

Counting on RI's Food System

Data & Trends to Advance
Justice & Resilience



RIFPC's mission

is to build a more equitable, accessible, economically vibrant, and environmentally sustainable food system.





RI FOOD
POLICY
COUNCIL



The 2024 RI Food System Factbook

Policy for the People Webinar • January 23, 2024

Today's Agenda

- A data-driven status report on RI's food system
- An interactive discussion of essential research needed to create a just and resilient food system



What's in the Factbook?



You can use this data to help achieve your mission:

- Set strategic goals for your organization
- Establish measurable objectives for your projects and programs
- Add key facts to grant proposals
- Emphasize a trend during public speaking opportunities
- Support your views in testimony at the State House

KEY Features

- ✓ Trusted sources, clear citations
- ✓ Regularly updated data
- ✓ Interactive charts
- ✓ Easy to understand descriptions

Big picture trends are noted throughout:

- | POSITIVE TREND | NEGATIVE TREND | NO TREND |
|---|--|--|
|  Employment increase |  Poverty increase |  Food insecurity rate |
|  Greenhouse gas emissions decrease |  Land in agriculture decrease | <i>No trend may mean that an indicator has not changed over time, or that only a snapshot in time is depicted.</i> |

KEY STATS

>**73,000** jobs

>**8,300** businesses

>**\$12 billion** total sales

\$13.94 median hourly wage

Food Preparation and Serving major occupational category

\$6.5 billion retail food sales

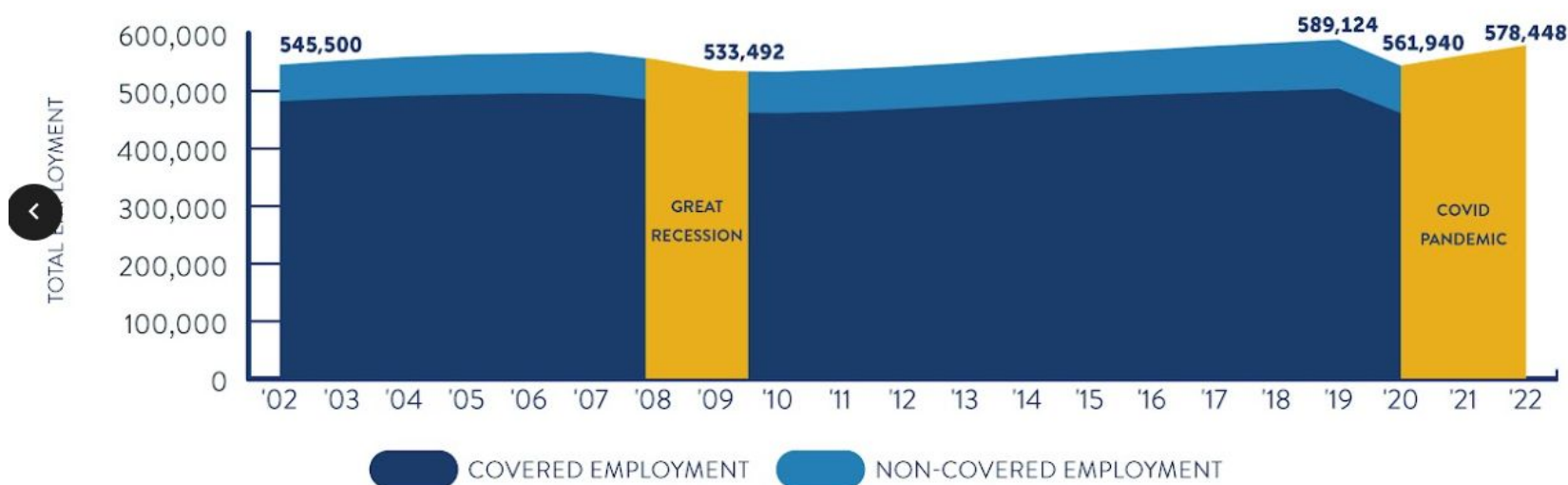
\$6,341 per capita food expenditures



TOTAL EMPLOYMENT



Total employment in Rhode Island increased **6.0%** from 2002 (545,500) to 2022 (578,448). Employment dipped to its lowest level in 2010, due to the Great Recession. Over the past 20 years, employment was highest in 2019, then dramatically decreased due to the COVID-19 pandemic in 2020, before rising again in 2022.



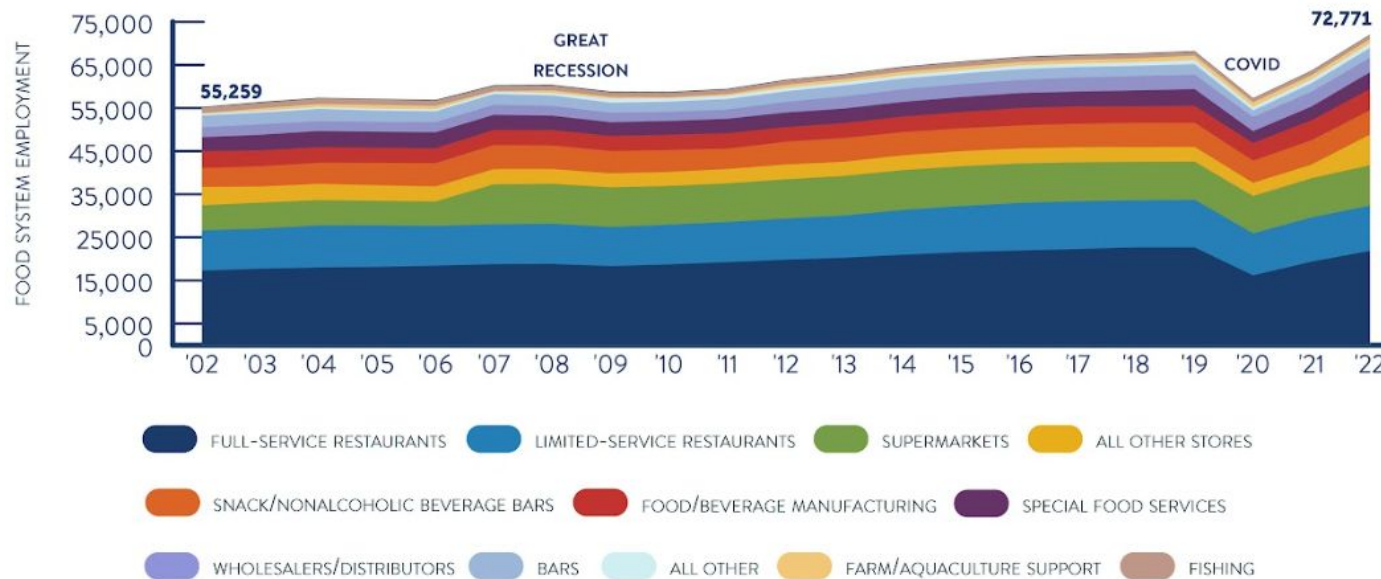
Sources: U.S. Bureau of Labor Statistics [Total Nonfarm Employment](#) (via FRED) and U.S. Census Bureau [Nonemployer Statistics](#). The U.S. Bureau of Labor Statistics provides estimates of *covered* employment—work that is covered by unemployment insurance benefits. *Non-covered* employment, or nonemployer statistics, refers to jobs that are excluded from unemployment insurance reporting requirements. Non-covered employment is mostly made up of sole proprietors and partnerships with no paid employees. Combining both data sources together provides a more comprehensive picture of employment in Rhode Island. Farm employment is not captured very well by either data source. Estimates of the number of farmers and hired farmworkers are produced every 5 years by the USDA Census of Agriculture and are not shown in this figure.



FOOD SYSTEM JOBS



Total food system jobs in Rhode Island increased from ≈55,259 in 2002 to ≈72,771 in 2022. Food system jobs account for about 12.6% of all jobs in Rhode Island. This is likely an undercount because we are unable to specify all possible food system jobs (e.g., “general freight trucking” accounts for over 1,500 jobs in Rhode Island. Although all food ultimately moves via transportation, we can’t specify trucking jobs that are exclusively for food distribution). “Food services and drinking places” (e.g., restaurants, fast food, institutional food services, bars) account for the majority of food system jobs - about 45,000 jobs.



Sources: U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages, and U.S. Census Bureau Nonemployer Statistics. Estimates of the number of farmers and hired farmworkers are produced every 5 years by the USDA Census of Agriculture and are not shown in this figure. “All other stores” includes convenience stores, specialty food stores, liquor stores, health food stores, vending machine operators, and warehouse clubs and supercenters. “All other” includes community food services (e.g., food pantries), solid waste collection, and agricultural market and commodity regulation.

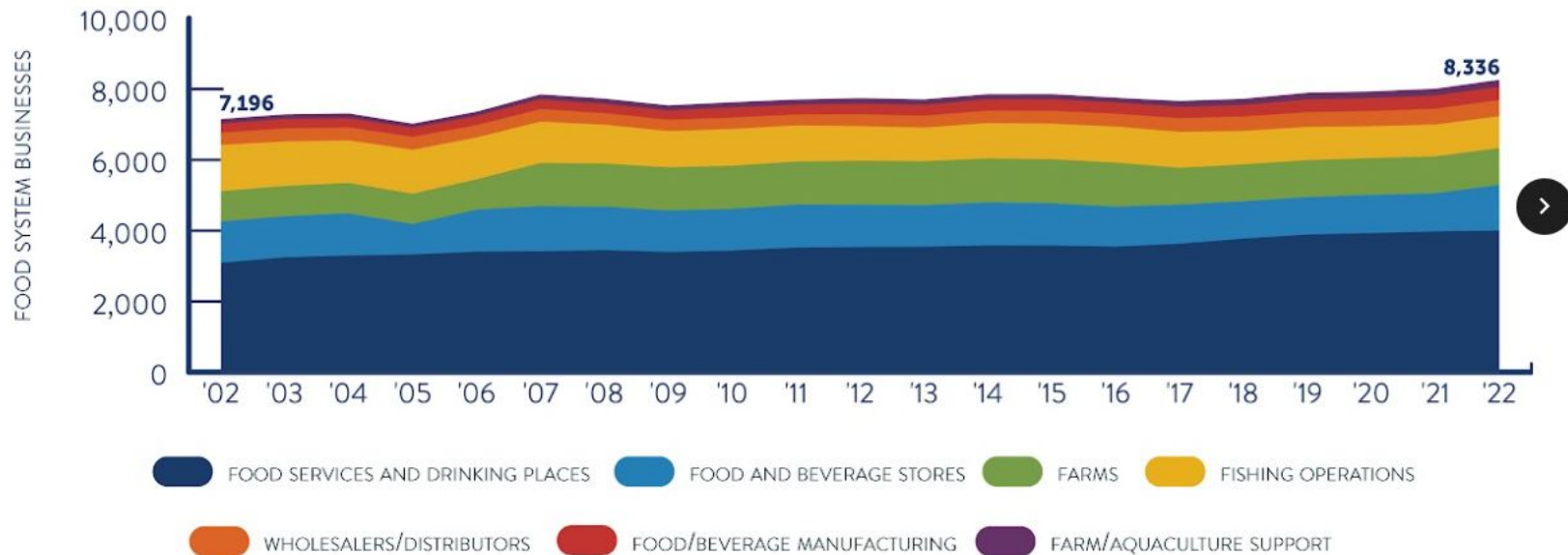


FOOD SYSTEM BUSINESSES

POSITIVE TREND



Food system businesses in Rhode Island increased from $\approx 7,196$ in 2002 to $\approx 8,300$ in 2022. “Food services and drinking places” (e.g., restaurants, fast food, institutional food services, bars) account for the majority of food system jobs - over 4,000 businesses.



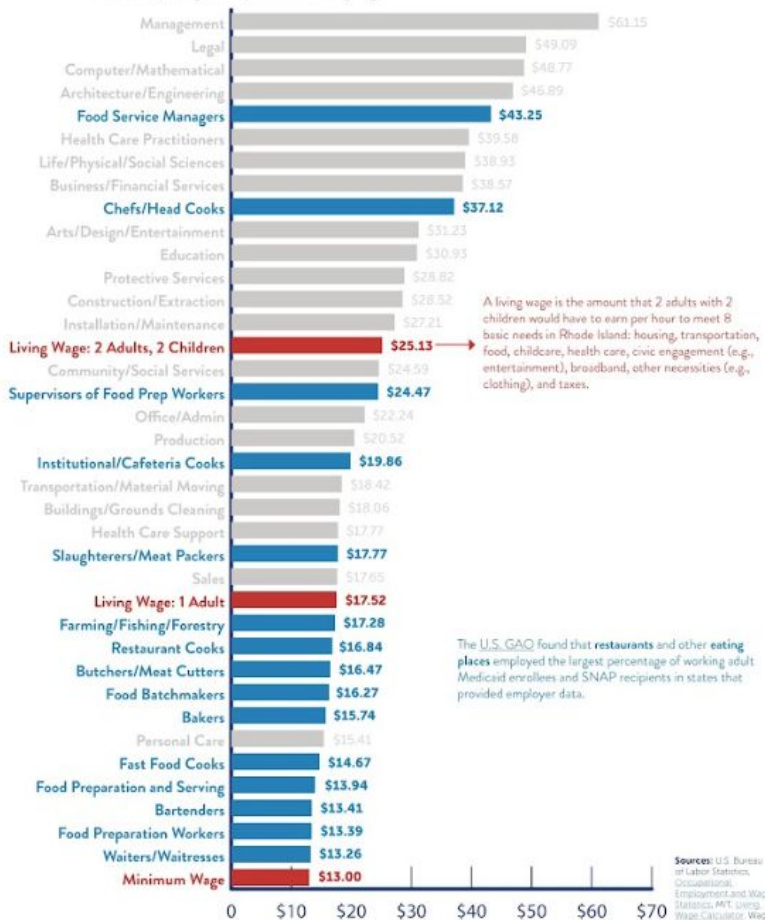
Sources: U.S. Bureau of Labor Statistics [Quarterly Census of Employment and Wages](#), U.S. Census Bureau [Nonemployer Statistics](#), and USDA [Census of Agriculture](#). Other categories are not shown on this figure because they would be difficult to see.



MEDIAN HOURLY WAGES, 2022



Although wages for most occupations have increased in recent years and are above Rhode Island's minimum wage, it is also the case that most food system jobs received some of the lowest wages of any jobs in Rhode Island. In fact, "Food Preparation and Serving Occupations" received the **lowest median hourly wage** of any major occupation, and most food system jobs are paid below a living wage.



ECONOMIC IMPACT OF RHODE ISLAND'S FOOD SYSTEM, 2017



Agriculture and fisheries employment and sales were flat or declined from 2007 to 2017. Employment and sales at grocery stores decreased slightly. Food manufacturing employment decreased slightly, while sales were up. The reverse was true in beverage manufacturing, where employment increased and sales decreased. Employment and sales in wholesaling and distribution and food services all increased.

	2017 Employment	% of Total	Growth from 2007- 2017	2017 Sales	% of Total	Growth from 2007- 2017
Agriculture	3,726	5.6%	0.1%	\$62,873,200	0.5%	-3.8%
Fisheries	988	1.5%	-2.0%	\$109,856,000	0.9%	-0.6%
Food Manufacturing	2,359	3.6%	-0.5%	\$645,825,000	5.4%	1.9%
Beverage Manufacturing	367	0.6%	0.6%	\$83,628,900	0.7%	-16.1%
Wholesaling + Distributing	3,477	5.2%	2.5%	\$5,119,564,200	43.0%	8.4%
Stores	11,265	17.0%	-0.3%	\$3,118,531,100	26.2%	-0.8%
Food Services + Drinking Places	44,151	66.6%	0.9%	\$2,774,747,000	23.3%	1.5%
TOTAL	66,333	100.0%	0.6%	\$11,915,025,300	100.0%	2.5%

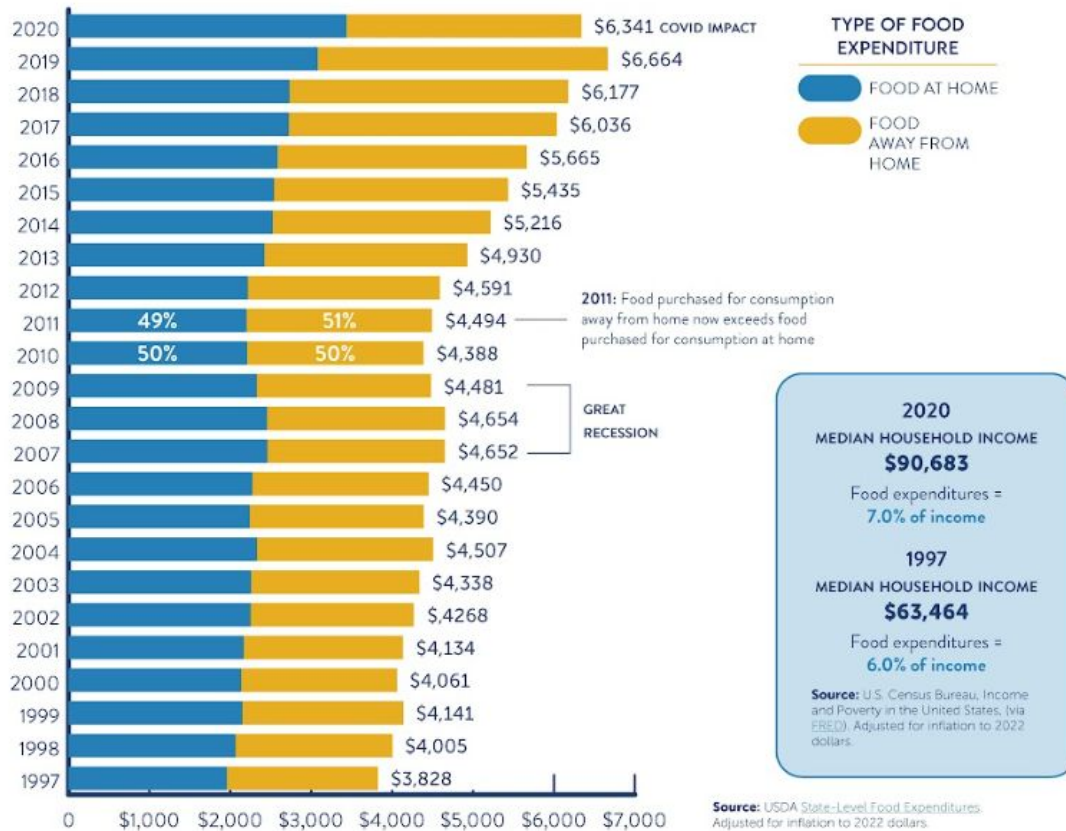
Source: New England Feeding New England, *Volume 3, Economic Impact of New England's Food System*. Note: Agriculture sales in this table includes support activities. Sales values are adjusted for inflation to 2020 dollars. Agricultural sales are adjusted using producer price indices for crops and livestock. The data, sources, and methods used for this analysis were consistent for the six New England states, allowing for comparisons.



PER CAPITA FOOD EXPENDITURES, 1997-2020



Rhode Island had the **fifth highest per capita food expenditures (\$6,341)** of any state in the country in 2020. The annual growth rate for median household incomes in Rhode Island from 1997 to 2020 was 1.6%, while the annual growth rate for food expenditures was 2.2% from 1997 to 2020. Consequently, Rhode Island experienced a modest increase in per capita food expenditures as a percent of median household income (i.e., from 6.0% in 1997 to 7.0% in 2020).

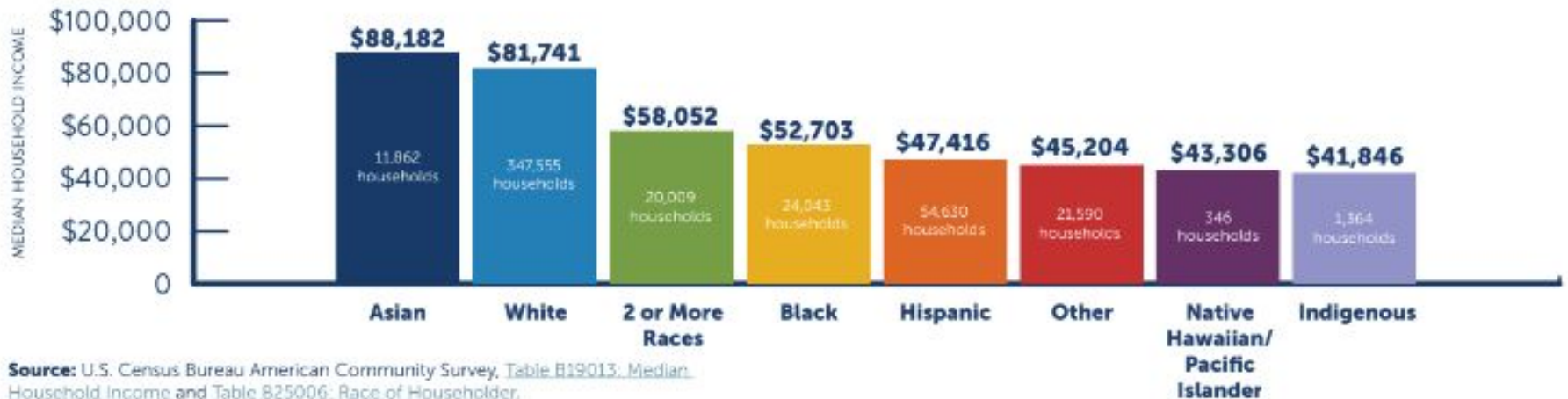


Source: USDA State-Level Food Expenditures. Adjusted for inflation to 2022 dollars.

Median Household Income, 2017-2021 (5-year Average)

NO TREND

Although food is the third highest expense—after housing and transportation—for all demographics, it is the case that Hispanic, Black, Indigenous, Native Hawaiian/Pacific Islander, and Rhode Islanders of 2 or more, or other races, start off with **much lower** median household incomes than Asian and White Rhode Islanders.



Source: U.S. Census Bureau American Community Survey, [Table B19013: Median Household Income](#) and [Table B25006: Race of Householder](#).



Food Access & Security

Is food insecurity in RI increasing or decreasing?

How are some residents disproportionately affected?

RI FOOD
POLICY
COUNCIL



KEY STATS

12.1% in poverty

>8.6% food insecure

77,500 people served
by food bank

30.4% of BIPOC
households
received SNAP
benefits

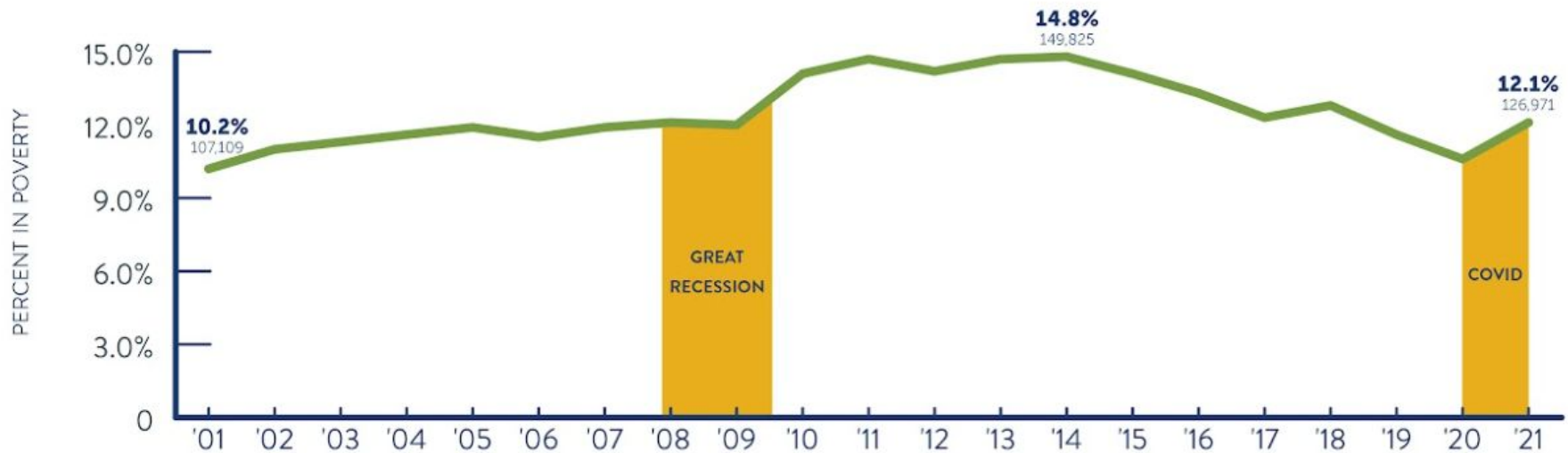
50.7% of BIPOC
residents live
in LILA census
tracts



PERCENT OF RHODE ISLANDERS IN POVERTY



The percent of Rhode Islanders in poverty gradually increased from 2001 to 2009. Poverty then jumped several percentage points due to the Great Recession and lingered over **14%** for six years. Poverty then decreased from 2014 to 2019, although it did not go below the percentage in 2001. The COVID-19 pandemic then spiked the percent of Rhode Islanders in poverty to **12.1% (126,971 people)**.



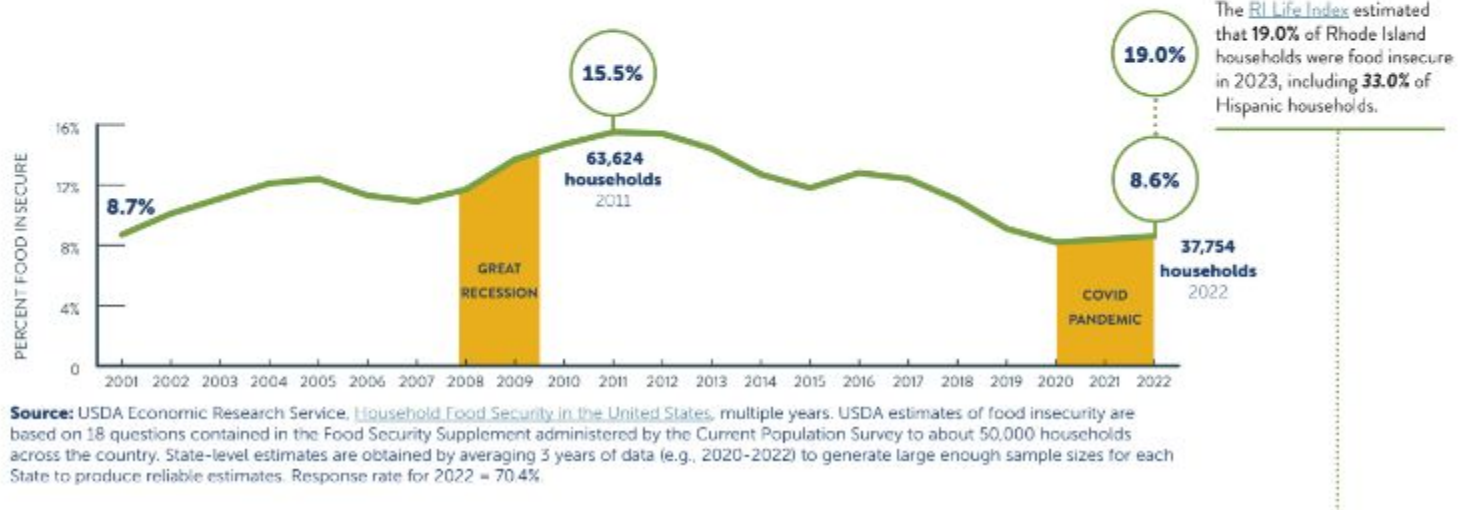
Source: U.S. Census Bureau [Small Area Income and Poverty Estimates](#) (via FRED).



FOOD INSECURITY (USDA), 2001-2022

NO TREND

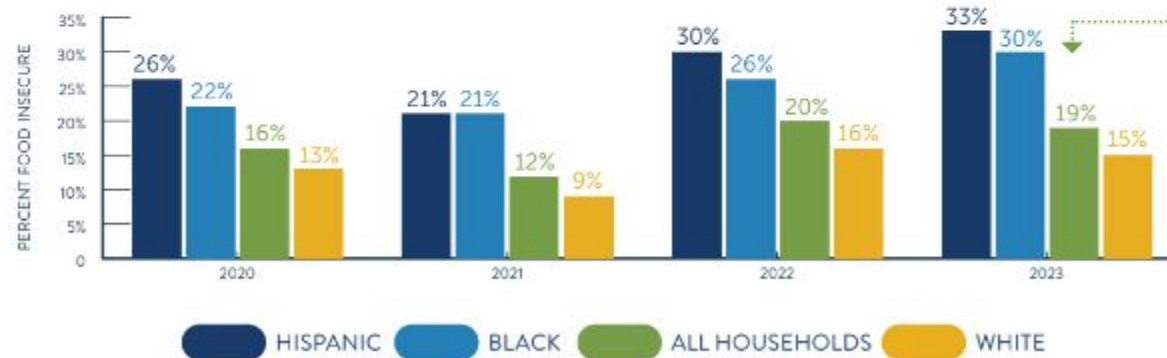
From 2020 to 2022, the average percentage of food insecure households in Rhode Island was **8.6%**, compared to an average of 8.7% from 1999 to 2001. The prevalence of food insecurity in Rhode Island was statistically significantly **lower** than the national average from 2020 to 2022, but essentially no progress was made from 2001 to 2022. In the past 20 years, food insecurity was highest in 2011, as a result of a slow recovery from the Great Recession. The COVID-19 pandemic also triggered economic hardship across the country, but USDA estimates of food insecurity were not noticeably higher from 2020 to 2022. What explains this? The [federal government rapidly fortified the social safety net](#) to fight the pandemic. Most additional federal benefits have subsequently ended.



FOOD INSECURITY (RI LIFE INDEX), 2020-2022



The [RI Food Index](#) asks Rhode Islanders two types of food security questions: actual experiences about food security and perceptions of community access to nutritious food. Unfortunately, questions about actual experiences with food security were not asked in 2019, so we do not have a pre-COVID estimate. Available data suggests that Hispanic and Black Rhode Islanders had higher percentages of food insecurity than White Rhode Islanders at the start of the COVID pandemic. Percentages of food insecure Rhode Islanders then decreased in 2021, probably due to an uptick in federal benefits. Percentages of food insecurity for Hispanic and Black Rhode Islanders then increased in 2022 and 2023.



Respondents were asked to respond "almost always true," "true most of the time," "sometimes true," or "never true" to 2 statements: 1) *We worried whether our food would run out before we got money to buy more in the last 12 months;* and 2) *The food we bought just didn't last and we didn't have money to get more.* Percentages reflect respondents who answered "almost always true," "true most of the time," and "sometimes true."

Source: [RI Life Index](#). The RI Life Index was created by Blue Cross & Blue Shield of Rhode Island and the Brown University School of Public Health in 2019. It has been administered to over 2,000 Rhode Islanders every year since 2019. The response rate for 2022 was 6.4%.



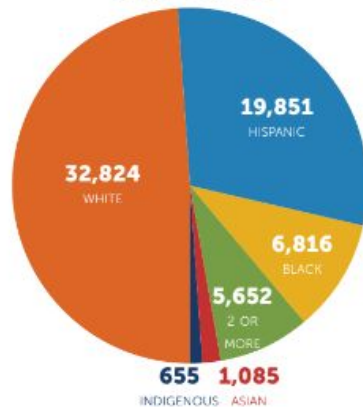
RECEIPT OF SNAP BY RACE/ETHNICITY AND COUNTY, 2017-2021

From 2017 to 2021, an average of **15.3% (66,883)** of Rhode Island households received SNAP benefits to supplement their grocery budgets. White Rhode Islanders make up the majority of the state's population (69.9%) and, consequently, the largest number of SNAP recipients in Rhode Island were White. But only 10.1% of White households received SNAP benefits. In contrast,

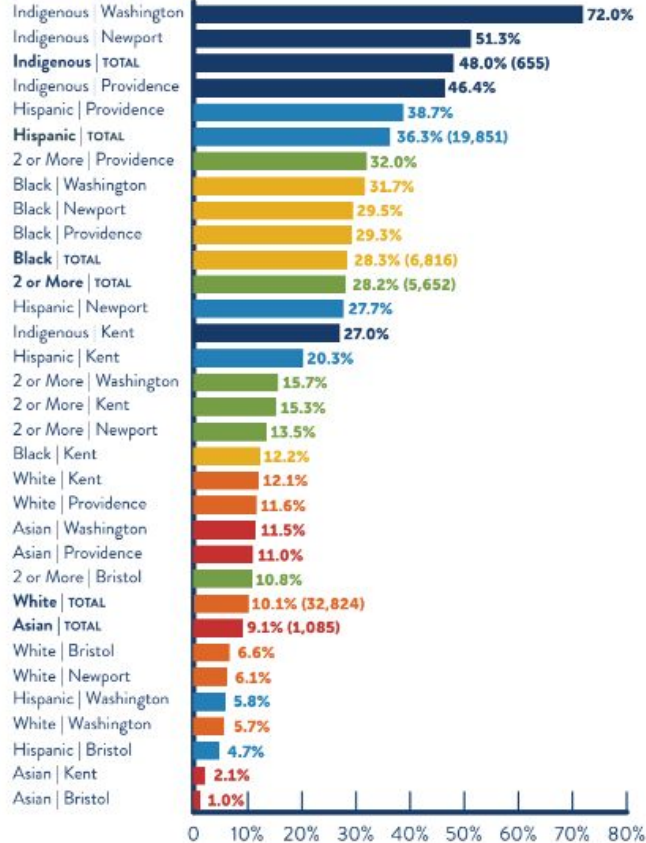
- > Hispanic Rhode Islanders make up 17.6% of the state's population and 36.3% of Hispanic households received SNAP benefits.
- > Black Rhode Islanders make up 9.1% of the state's population and 28.3% of Black households received SNAP benefits.
- > Rhode Islanders of 2 or more races make up 3.1% of the state's population and 28.2% of these households received SNAP benefits.
- > Indigenous Rhode Islanders make up 1.2% of the state's population and 48.0% of Indigenous households received SNAP benefits.
- > Asian Rhode Islanders make up 3.7% of the state's population and 9.1% of Asian households received SNAP benefits.

AVERAGE NUMBER OF HOUSEHOLDS RECEIVING SNAP BENEFITS

TOTAL = 66,883



PERCENT BY COUNTY



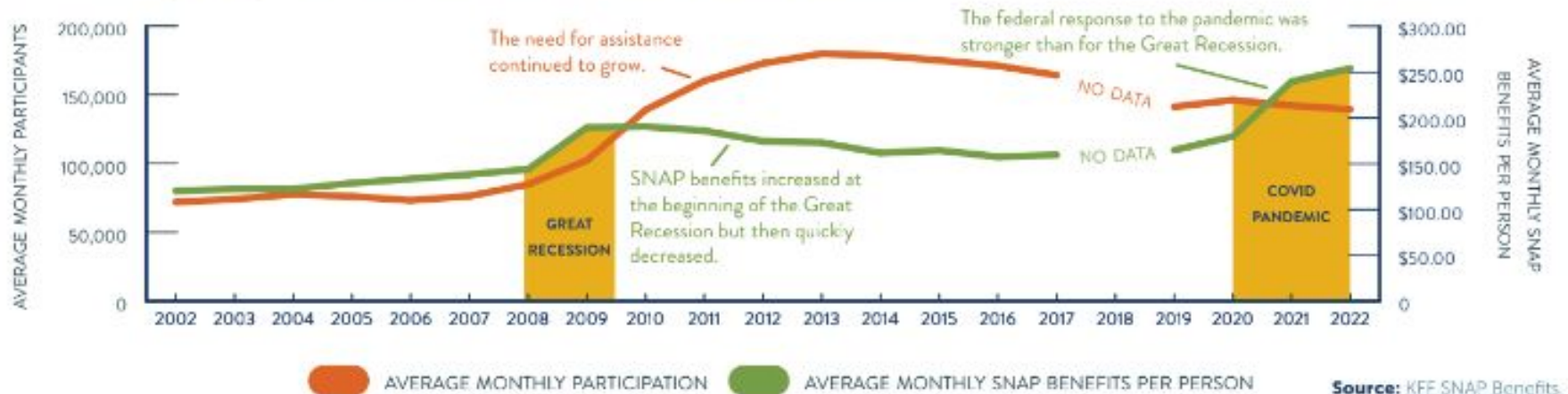
Source: U.S. Census Bureau American Community Survey, Receipts of Food Stamps/SNAP in Past 12 Months by Race of Householder



SNAP PARTICIPATION AND BENEFITS, 2002-2022

NO TREND

This figure illustrates that periods of economic turbulence that increase unemployment and poverty also trigger the need for supplemental assistance. In the case of the Great Recession, the need for assistance remained high for many years after the official end of the recession. With the pandemic, the federal response was much stronger and SNAP benefits per person were much higher. However, these benefits have mostly ended and it seems likely that monthly participation will have increased when data for 2023 is available.



AVERAGE NUMBER OF PEOPLE SERVED BY CHARITABLE FOOD SYSTEM

NEGATIVE TREND



In 2023, the [Rhode Island Community Food Bank](#) estimates that a record number of Rhode Islanders—**77,500**—sought assistance through the food bank and its network of 143 member agencies. High food prices and the ending of emergency SNAP benefits in 2023 are thought to be the primary drivers of the increased need for food assistance.



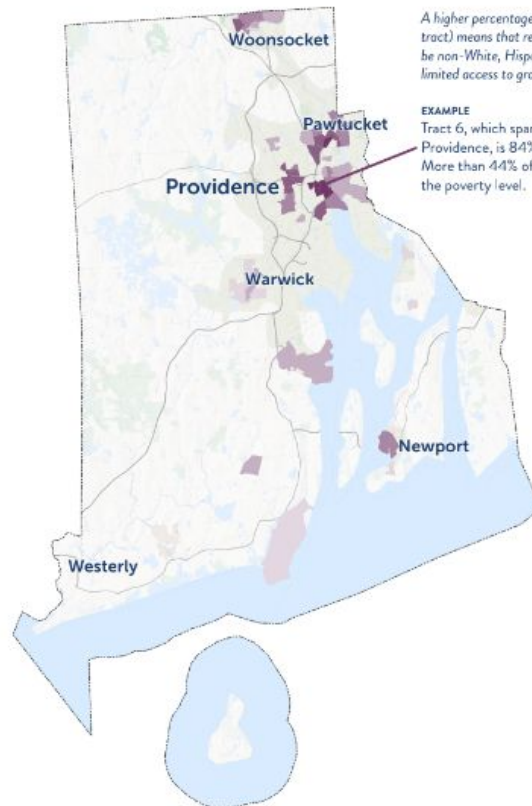
Source: Rhode Island Community Food Bank, [Status Report on Hunger in Rhode Island](#), multiple years.



LOW INCOME LOW ACCESS CENSUS TRACTS BY RACE/ETHNICITY

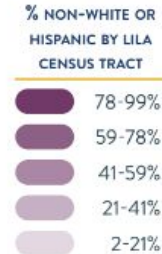
NO BRAND

Hispanic/Latino, Black, Asian, Indigenous, Native Hawaiian/Pacific Islander, and Rhode Islanders of two or more races or some “other” race—made up 30.1% of the state’s population, but 50.7% of its population living in low income/low access (LILA)* census tracts.



A higher percentage (i.e., a more purple census tract) means that residents are more likely to be non-White, Hispanic, and low income with limited access to grocery stores.

EXAMPLE
Tract 6, which spans Upper and Lower South Providence, is 84% non-White or Hispanic. More than 44% of the population lived below the poverty level.



* Low Income/Low Access (LILA) = Where a large proportion of the residents have low-incomes and are more than 1/2 mile from a food source for urban populations, and over 10 miles for rural populations.

	% OF POPULATION		% LIVING IN LILA TRACTS
White	68.7% (754,050)	→	18.2% (136,994)
Hispanic	16.6% (182,101)	→	42.0% (76,507)
Black	5.0% (55,386)	→	49.3% (27,301)
2 or More Races	4.8% (52,250)	→	21.0% (10,978)
Asian	3.5% (38,367)	→	29.5% (11,331)
Other Race	1.0% (11,392)	→	28.7% (3,275)
Indigenous	0.3% (3,513)	→	28.9% (1,014)
Hawaiian/PI	0.03% (320)	→	21.9% (70)

Research by *Kathryn DeMaster* and *Jess Daniels* argues that the concept of “food deserts” and the LILA map overemphasize proximity to supermarkets and transportation and miss the important contributions of corner markets, bodegas, and other smaller stores. Using Providence as a case study, they emphasize that market basket surveys of all stores in an area can provide a more nuanced picture of foodscapes. Future versions of the Data Dashboard and Factbook can include this type of analysis.



Sources: USDA Food Research Atlas, American Community Survey

Agriculture & Land Use

What kinds of agricultural products does RI grow/harvest?

Is RI agriculture growing or contracting?

RI FOOD
POLICY
COUNCIL



KEY STATS

56,864 acres

1,043 farms

\$69.3 million sales

\$12.1 million direct sales

98% of farmers are White

56.9 average age of
farmers

1,794 producers

1,759 hired farm labor

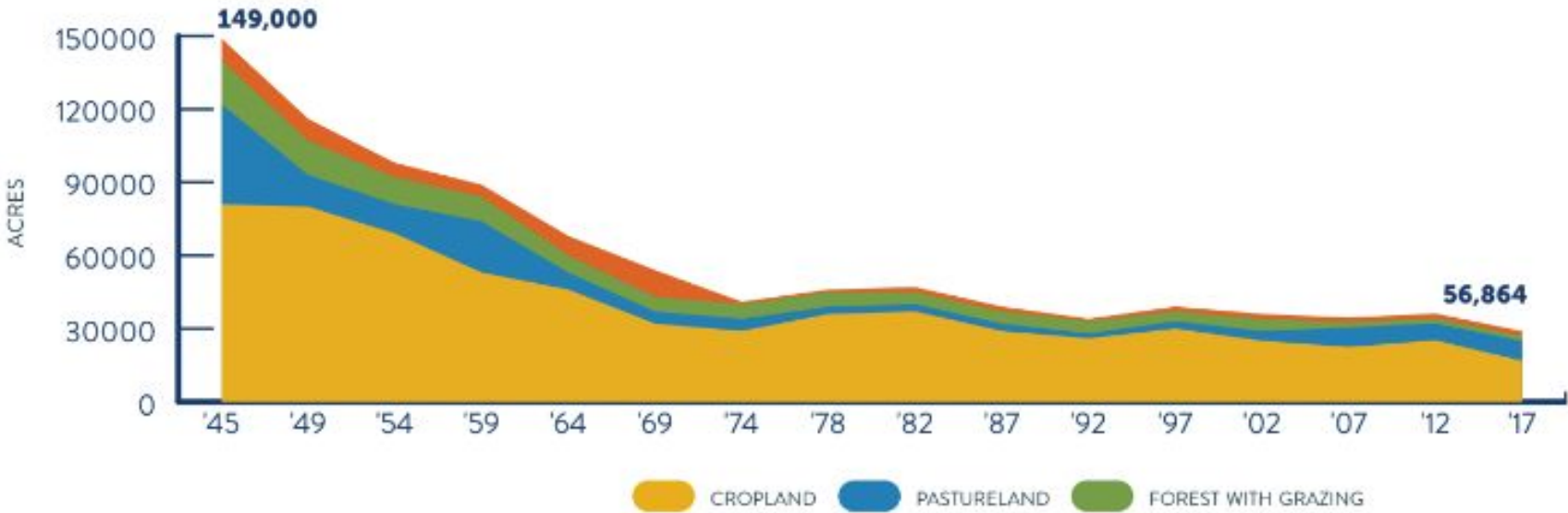
\$17,500 average price
per acre



LAND IN AGRICULTURE



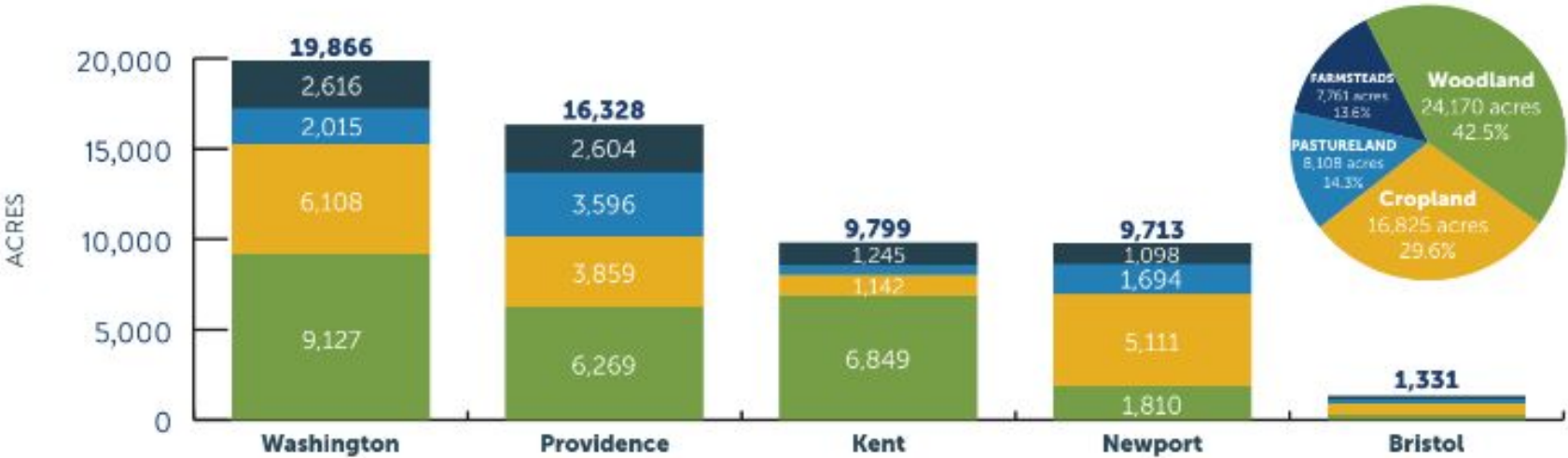
Total food sales increased by 13.9% from 2012 (\$5.7 billion) to 2017 (\$6.5 billion). Results from the 2022 Economic Census should show a recovery from the COVID-19 pandemic.



LAND IN AGRICULTURE BY COUNTY, 2017



Total food sales increased by 13.9% from 2012 (\$5.7 billion) to 2017 (\$6.5 billion). Results from the 2022 Economic Census should show a recovery from the COVID-19 pandemic.

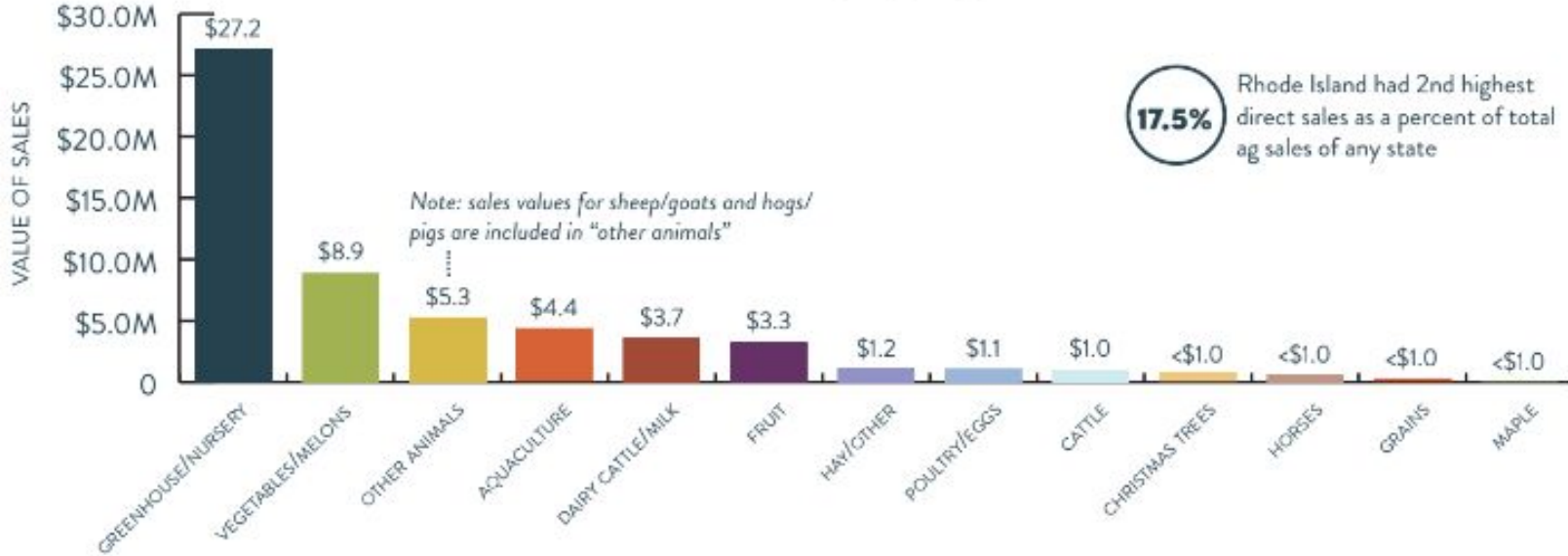


AGRICULTURAL SALES, 2017



With its limited landmass, Rhode Island is heavily invested in inedible products. Greenhouses/nurseries/floriculture accounted for 20.8% of farms and 49.6% of sales.

TOTAL \$54,799,246



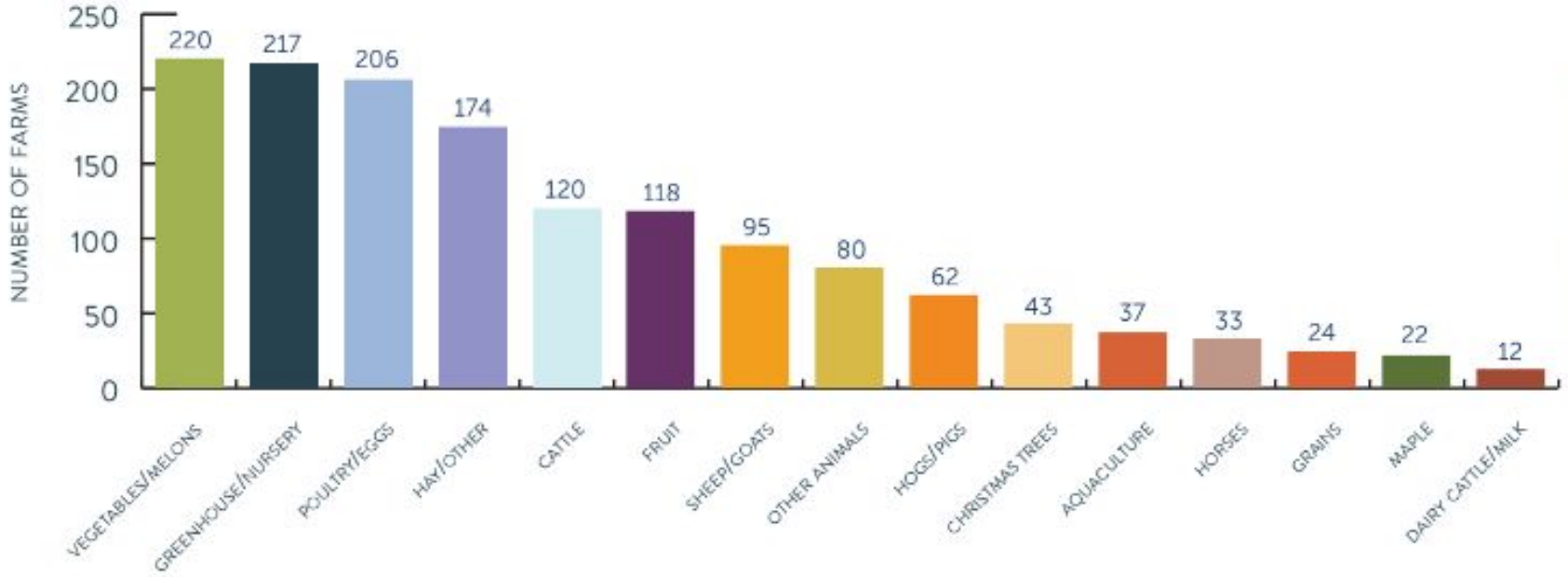
Source: USDA 2017 Census of Agriculture



NUMBER OF FARMS ENGAGED IN EACH CATEGORY, 2017

TOTAL 1,043 FARMS

Note: the number of farms has decreased since 2017.

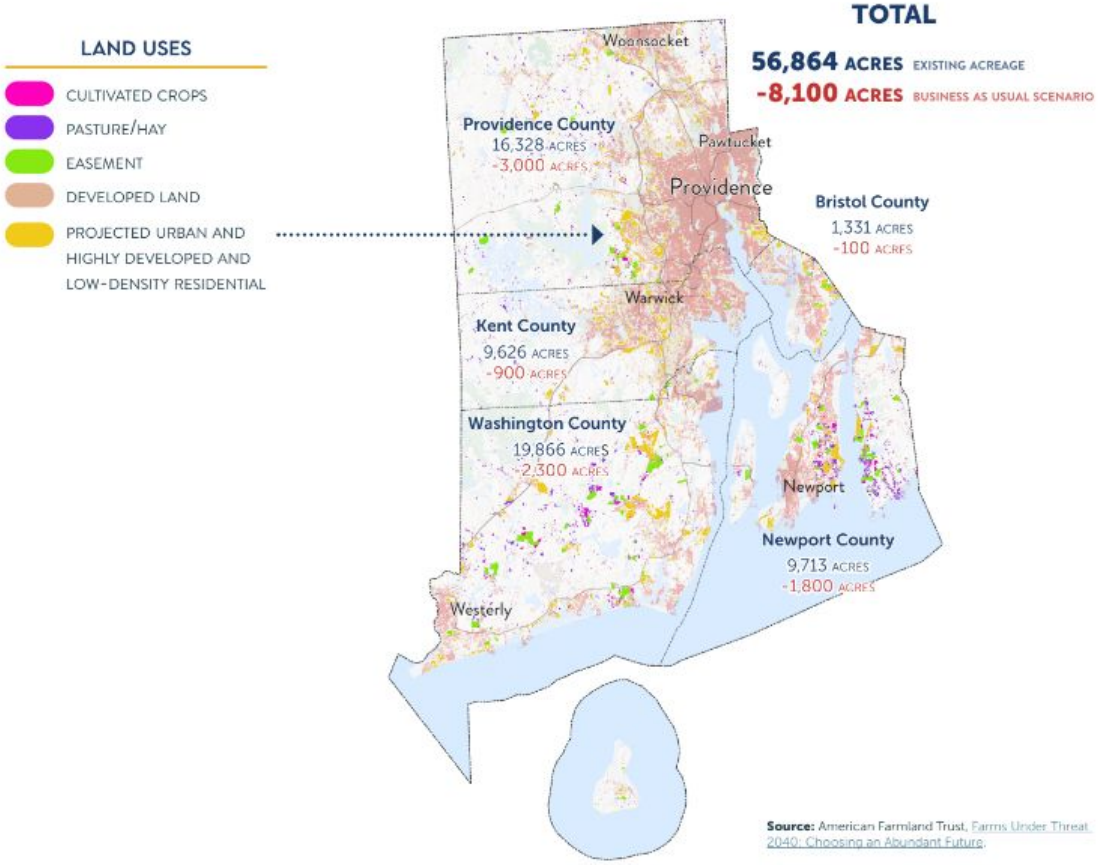


Source: USDA, 2017 Census of Agriculture



PROJECTED CHANGES IN LAND IN AGRICULTURE, BUSINESS AS USUAL SCENARIO

NEGATIVE TREND An analysis from the American Farmland Trust (AFT) estimates that Rhode Island could lose an additional 8,100 acres by 2040 under a "Business as Usual" development scenario (equal to a 14.2% decrease in available farmland) and 9,900 acres under a "Runaway Sprawl" scenario. AFT projects that Providence, Washington, and Newport counties will experience the biggest decreases in land in agriculture.

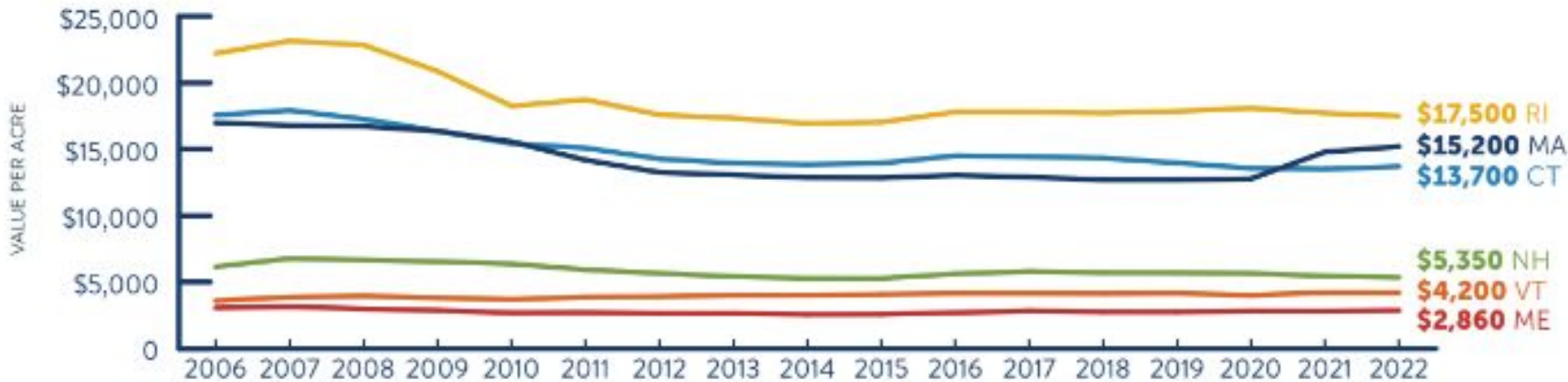


Source: American Farmland Trust, Farms Under Threat 2040: Choosing an Abundant Future.



NEW ENGLAND FARM LAND VALUES, 2006-2022

NO TREND The average price per acre of farm land in Rhode Island has hovered around **\$17,000** for the past 12 years. This is the highest average price per acre in the country.



Source: USDA National Agricultural Statistics Service, August 2022, [Land Values 2022 Summary](#). Reported in 2022 dollars.



Commercial Fisheries & Aquaculture

What kinds of seafood products does RI harvest?

Are commercial fishing/aquaculture growing or contracting?



KEY STATS

- **≈ 59.3 million** lbs landed
- **≈ \$100 million** value of seafood landings
- **≈ \$575 million** gross seafood sector sales
- **≈ 3,100** total seafood sector jobs
- **374** acres in aquaculture
- **\$8.3 million** aquaculture sales

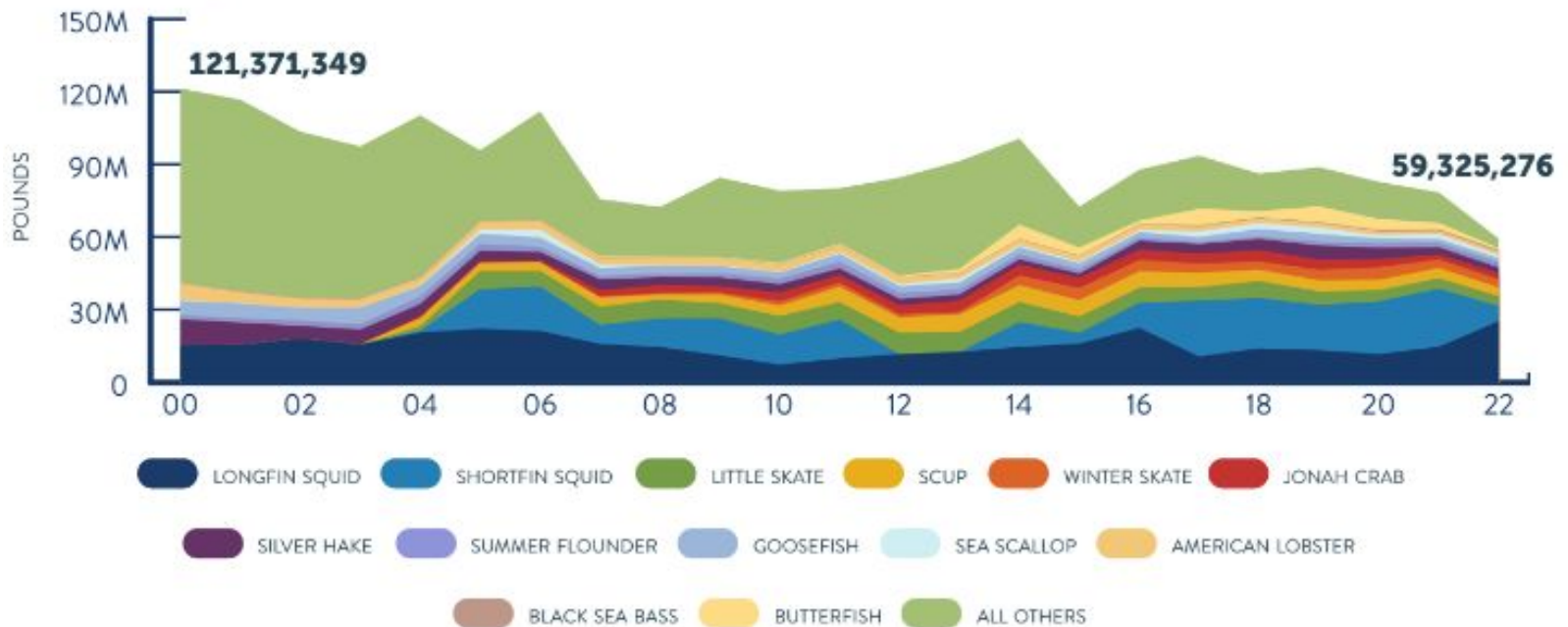


COMMERCIAL SEAFOOD LANDINGS, 2002-2022

NEGATIVE TREND



Total pounds of seafood landed by Rhode Island fishers decreased by **51.1%** from 2002 (121 million pounds) to 2022 (59 million pounds), although seafood landings have been relatively consistent over the past 12 years. Together, longfin and shortfin squid accounted for 53% of pounds landed in 2022.



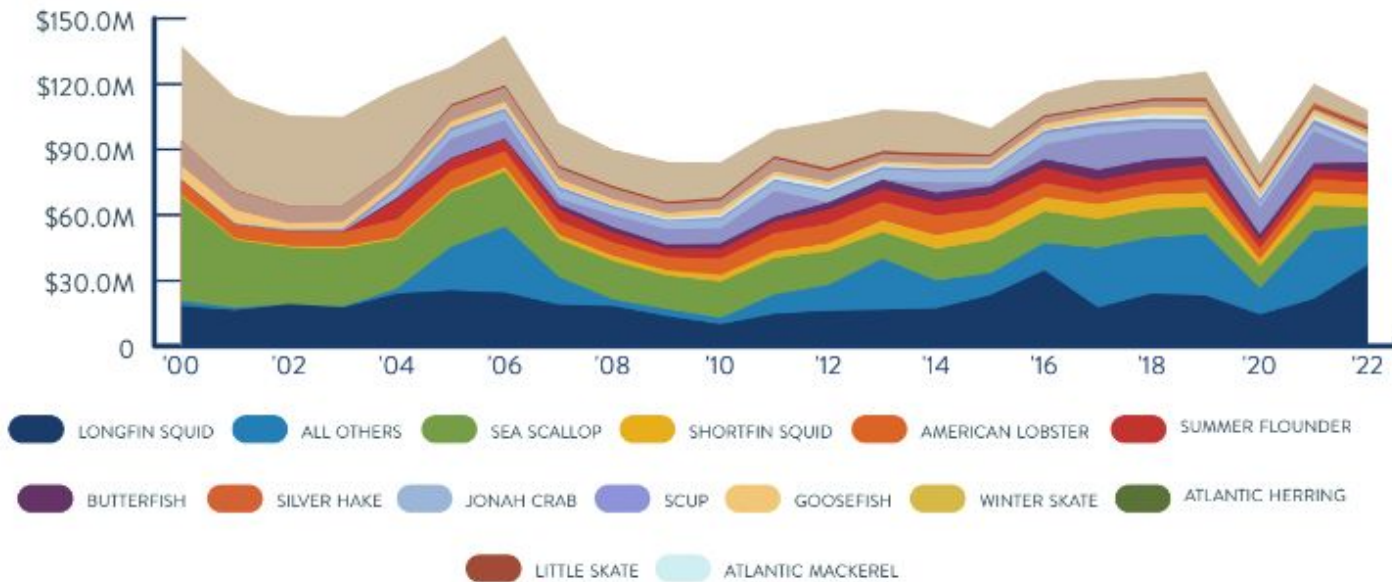
Source: NOAA Fisheries and the Atlantic Coastal Cooperative Statistics Program.



VALUE OF COMMERCIAL SEAFOOD LANDINGS, 2002-2022

NO TREND

Dr. Thomas Sproul (formerly at the University of Rhode Island) estimated nearly **\$600 million** in sales from Rhode Island's seafood and fisheries sector in 2016. Wholesalers (e.g., importers and exporters, brokers) generated 45.7% (\$274 million) in sales, followed by commercial fishing (16.4%, \$98.5 million) and service and supply businesses (e.g., nets, commercial tackle and gear, boat and equipment maintenance).



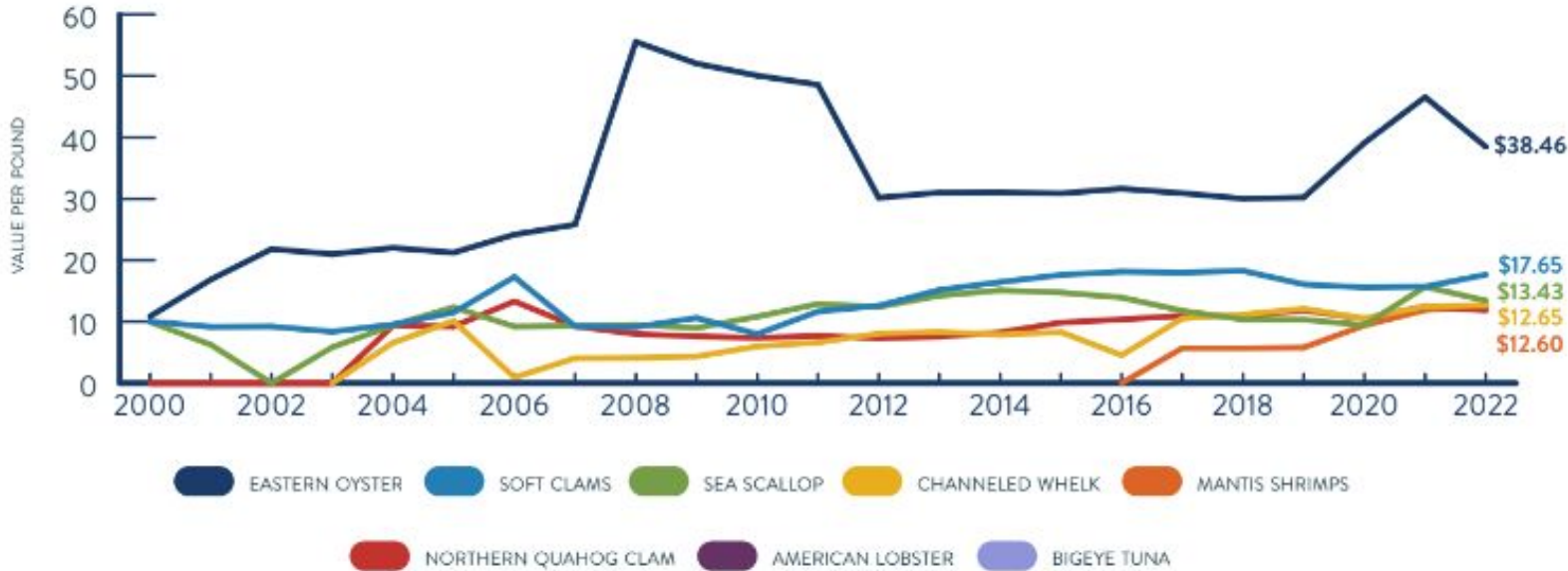
Source: NOAA Fisheries and the Atlantic Coastal Cooperative Statistics Program.



VALUE PER POUND OF COMMERCIAL SEAFOOD LANDINGS, 2002-2022



Although squid, skate, hake, and others are the most commonly caught species by Rhode Island fishermen, Eastern oysters (\$38.46 per pound) are, by far, the most valuable species. In 2022, they accounted for 0.3% of harvested pounds but 5.4% of the value of sales. Soft clams (\$17.65), sea scallops (\$13.43), and channeled whelk (\$12.65) also had high per pound values.



Source: NOAA Fisheries and the Atlantic Coastal Cooperative Statistics Program



GROSS SALES OF RHODE ISLAND'S SEAFOOD SECTOR, 2016

NO TREND

Dr. Thomas Sproul (formerly at the University of Rhode Island) estimated nearly **\$600 million** in sales from Rhode Island's seafood and fisheries sector in 2016. Wholesalers (e.g., importers and exporters, brokers) generated 45.7% (\$274 million) in sales, followed by commercial fishing (16.4%, \$98.5 million) and service and supply businesses (e.g., nets, commercial tackle and gear, boat and equipment maintenance).

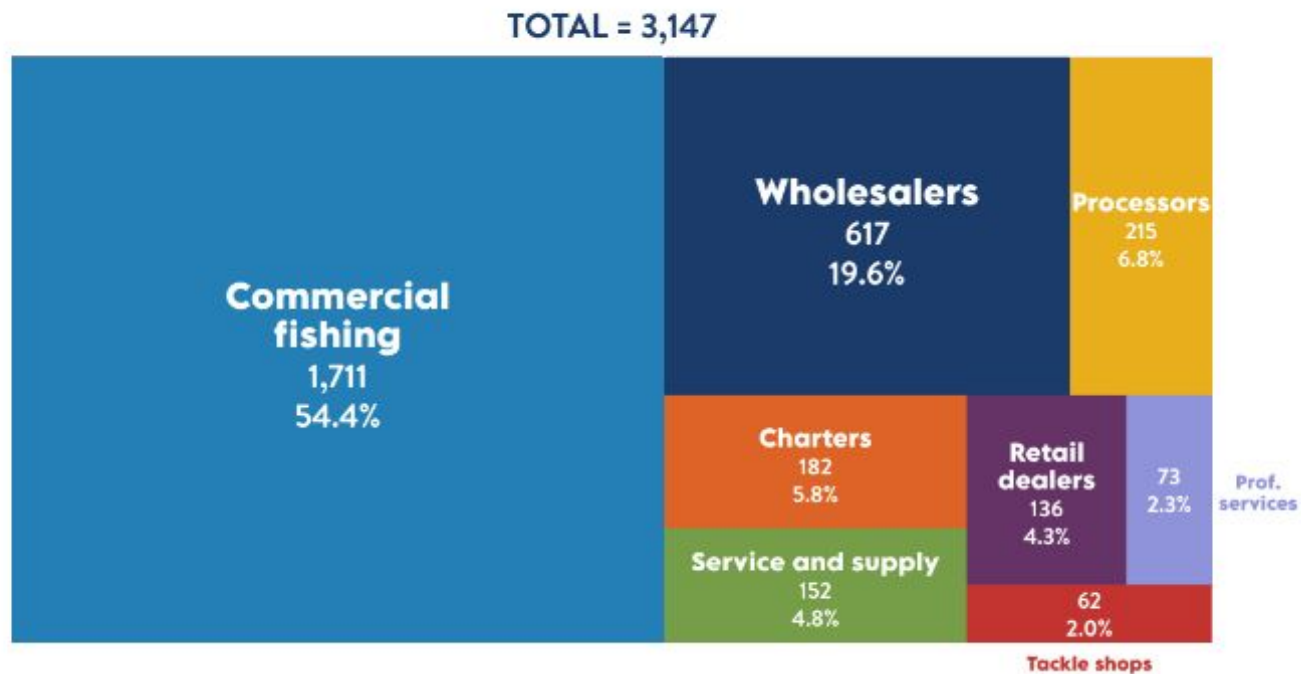
TOTAL = \$573,853,999



EMPLOYMENT IN RHODE ISLAND'S SEAFOOD SECTOR, 2016

NO TREND

Dr. Sproul estimated a little more than **3,100 jobs** in Rhode Island's seafood and fisheries sector in 2016. Commercial fishing accounted for more than half of seafood and fisheries employment (1,711 jobs), followed by wholesalers (20%, 617 jobs), and processors (7%, 215 jobs).



AQUACULTURE PRODUCTION, 2002-2022



Eastern oysters, the most valuable seafood species harvested by Rhode Island fishermen, account for about 98% of all Rhode Island aquaculture production. Rhode Island has experienced steady growth in its aquaculture industry over the past 20 years, from 54 acres in 2002, to **374 acres in 2022**. Aquaculture sales were \$448,000 in 2002 and over \$6.1 million in 2019. Sales dipped dramatically in 2020 due to the COVID-19 pandemic since most Eastern oysters are served in restaurants. Sales subsequently rebounded to **over \$8 million** in 2021 and 2022.



Source: [Coastal Resources Management Council](#), Reported in 2022 dollars.



Climate Change

*How is climate change affecting
RI's food system?*

RI FOOD
POLICY
COUNCIL



KEY STATS

2023 warmest year on record

4.2°F RI air temperature anomaly in 2023

77.7°F North Atlantic surface temp. Sept. 2023

31 billion-dollar weather disasters

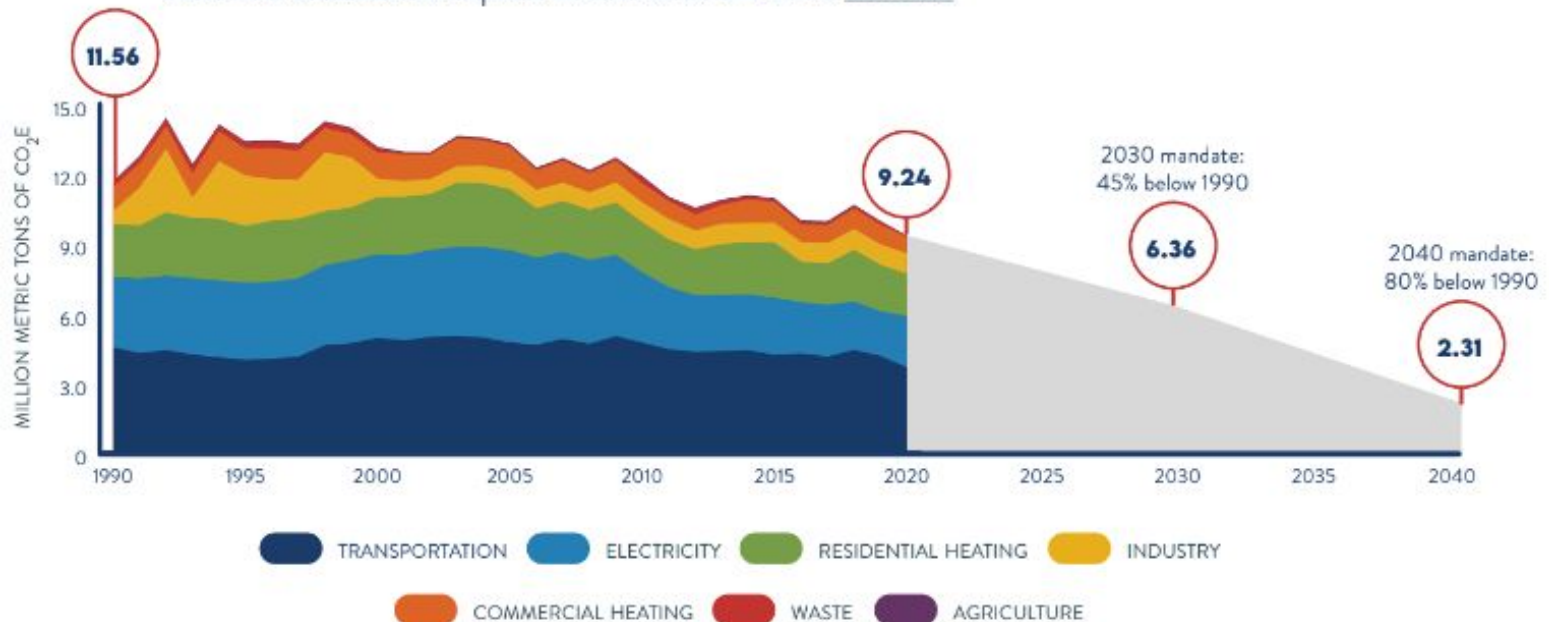
≈100,000 tons food waste



GREENHOUSE GAS INVENTORY, 1990-2020



Net greenhouse gas emissions decreased **20.1%** from 11.56 MMCO₂e in 1990, to **9.24 MMCO₂e in 2020**. Transportation continues to be the largest source of emissions in Rhode Island. Emissions reductions for transportation from 2019 to 2020 are likely due to pandemic restrictions on travel (e.g., -79.6% for aviation emissions). Additional substantial decreases are required to meet 2030 and 2040 [mandates](#).



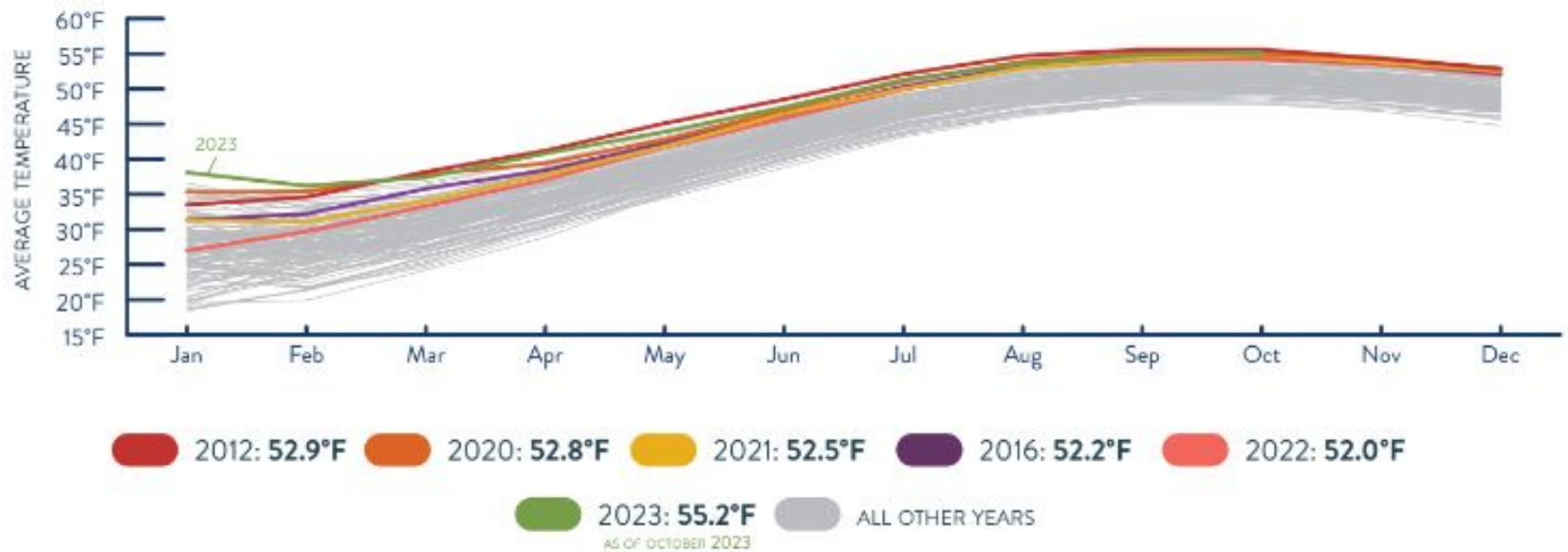
Source: State of Rhode Island Department of Environmental Management, [1990-2020 Rhode Island Greenhouse Gas \(GHG\) Emissions Inventory](#).



AVERAGE ANNUAL TEMPERATURE, 1896-2023



The five warmest years on record in Rhode Island—**2012, 2020, 2021, 2016, 2020**—have happened in the past 11 years. 2023 is expected to be the warmest year on record. As the [Fifth National Climate Assessment](#) warns, “the more the planet warms, the greater the impacts.”



Source: NOAA National Centers for Environmental Information, [Climate at a Glance: Statewide Haywoods](#).

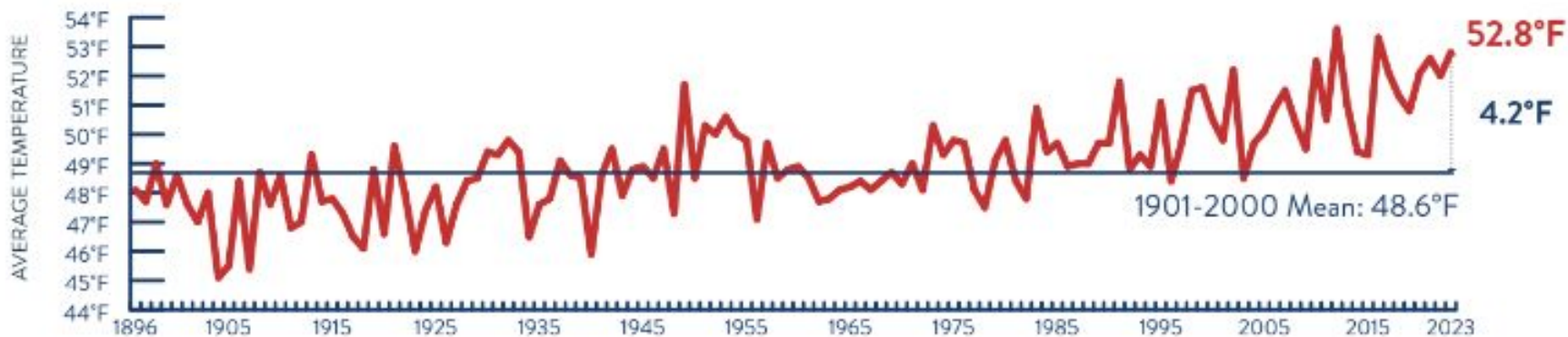


AIR TEMPERATURE ANOMALY, 1896-2023

NEGATIVE TREND



The average temperature in Rhode Island from November 2022 to October 2023, **52.8°F**, was **4.2°F higher** than the average temperature during the previous century. The six New England states had the largest average temperature anomalies in the country, and Rhode Island had the fourth largest average air temperature anomaly in the country.



Source: NOAA, National Centers for Environmental Information, Rhode Island Average Temperature, November-October.



STATE AIR TEMPERATURE ANOMALY RANK, 2023

1. ME: 4.7°F	9. MS: 3.0°F	15. NC: 2.1°F	23. OR: 0.4°F
2. MA: 4.5°F	9. PA: 3.0°F	15. WV: 2.1°F	24. CO: 0.3°F
2. NH: 4.5°F	9. TX: 3.0°F	16. KY: 2.0°F	25. SD: 0.2°F
2. VT: 4.5°F	10. WI: 2.9°F	16. MO: 2.0°F	26. ID: 0.1°F
3. CT: 4.3°F	11. OH: 2.7°F	17. TN: 1.9°F	27. CA: 0.0°F
4. RI: 4.2°F	12. VA: 2.6°F	17. IA: 1.8°F	27. ND: 0.0°F
5. NJ: 3.9°F	13. AL: 2.4°F	17. SC: 1.8°F	27. UT: 0.0°F
6. DE: 3.6°F	13. IL: 2.4°F	18. OK: 1.5°F	27. WY: 0.0°F
6. NY: 3.6°F	14. GA: 2.3°F	19. KS: 1.1°F	28. NY: -0.5°F
7. FL: 3.4°F	14. IN: 2.3°F	20. WA: 1.0°F	
7. MD: 3.4°F	15. AR: 2.1°F	21. AZ: 0.6°F	
8. LA: 3.3°F	15. MN: 2.1°F	22. NE: 0.5°F	
8. MI: 3.3°F	15. NM: 2.1°F	23. MT: 0.4°F	

Source: NOAA, [National Centers for Environmental Information](#), Statewide Mapping.

COUNTY AIR TEMPERATURE ANOMALY, 2023



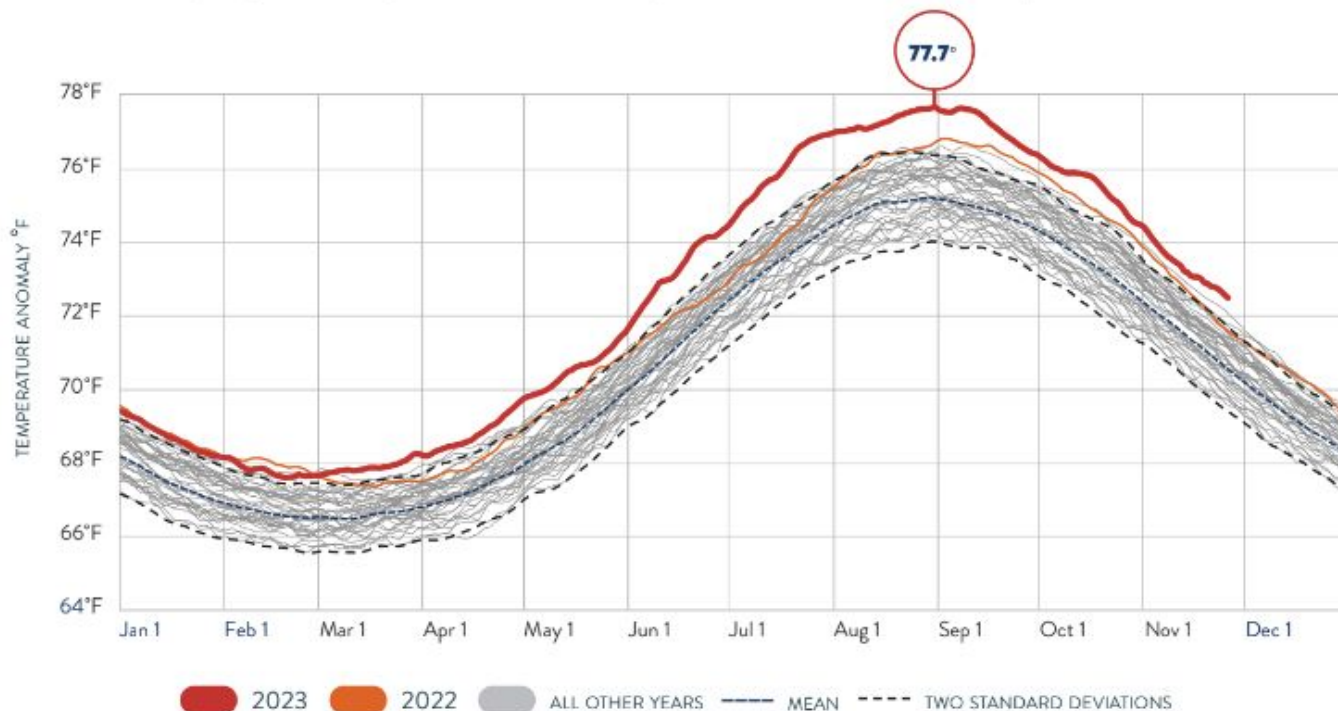
Source: NOAA, [National Centers for Environmental Information](#), County Time Series.



NORTH ATLANTIC DAILY SEA SURFACE TEMPERATURE, 1981-2023



If the trend holds, sea surface temperatures in the North Atlantic in **2023 will be the warmest year on record**. Oceans absorb the majority of the heat caused by climate change. Warmer ocean temperatures—the [Northeast Continental Shelf is warming much faster than the global average](#)—sea level rise, acidification, and increased storm frequency and intensity all threaten marine ecosystems and the communities that depend on them.



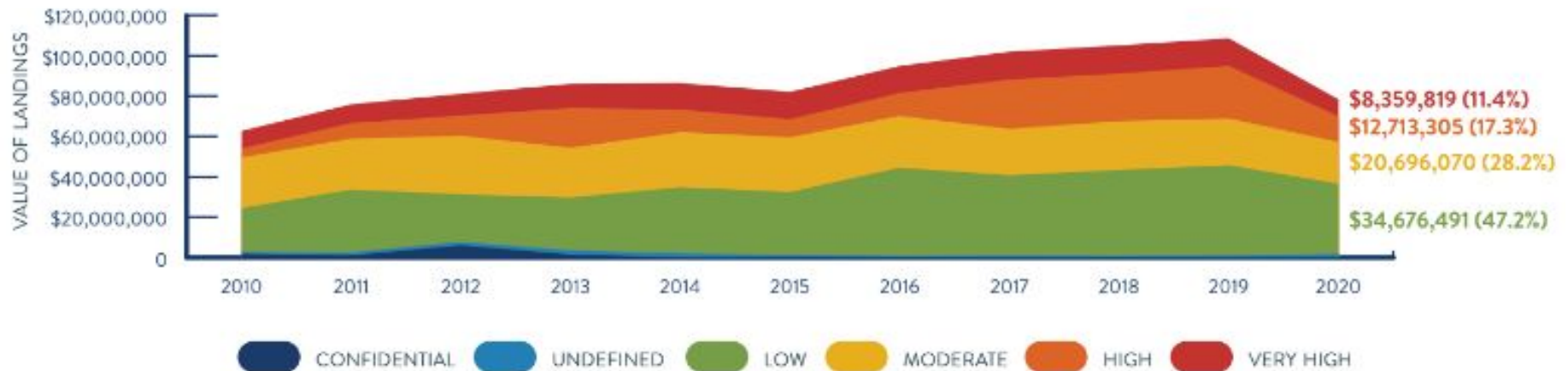
Source: Birkel, S.D., Daily Sea Surface Temperature, [Climate Reanalyzer](#), Climate Change Institute, University of Maine, USA.

CLIMATE VULNERABILITY OF RHODE ISLAND SEAFOOD CATCH, '10-'20

NEGATIVE TREND



About **29%** of the value of Rhode Island's seafood catch in 2020 was classified as having **very high** or **high** vulnerability to changes in abundance or distribution due to climate change.



Source: NOAA Fisheries, [Northeast Vulnerability Assessment](#)



PROJECTED CLIMATE RISKS



A 2020 analysis identified the top climate risk in every county of the United States.

VERY HIGH HIGH MEDIUM LOW NO RISK

HURRICANES

Hurricanes Ida (2021), Isaias (2020), Sandy (2012), Irene (2011), Floyd (1999), Bob (1991), Gloria (1985), and Tropical Storm Elsa (2021) were all [billion-dollar disasters](#) that impacted Rhode Island.



WATER STRESS

Rhode Island has experienced more [abnormally dry days](#) during the past 10 years than it did in the early 2000s. This includes an extreme drought in 2020 and 2022.



SEA LEVEL RISE

Sea level increased by [10.1 inches](#) over the last century in Newport. Sea level is likely to increase by more than [1 foot](#) in the Northeast by 2050.



EXTREME RAIN

Annual precipitation and extreme precipitation events in Rhode Island have been [above average](#) in recent years.

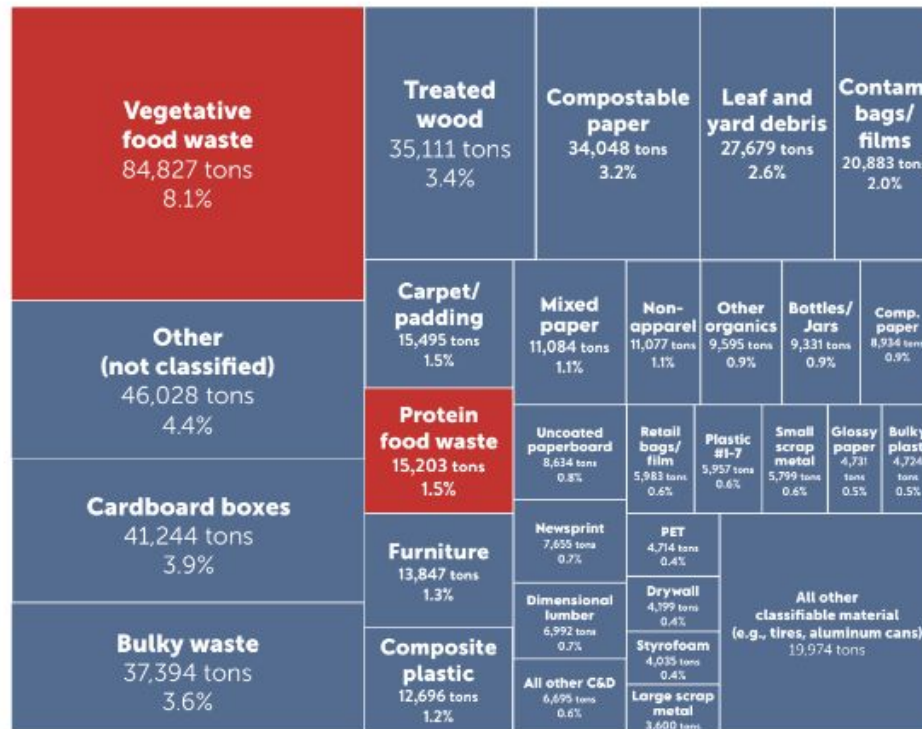


FOOD WASTE, 2015

NET TREND

A 2015 "Waste Characterization" study found that food waste (vegetative and protein) is the top single material in Rhode Island's municipal waste stream at 100,000 tons (9.6%), or 2 million pounds. While food is landfilled by the ton each day, thousands of people in Rhode Island simultaneously experience food insecurity.

528,168 TONS TOTAL MSW
100,030 TONS FOOD WASTE
60,577 TONS RESIDENTIAL FOOD WASTE
39,453 TONS IND., COM., INST. FOOD WASTE



Source: DSM Environmental Services, 2015, Rhode Island Solid Waste Characterization Study



Conclusions & Next Steps

for the 2024 RI Food
System Factbook



Our Value Proposition



- Annual publication of a Food System Factbook will elevate food system issues in Rhode island and educate our key decision makers.
- Educating key decision makers will result in a better food policy and regulatory environment and more public and private investment in for our farmers, fishers, and food businesses.

FOR PRINTED COPIES:
info@rifoodcouncil.org

DOWNLOADS & WEBINAR
RECORDING:
rifoodcouncil.org/factbook

**RI FOOD
POLICY
COUNCIL**



Nessa Richman • Executive Director
nessa@rifoodcouncil.org

Josh Daly • Associate Director
josh@rifoodcouncil.org

Rachel Newman Greene • Program Director, Food Access & Nutrition Security
rachel@rifoodcouncil.org

Max De Faria • Senior Program Associate, Food Access & Nutrition Security
max@rifoodcouncil.org

Allison Montagnon • Communications Manager
allison@rifoodcouncil.org

www.rifoodcouncil.org

[@rifoodcouncil](https://www.instagram.com/rifoodcouncil)

