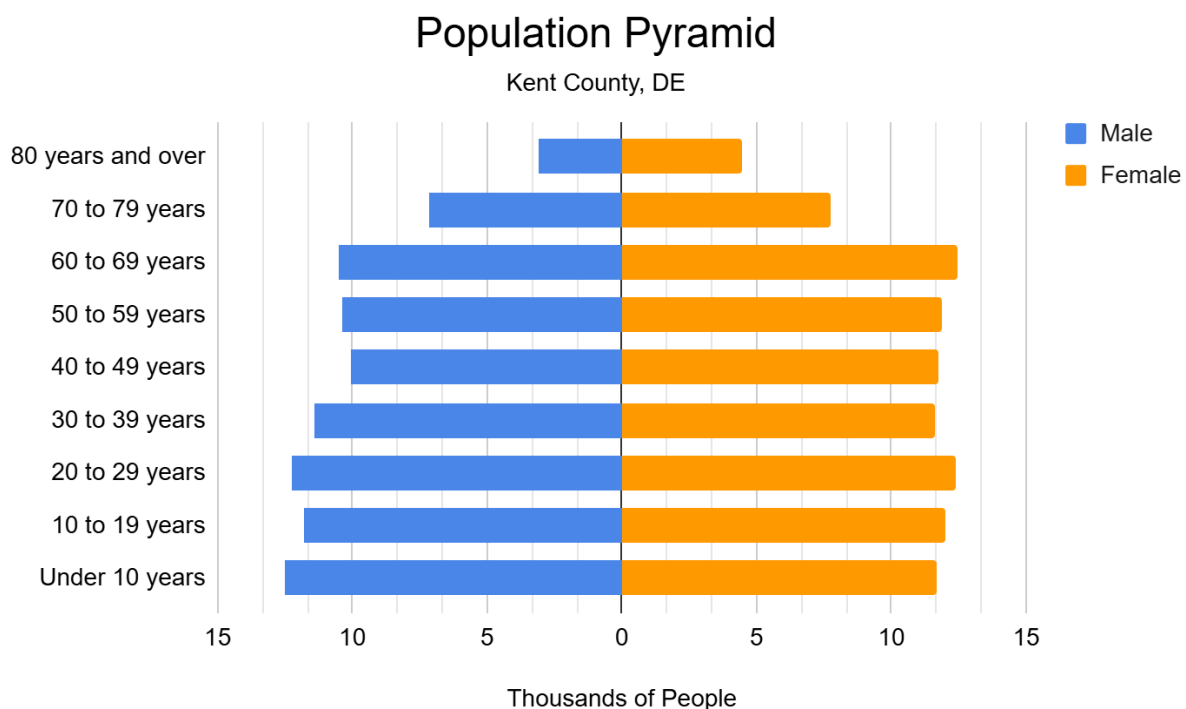
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 38.5⁵

National median: 38.7⁵

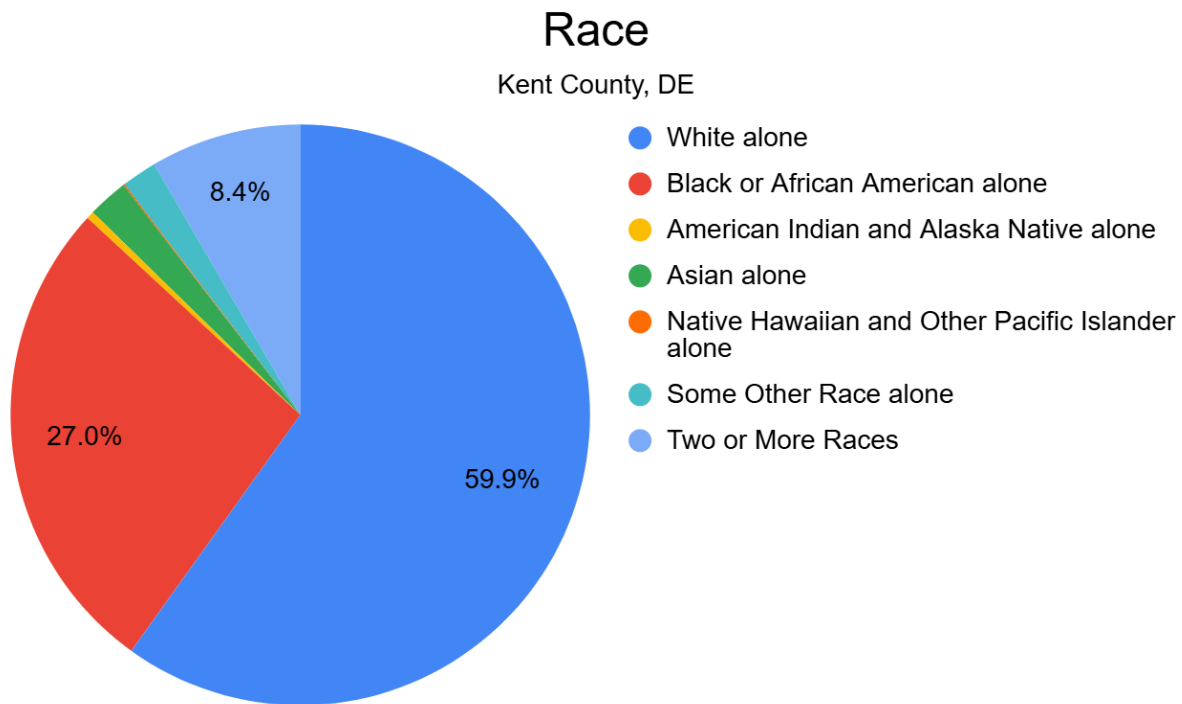


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

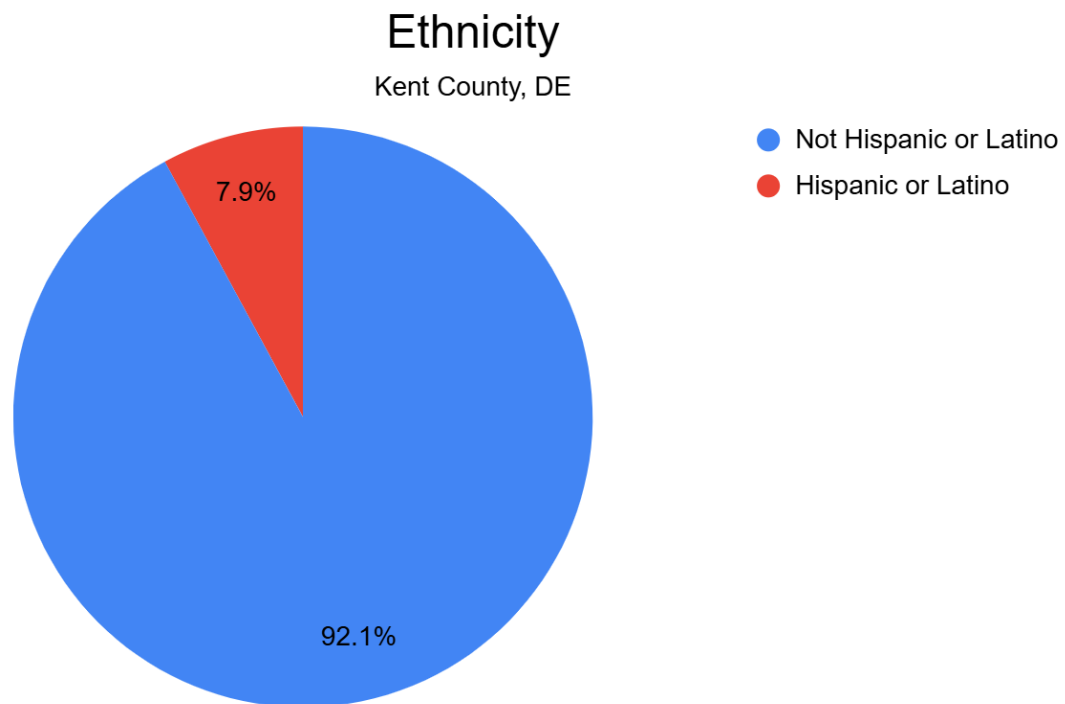
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 7.2%⁶

National Average: 13.9%⁶

Speak English less than very well: 4.2%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Kent County

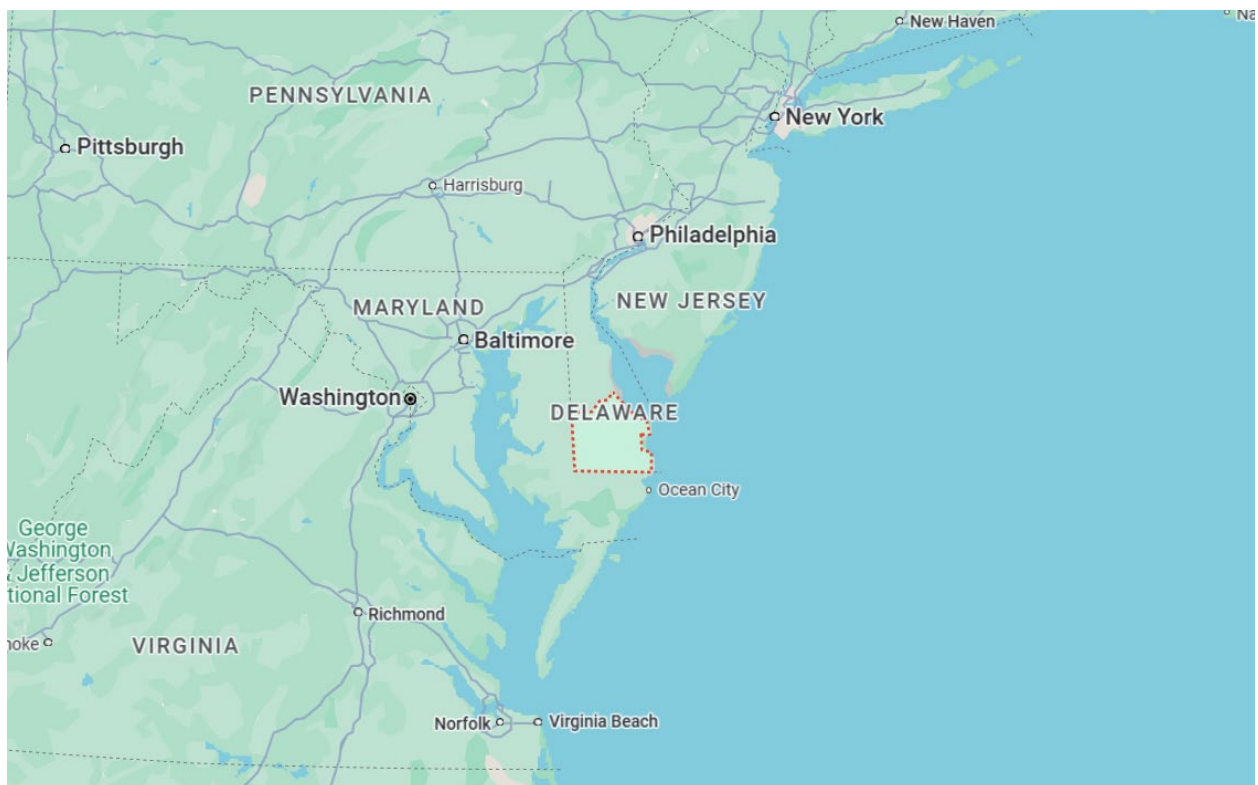
Community Name	Bowers	Leipsic	Houston	Farmington	Felton
Commercial Engagement	-0.044	-0.153	-0.153	-0.153	-0.153
Commercial Reliance	0.147	-0.053	-0.053	-0.053	-0.053
Poverty	0.993	-1.066	-0.051	-1.066	-0.381
Population Composition	-1.034	-0.638	-0.434	-0.89	-0.248
Personal Disruption	0.458	-0.545	0.633	1.712	-0.131
Housing Disruption	-0.569	-1.027	-0.737	-0.717	-0.498
Retiree Migration	1.354	-0.453	0.214	-0.783	0.294
Urban Sprawl	-0.937	-1.043	-0.994	-1.125	-0.971
Labor Force	1.836	-0.341	-0.295	-0.991	0.009
Housing Characteristics	1.198	0.775	0.383	NA	0.886
Sea Level Rise Risk	2.075	1.899	-0.346	-0.346	-0.346
Storm Surge Risk	0.823	0.487	NA	NA	NA

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Sussex County, DE

Sussex County has a population of 247,799¹ and a population per square mile of 265². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

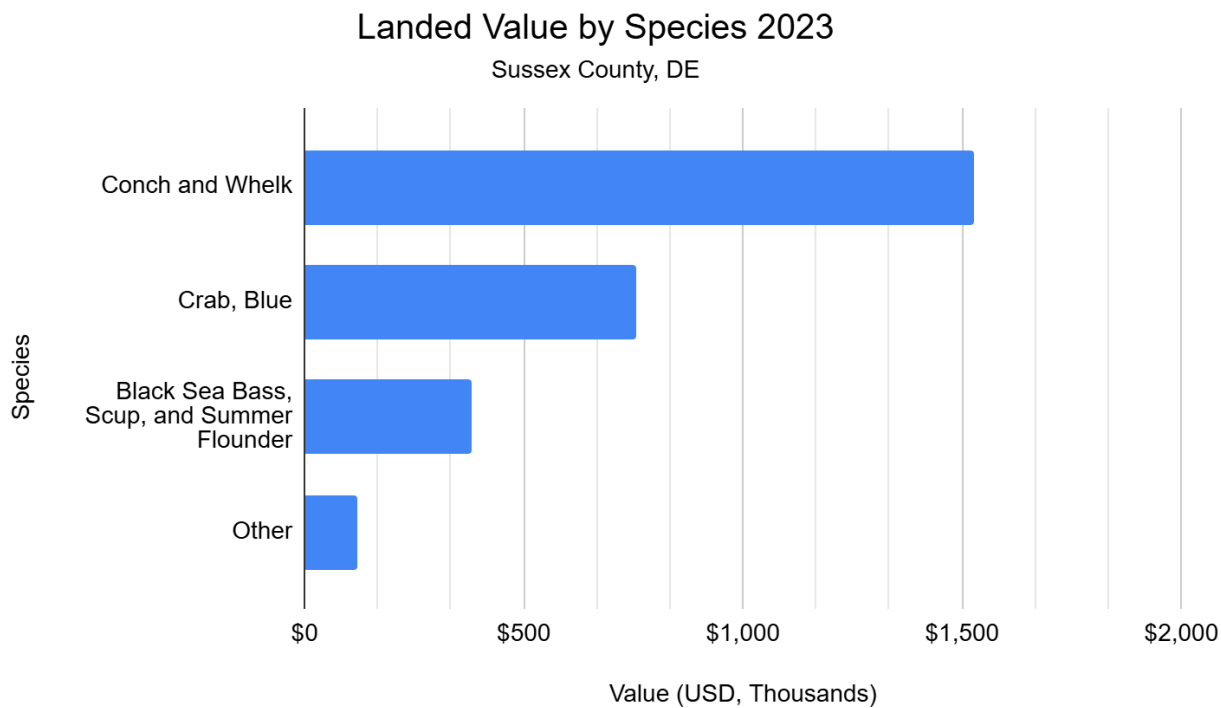
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Sussex County?

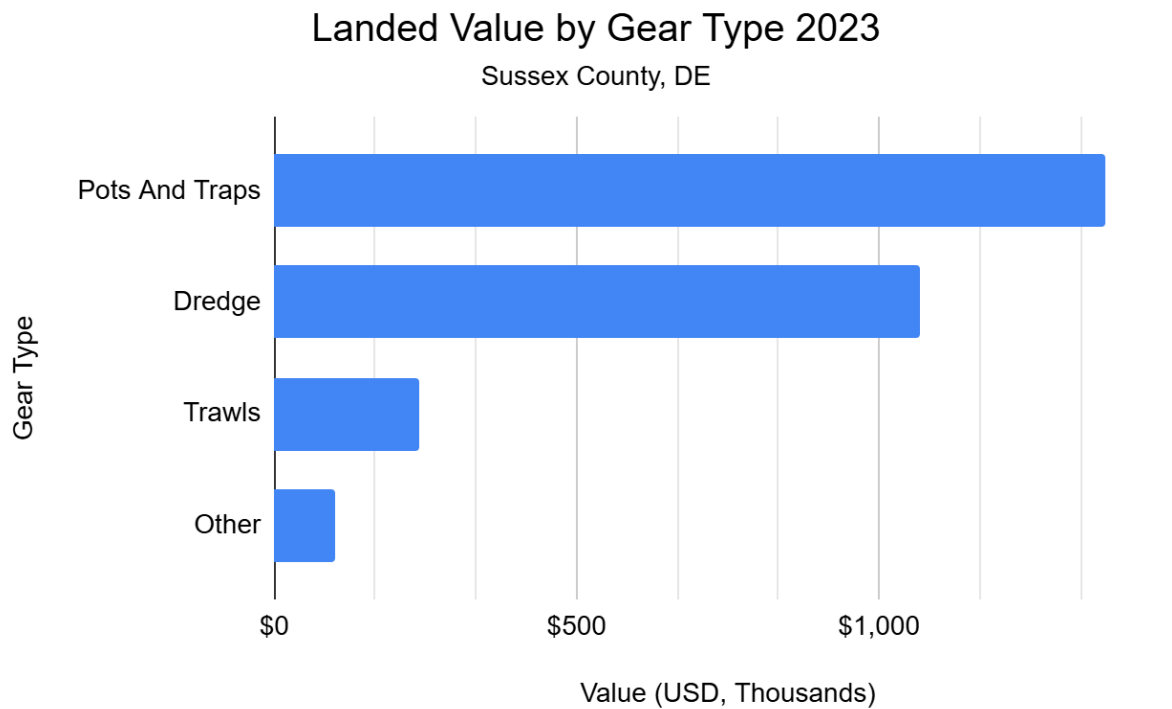
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Sussex County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

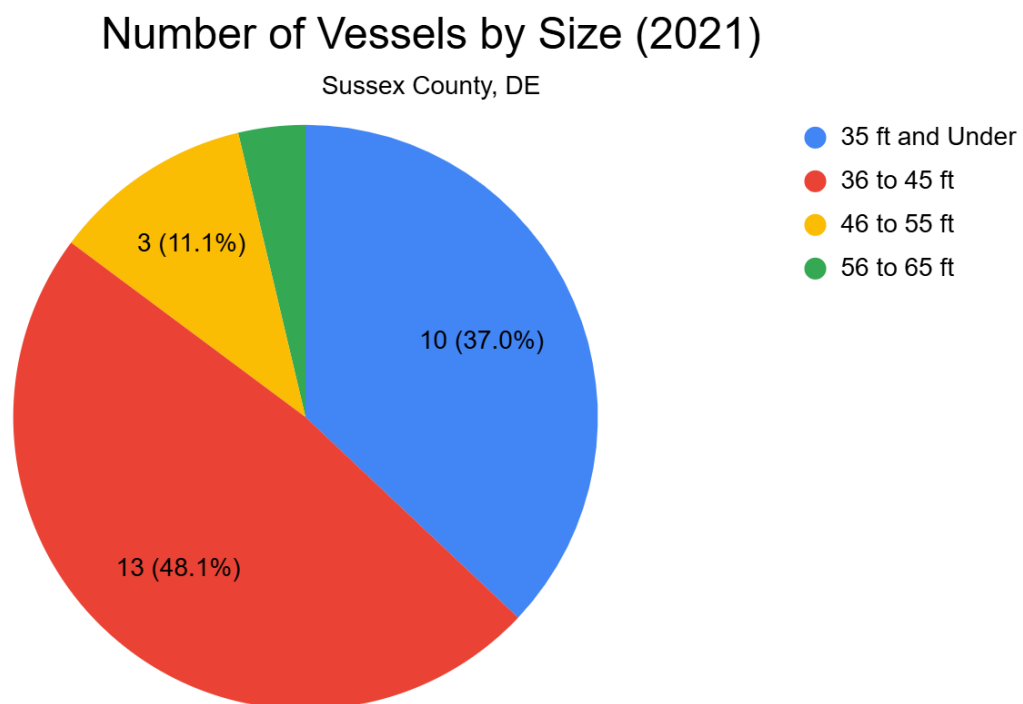


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Sussex County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

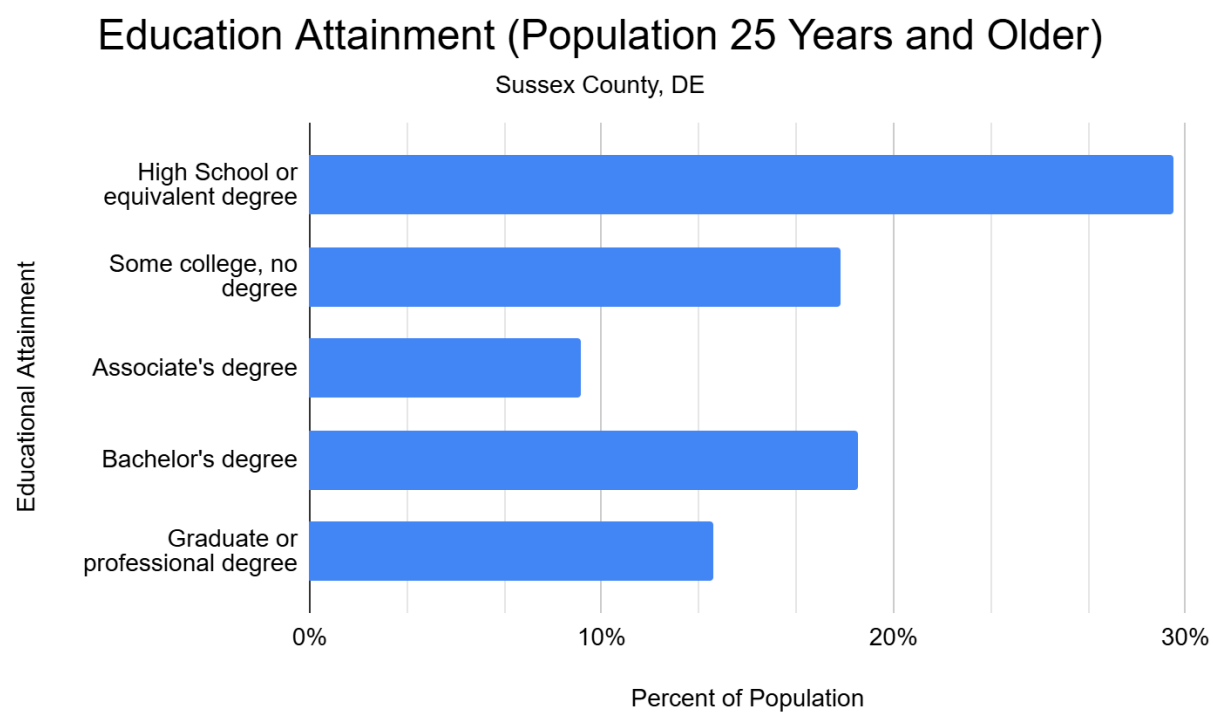


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

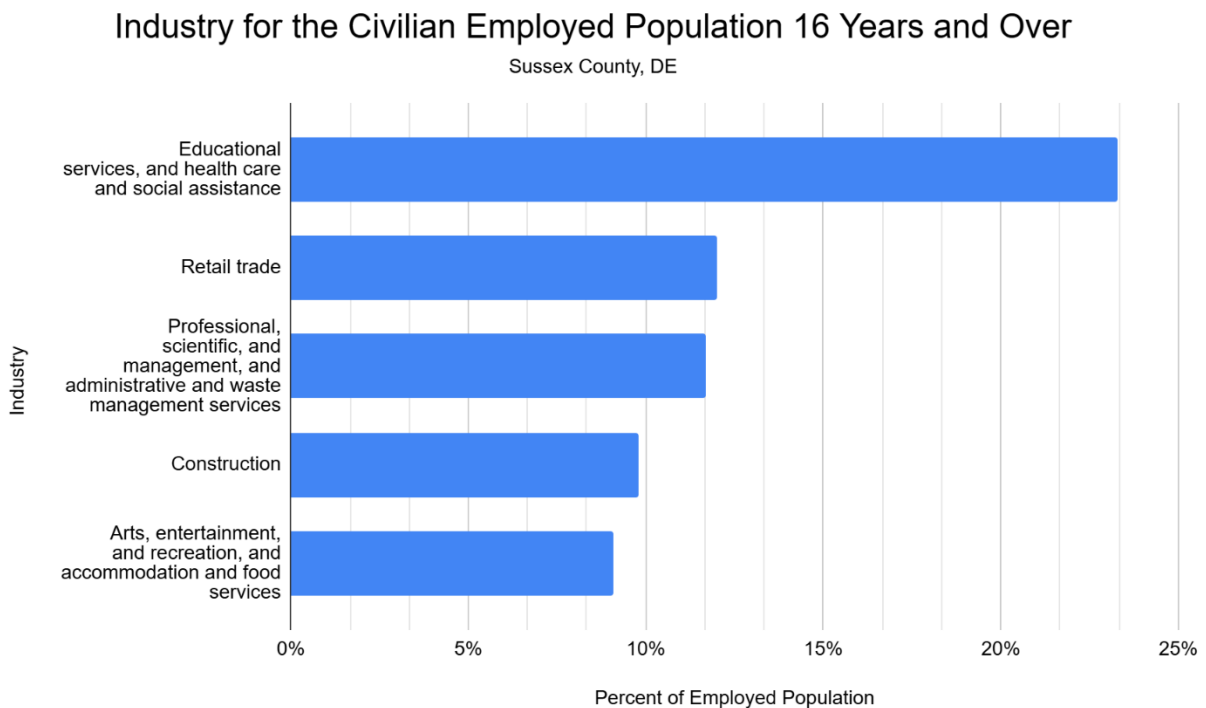
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Sussex County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 5.1%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$78,162³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 11.5%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

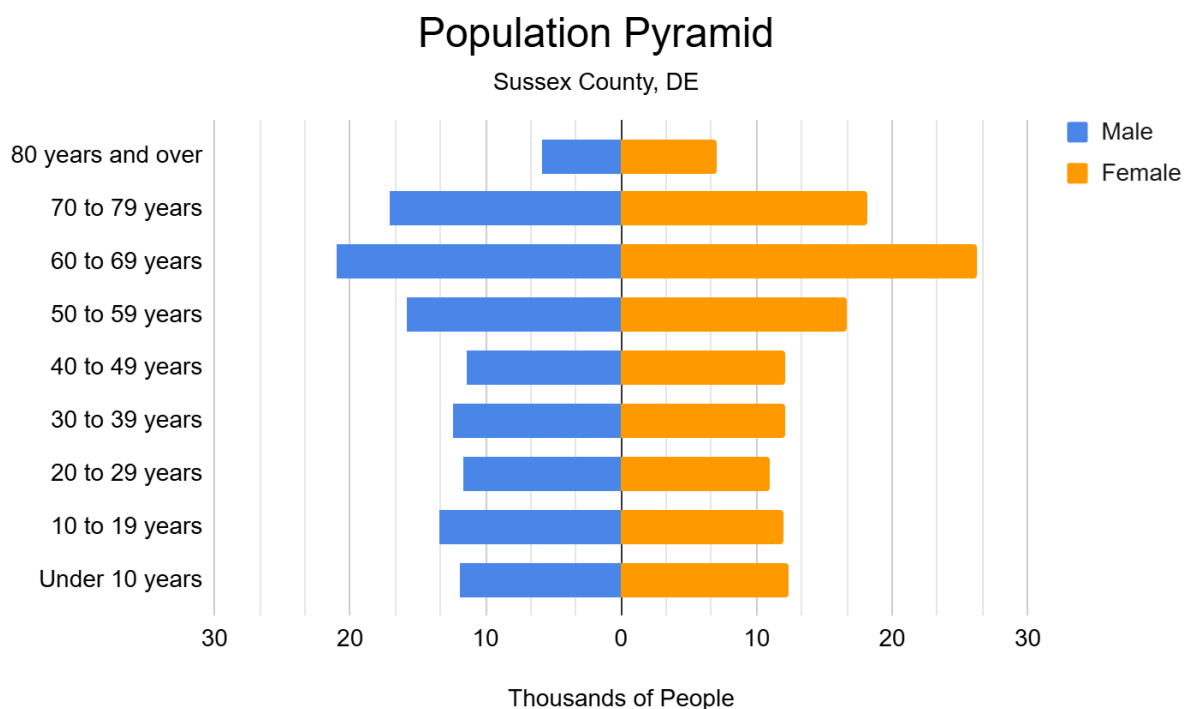
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 51.4⁵

National median: 38.7⁵

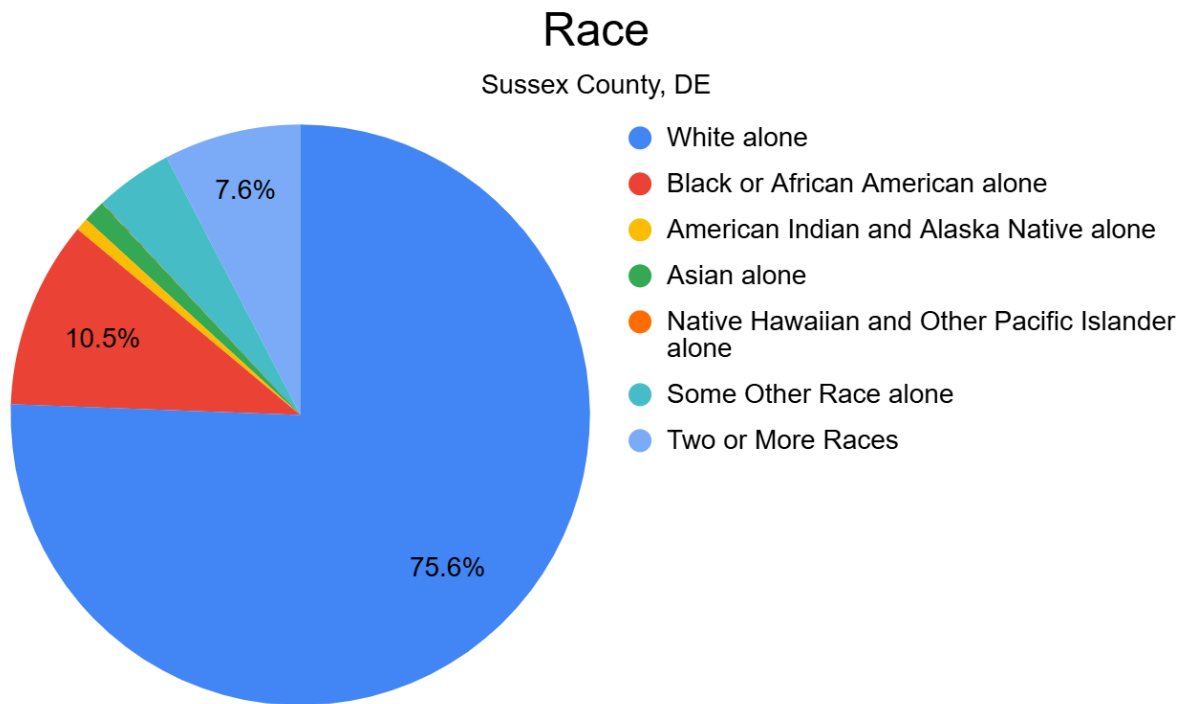


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

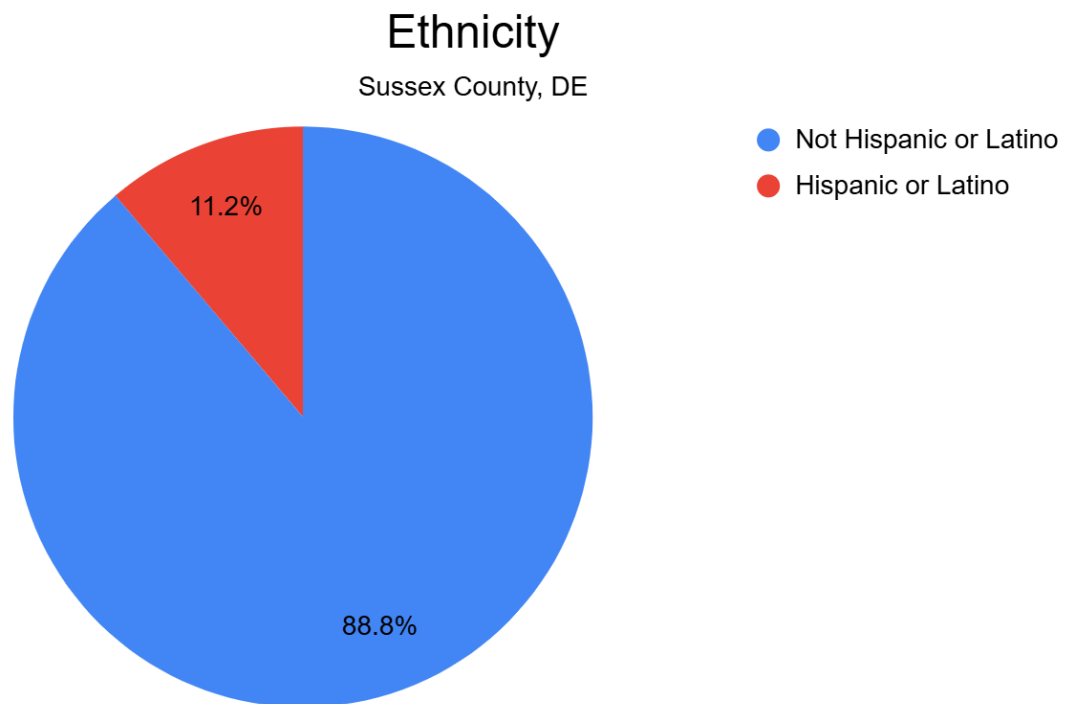
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 8.4%⁶

National Average: 13.9%⁶

Speak English less than very well: 6.3%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

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Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Sussex County

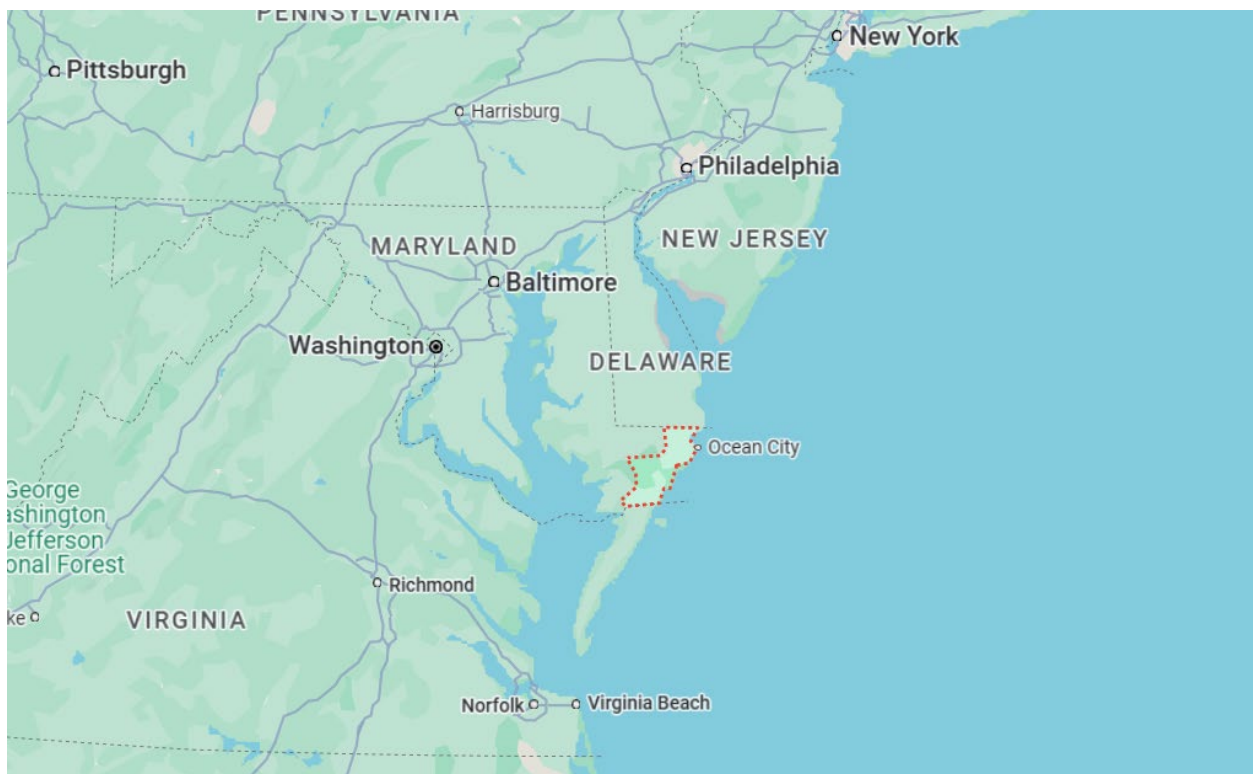
Community Name	Lewes	Rehoboth Beach / Dewey Beach / Indian River	Frankford	Bethel	Georgetown
Commercial Engagement	0.221	0.08	-0.146	-0.153	-0.153
Commercial Reliance	-0.027	NA	-0.051	-0.053	-0.053
Poverty	-0.169	-0.895	0.386	-0.76	0.094
Population Composition	-1.077	-1.131	1.81	-0.094	1.984
Personal Disruption	-0.497	-0.932	-0.297	-0.779	1.571
Housing Disruption	0.723	NA	0.059	-0.802	0.426
Retiree Migration	2.269	1.371	-0.211	1.623	-0.079
Urban Sprawl	-0.715	-0.348	-1.415	-1.361	-1.249
Labor Force	1.711	1.164	-0.291	1.547	0.549
Housing Characteristics	-0.083	NA	0.703	NA	0.404
Sea Level Rise Risk	0.937	3.015	-0.346	0.15	-0.346
Storm Surge Risk	0.363	0.566	-0.685	-0.436	NA

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Worcester County, MD

Worcester County has a population of 53,279¹ and a population per square mile of 114². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

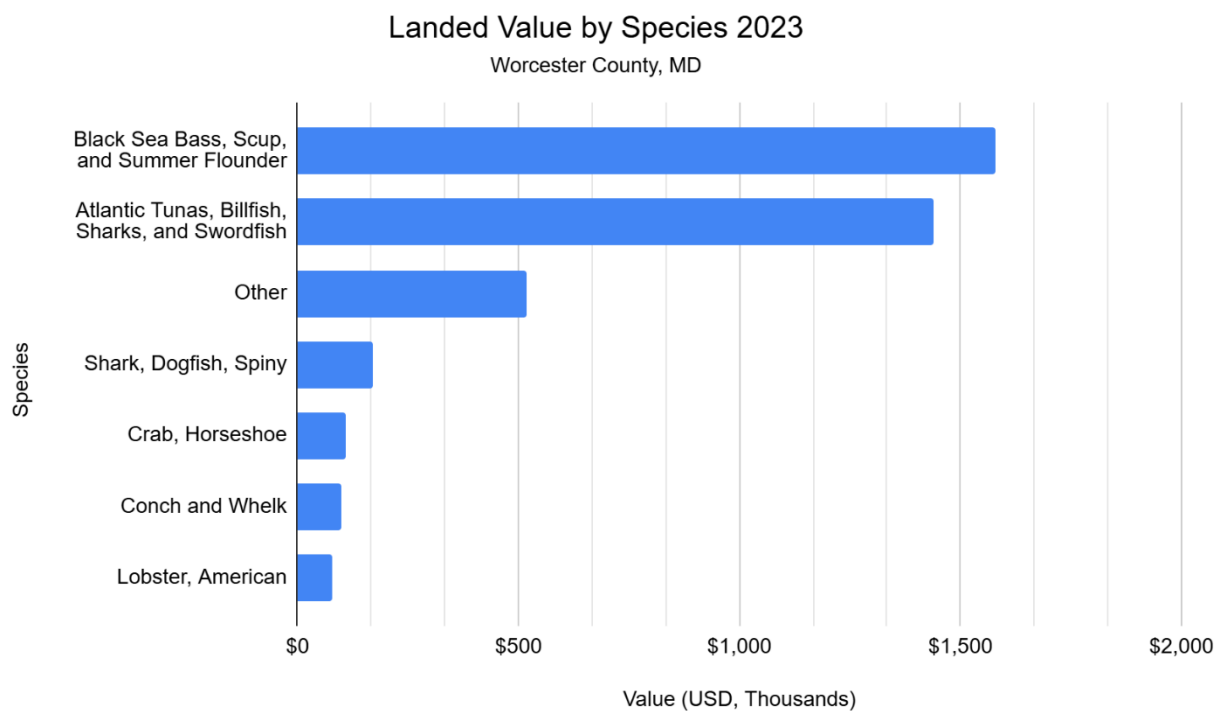
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Worcester County?

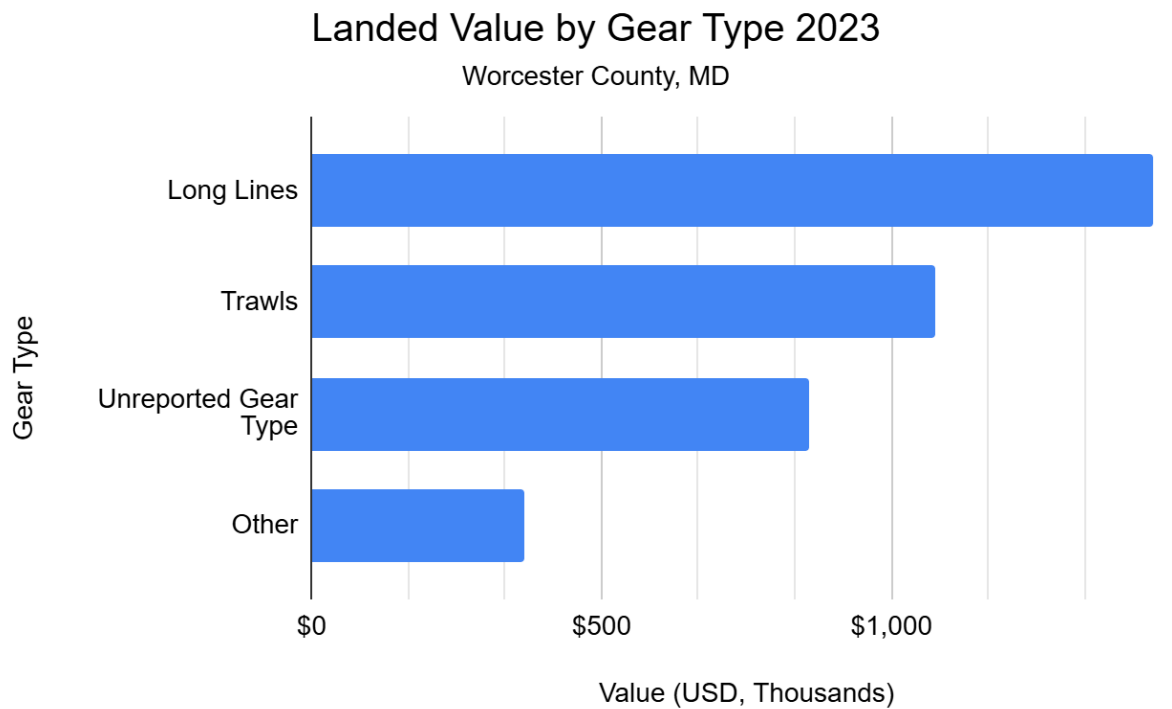
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Worcester County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

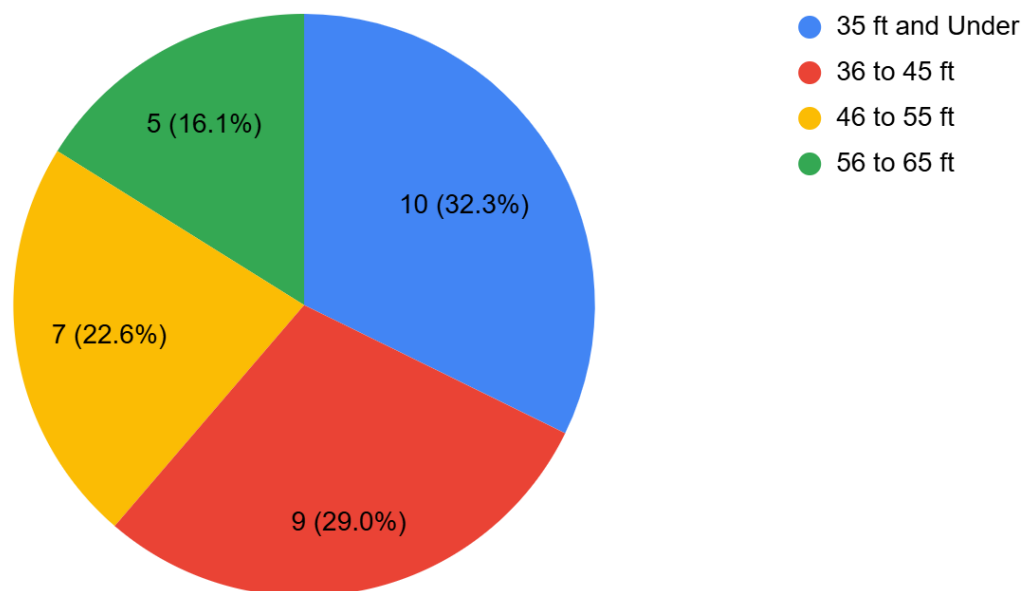
What are the characteristics of the fishing vessels in Worcester County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

Number of Vessels by Size (2021)

Worcester County, MD

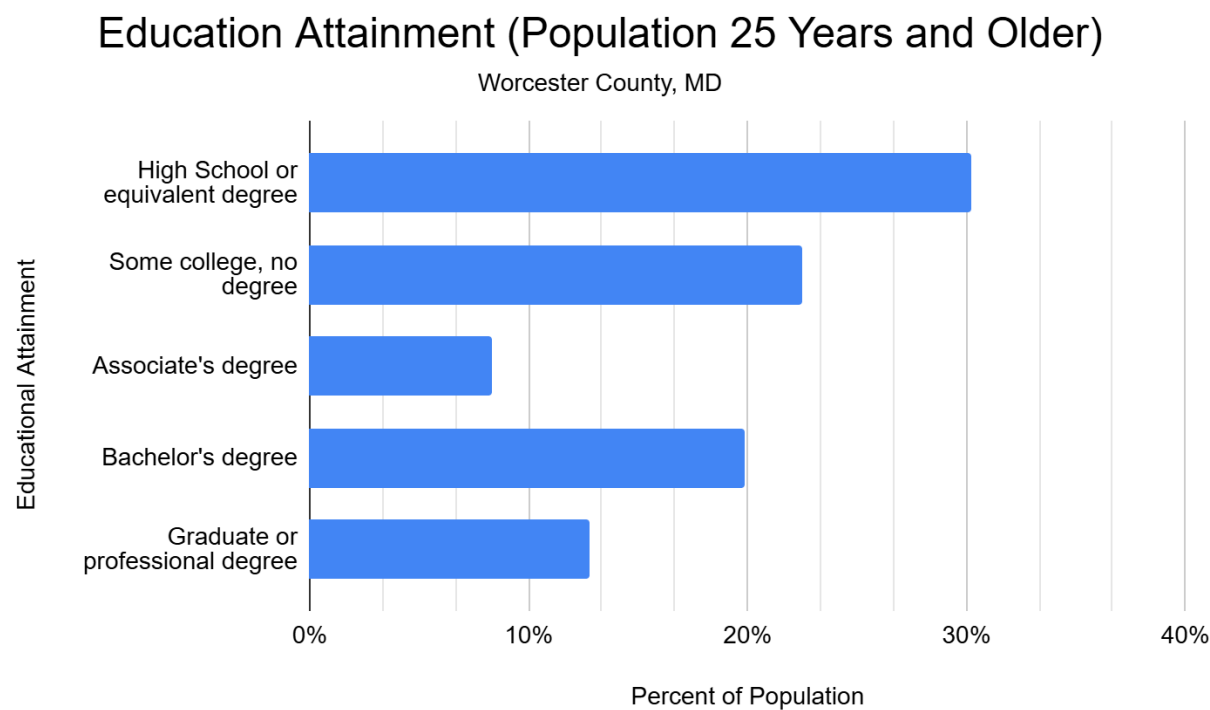


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

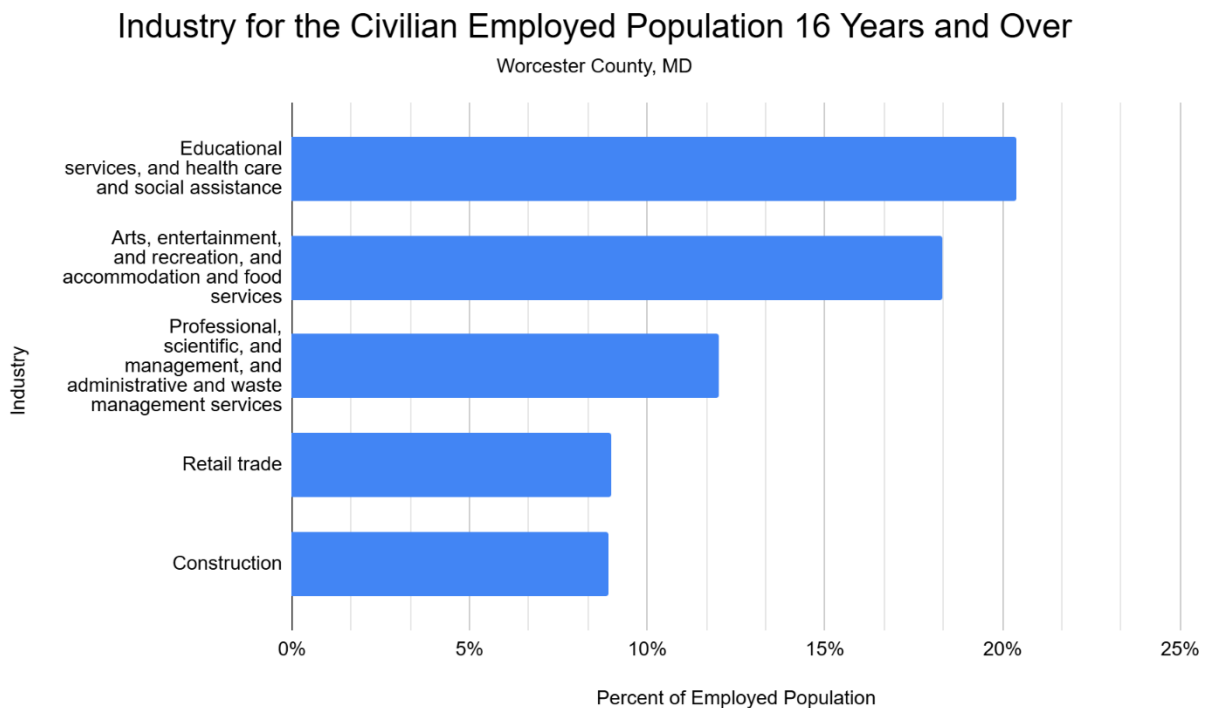
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Worcester County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 6.4%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$81,455³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 8.1%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

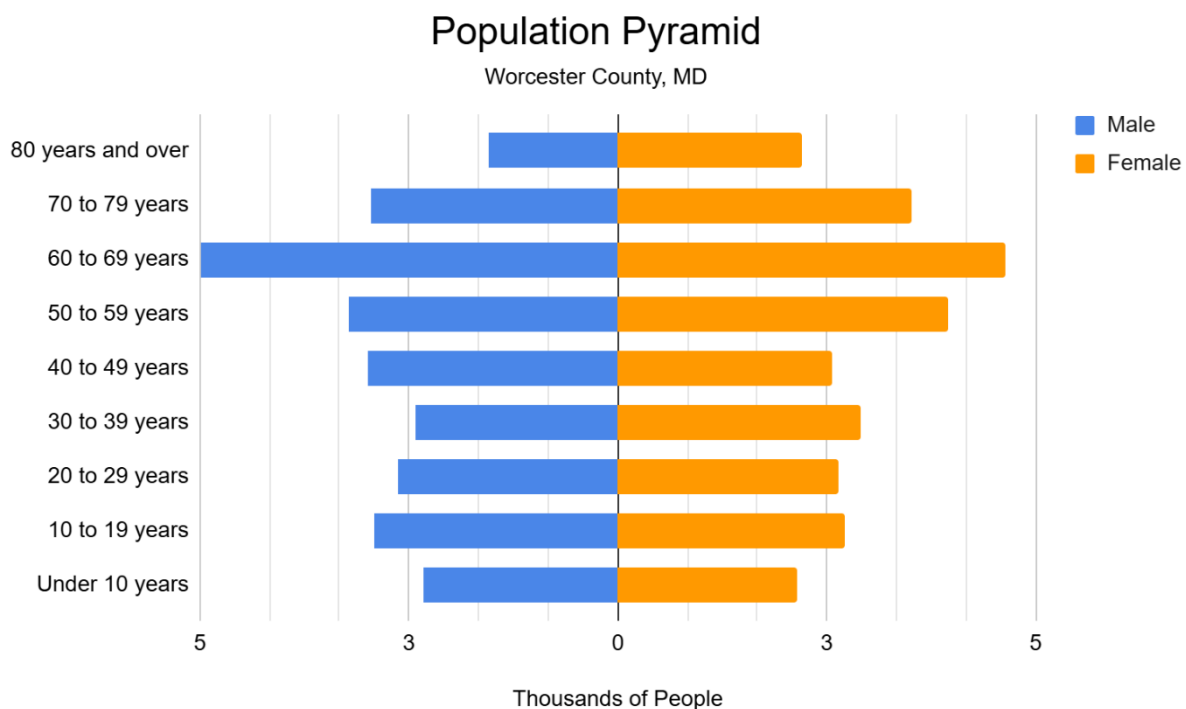
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 50.7⁵

National median: 38.7⁵

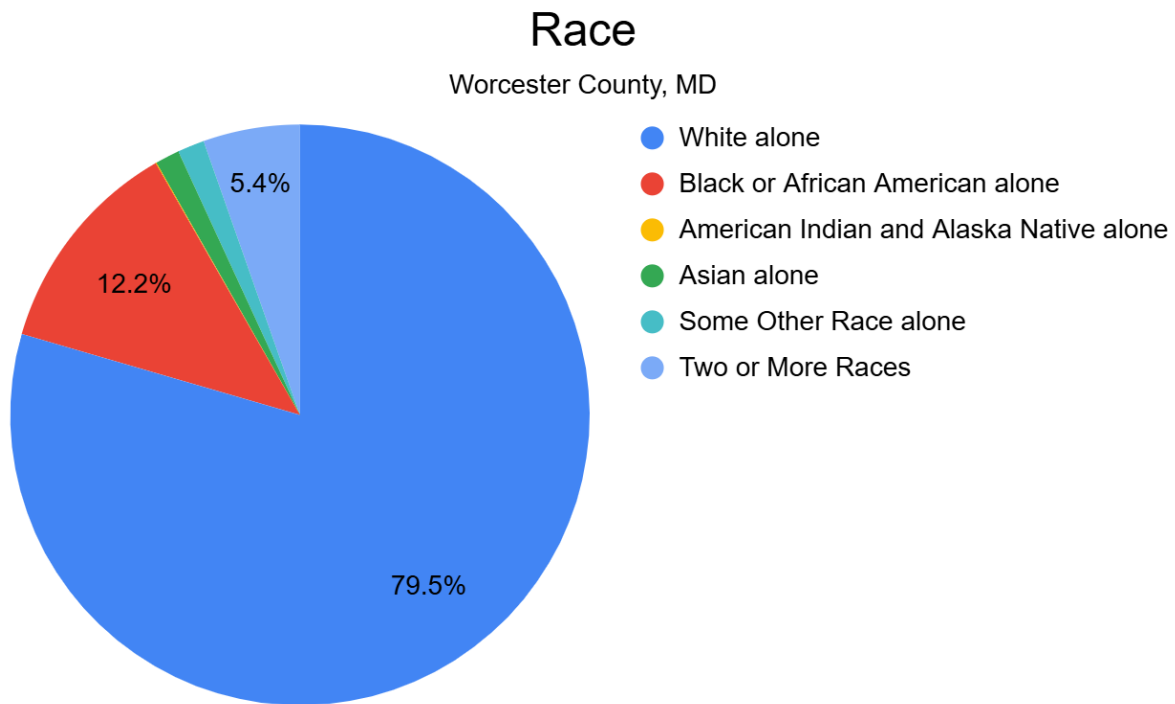


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

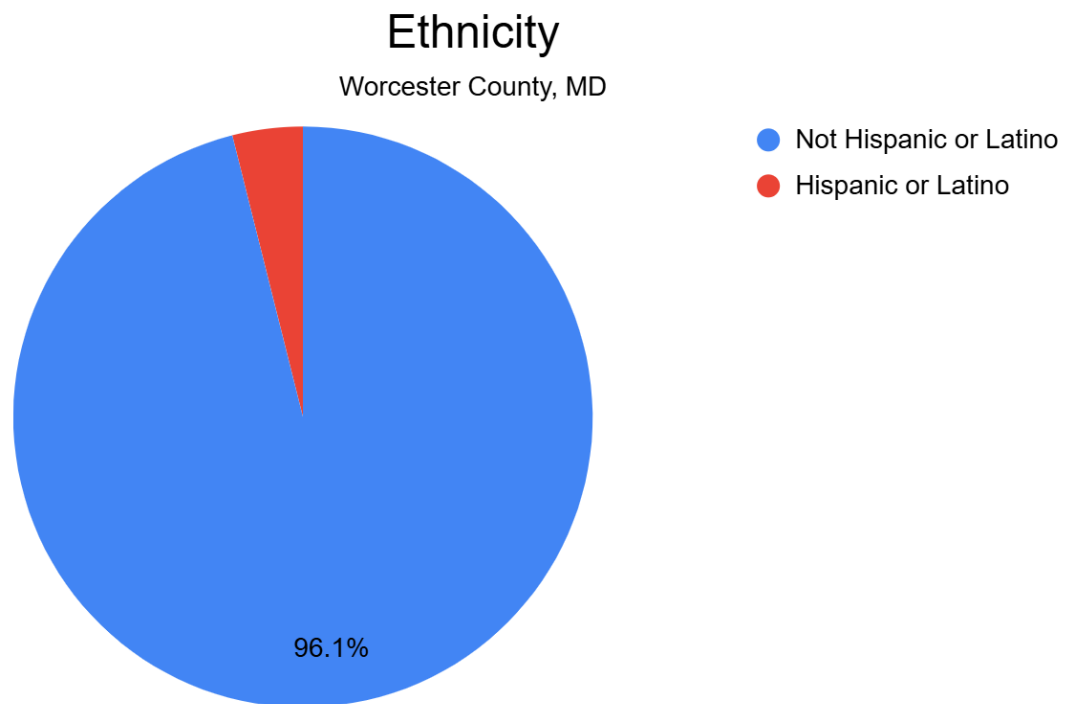
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 5.1%⁶

National Average: 13.9%⁶

Speak English less than very well: 1.8%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Worcester County

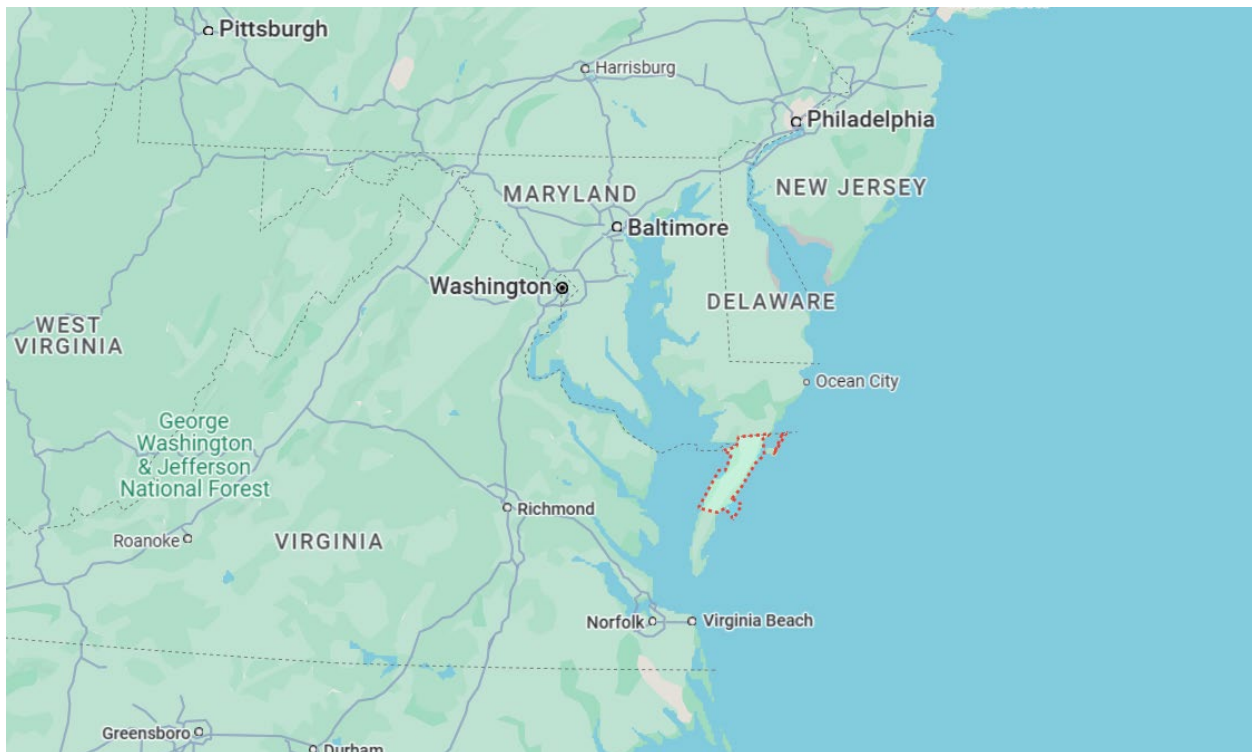
Community Name	Ocean City	Ocean Pines	West Ocean City	Pocomoke City	Snow Hill
Commercial Engagement	1.327	-0.149	-0.106	-0.153	-0.127
Commercial Reliance	0.003	-0.053	-0.051	-0.053	-0.051
Poverty	0.115	-0.47	-0.303	1.013	0.968
Population Composition	-0.673	-0.616	-0.849	0.613	0.325
Personal Disruption	0.538	-0.624	0.053	0.734	0.866
Housing Disruption	0.172	-0.138	0.64	-0.694	-0.117
Retiree Migration	0.519	1.701	0.04	0.191	-0.047
Urban Sprawl	-1.283	-1.349	-1.388	-1.727	-1.668
Labor Force	0.117	1.273	-0.181	-0.017	-0.144
Housing Characteristics	0.816	-0.094	0.094	0.819	0.731
Sea Level Rise Risk	0.704	0.159	0.916	0.159	0.289
Storm Surge Risk	0.558	0.475	0.648	-0.523	-0.536

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Accomack County, VA

Accomack County has a population of 33,326¹ and a population per square mile of 74². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

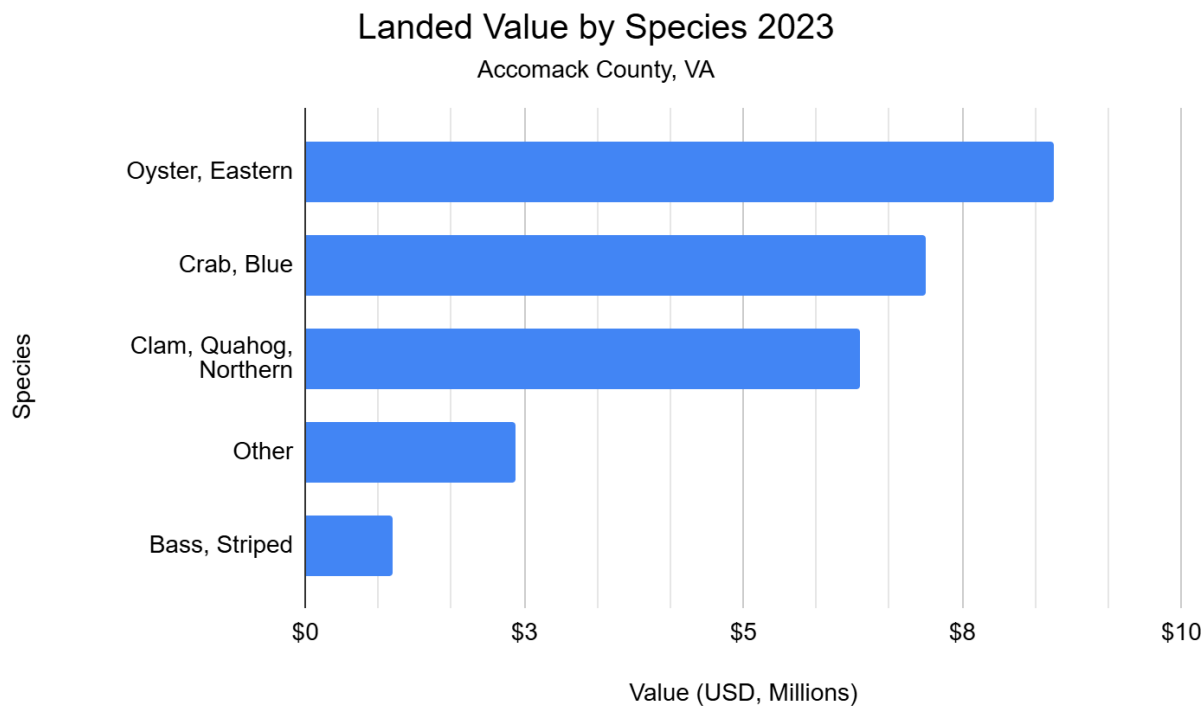
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Accomack County?

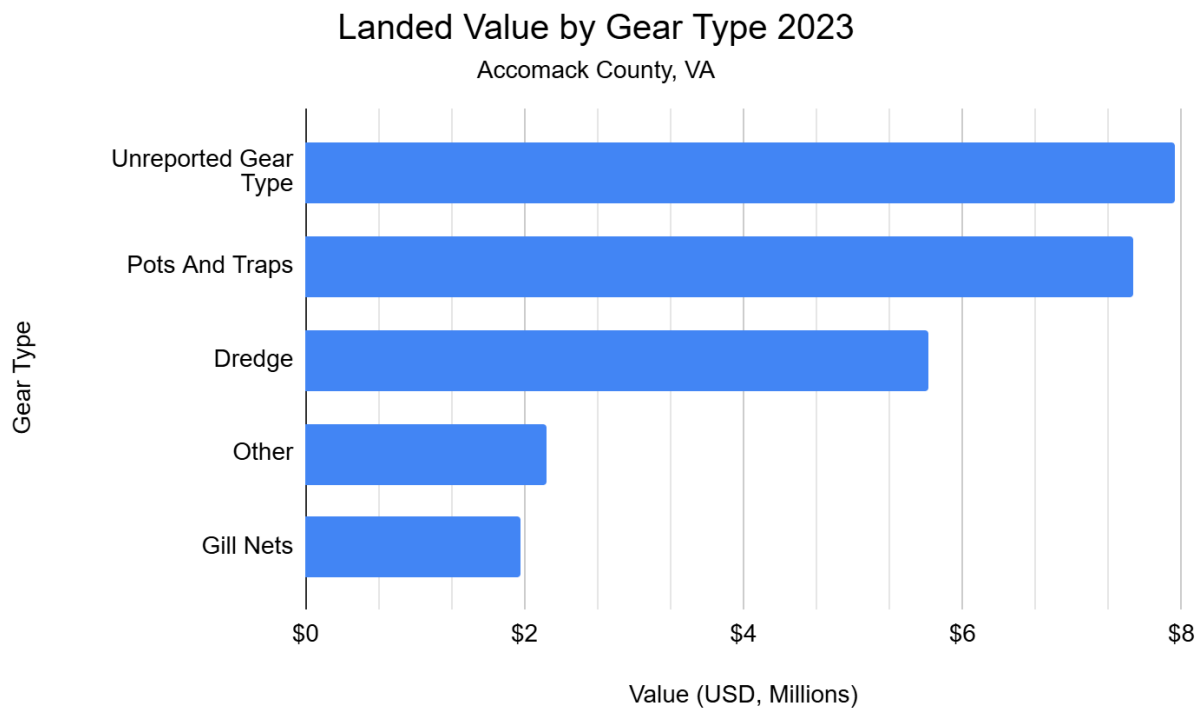
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Accomack County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

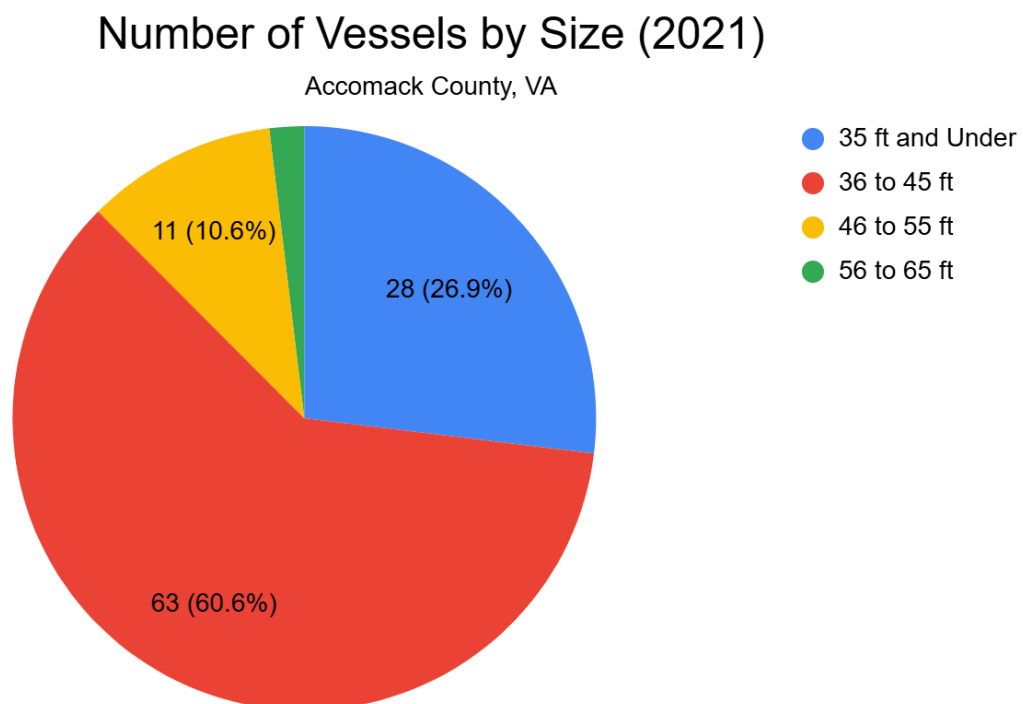


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Accomack County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

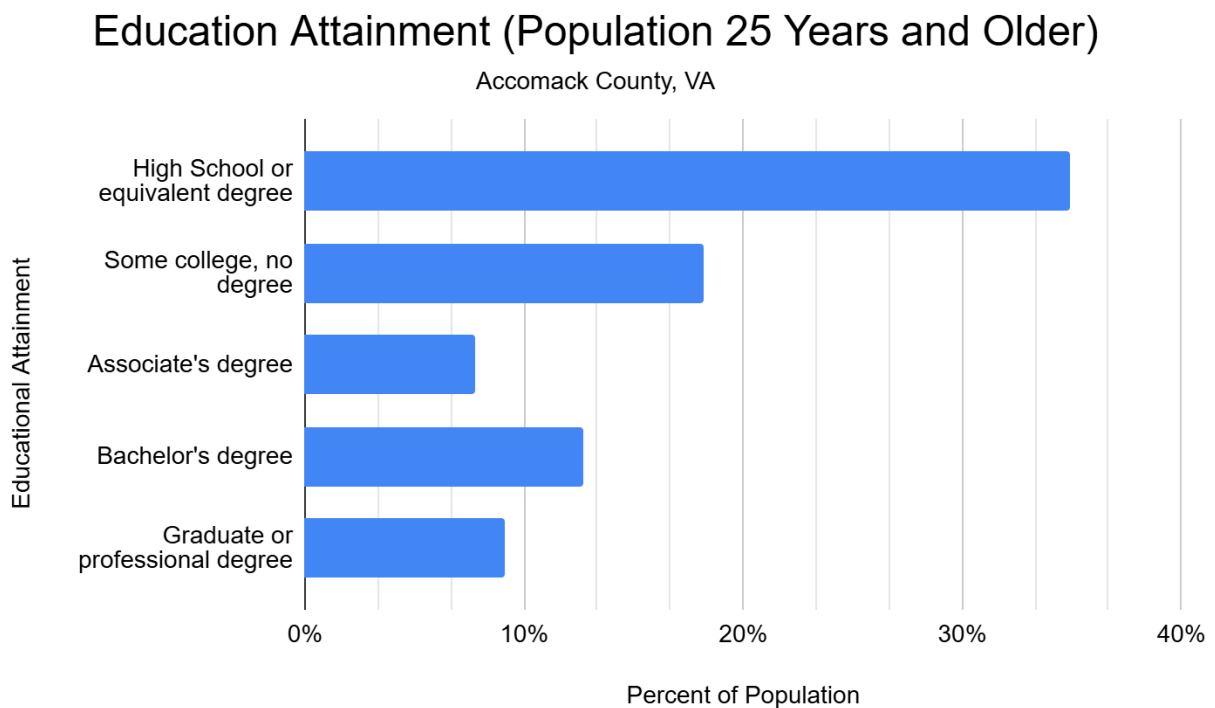


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

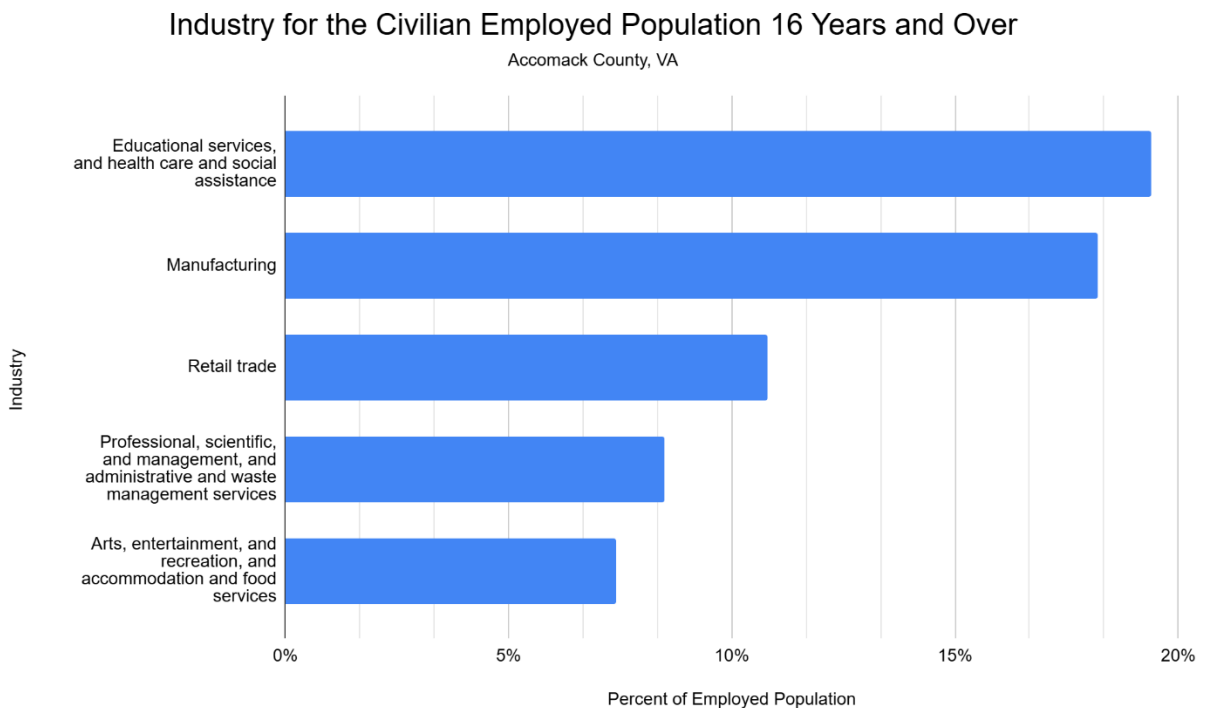
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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Accomack County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 3.8%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$57,500³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 14.9%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

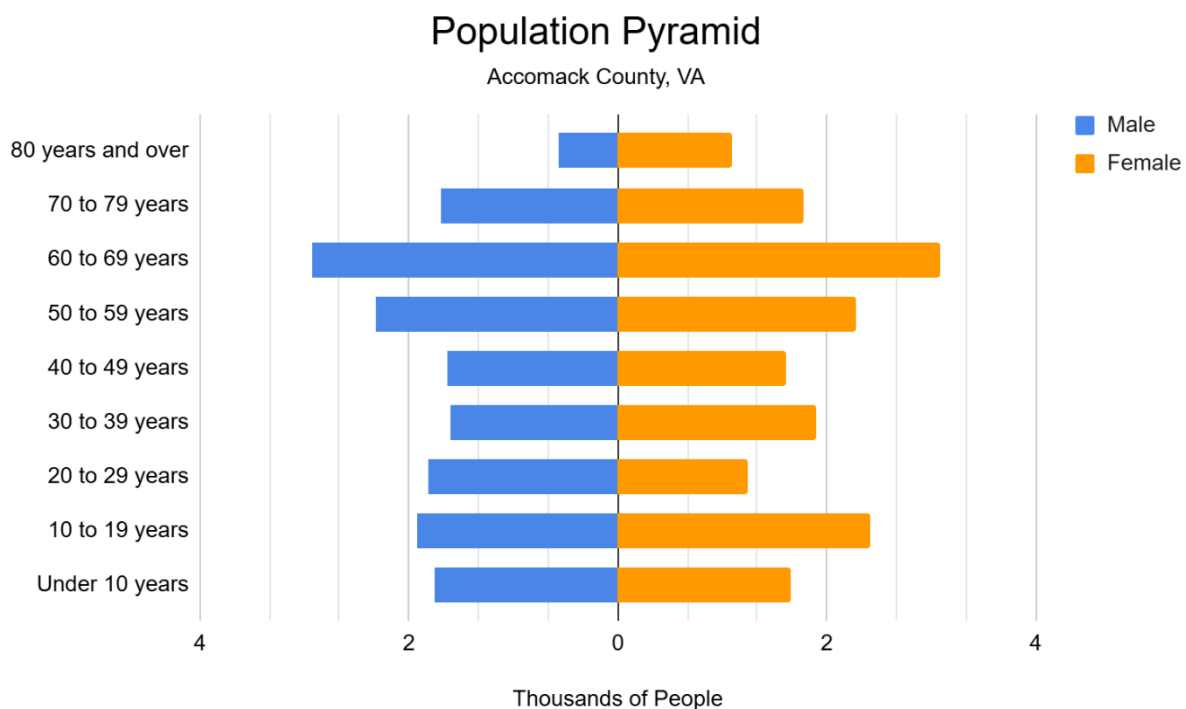
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 47.5⁵

National median: 38.7⁵

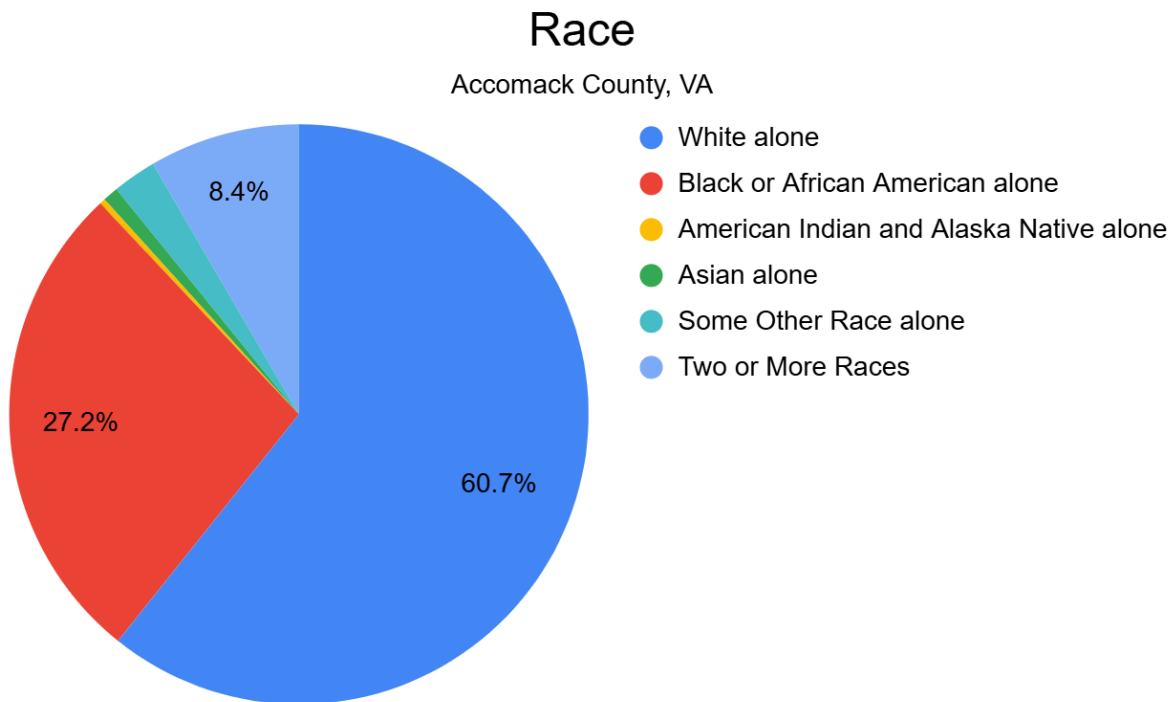


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

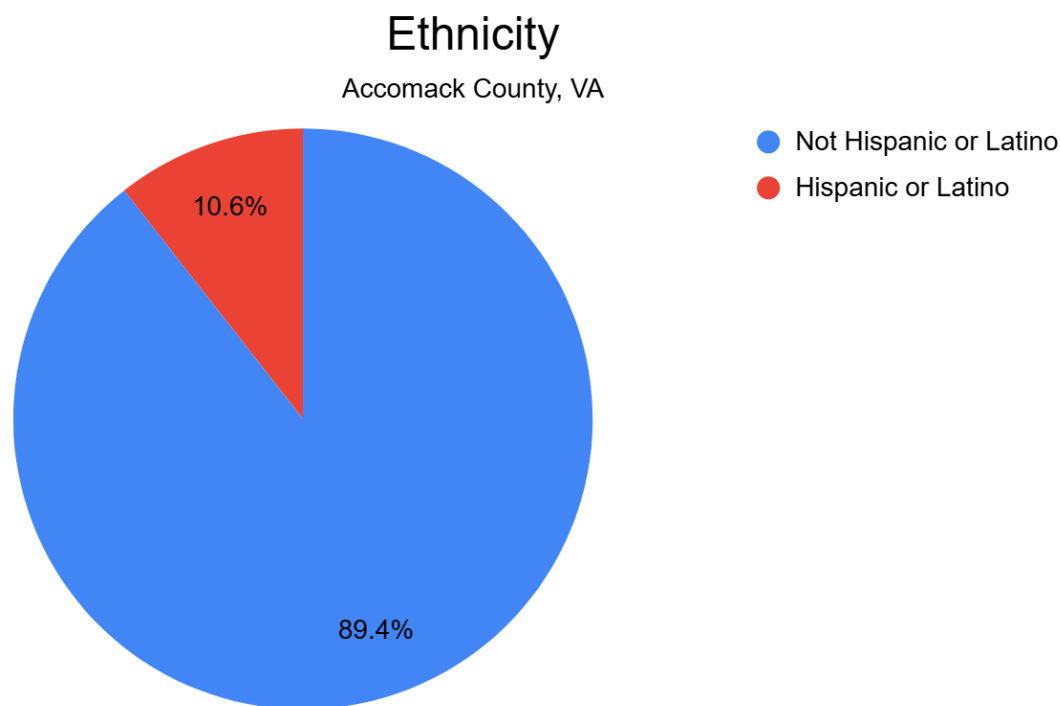
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 9.0%⁶

National Average: 13.9%⁶

Speak English less than very well: 7.0%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

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Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Accomack County

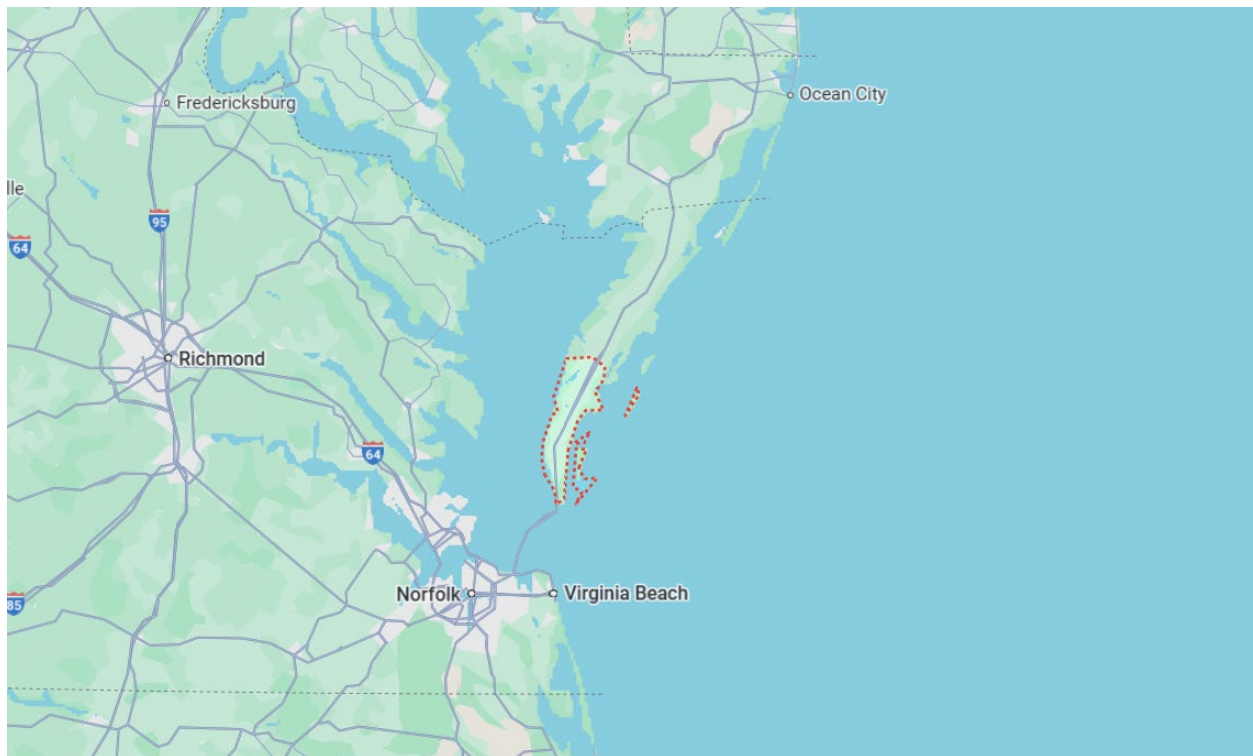
Community Name	District 6 / Accomac	Quinby	Chincoteague	Onancock	Wachapreague
Commercial Engagement	0.587	-0.153	0.446	-0.098	-0.026
Commercial Reliance	0.05	-0.053	0.01	-0.041	0.092
Poverty	2.301	1.483	-0.395	0.8	-0.937
Population Composition	1.182	-0.838	-0.84	0.038	-1.439
Personal Disruption	1.294	1.174	-0.189	0.524	-0.811
Housing Disruption	0.963	NA	0.426	0.1	-0.453
Retiree Migration	0.4	-0.603	1.041	0.99	2.123
Urban Sprawl	NA	-1.22	-1.468	-1.243	-1.225
Labor Force	0.485	-0.164	1.102	1.094	2.008
Housing Characteristics	1.006	NA	1.099	0.507	0.635
Sea Level Rise Risk	2.009	0.62	2.582	-0.062	0.443
Storm Surge Risk	1.258	0.811	1.324	-0.483	0.8

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Northampton County, VA

Northampton County has a population of 12,115¹ and a population per square mile of 57². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

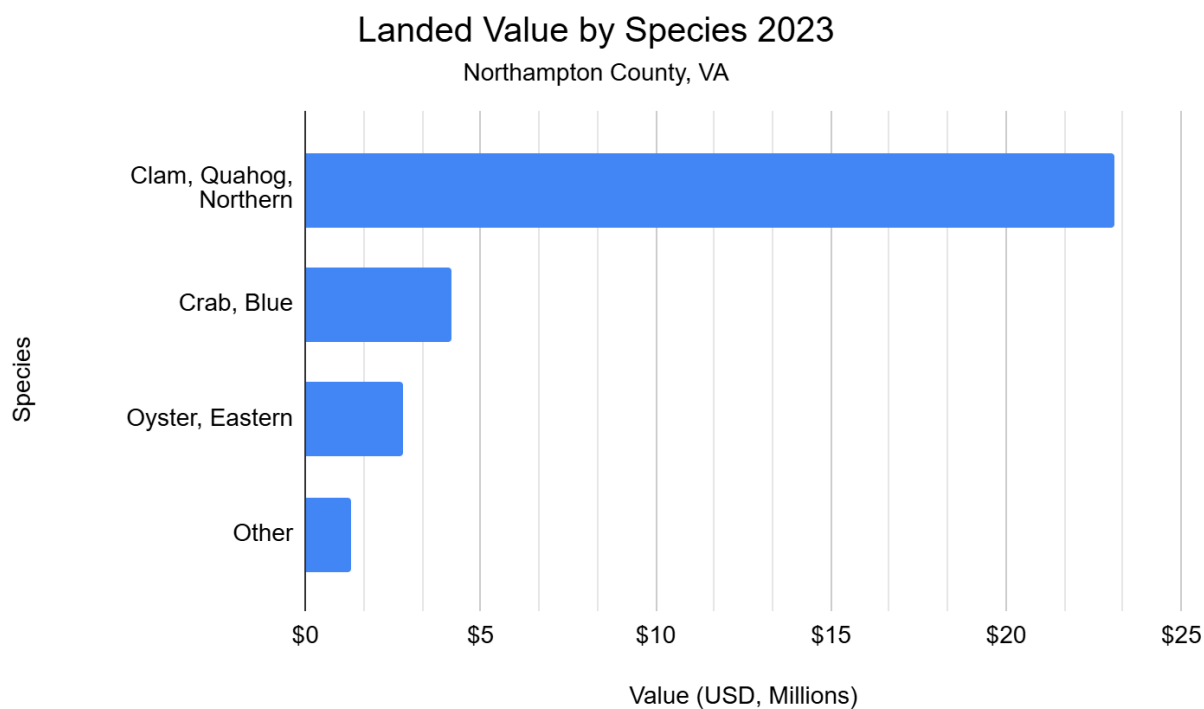
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Northampton County?

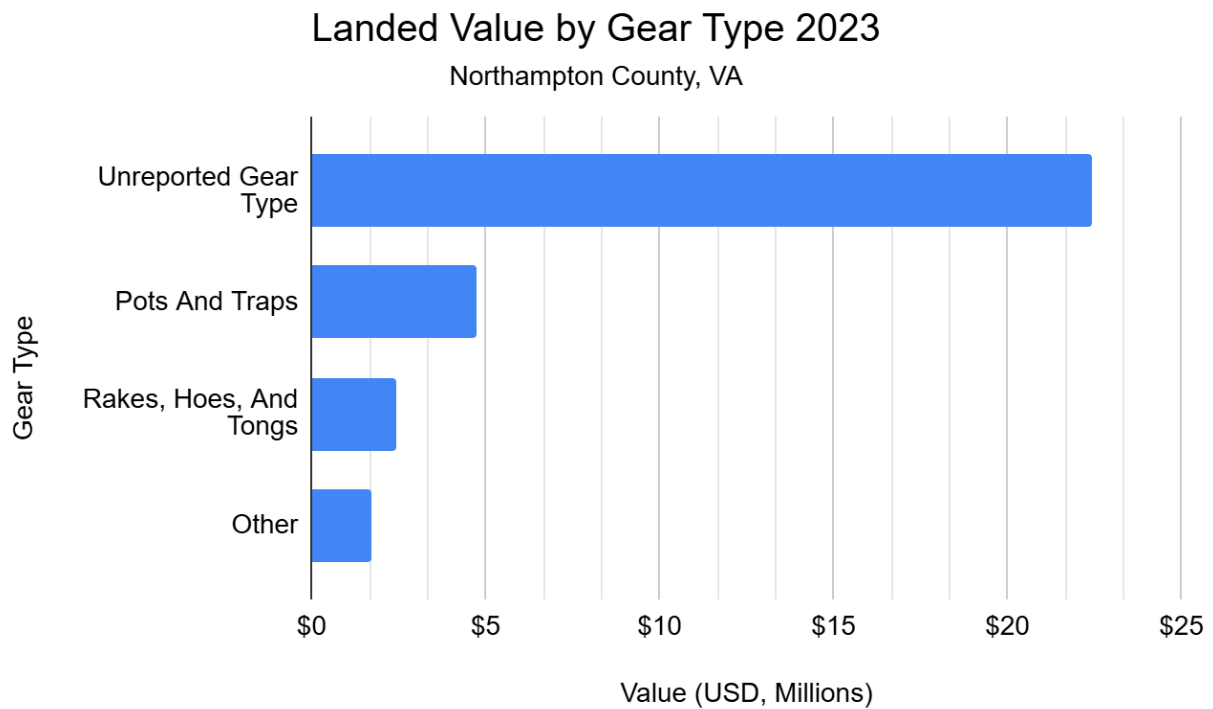
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Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Northampton County?

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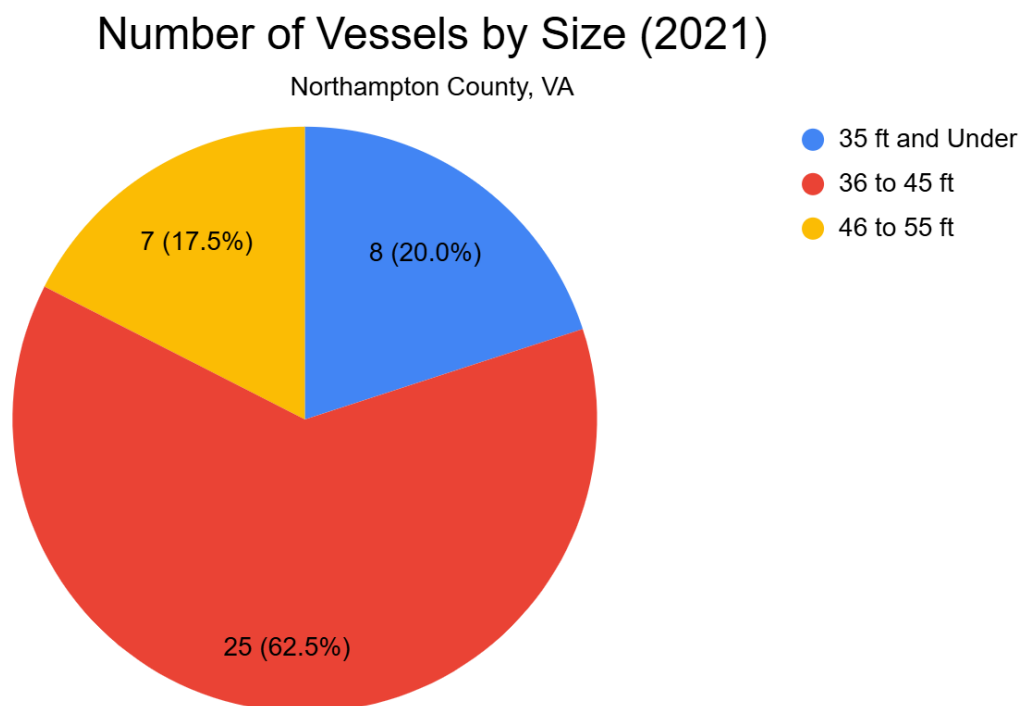


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Northampton County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

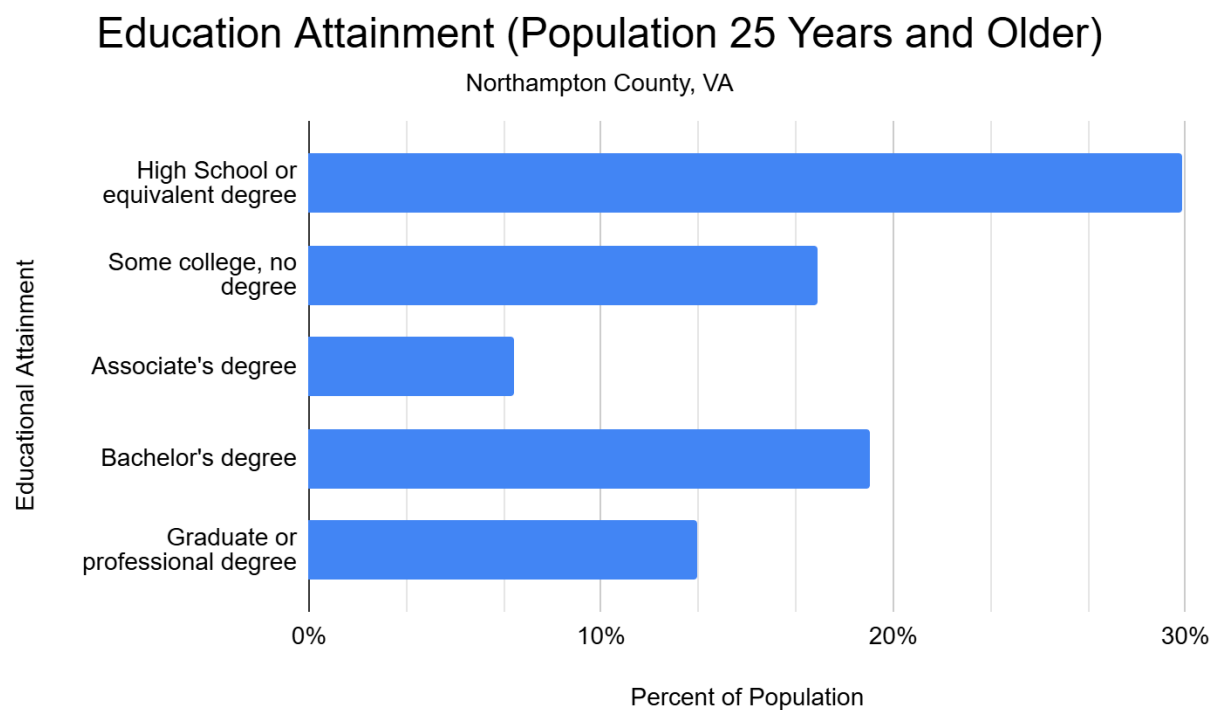


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Demographic Attributes

Educational Attainment

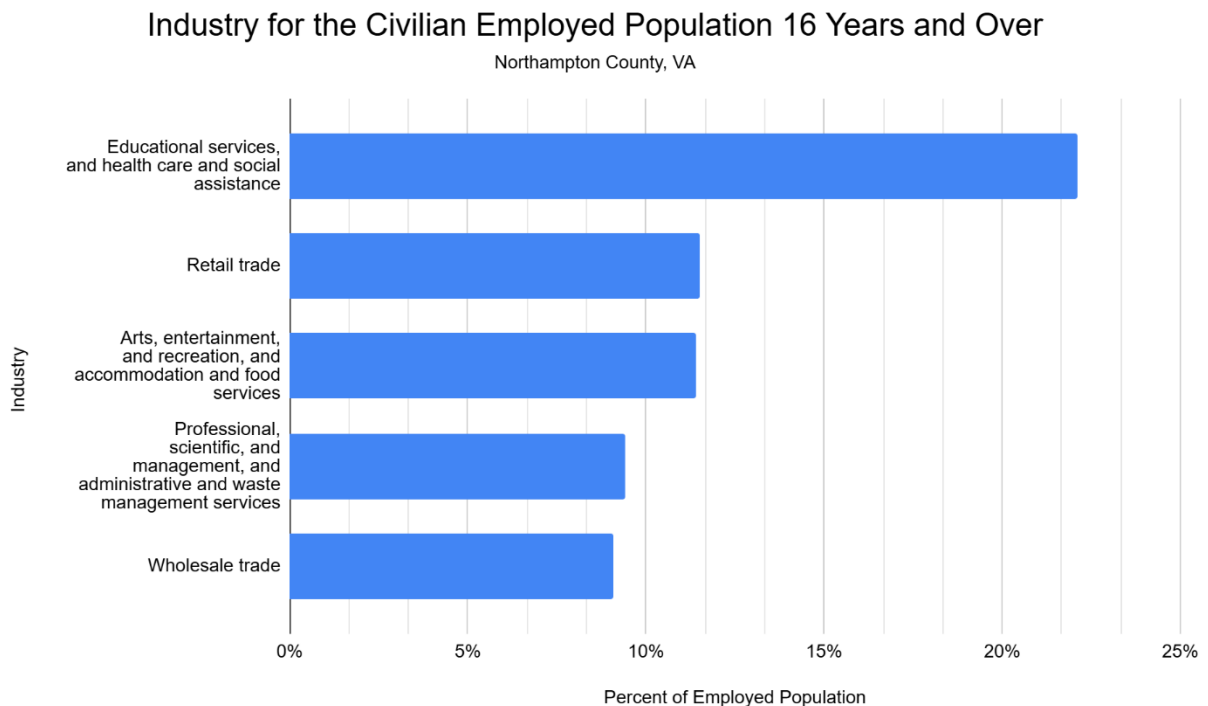
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How do people make a living in Northampton County?

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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 4.2%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$55,933³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 17.1%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

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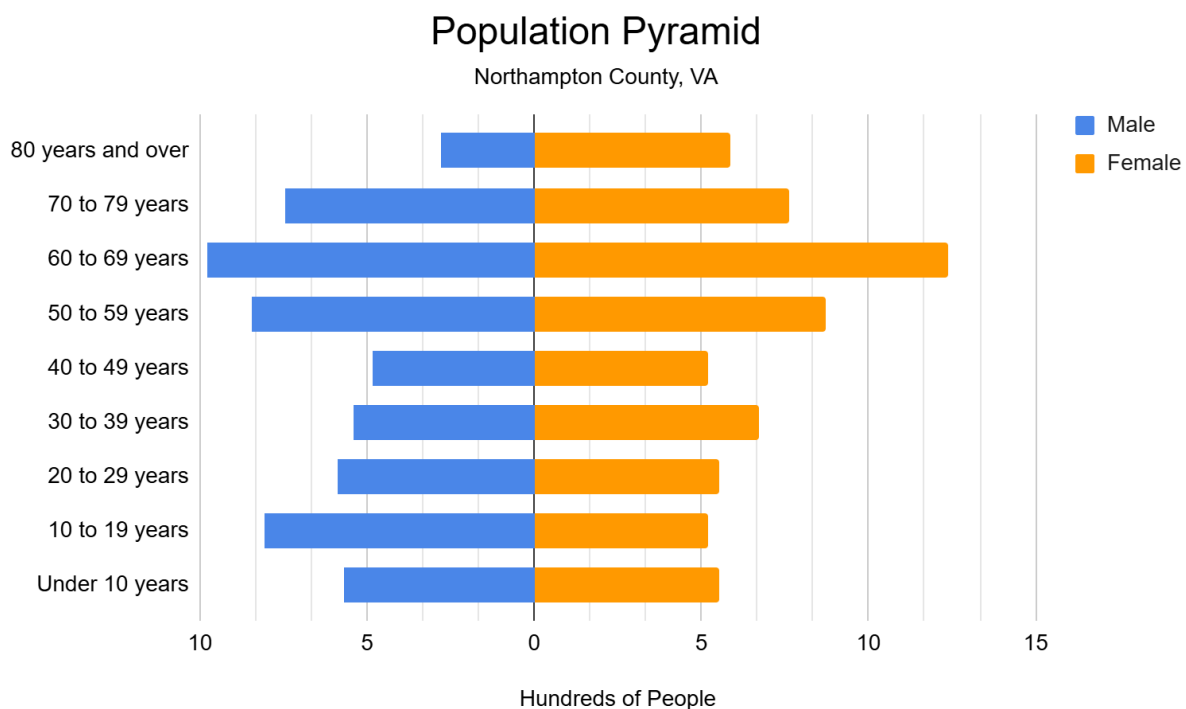
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Median age: 51.6⁵

National median: 38.7⁵

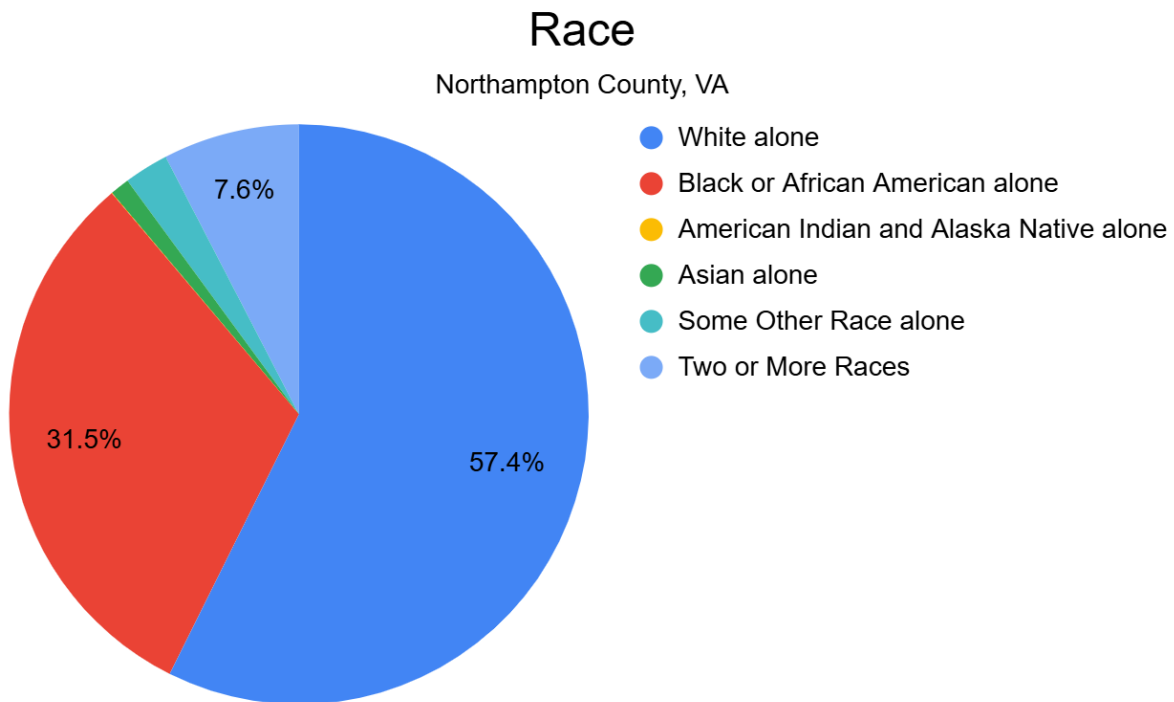


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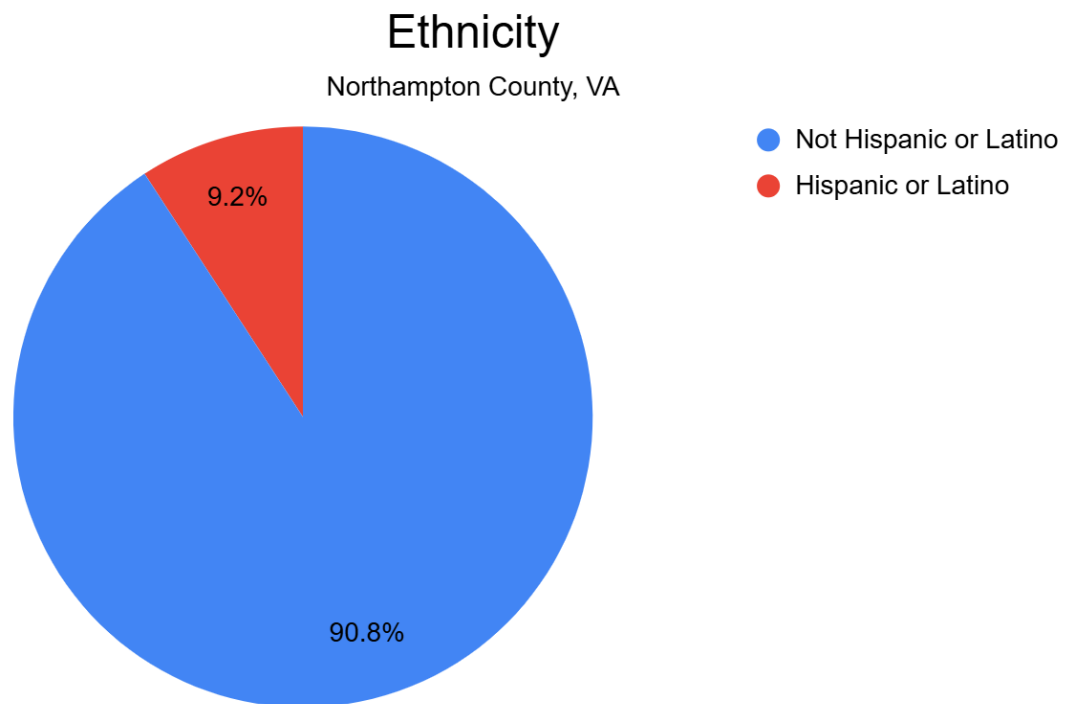
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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



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Foreign Born: 6.6%⁶

National Average: 13.9%⁶

Speak English less than very well: 4.4%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

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The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Northampton County

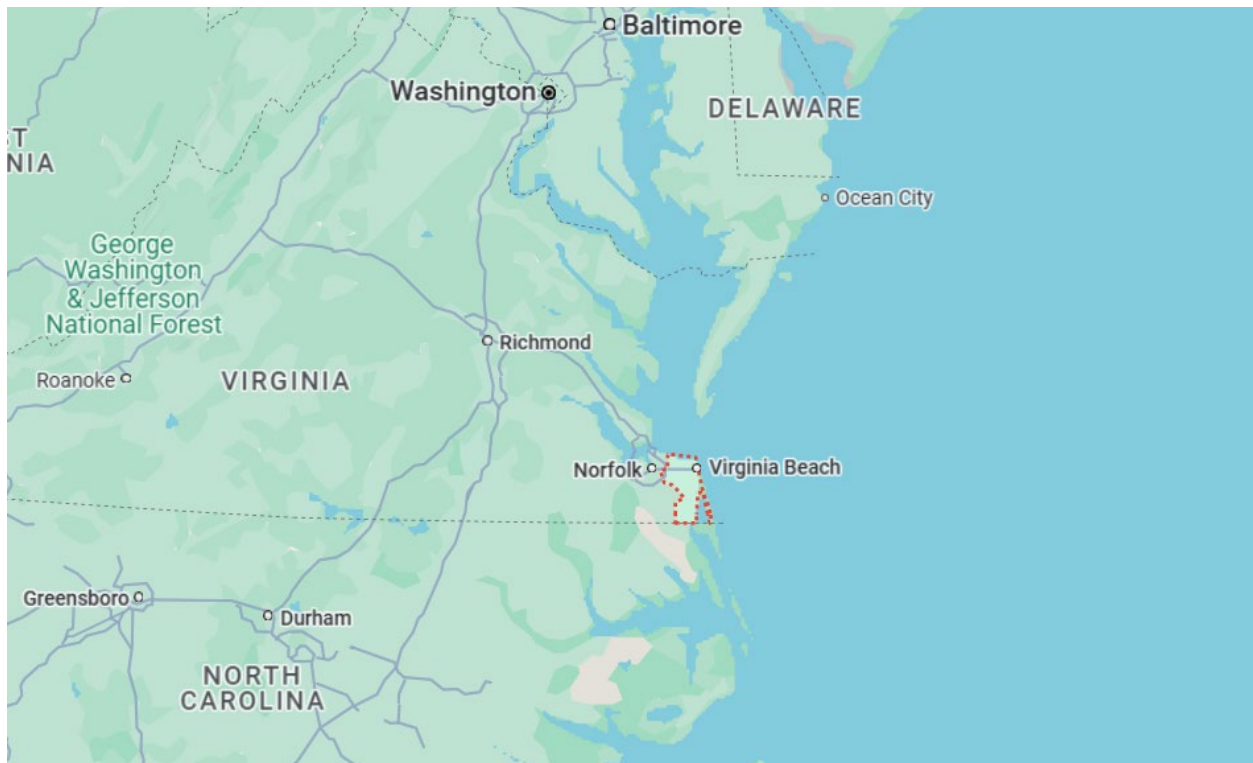
Community Name	District 4 / Cheriton / Eastville	District 2 / Cape Charles / Birdsnest / Cheriton / Franktown	Willis Wharf	Nassawadox	District 5 / Belle Haven / Exmore
Commercial Engagement	-0.105	0.137	-0.153	-0.153	-0.153
Commercial Reliance	-0.041	0.015	-0.053	-0.053	-0.053
Poverty	-0.202	0.328	NA	-0.327	-0.179
Population Composition	-0.302	-0.131	1.528	0.057	-0.099
Personal Disruption	-0.231	0.279	1.955	0.802	0.278
Housing Disruption	0.516	2.525	NA	-1.483	0.237
Retiree Migration	0.641	1.645	-2.847	0.365	0.843
Urban Sprawl	NA	NA	NA	-1.182	NA
Labor Force	0.393	1.287	-3.257	1.098	0.844
Housing Characteristics	0.4	0.476	NA	0.837	1.05
Sea Level Rise Risk	0.31	-0.103	0.026	-0.346	0.057
Storm Surge Risk	0.466	0.092	NA	NA	-0.226

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Virginia Beach City (County), VA

Virginia Beach City (County) has a population of 457,066¹ and a population per square mile of 1,868². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

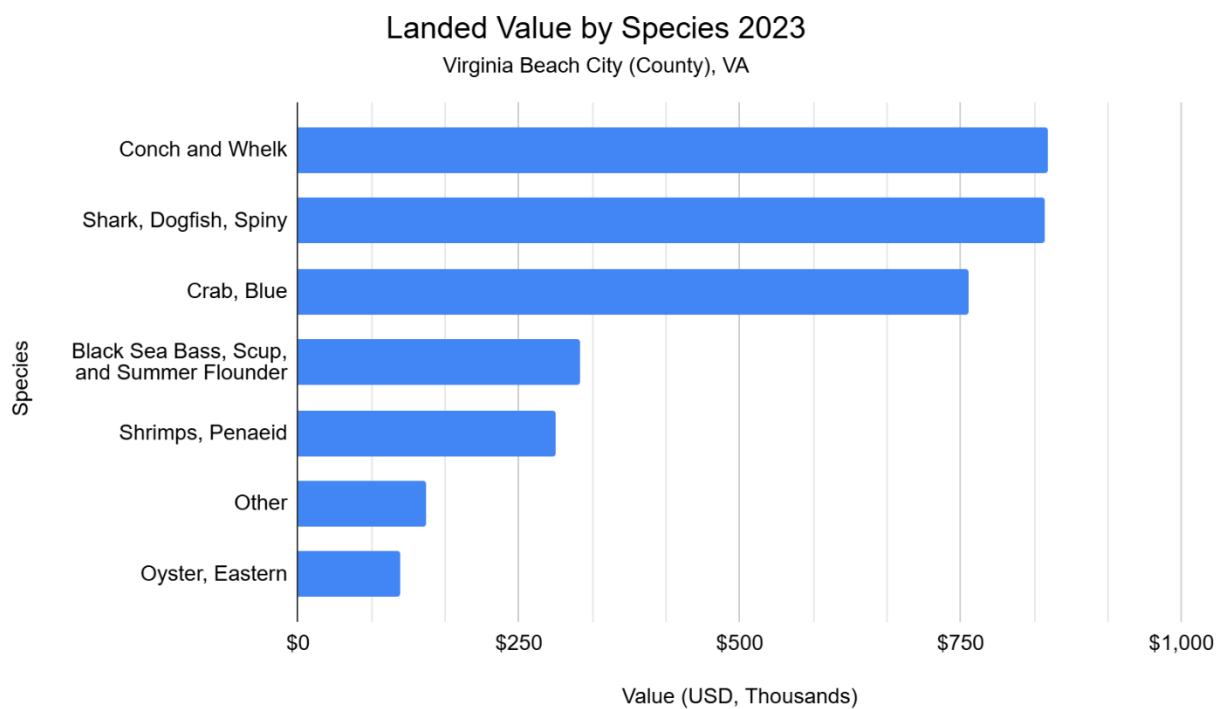
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Virginia Beach City (County)?

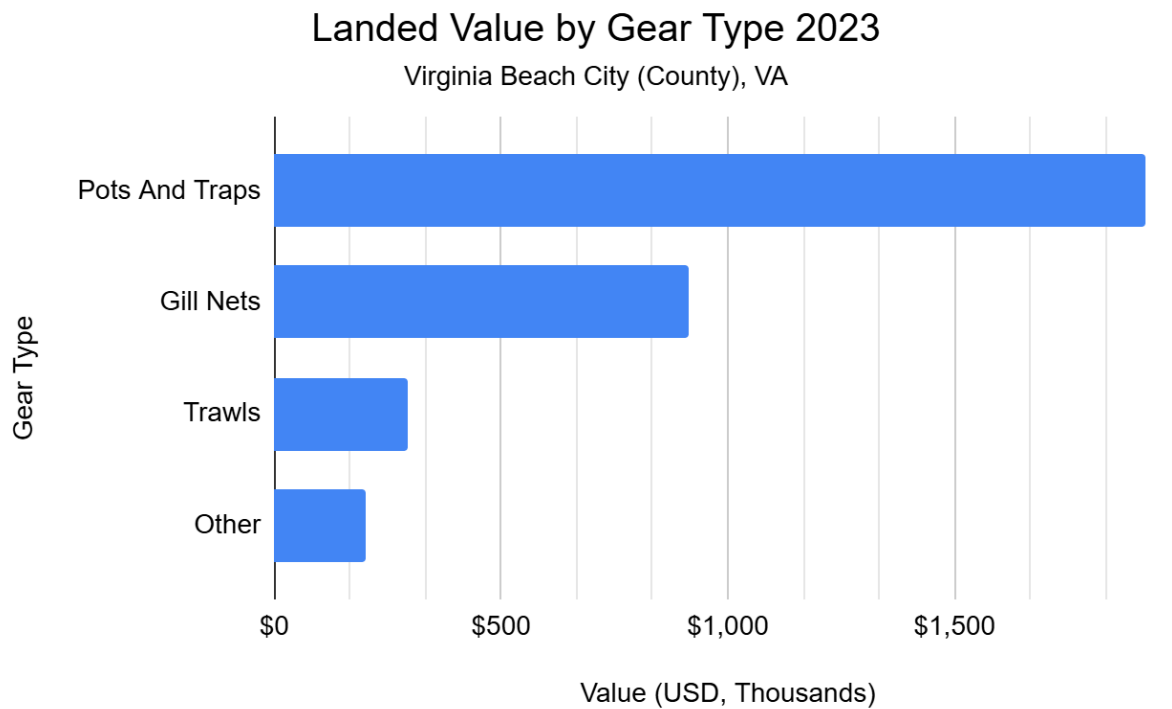
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Virginia Beach City (County)?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

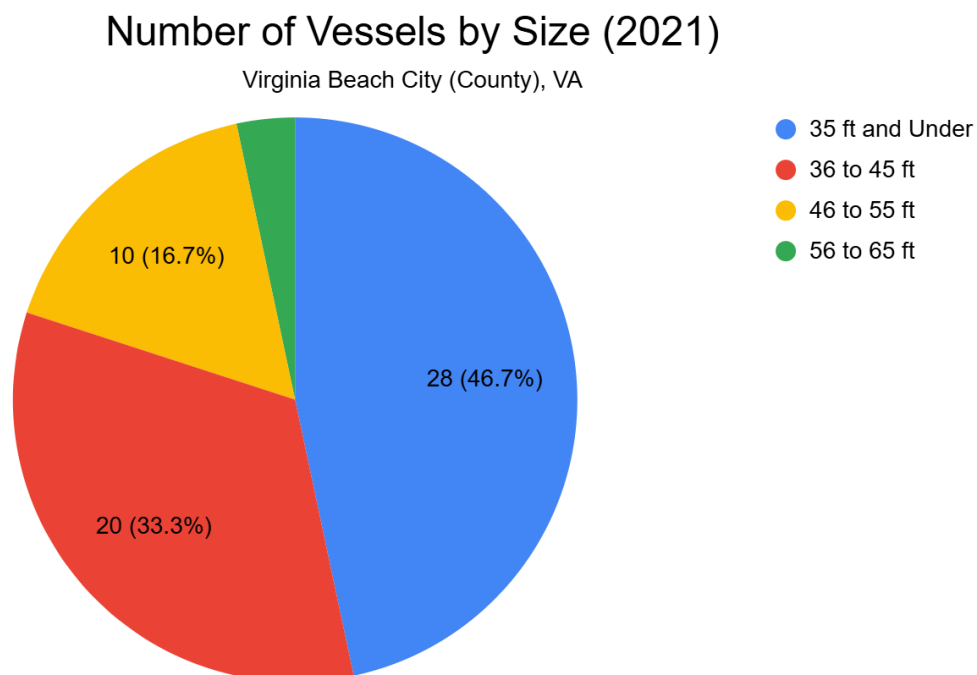


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Virginia Beach City (County)?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

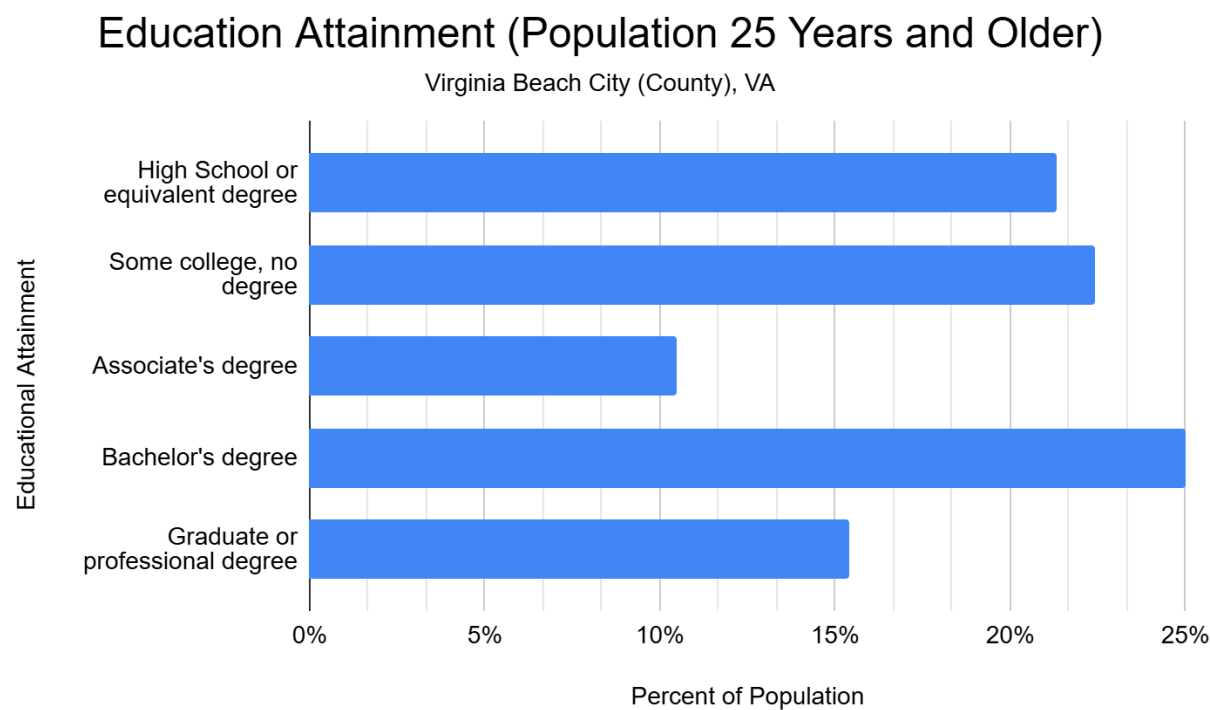


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

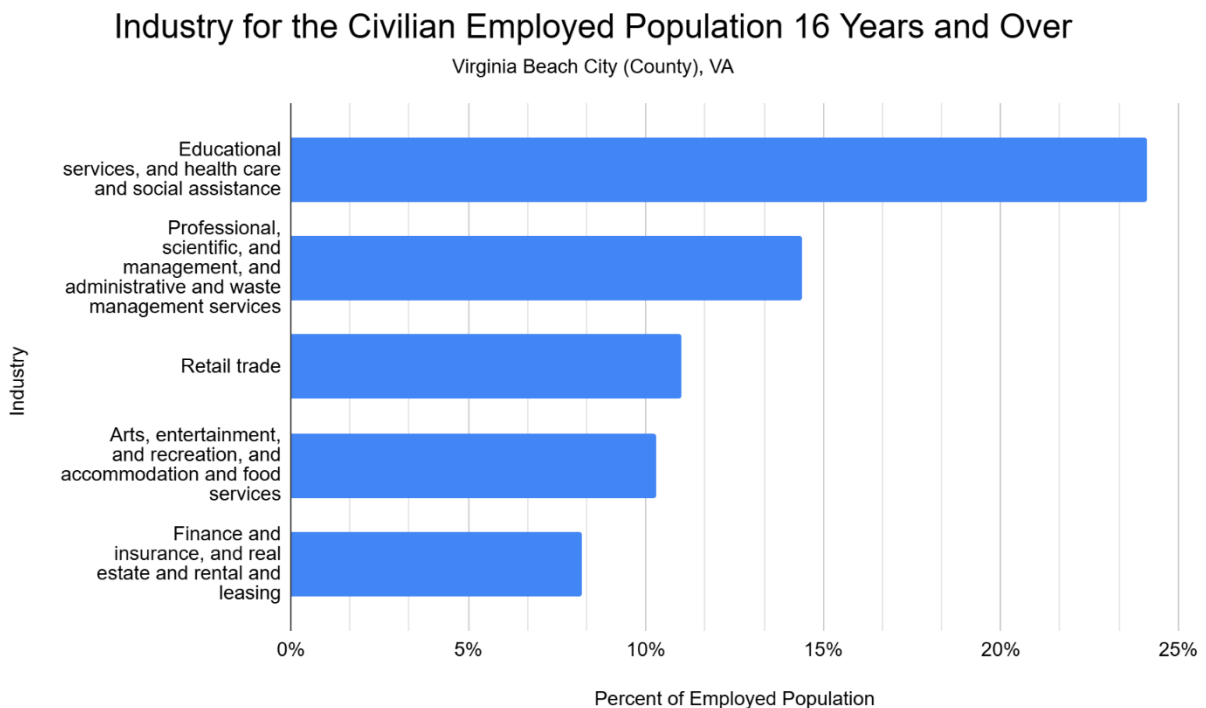
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Virginia Beach City (County)?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 4.3%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$90,685³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 8.4%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

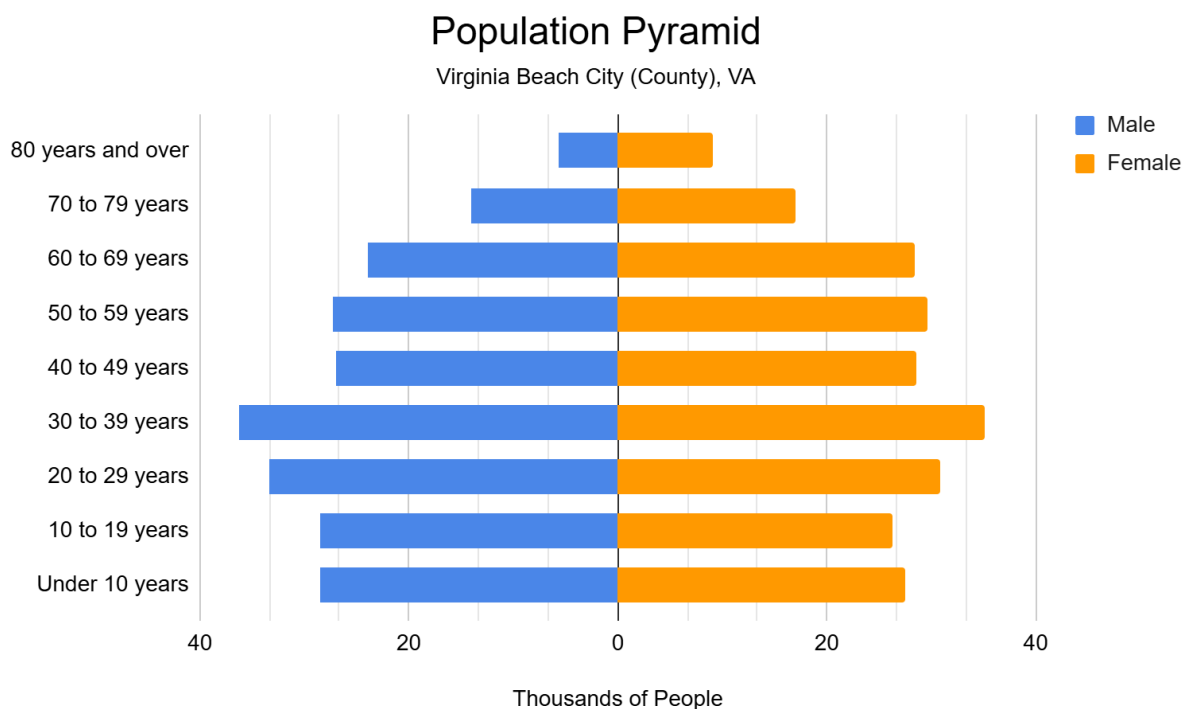
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 37.4⁵

National median: 38.7⁵

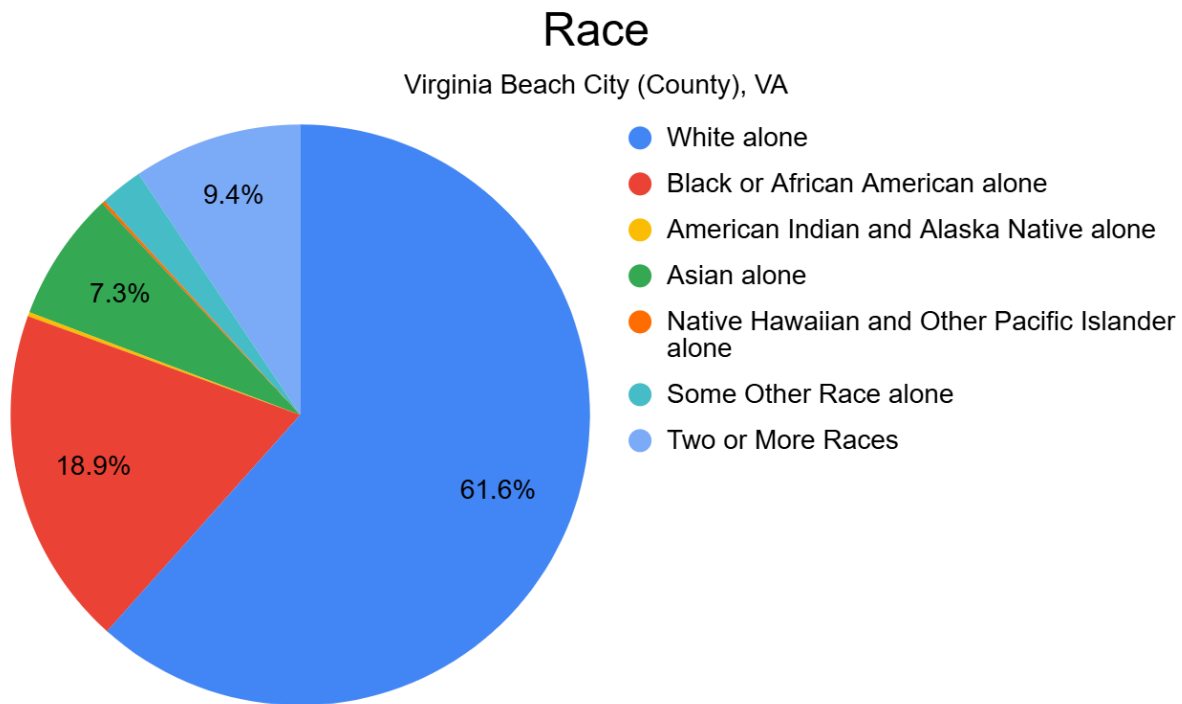


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

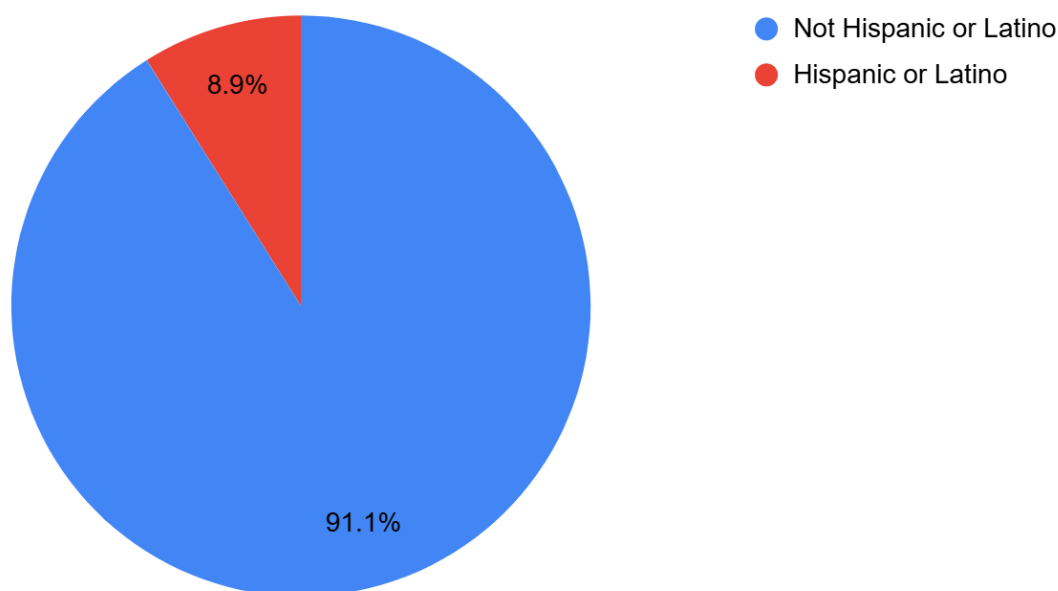
These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Ethnicity

Virginia Beach City (County), VA



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 9.1%⁶

National Average: 13.9%⁶

Speak English less than very well: 3.8%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Virginia Beach City (County)

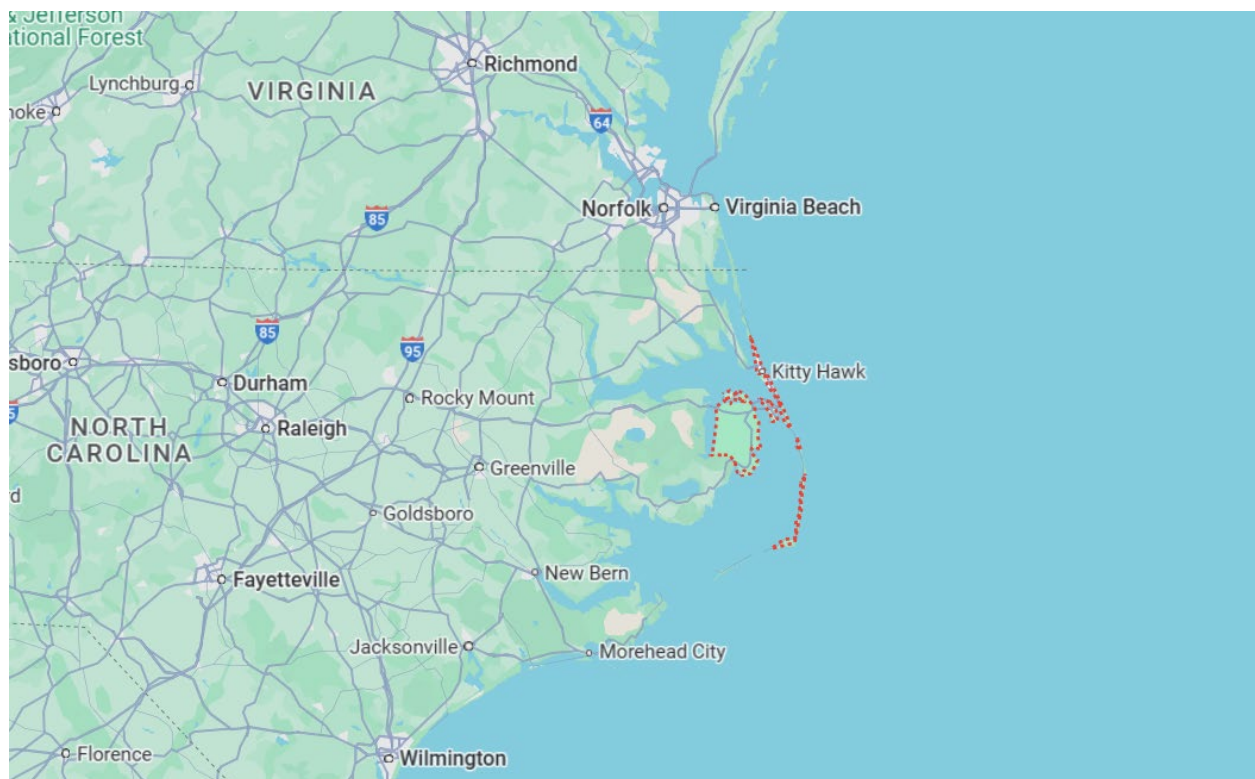
Community Name	Virginia Beach
Commercial Engagement	0.687
Commercial Reliance	-0.053
Poverty	-0.426
Population Composition	0.038
Personal Disruption	-0.309
Housing Disruption	0.104
Retiree Migration	-0.546
Urban Sprawl	-0.198
Labor Force	-0.716
Housing Characteristics	-0.09
Sea Level Rise Risk	9.038
Storm Surge Risk	7.028

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Dare County, NC

Dare County has a population of 37,534¹ and a population per square mile of 98². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

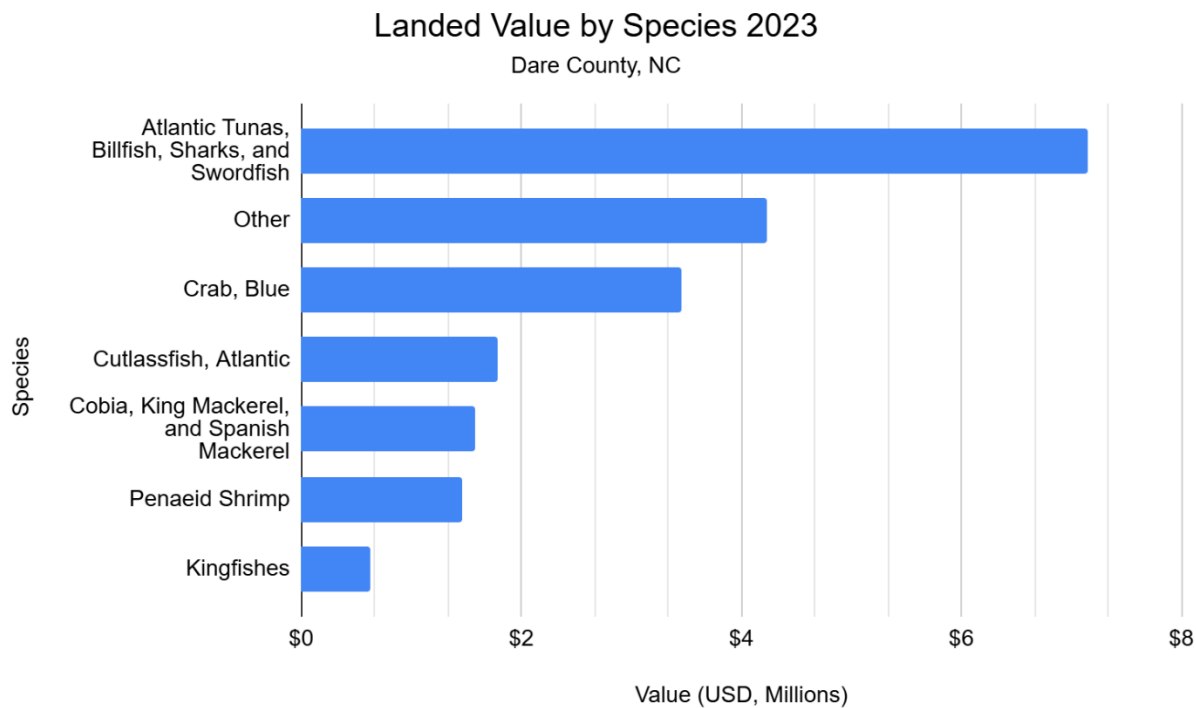
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Dare County?

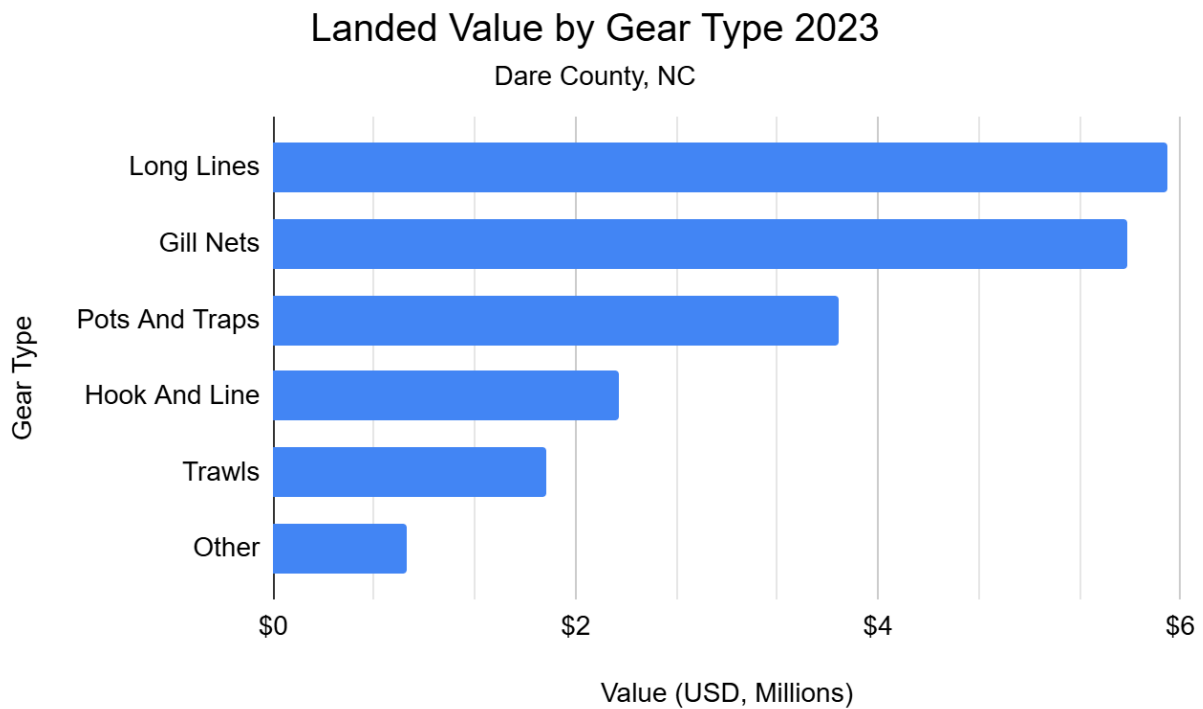
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Dare County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

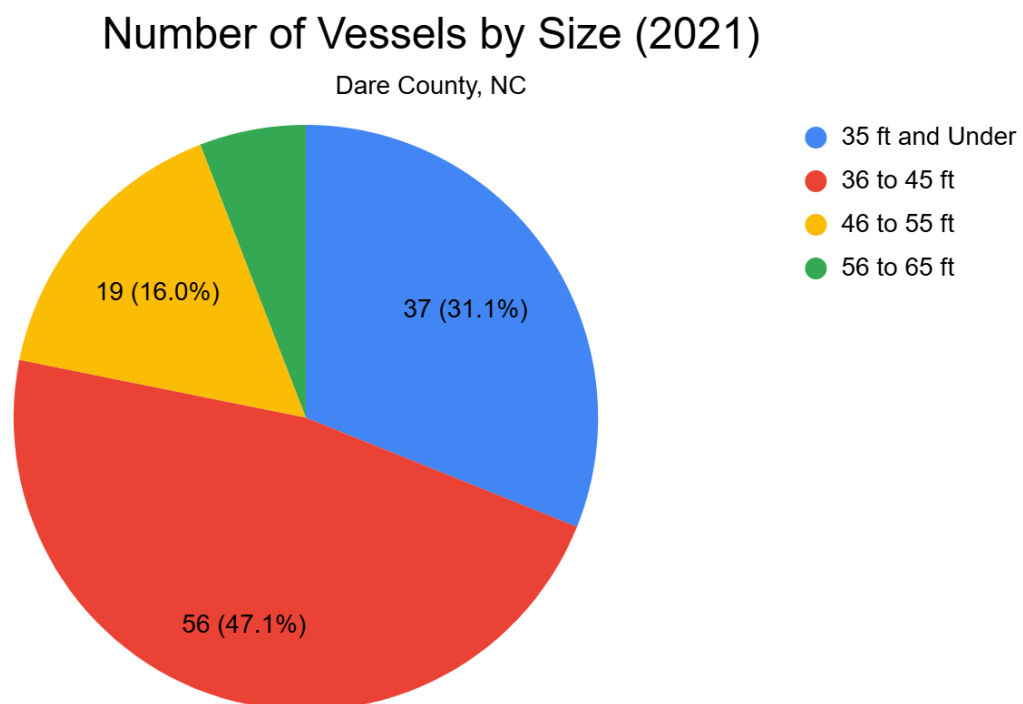


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Dare County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

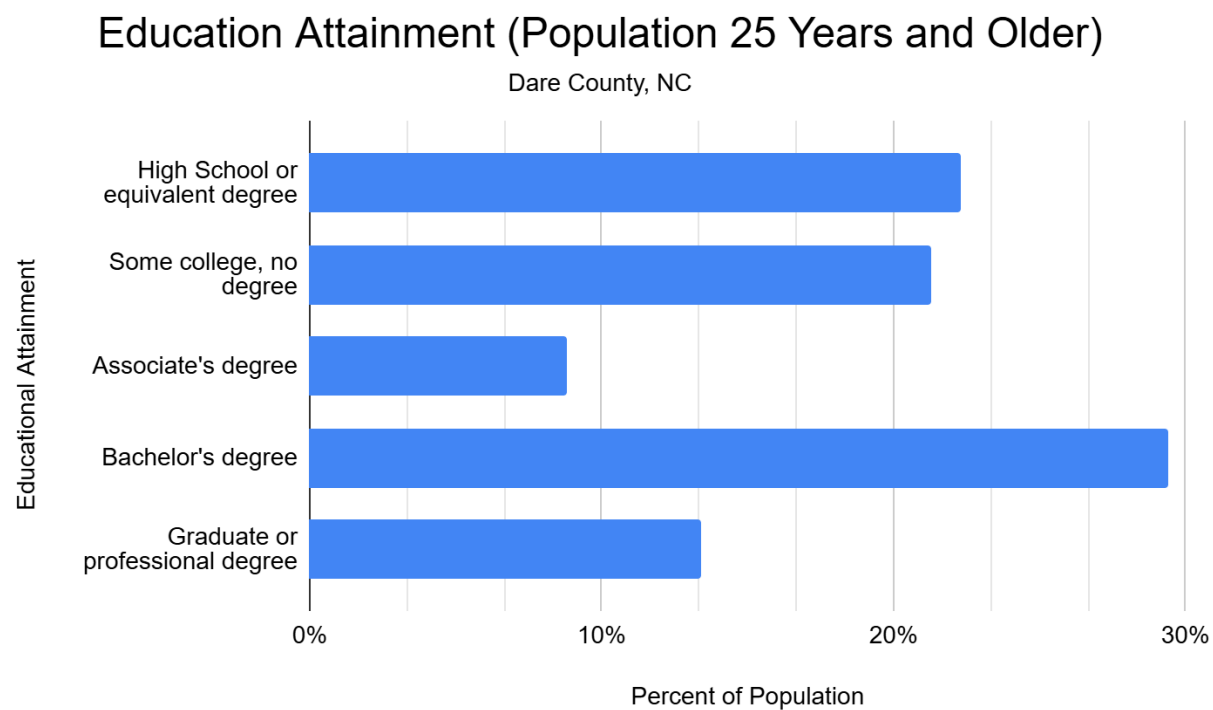


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

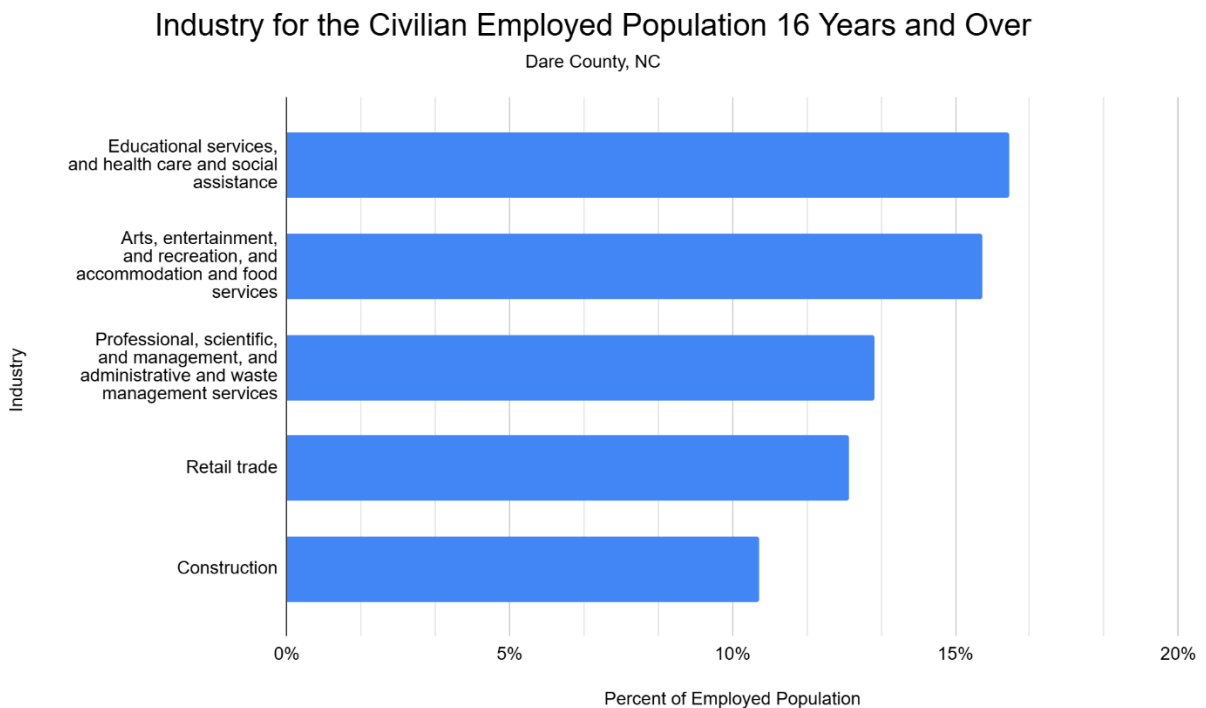
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Dare County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 5.9%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$81,214³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 7.5%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

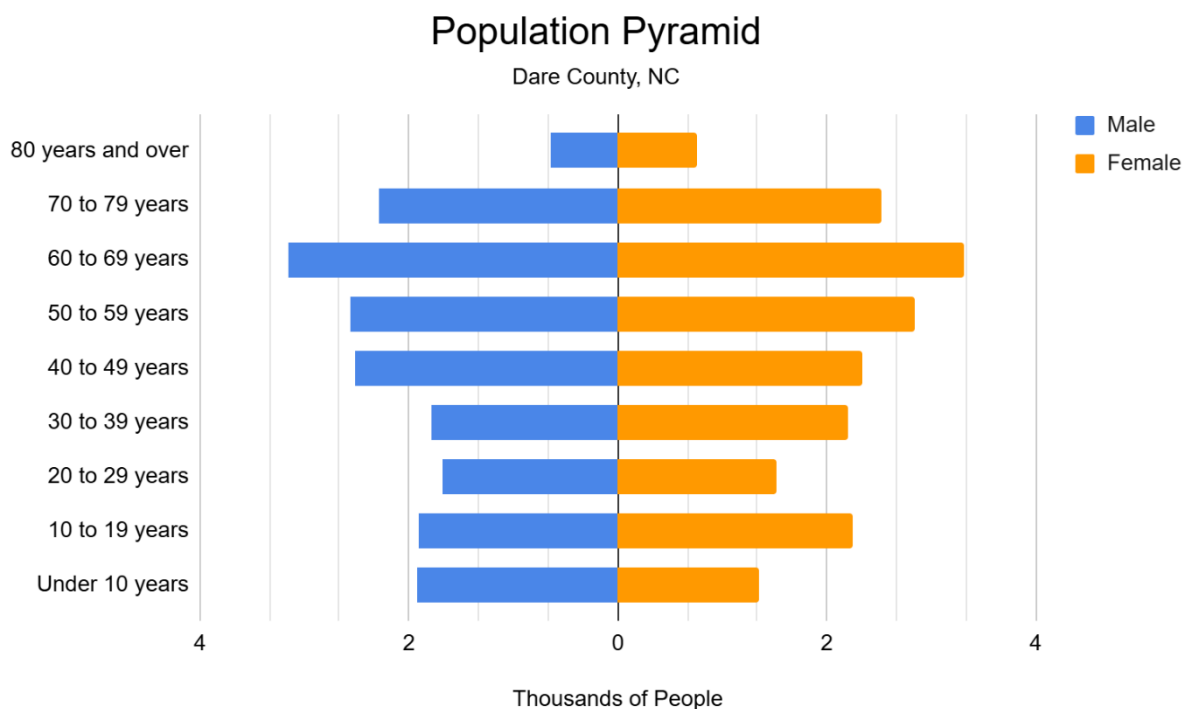
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

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Median age: 48.5⁵

National median: 38.7⁵

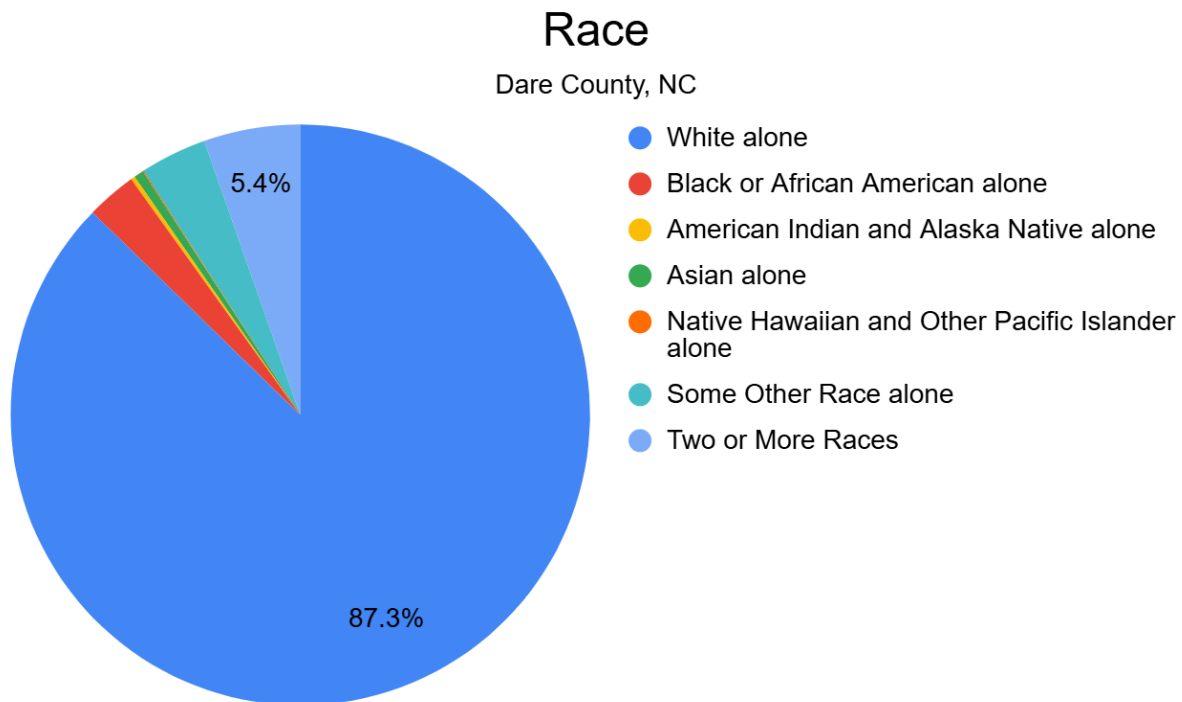


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

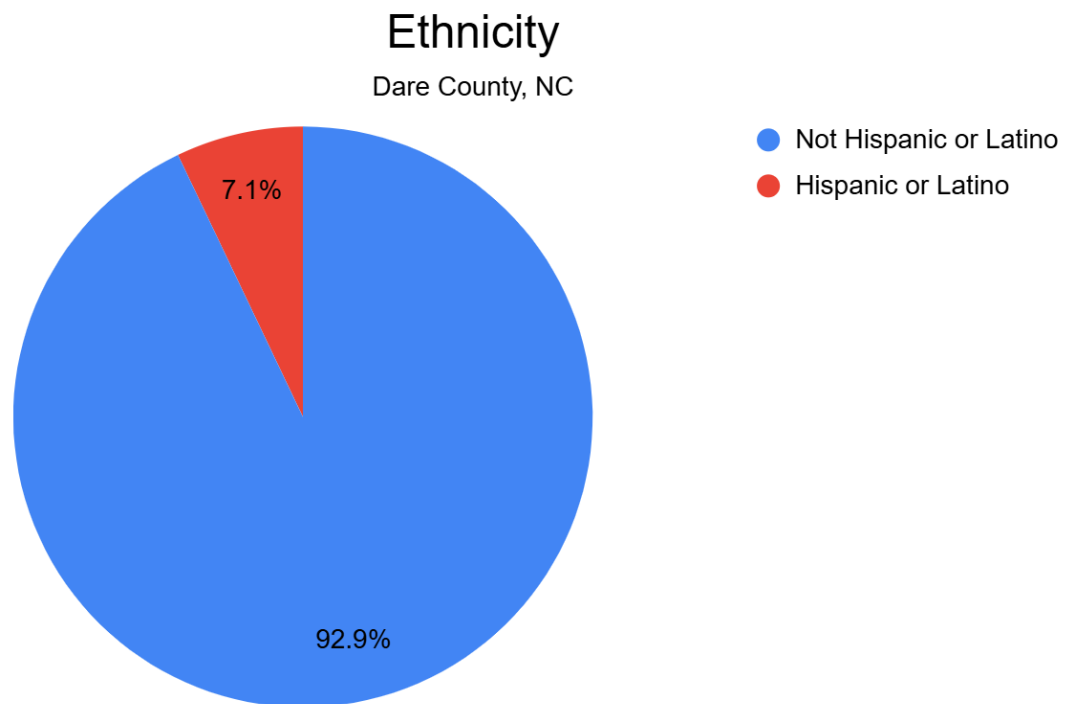
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 4.9%⁶

National Average: 13.9%⁶

Speak English less than very well: 2.4%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

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Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Dare County

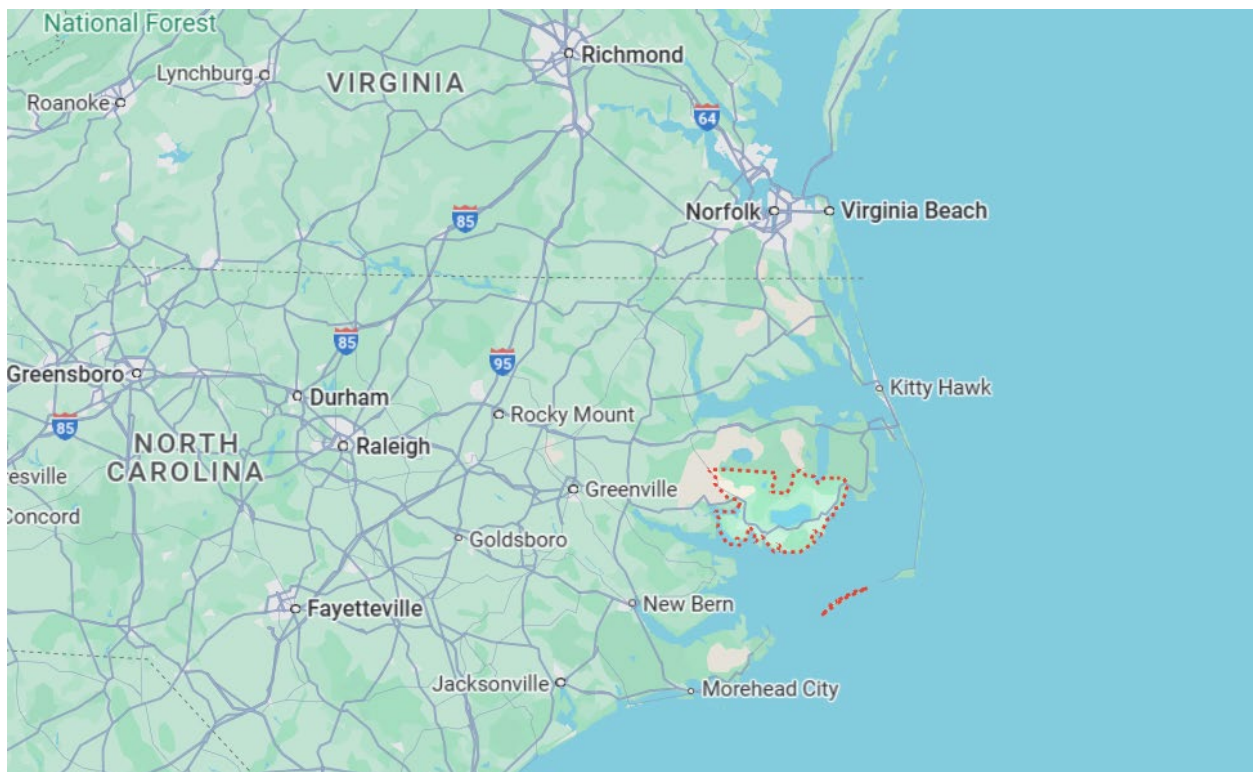
Community Name	Wanchese	Frisco	Nags Head	Kill Devil Hills	Manteo
Commercial Engagement	1.782	-0.078	0.374	0.349	0.094
Commercial Reliance	0.304	-0.024	0	-0.03	-0.02
Poverty	-0.814	0.27	-0.805	-0.035	1.017
Population Composition	-0.337	-0.7	-1.039	-0.582	-0.446
Personal Disruption	-0.895	0.755	-0.764	-0.15	0.295
Housing Disruption	0.348	NA	0.129	0.767	1.266
Retiree Migration	-0.46	-0.135	0.962	-0.574	0.297
Urban Sprawl	-1.475	-1.786	-1.217	-1.157	-1.173
Labor Force	-0.905	-0.602	0.276	-0.958	0.223
Housing Characteristics	1.184	0.862	0.187	0.537	0.421
Sea Level Rise Risk	1.81	0.747	0.289	-0.056	1.172
Storm Surge Risk	0.798	NA	0.295	0.305	0.625

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Hyde County, NC

Hyde County has a population of 4,625¹ and a population per square mile of 8². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

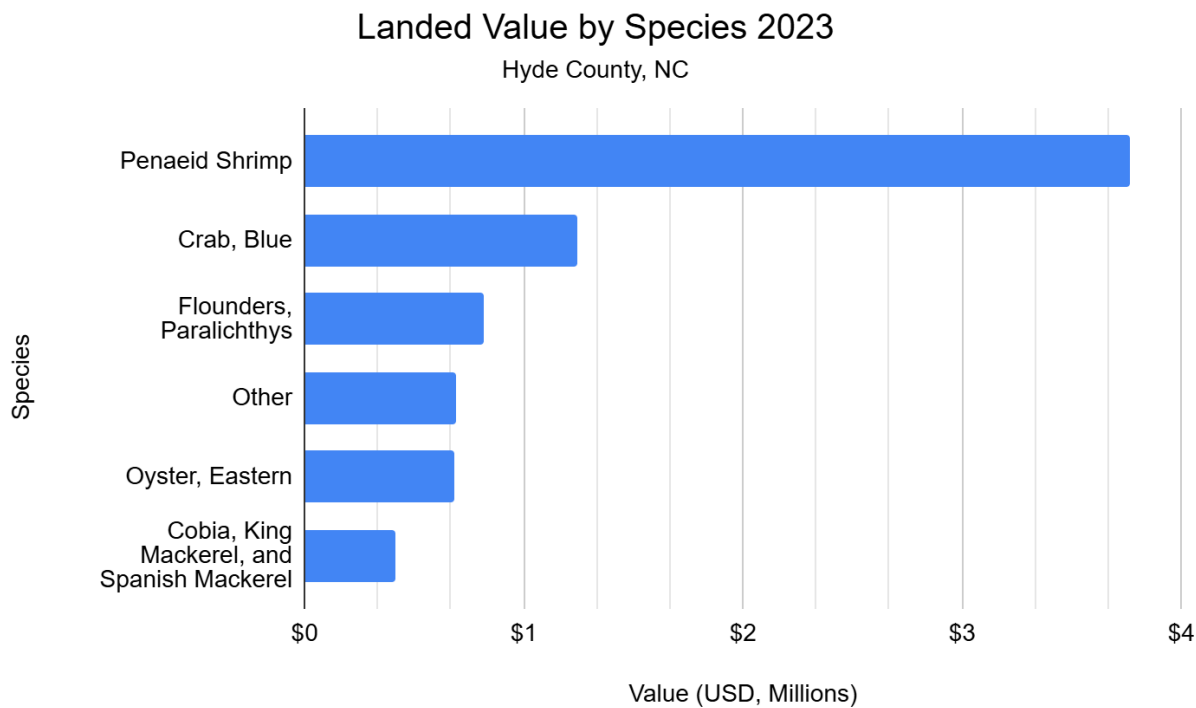
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Hyde County?

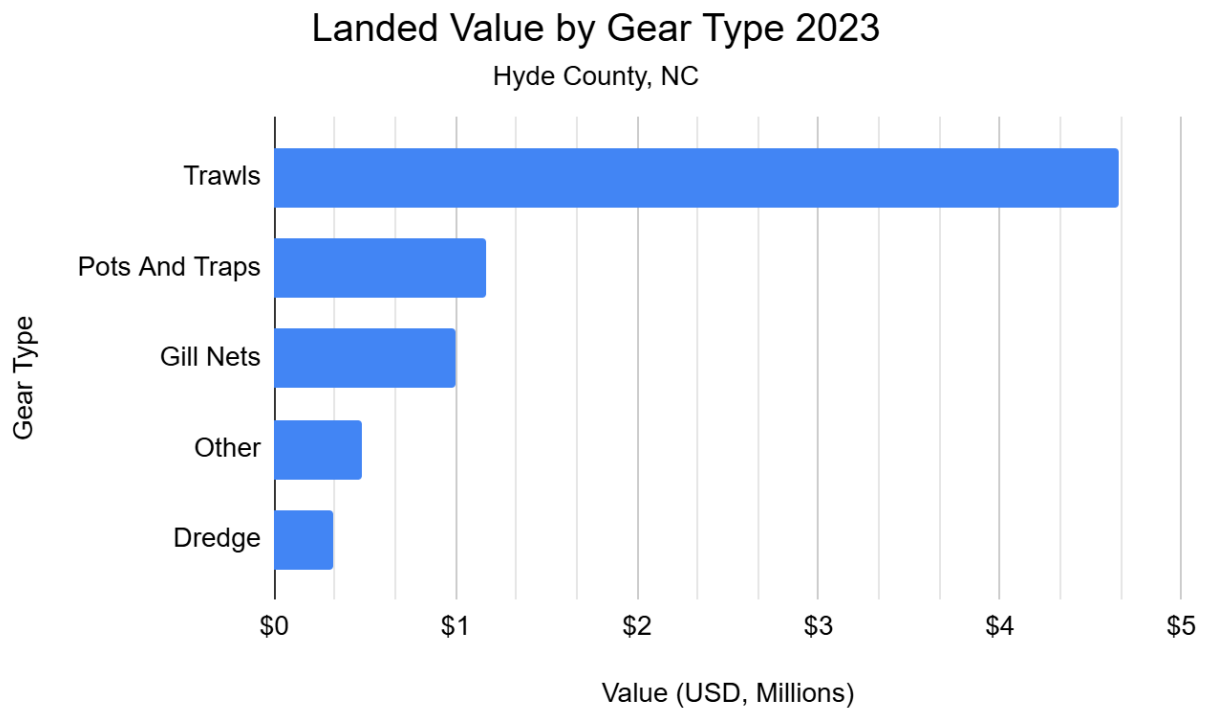
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Hyde County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

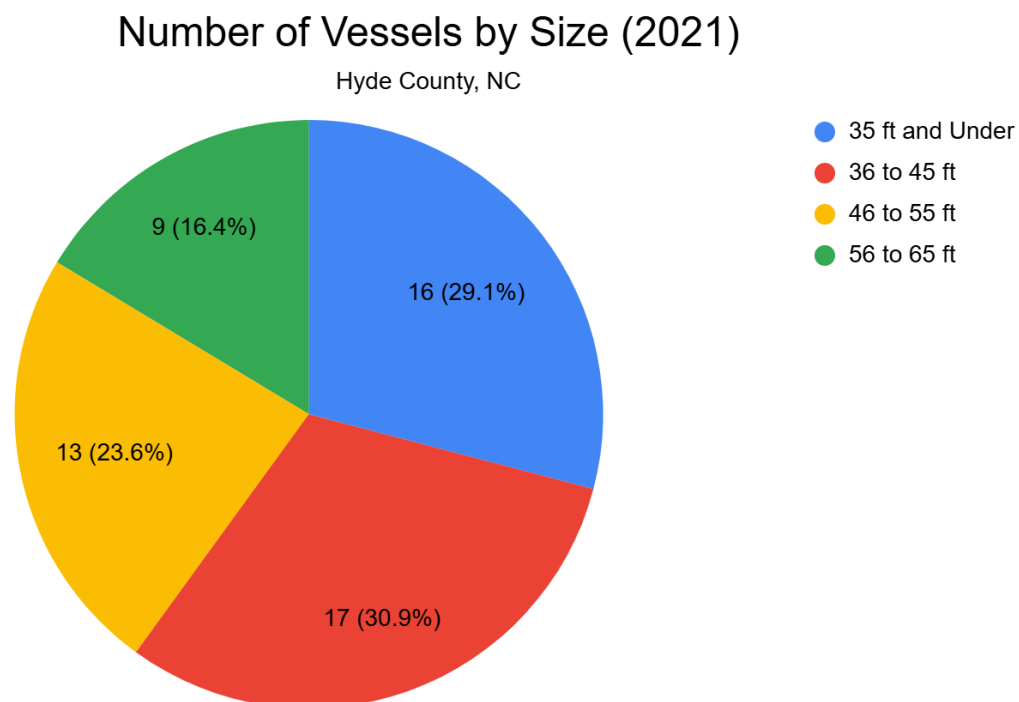


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Hyde County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

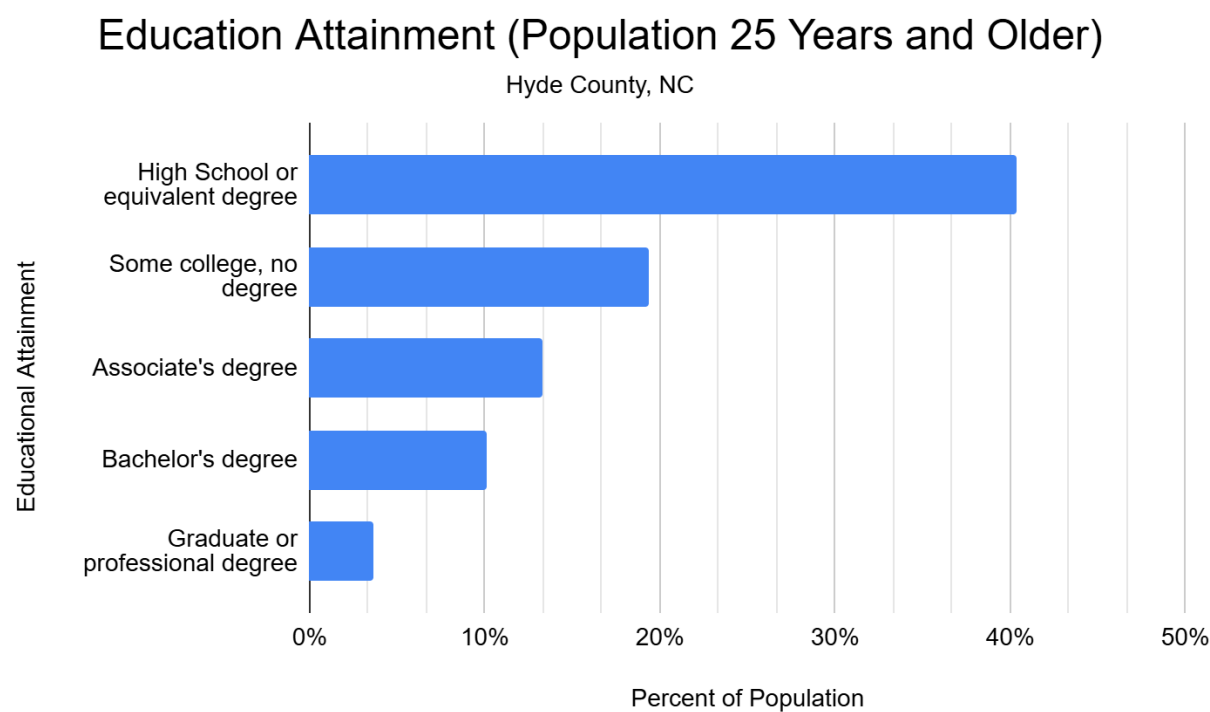


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

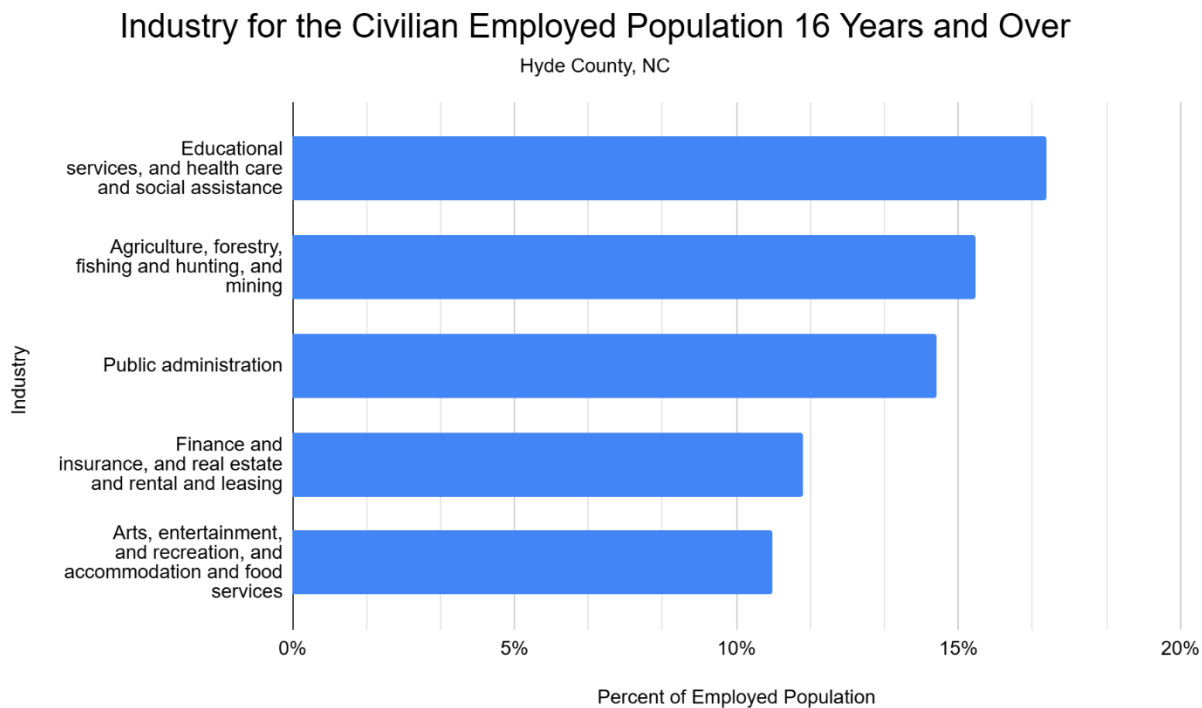
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Hyde County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 3.0%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$47,338³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 22.4%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

³ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

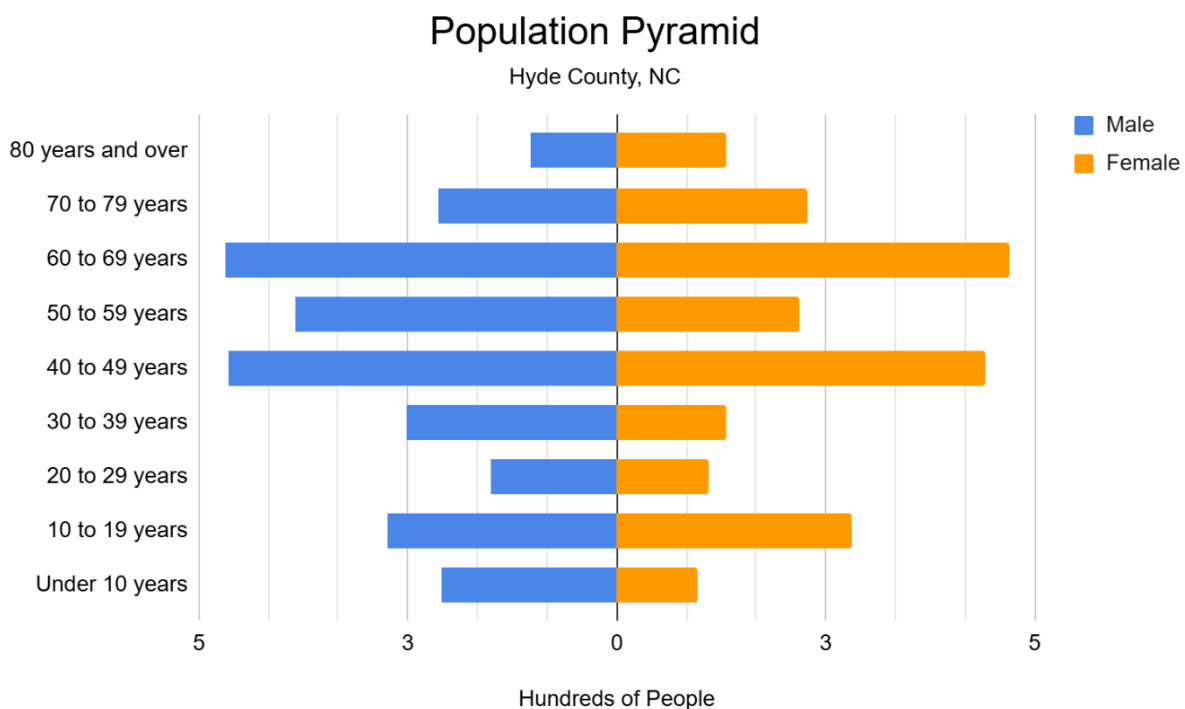
⁴ Data Source: US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 48.5⁵

National median: 38.7⁵

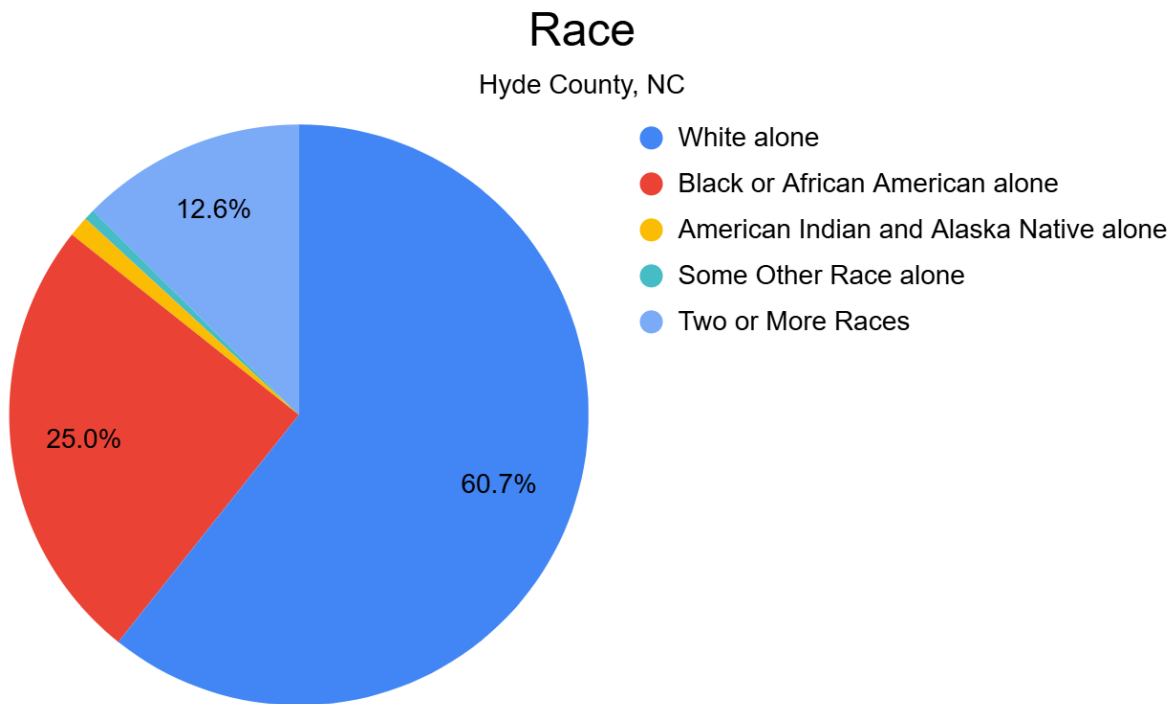


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

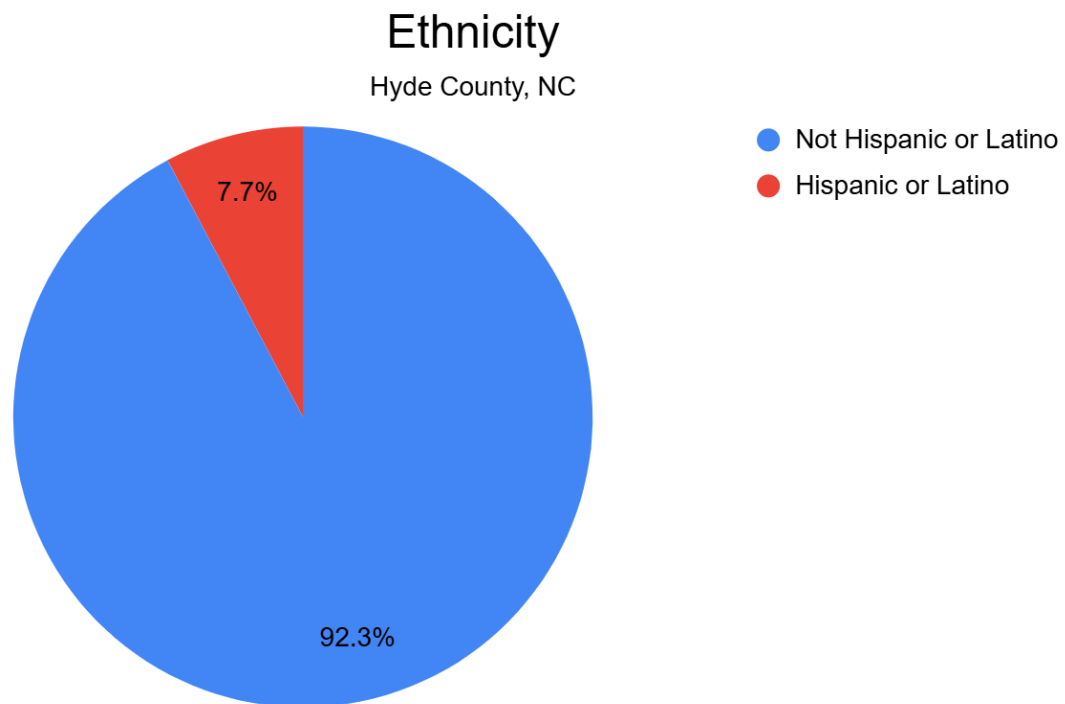
⁵ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Race and Ethnicity

These factors give a sense of the cultural context of the community, and the relationship of fishing families and groups to the community in which they live. Is this community racially and ethnically diverse? In the northeast region, ethnic diversity in coastal communities tends to be higher in the Mid Atlantic than in New England, though there are significant exceptions in some fishing communities. Moreover, certain ethnic groups have long been associated with fishing in various specific ports throughout the region.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Language and Marginalization

Fishing regulations can be complex. Documents are rarely translated from English into other languages. Lack of strong English language skills could affect participants' ability to engage effectively in the fisheries management process. While these numbers correspond to the overall community, they may indicate a population needing assistance in integrating their needs and concerns into the process.

Foreign Born: 2.0%⁶

National Average: 13.9%⁶

Speak English less than very well: 2.6%⁶

National Average: 8.4%⁶

⁶Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

Fishing engagement and reliance indicators portray the importance of commercial fishing to coastal communities. The indicators include: Commercial Engagement and Commercial Reliance.

Environmental justice indicators represent social factors that can shape an individual or community's ability to adapt to change. These factors exist within all communities regardless of the importance of fishing. The indicators include: Poverty, Population Composition, and Personal Disruption.

Gentrification Pressure indicators characterize those factors that, over time, may indicate a threat to the viability of a commercial or recreational working waterfront, including infrastructure. The indicators include: Housing Disruption, Retiree Migration, and Urban Sprawl.

Economic indicators characterize the strength and stability of the workforce and housing. These factors affect the cost of living which can become unsustainable for disadvantaged populations. The indicators include: Labor Force Structure, and Housing Characteristics.

Climate Change Indicators characterize environmental conditions that may affect the sustainability of essential commercial and recreational fishing businesses and infrastructure. The indicators include: Sea Level Rise Risk, and Storm Surge Risk.

The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Hyde County

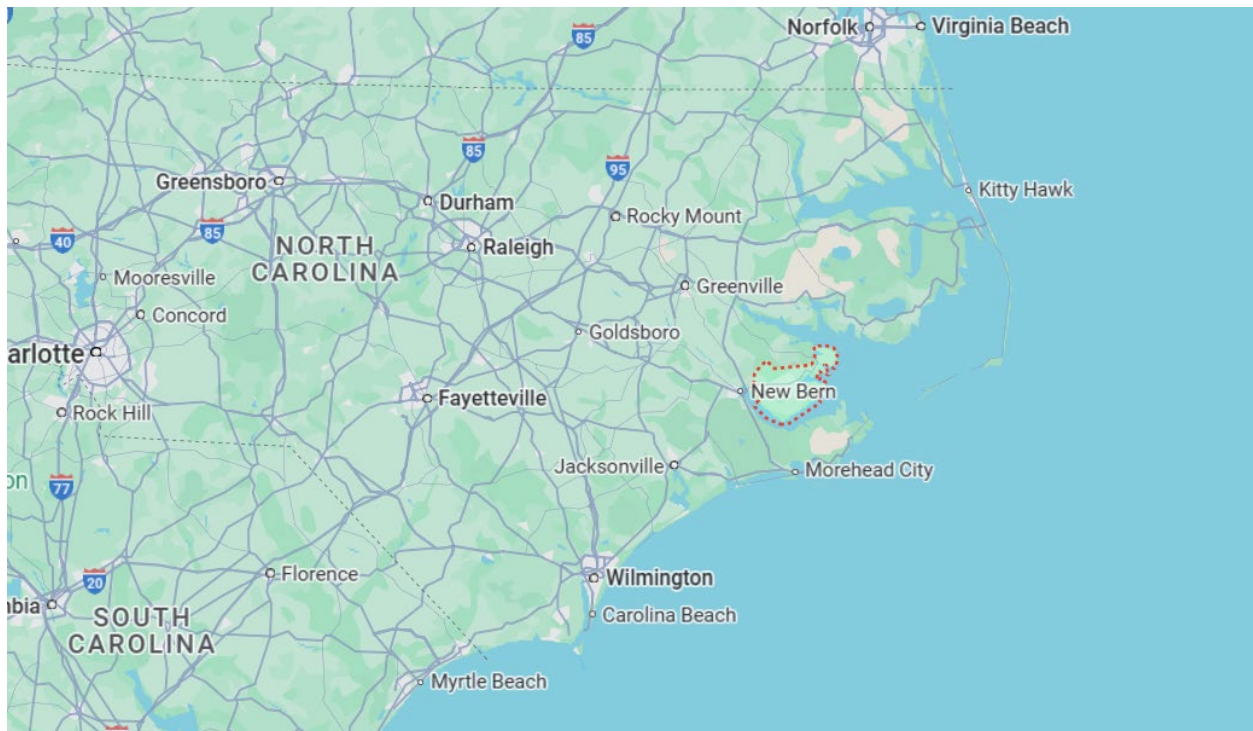
Community Name	Swan Quarter	Lake Landing / Engelhard	Fairfield	Ocracoke
Commercial Engagement	0.418	-0.01	-0.153	0.33
Commercial Reliance	0.034	-0.038	-0.053	0.11
Poverty	0.998	0.814	1.021	0.733
Population Composition	-0.496	0.27	0.656	1.767
Personal Disruption	1.171	1.485	3.812	3.615
Housing Disruption	0.103	-1.219	NA	2.539
Retiree Migration	0.339	-0.018	3.519	-0.376
Urban Sprawl	-1.569	NA	-0.837	-1.352
Labor Force	-0.105	0.085	3.578	-0.378
Housing Characteristics	0.626	1.338	NA	0.565
Sea Level Rise Risk	5.485	13.801	5.76	2.47
Storm Surge Risk	4.074	11.579	4.893	0.92

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

⁷ Where more than five county communities with CSVIs are available, the table includes five of those available based on greatest relative landing value as determined by 2023 ACCSP Commercial Landing Data and (where additional data was required) based on greatest relative percent of civilian employed population 16 years and over engaged in agriculture, forestry, fishing and hunting, and mining as determined by the 2023 American Community Survey. Communities are ordered from greatest to least (left to right) based on these criteria, and alphabetically where no such data is available for CSVI communities in the county.

Pamlico County, NC

Pamlico County has a population of 12,315¹ and a population per square mile of 37². Rural to urban is a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers, and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



Data Source: Google Maps

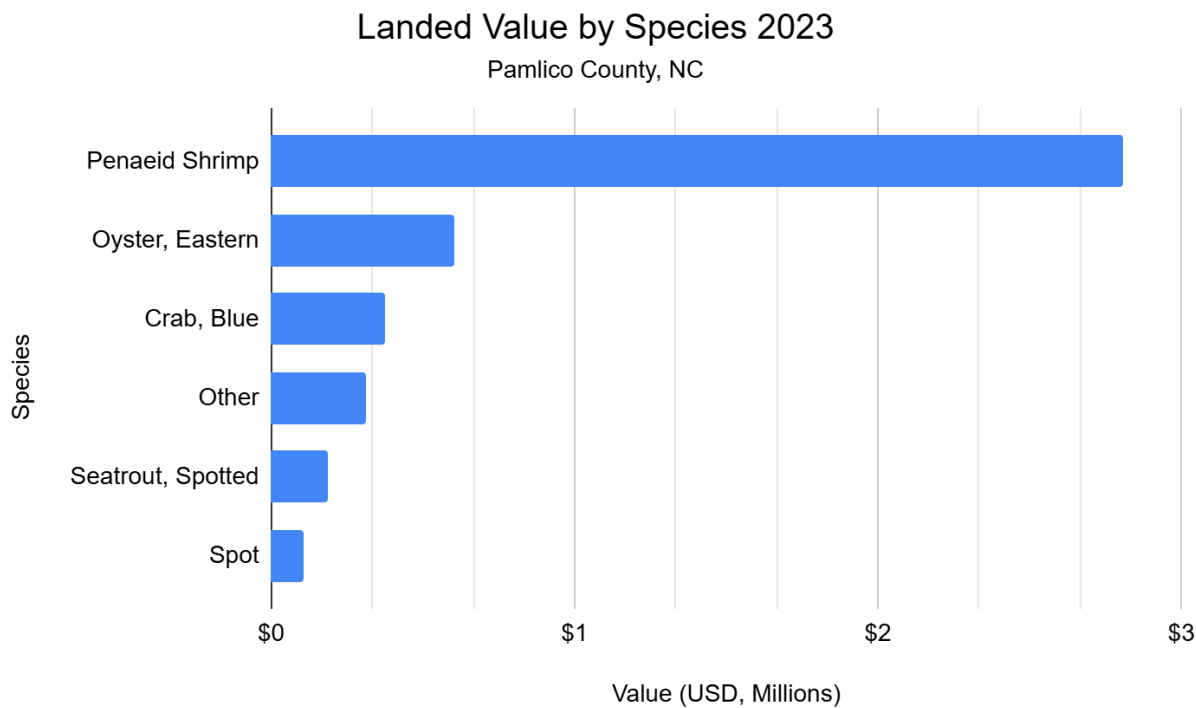
¹ Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

² Data Sources: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. & U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*.

Involvement in Fisheries

What species are landed in Pamlico County?

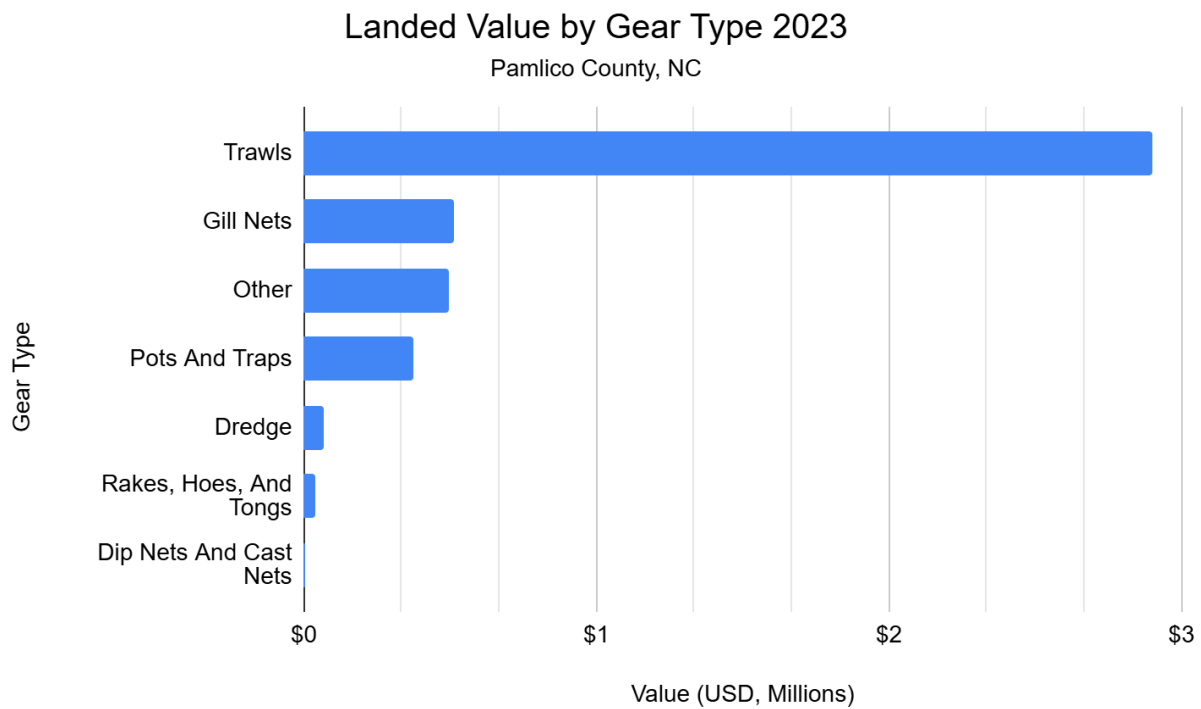
The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught is also indicative of a community’s ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.



Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What types of gear are used in Pamlico County?

The types of gear used in a fishing community are reflective of the species currently caught and relevant to the community's interactions with gear specific regulations.

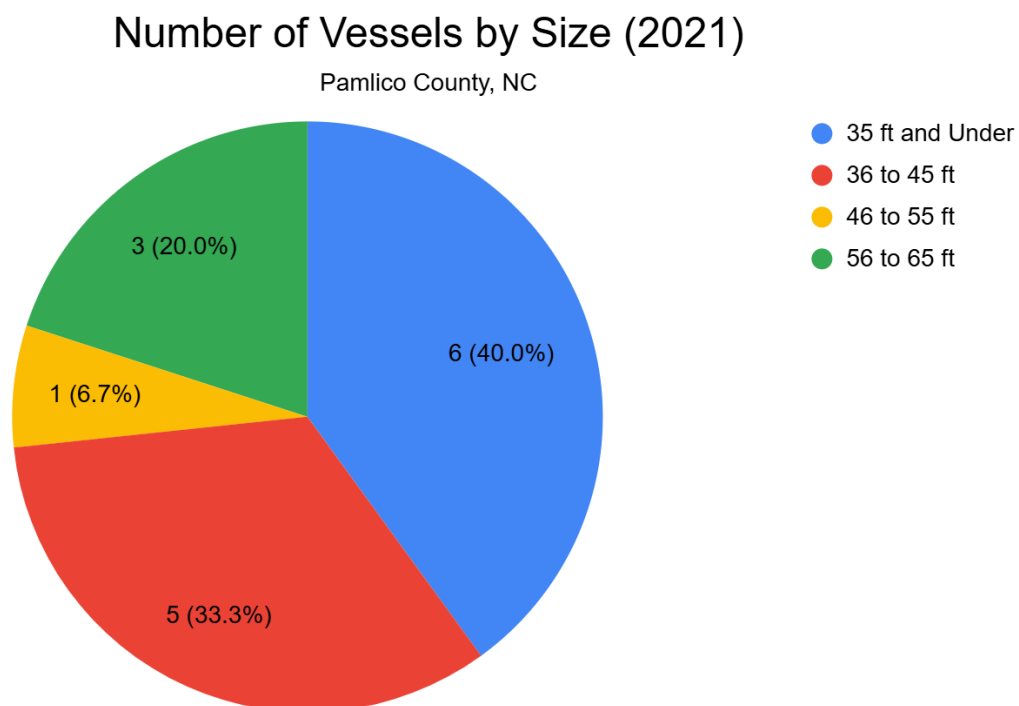


Data Source: Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*.

What are the characteristics of the fishing vessels in Pamlico County?

The number of fishing vessels in a given county provides a sense of the scale of fishing in that county. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shore side industries) available in a given location.

Size also matters. Larger vessels can travel farther offshore and stay out for longer periods more easily than smaller vessels. These differences also affect family life. Smaller day boat fishermen tend to return home every day whereas fishermen on larger vessels may be away from home for weeks on long and distant fishing expeditions. Apart from the lobster fleet, smaller boats also tend to catch a broader range of species where their larger counterparts are more specialized (e.g. limited access scallop boats and herring pair trawlers). All these characteristics help illuminate the potential impacts of regulatory changes on a given community.

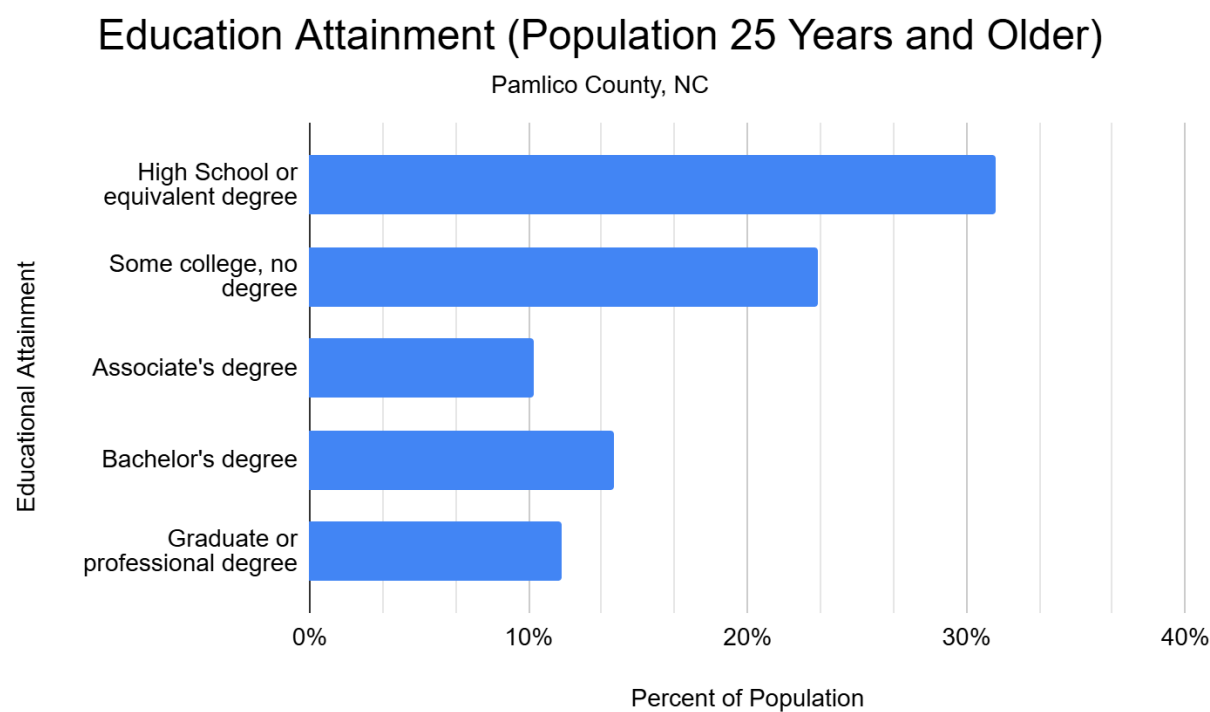


Data Source: US Coast Guard. (2021). *US Coast Guard Registration Database*.

Demographic Attributes

Educational Attainment

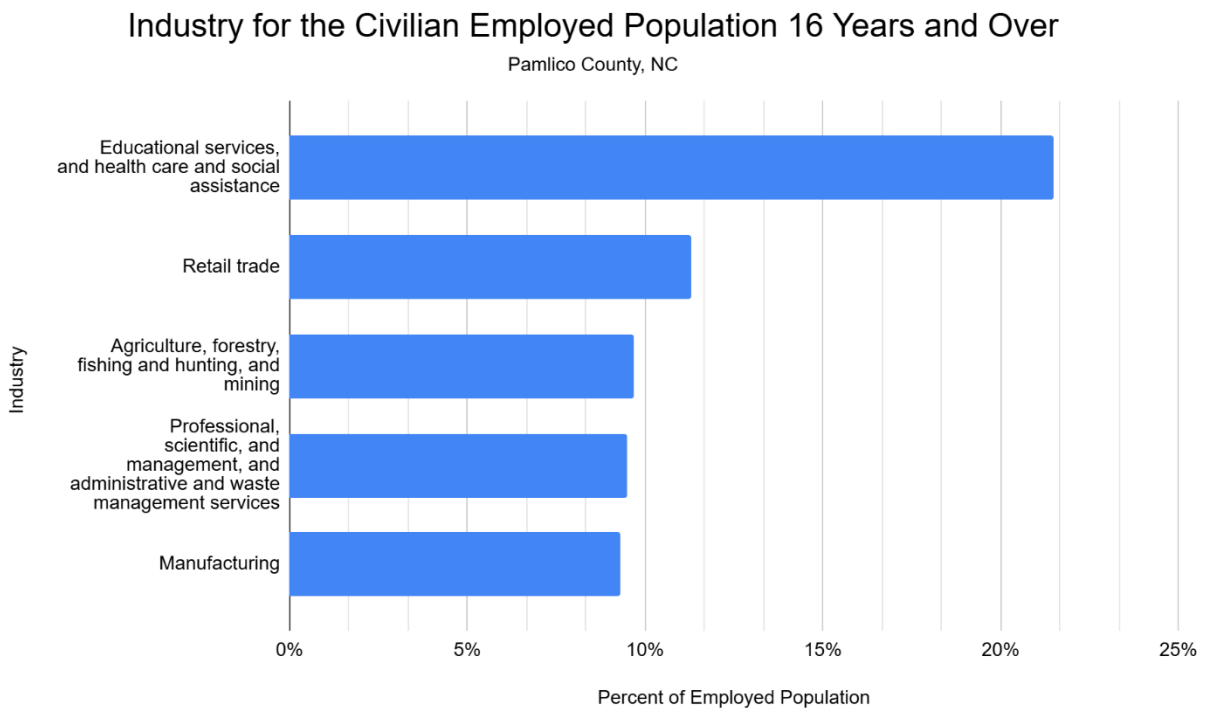
The level of educational attainment in a community is associated with issues important for community development, such as income and poverty levels, unemployment rates, and local participation in community activities.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

How do people make a living in Pamlico County?

Just as the range of fish species harvested by residents speaks to their ability to adapt to environmental change, the diversity in local occupations indicates the ability of a community to adapt to economic changes, including changes in the local fishing economy. Is there one predominant industry, for instance, or is there a range of economic opportunities? How many occupations are available that offer incomes similar to fishing or require skills and education common to the average fisherman? How many jobs are available that would provide a working environment that fishermen would be comfortable with?



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

Unemployment Rate: 4.5%³

National Unemployment Rate: 5.2%³

The unemployment rate in a community is one indicator of the level of opportunity that may exist for fishermen who lose their jobs to find alternative ways of making a living. The unemployment rate may also indicate the desirability of fishing in the face of other opportunities.

Median Household Income: \$61,624³

National Median Household Income: \$78,538³

Individuals Living in Poverty: 12.4%³

The 2023 weighted average poverty threshold is defined by the US Census as \$15,480⁴ for an individual and \$31,200⁴ for a family of 4. The percentage of a community's population living in poverty is an indicator of the residents' ability to adjust to loss of income and job opportunities in fishing-related and other local industries.

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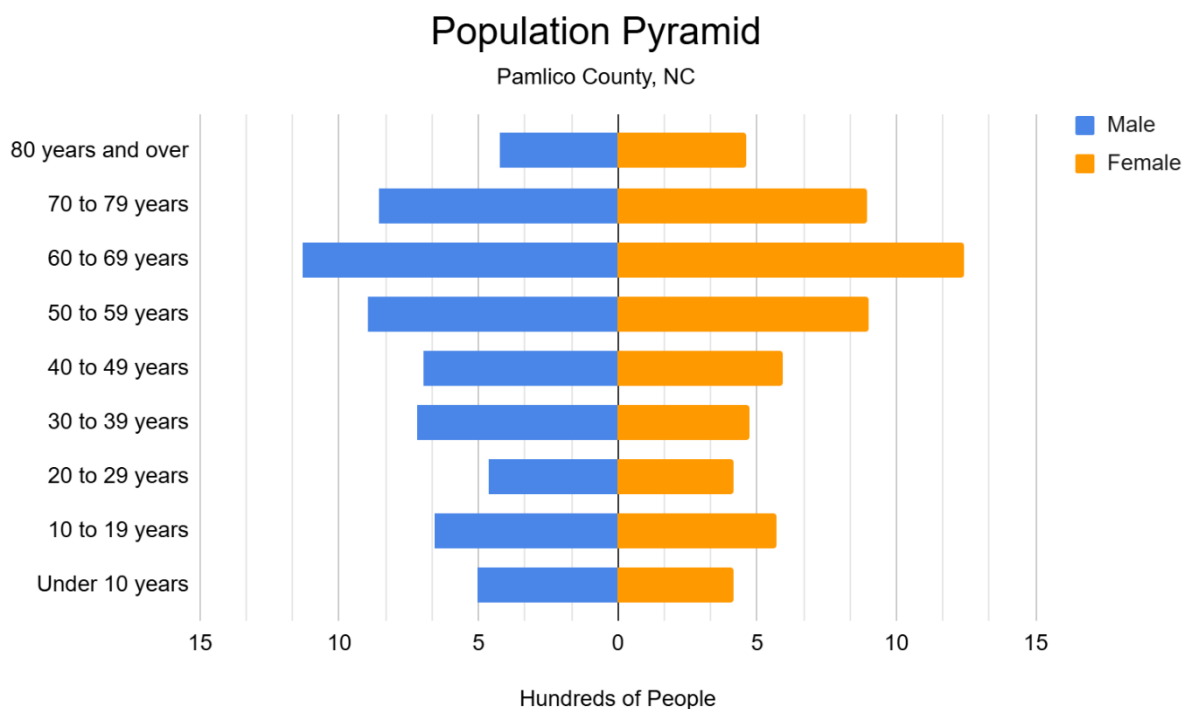
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Age Structure of Residents

Age structure provides potential indications of many broader community issues and institutions. A large number of older residents may be associated with a retirement community or an out-migration of young people. For many fishing communities, an aging population can indicate gentrification, a process that may affect fishermen's access to the waterfront. In some remote coastal communities, people in their late teens or early twenties may leave to look for work or pursue an education outside of their community. A very large population of young people, on the other hand, may indicate the presence of universities or a military base.

Median age: 54.1⁵

National median: 38.7⁵

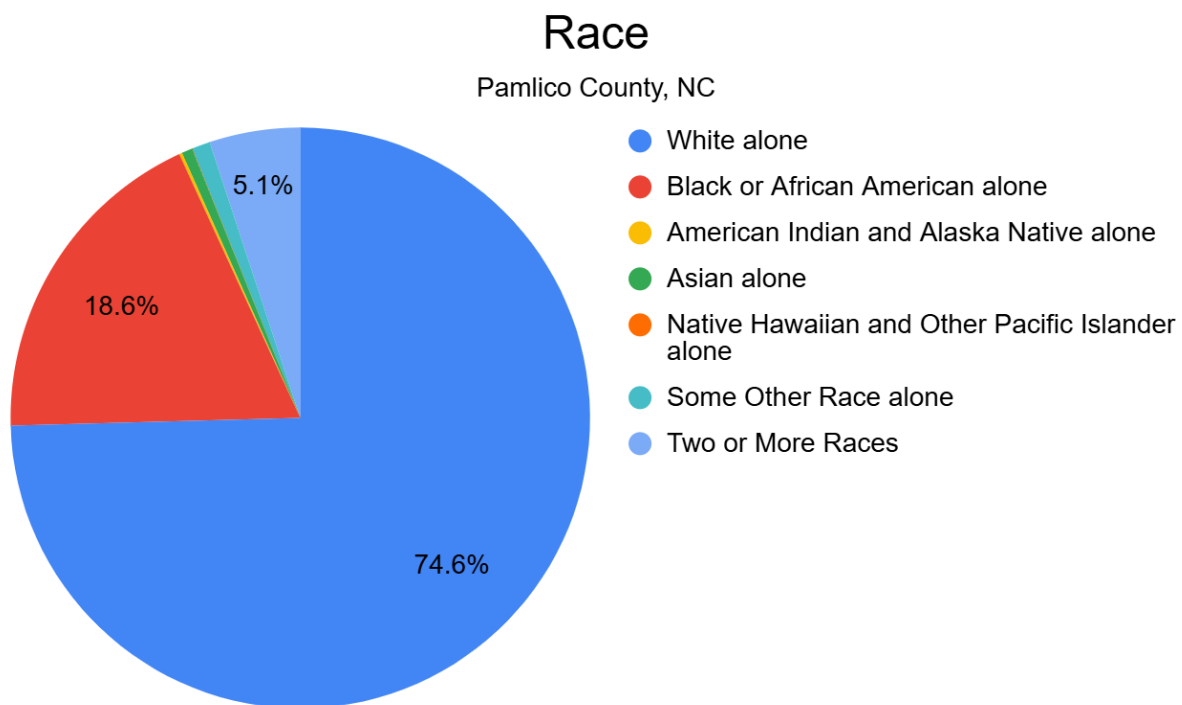


Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

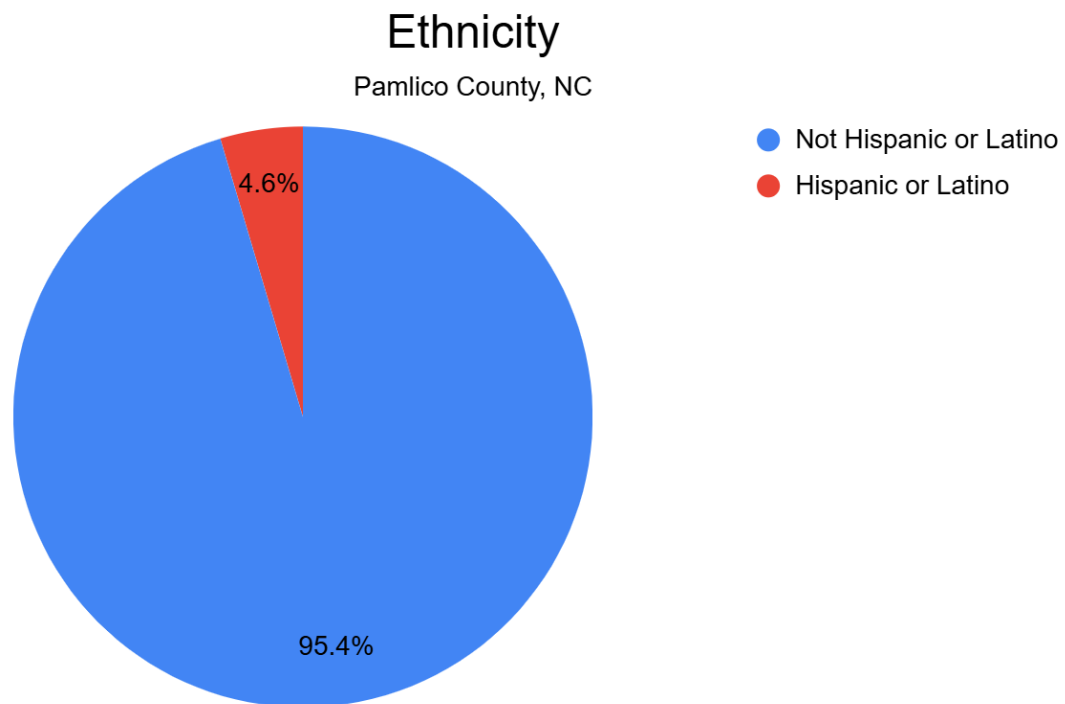
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Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.



Data Source: U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*.

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National Average: 13.9%⁶

Speak English less than very well: 1.1%⁶

National Average: 8.4%⁶

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Social Indicators

Social indicators are quantitative measures that describe the well-being of communities and are used to describe social phenomena over time. Below is a series of indices that provides measures of fishing engagement and reliance, and social vulnerability. An index combines variables of interest and is used to evaluate community well-being in terms of social, economic and psychological welfare.

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The factor scores for each index are normalized so that zero is the mean. Therefore, a higher value implies more engagement or reliance upon fishing or higher social vulnerability or vulnerability to gentrification.

Social Vulnerability Indicators for Top Ports in Pamlico County

Community Name	Stonewall	Bayboro	Alliance	Arapahoe	Mesic
Commercial Engagement	-0.153	-0.008	-0.153	0.091	-0.153
Commercial Reliance	-0.053	-0.015	-0.053	0.197	-0.053
Poverty	0.334	2.109	0.347	-0.038	0.593
Population Composition	0.663	0.259	-0.02	-0.786	0.048
Personal Disruption	1.025	1.836	0.713	0.106	1.987
Housing Disruption	-1.713	-1.52	-2.023	-2.043	-1.101
Retiree Migration	0.716	0.633	1.439	-0.242	0.871
Urban Sprawl	-1.386	-1.344	-1.319	-1.253	-1.373
Labor Force	0.684	1.136	1.769	-0.104	1.692
Housing Characteristics	1.485	1.98	1.83	1.75	1.411
Sea Level Rise Risk	0.412	0.194	-0.171	-0.346	1.081
Storm Surge Risk	0.675	0.613	0.497	-0.686	0.836

Data Source: NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4.*⁷

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References and Data Notes

- Atlantic Coastal Cooperative Statistics Program. (2023). *Commercial Landings*. Catch Accounting and Monitoring System (CAMS). *CFG_PORT Table*. Retrieved March, 2025.
- CT Data Collaborative. (2020). *Connecticut Town to County Crosswalk*.
- CT Data Collaborative. (2023). *Town to Planning Region Crosswalk*.
- CT GIS Office Admin. (2025). CT Geodata Portal. *CT Planning Regions*. Accessed April, 2025.
- Google. (n.d.). [Google Maps of counties]. Retrieved April 2025.
- loai.fadl_noaa. (2020). *USA Census Counties* [feature layer]. Scale not given. US Census Bureau Data. Retrieved from https://services.arcgis.com/P3ePLMYs2RVChkJx/arcgis/rest/services/USA_Census_Counties/FeatureServer. Accessed November 2024.
- NMFS. (2021). Final Environmental Impact Statement, Regulatory Impact Review, and Final Regulatory Flexibility Analysis for Amending the Atlantic Large Whale Take Reduction Plan: Risk Reduction Rule Volume I. https://media.fisheries.noaa.gov/2022-10/2021FEIS_VolumeI-GARFO.pdf
- NOAA Fisheries Northeast Fisheries Science Center, Social Sciences Branch (2010). *Community Profiles for Northeast U.S. Marine Fisheries*. Archived July 20, 2024. <https://web.archive.org/web/20240720135009/https://apps-nefsc.fisheries.noaa.gov/read/socialsci/index.php>

NOAA Fisheries Office of Science and Technology. (2020). *NOAA Fisheries Community Social Vulnerability Indicators (CSVIs). Version 4* (Last updated: September 20, 2023).

U.S. Census Bureau. (2023a). *American Community Survey, ACS 5-Year Estimates*. Retrieved March, 2025.

U.S. Census Bureau. (2023b). Annual Geographic Information Table. *Geography, GEO Geography Information, Table GEOINFO*. Retrieved March 19, 2025, from <https://data.census.gov/table/GEOINFO2023.GEOINFO?q=GEOINFO:%20Annual%20Geographic%20Information%20Table>.

US Census Bureau. (2024). *Poverty Thresholds for 2023 by Size of Family and Number of Related Children Under 18 Years*.

U.S. Census Bureau, Population Division. (2025). *CO-EST2024-ALLDATA: Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2020 to July 1, 2024*.

US Coast Guard. (2021). *US Coast Guard Registration Database*.

Note: The USCG registration database does not originally include County as a variable. This was added through a data matching process using the Hailing Port variable. The Hailing Port Variable required significant data cleaning, and this matching process could not be completed for 100% of entries. Thus, some entries in the original data are not included in this analysis.