



**NEW ENGLAND
FEEDING
NEW ENGLAND**



CONNECTICUT

STATE BRIEF

2023



As more frequent and intense climate change disasters imperil food supplies around the world, where our food comes from matters more than ever.

A [regional approach to food system resilience](#) is both an *investment* in our shared future and an *insurance policy* against future risks. A regional approach to food system resilience means that we work collectively to adapt, expand, and fortify New England’s food production and distribution systems to ensure the availability of adequate, affordable, and culturally appropriate food for all who call New England home.

Can the six New England states provide 30% of their food from regional farms and fisheries by 2030?

New England Feeding New England explores this question and what it will really take to grow, raise, produce, harvest, and catch more regional food and move it through a complex supply chain to our homes and other places where we eat. Our research presents an opportunity for the region: [significant changes in diet](#) (e.g., dramatically reducing consumption of ultra-processed foods and increasing fruit and vegetable consumption), a [significant increase in land in agriculture](#), [stopping the decrease in farmers and fishermen](#), and finding a way to [actually get local/regional food in the places people shop](#) are daunting challenges, but addressing them will leave our food system stronger and more resilient.








Through 7 research Volumes, New England Feeding New England lays out the case for a regional approach to food system resilience.

» <https://nefoodsystemplanners.org/>

How self-reliant is our region?

[New England Feeding New England Volume 2](#) estimates regional food self-reliance (RSR)—how much food we produce compared to how much food we consume—for the five major food groups. RSR percentages varied widely from food product to food product, showing a rather lopsided capacity for self-reliance. A small number of foods were produced in large quantities relative to consumption and had self-reliance ratios near or exceeding 100% (e.g., dairy, maple syrup, potatoes, lobster, clams). Most foods, however, had self-reliance ratios of less than 10% (e.g., beef, lettuce, wheat).

» New England Regional Self-Reliance for Major Food Groups

	 GRAINS	 VEGETABLES	 FRUITS	 DAIRY	 PROTEINS
Servings	1.6%	28.3%	8.7%	50.0%	3.2%
Calories	1.7%	41.0%	6.9%	47.4%	2.6%

Source: [Volume 2: Estimating Production for 30% Regional Self-Reliance](#). Note: vegetables consists of a significant amount of calorie-dense potatoes grown in Maine; dairy includes a significant amount of production in Vermont.

What can each New England state do to increase food security and access while building resilience for the whole region?

What strengths does Connecticut’s food system possess and what opportunities can be pursued? What weaknesses persist and what threats loom?

This State Brief contextualizes important characteristics of Connecticut’s food system for consideration.

For example, Connecticut has the second highest amount of food system employment (212,000) and sales (\$49 billion) of any New England state. Connecticut’s enormous food purchasing power, over \$19 billion in 2017, could help shift the dial toward more regional food purchases. Connecticut is the top producer of inedible nursery/greenhouse products in New England, but that extensive experience with indoor production—innovations have been in water conservation, nutrient and energy management, automation, environmental control, pesticide-free production, and more—may help the region develop more controlled environment agriculture systems.

Connecticut has the most diverse population (about 37% Hispanic or non-White) of any state in New England, and significant urban agriculture activity in most major cities, including Bridgeport, Hartford, New Britain, New Haven, New London, Waterbury, and more.

Dollar stores are by far the most common type of major grocery chain in Connecticut, but the state also has a significant number of independent grocery stores, corner stores, bodegas, and country/general stores. These smaller stores may help facilitate access to regional food.





Connecticut Food System Alliance

The [Connecticut Food System Alliance](#) works toward a just, sustainable food system by fostering collaboration and alignment among the state's food system actors and advocating for food policy and systems change informed by food justice. CFSA is working with network members to develop a state food action plan rooted in food justice to transform the Connecticut food system. This plan will serve as a roadmap for equitable food access, diverse ownership of food system assets, and sustainable, viable food production and distribution.



State Snapshot

» Top Agricultural Products by Sales, 2017

53.3% (more than \$305 million) of the value of agricultural sales was generated by bedding, nursery products, and floriculture (i.e., non-food crops), including a limited amount of greenhouse vegetable production.



BEDDING/GARDEN PLANTS
32.1%

includes bedding/garden plants, cut flowers, florist greens, foliage plants, potted flowering plants, etc.



NURSERY CROPS
18.5%

includes ornamentals, shrubs, shade trees, flowering trees, evergreens, live Christmas trees, fruit and nut trees and plants, vines, etc.



MILK FROM COWS
11.3%

» Top Seafood and Aquaculture Products by Sales, 2021

In 2021, oysters accounted for 44.3% (\$20.2 million) of combined seafood and aquaculture sales, followed by sea scallops (\$5.3 million) and hard clams (\$4.5 million).



OYSTERS
44.3%



SEA SCALLOPS
15.1%



HARD CLAMS
12.7%

Top Manufactured Products by Sales, 2017



OTHER PRODUCTS
31.4%



BAKERIES
25.3%



OTHER DAIRY PRODUCTS
9.6%

Sources: [Volume 3: Economic Impact of New England's Food System](#), NOAA Fisheries, and the [Atlantic Coastal Cooperative Statistics Program](#)

» Top Retail Food Sales by Market Channel, 2017



GROCERY STORES
48.4%



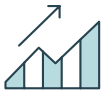
**RESTAURANTS/
FAST FOOD**
36.0%



LIQUOR STORES
6.3%



DIRECT SALES
0.3%



Food System Economy

How big is Connecticut's food system? What sectors are growing? What sectors are contracting?

Connecticut's food system employs about **212,000** people and generates nearly **\$49 billion** in sales. From 2007 to 2017, employment and sales in distribution and food services increased, while employment and sales in agriculture, fisheries, and food and beverage manufacturing were flat or decreased.

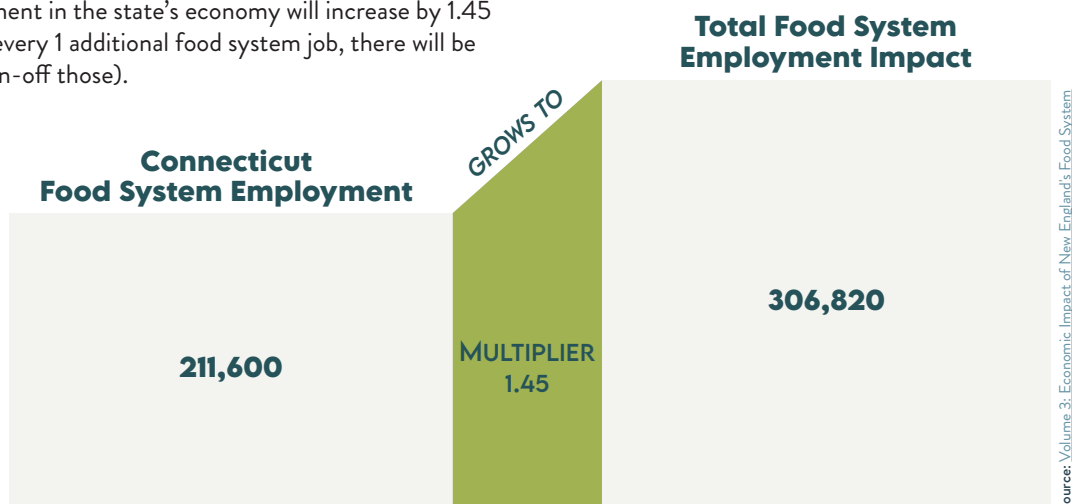
» Economic Impact of Connecticut's Food System, 2017

	2017 Employment	% of Total	Growth from 2007- 2017	2017 Sales	% of Total	Growth from 2007- 2017
Agriculture	22,146	10.5%	0.2%	\$591,955,300	1.2%	-1.8%
Fisheries	332	0.2%	-1.6%	\$14,877,000	0.03%	-14.1%
Food Manufacturing	7,023	3.3%	-0.3%	\$2,904,775,900	5.9%	-2.1%
Beverage Manufacturing	750	0.4%	0.0%	\$374,347,900	0.8%	-4.3%
Wholesaling + Distributing	14,071	6.6%	0.3%	\$25,568,139,200	52.3%	4.8%
Stores	44,728	21.1%	0.8%	\$11,260,472,900	23.0%	-1.0%
Food Services + Drinking Places	122,550	57.9%	2.0%	\$8,212,897,200	16.8%	1.3%
TOTAL	211,600	100.0%	1.3%	\$48,927,465,300	100.0%	1.9%

Source: [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.

» Food System Employment Multiplier

The employment multiplier calculated in Volume 3 shows that for each additional job created in Connecticut's food system, total employment in the state's economy will increase by 1.45 jobs (i.e., for every 1 additional food system job, there will be 0.45 jobs spun-off those).



The additional 0.45 job (in aggregate) is actually a set of fractional jobs spread over the entire economy, the result of linked activity in other food system and nonfood system sectors. These include jobs in transportation, utilities, finance, trade, and government.

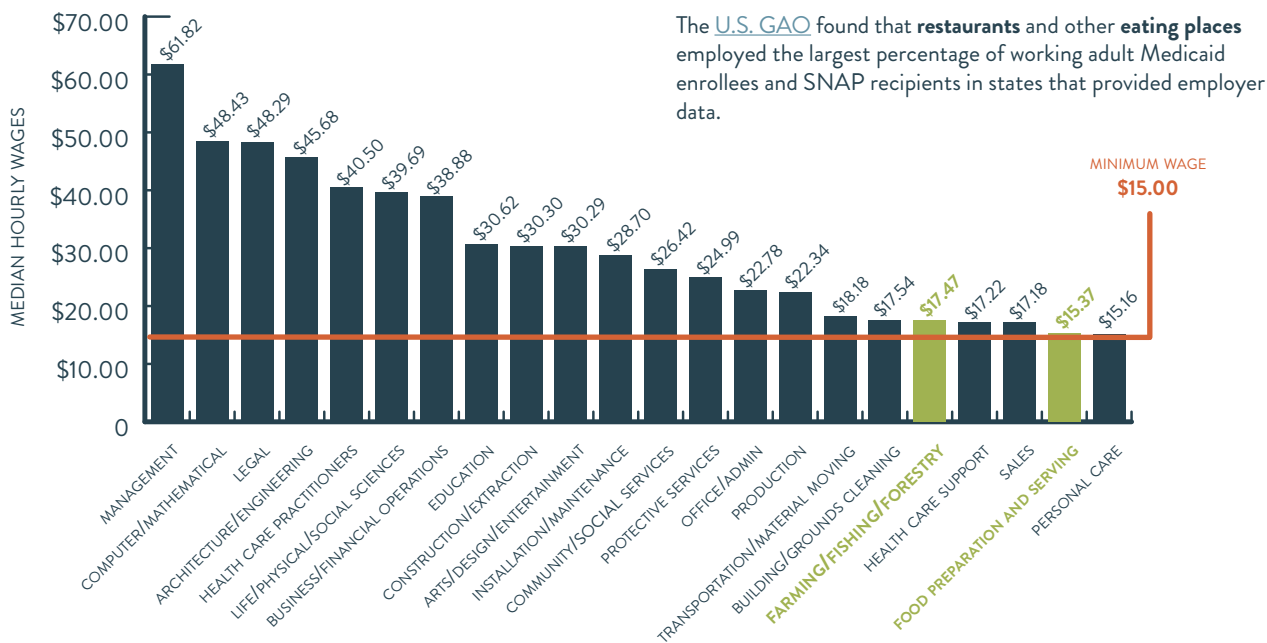


Food System Wages

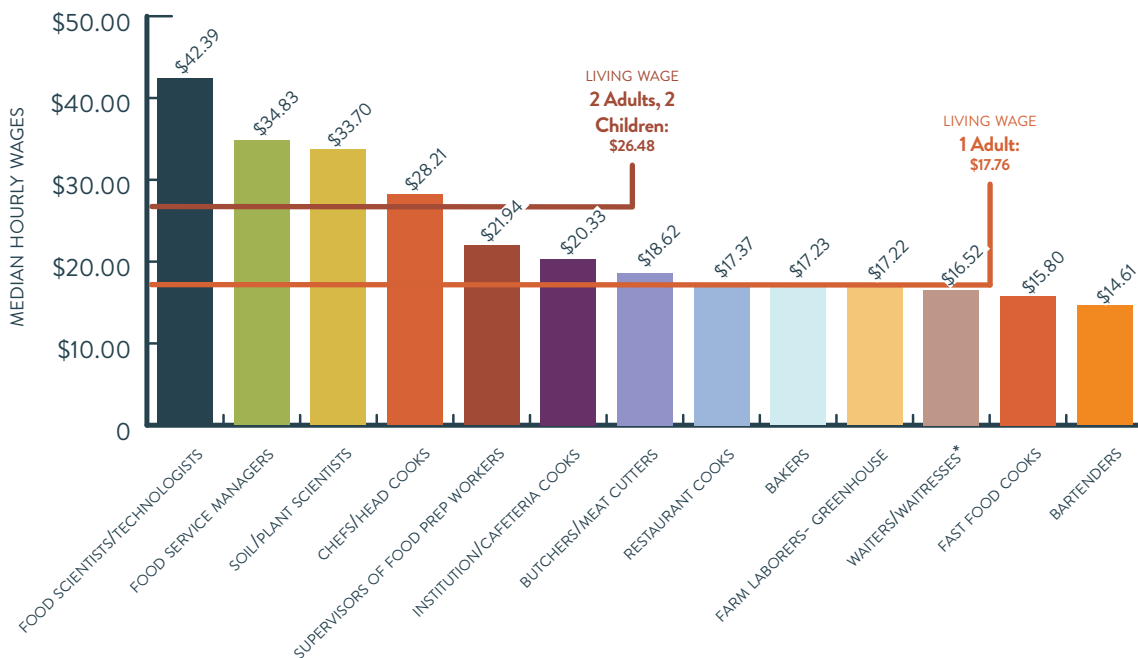
How much do food system workers in Connecticut earn?

Wages/salaries are the most common source of income for the majority of Americans. Connecticut's food system workers, particularly food service workers, receive some of the *lowest* wages of any occupational category in the state. However, Connecticut is tied with Massachusetts for the highest minimum wage of the New England states (\$15), and median hourly wages for many food system jobs are above the living wage level for adults with no children.

» Median Hourly Wages by Major Occupational Category, 2022



» Median Hourly Wages by Selected Food System Occupations, 2022



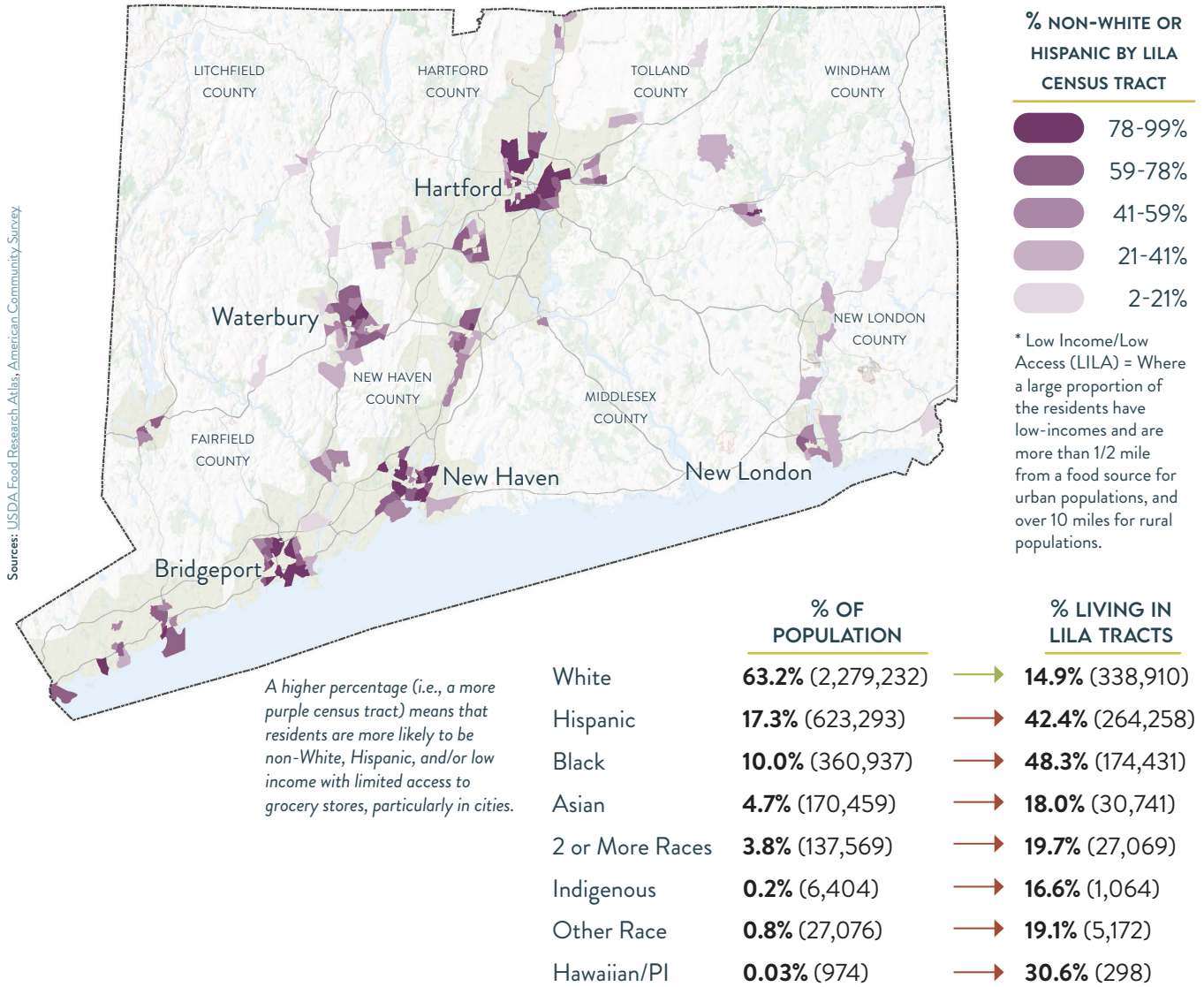
Source: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, MIT, Living Wage Calculator. * wage data includes tips.



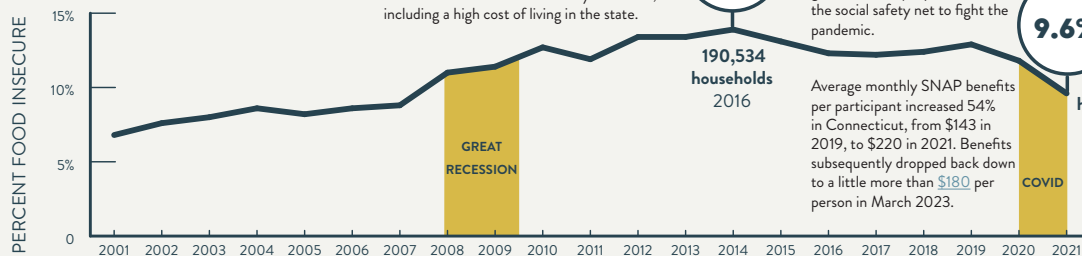
Food Access

Do Connecticut residents have equitable access to food stores?

Hispanic/Latino, Black, Asian, Indigenous, Native Hawaiian/Pacific Islander, and Connecticut residents of two or more races or some “other” race—made up **36.8%** of the state’s population, but **61.0%** of its population living in low income/low access (LILA)* census tracts.



Food Insecurity



The Great Recession triggered elevated rates of food insecurity for more than a decade after. Connecticut’s recovery from the Great Recession has been relatively slower than the rest of the nation due to a variety of factors, including a high cost of living in the state.

The COVID-19 pandemic also triggered economic hardship across the country, but USDA estimates of food insecurity were not noticeably higher in 2020 and 2021. What explains this? The federal government rapidly fortified the social safety net to fight the pandemic.

Average monthly SNAP benefits per participant increased 54% in Connecticut, from \$143 in 2019, to \$220 in 2021. Benefits subsequently dropped back down to a little more than \$180 per person in March 2023.

17%

However, other research estimates that as much as 17% of Connecticut’s population—including 34% of its Hispanic population and 25% of its Black population—experienced food insecurity from 2021 to 2022.

Source: DataHaven Community Wellbeing Survey



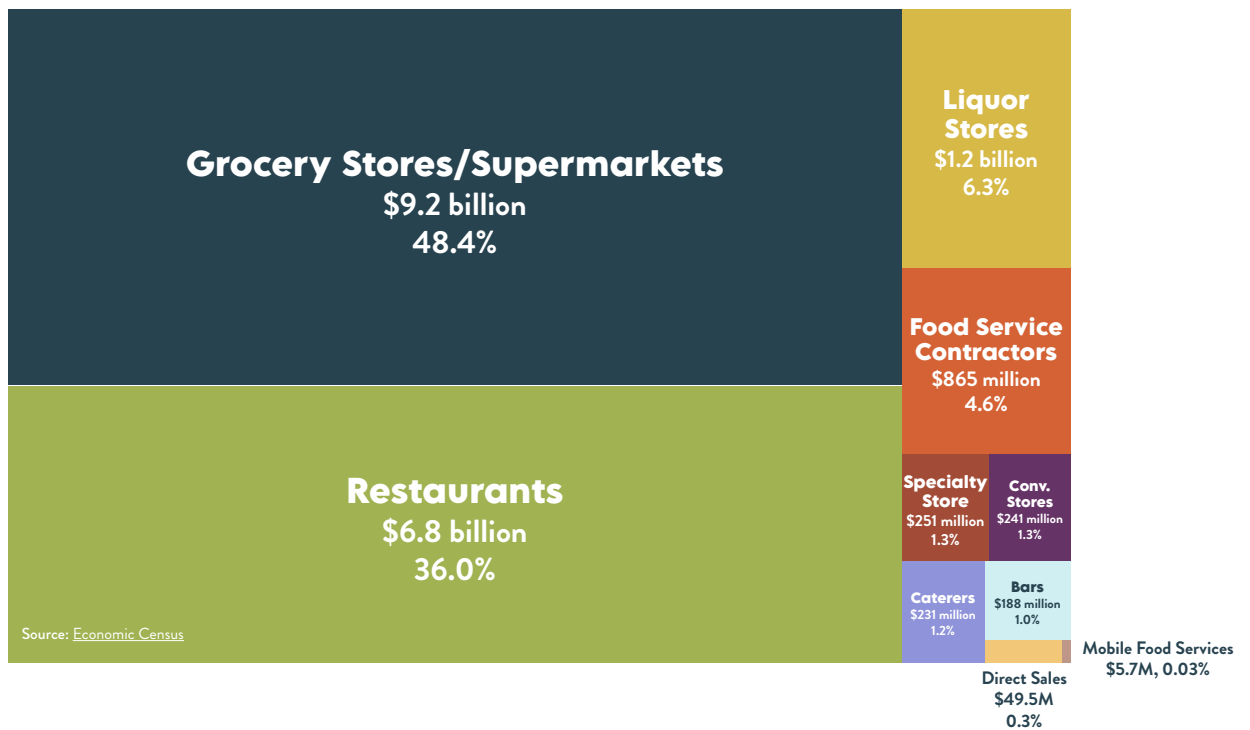
Food Expenditures

How much do Connecticut residents spend on food? Where do they shop?

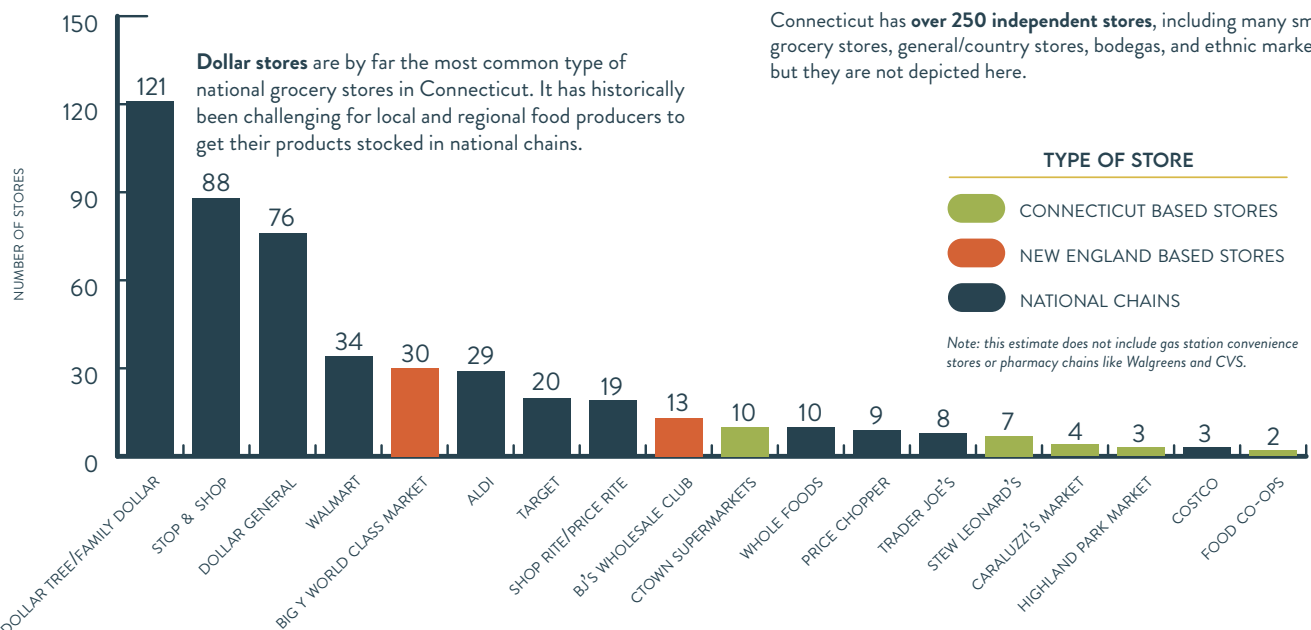
Connecticut residents spent over **\$19.0 billion** at stores and restaurants in 2017. Grocery stores (48.4%) and restaurants (36.0%)—which includes full-service and fast food restaurants—accounted for 84.4% of total sales. Direct sales from farmer to customer made up 0.3% of total retail sales.

Food Stores and Services Sales, 2017

TOTAL = \$19.0 BILLION



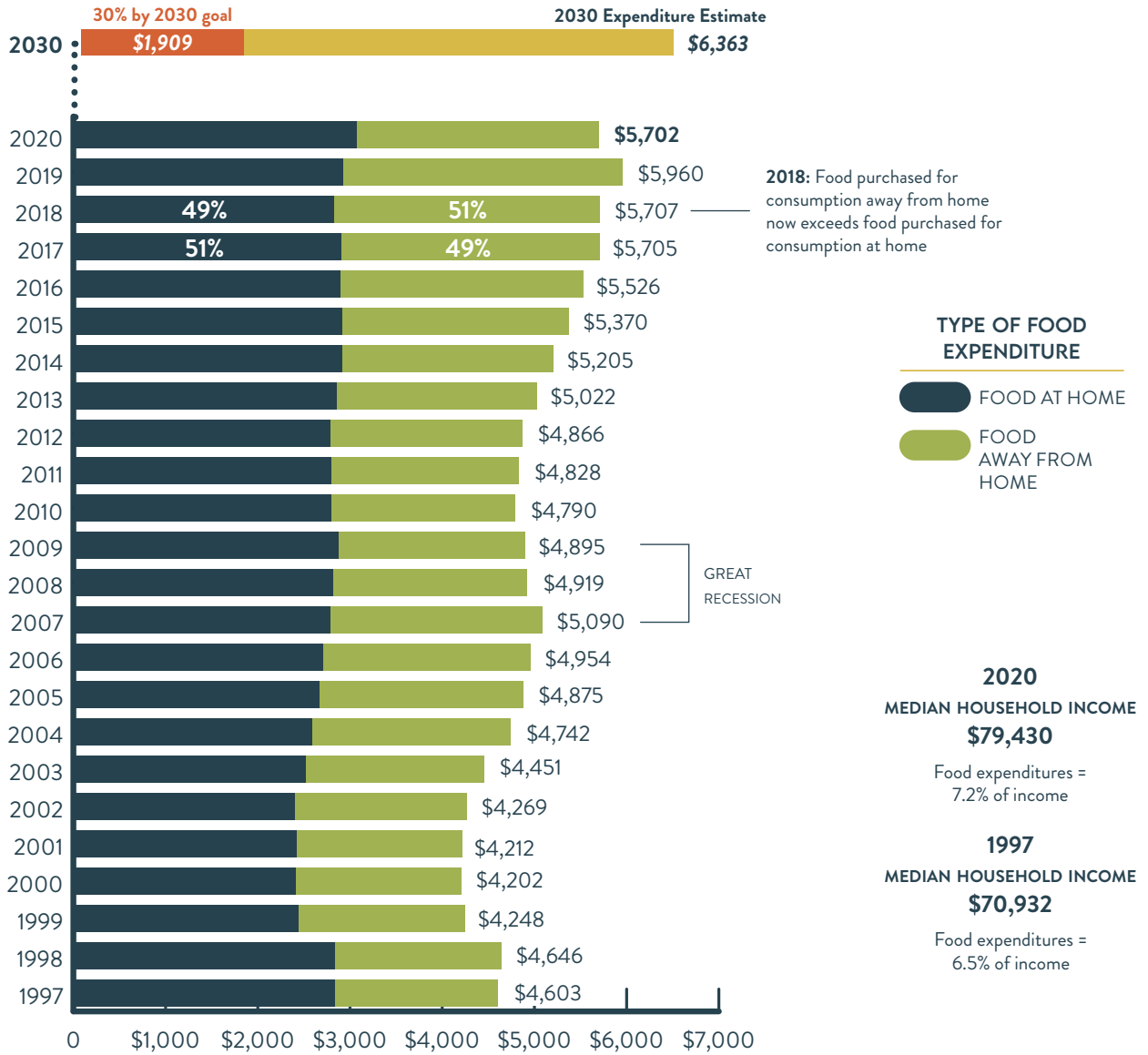
Count of Food Stores in Connecticut



What would it take to meet a 30% food expenditure goal?

#4

Connecticut had the fourth highest per capita food expenditures (**\$5,702**) of any state in the country in 2020. With an average annual food expenditure growth rate of 1.4% from 1997 to 2020—and population increase to 3,688,630 by 2030—per capita food expenditures may reach **\$6,363** by 2030. About **\$1,909** per capita would then have to be spent on regional food to meet our 30% goal.



Source: USDA State-Level Food Expenditure Series

Northeast consumer expenditure data indicates that ultraprocessed food and beverage products make up the top 3 food expenditure categories, followed by fresh fruit.



MISCELLANEOUS FOODS
\$1,147 (18.7%)

Frozen prepared meals, canned food, chips, desserts, etc.



BAKERY PRODUCTS
\$585 (9.5%)

Bread, crackers, cookies, cakes, pies, doughnuts, etc.



NONALCOHOLIC BEVERAGES
\$576 (9.4%)

Soda, coffee, tea, ice, sports drinks, etc.



FRESH FRUIT
\$467 (7.6%)

Source: Consumer Expenditure Survey



Climate Change

How will climate change impact Connecticut's food system?

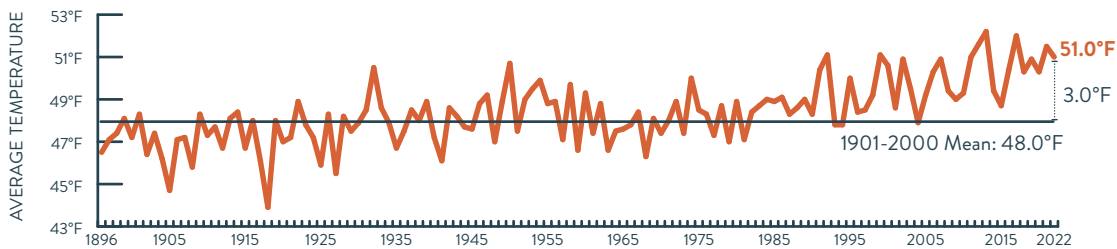
Food system activities like cultivating crops, raising livestock, and land use changes, are major drivers of climate change *and* food systems are particularly vulnerable to a changing climate. [July 2023](#) was the warmest month on record and [major changes are already underway across Connecticut](#) and New England:

- » **Loss of Seasonality:** less distinct seasons, milder winters, earlier spring conditions, and more unpredictable weather are expected to impact agricultural production. Although Connecticut has extensive experience with indoor production for greenhouse/nursery products, the majority of agricultural activity takes place outdoors. In [2023](#), freezes, drought, excessive rain, and [flooding](#) all harmed the yield and quality of crop production. **Long term estimates suggest that the overall climate in Connecticut will become wetter, in addition to warmer, in coming decades.**



The average temperature in Connecticut in 2022, 51.0°F, was 3.0°F higher than the average temperature during the previous century.

» Air Temperature Anomaly



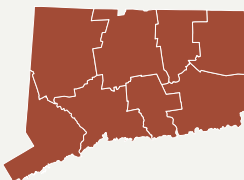
Source: NOAA [National Centers for Environmental Information](#)

- » **Threats to Health:** increases in heat and humidity, ground-level ozone pollution, air pollution from wildfires, mold, pollen season, vector-borne diseases (e.g., Lyme disease), and gastrointestinal illnesses from waterborne and foodborne contaminants can lead to more illness and death.

» Projected Climate Risks

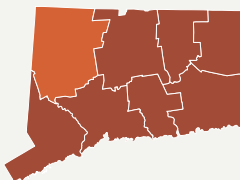
HIGH
 MEDIUM
 LOW
 NO RISK

HURRICANES



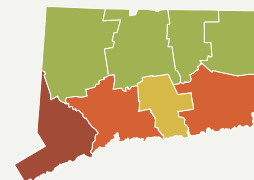
Since 1980, 10 hurricanes and 11 severe storms were [billion-dollar disasters](#) that impacted Connecticut.

WATER STRESS



Connecticut has experienced [abnormally dry days](#) in the early 2000s and particularly after 2012.

SEA LEVEL RISE



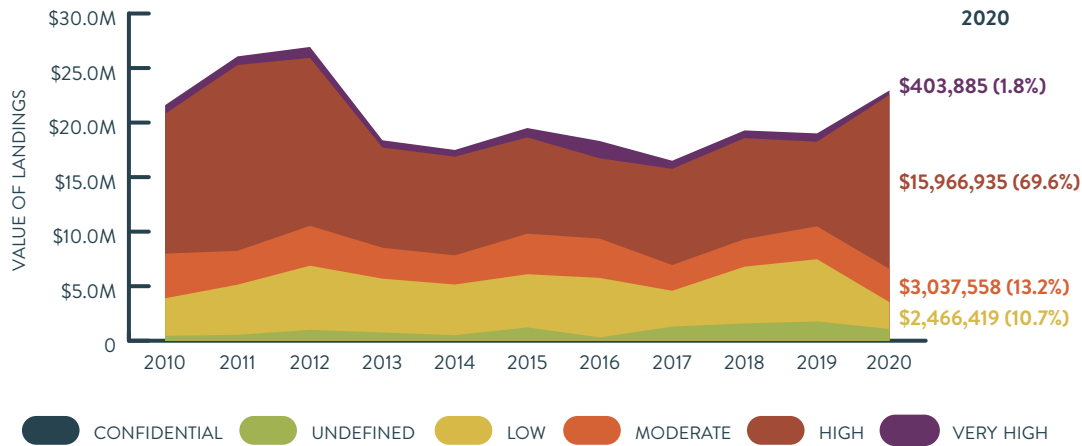
The [sea level](#) around Bridgeport has increased by 5 inches since 1964. Sea level is expected to rise by nearly 2 feet by 2050.

- » **Ocean Under Threat:** the Atlantic Ocean supports tourism, recreation, and economic activities, including fisheries. Warmer ocean temperatures—the Northeast Continental Shelf (including the [Long Island Sound](#)) 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. For example, [research](#) indicates that ocean acidification depresses the growth of juvenile sea scallops, a species of economic and cultural importance in Connecticut.

72%

About 72% of Connecticut’s seafood catch in 2020—mostly sea scallops—was classified as having **very high** or **high** vulnerability to changes in abundance or distribution due to climate change.

» **Climate Vulnerability of Connecticut Catch**



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

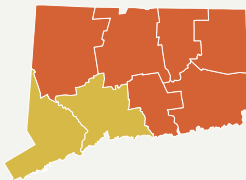
- » **Risks to Cities:** the Northeastern U.S. is home to densely populated cities, including [New Haven](#) and [Bridgeport](#), rural communities, critical transportation corridors and infrastructure, and culturally and historically significant sites. Climate change impacts, including from flooding, hurricanes, and sea level rise can damage infrastructure, displace populations, strain our emergency response system, and unevenly affect historically marginalized and low-income communities.

Source: Fourth National Climate Assessment, [Chapter 18: Northeast](#)

» **Projected Climate Risks**

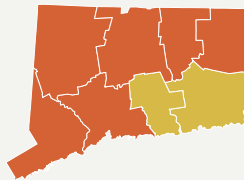
HIGH MEDIUM LOW NO RISK

EXTREME RAIN



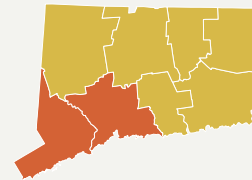
Annual precipitation and extreme precipitation events in Connecticut have been [above average](#) in recent years.

WILDFIRE



Large wildfires are [not very common](#) in Connecticut.

HEAT STRESS



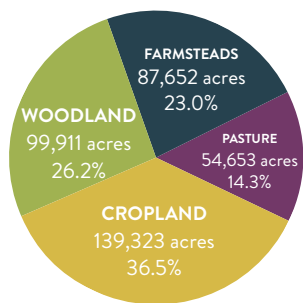
Temperatures have risen about [3.5°F](#) since the beginning of the 20th century, resulting in warmer nights and longer growing seasons.

Agriculture

What kinds of agricultural products does Connecticut grow/raise? How have land uses changed over time?

Land in Agriculture

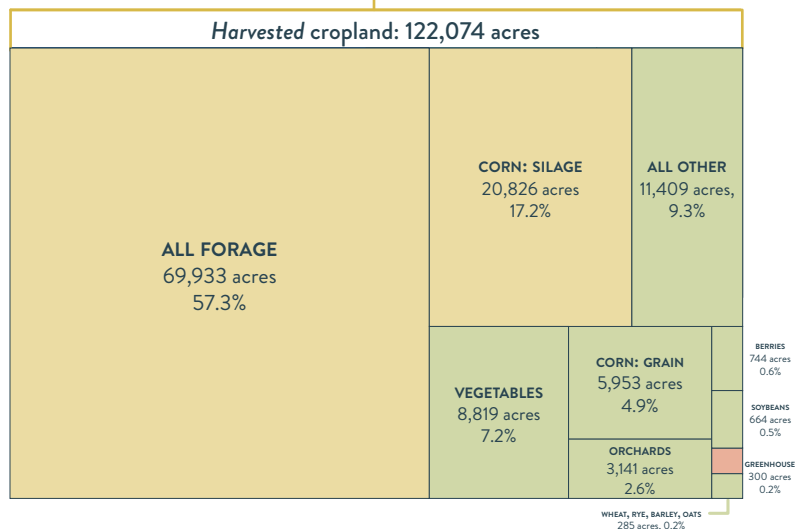
TOTAL
381,539 ACRES



#9 Connecticut ranked 9th nationally for greenhouse/nursery sales

-73% Cropland decreased from 509,000 acres in 1945 to 139,323 acres in 2017

-80% Pastureland decreased from 270,000 acres in 1945 to 54,653 acres in 2017



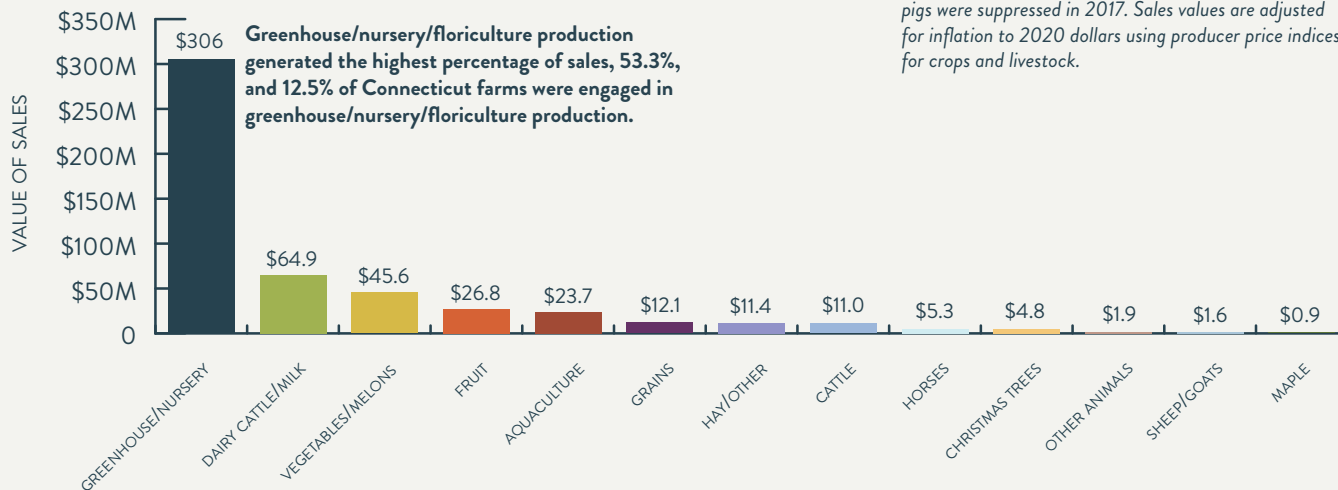
END USES

- ANIMAL FEED
- EDIBLE
- LANDSCAPING

Acres for animal feed equaled **74.3% (90,759 acres)** of harvested cropland and 32.0% of total land in agriculture. [Connecticut's greenhouse industry](#) has made advancements in water conservation, nutrient and energy management, automation, environmental control, pesticide-free production, and more. These innovations may help the region develop more controlled environment agriculture systems.

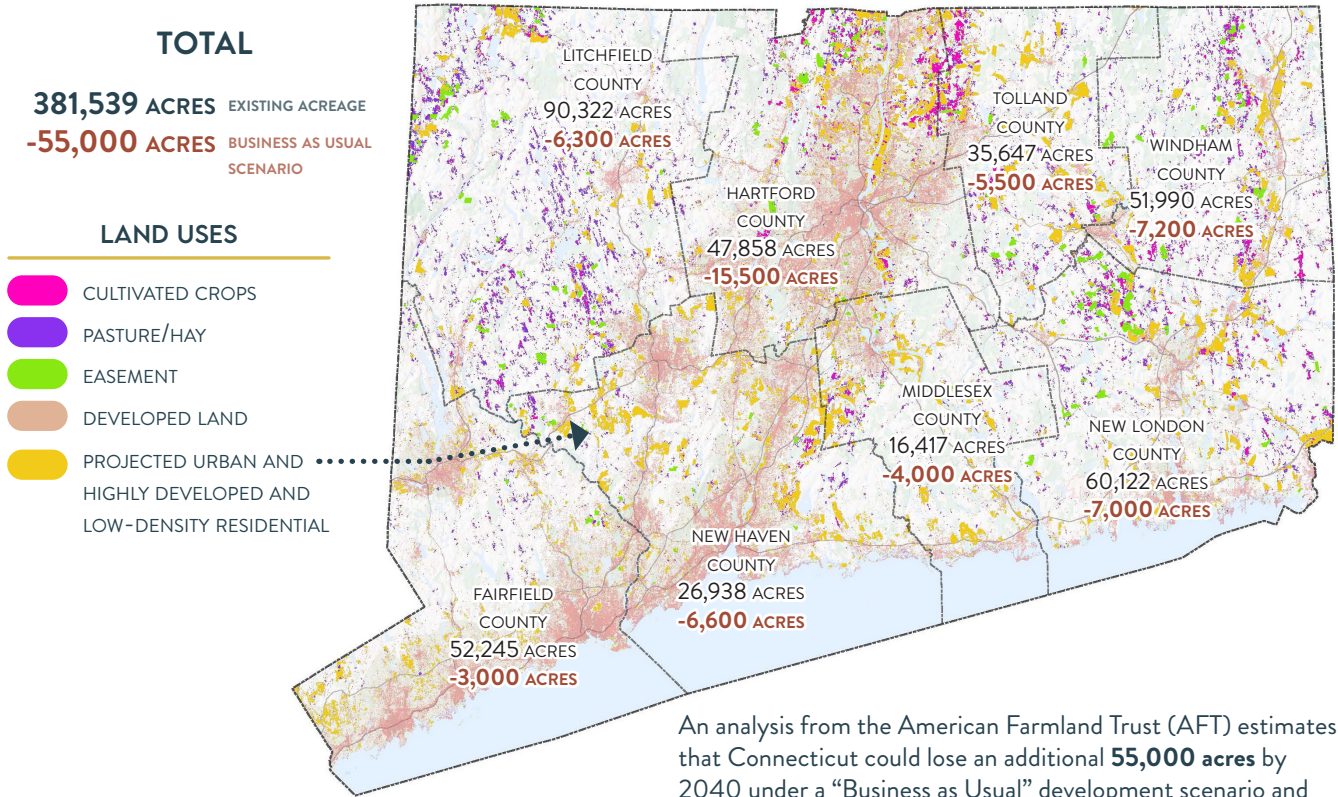
Agricultural Sales, 2017

TOTAL \$572,895,600



Note: Agriculture sales in this figure do not include support activities. Sales values for poultry/eggs and hogs/pigs were suppressed in 2017. Sales values are adjusted for inflation to 2020 dollars using producer price indices for crops and livestock.

» Projected Changes in Land in Agriculture, Business as Usual Scenario



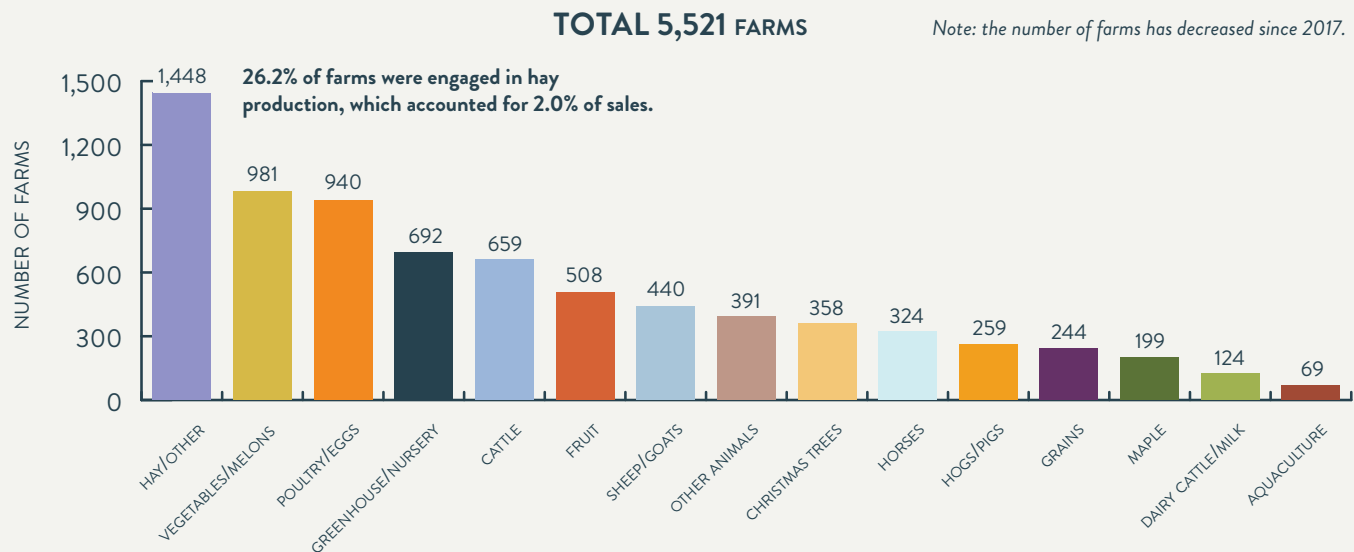
An analysis from the American Farmland Trust (AFT) estimates that Connecticut could lose an additional **55,000 acres** by 2040 under a “Business as Usual” development scenario and **72,500 acres** under a “Runaway Sprawl” scenario.

AFT projects that **Hartford, Windham, and New London** counties will experience the biggest decreases in land in agriculture.

Source: American Farmland Trust, [Farms Under Threat 2040: Choosing an Abundant Future](#)

90% Connecticut accounted for 90% (about \$306 million) of New England’s greenhouse/nursery/floriculture sales in 2017. These sales consisted mostly of bedding, gardening plants, nursery stock crops, sod, and over \$6 million in greenhouse vegetables and herbs sales.

» Number of Farms Engaged in Each Category, 2017



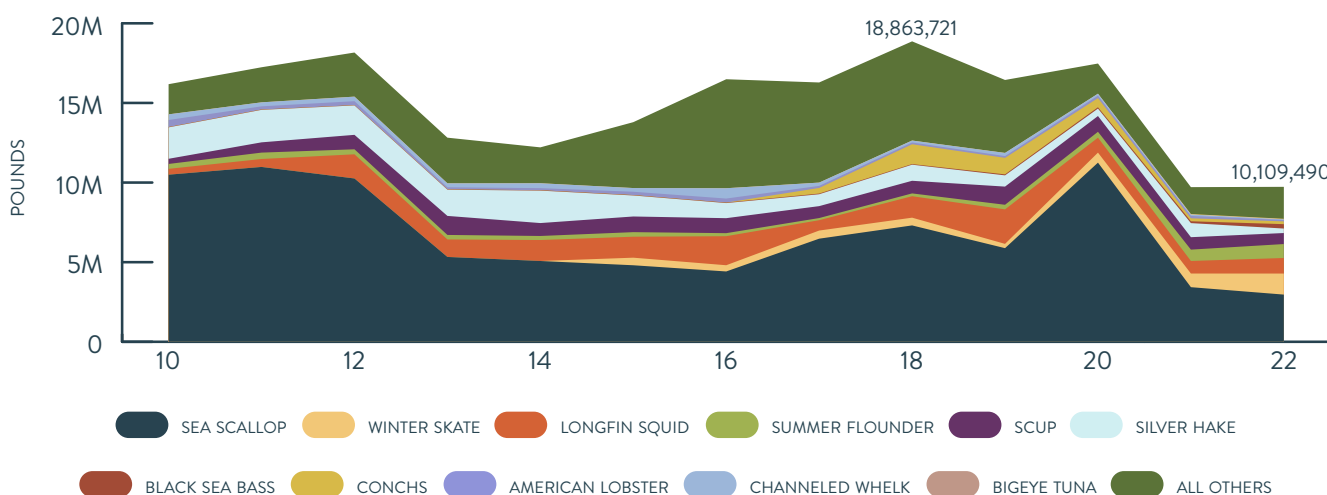
Fisheries

What kinds of seafood products does Connecticut harvest?

33% Dozens of species are caught or harvested by Connecticut fishermen/lobstermen, but sea scallops account for a significant percentage of pounds landed (59%) and sales (68% in 2022). Except for 2016 to 2020, sea scallop harvests have declined over the past 12 years. Warmer ocean temperatures and acidification are expected to [increasingly impact production](#). Connecticut also has an [extensive aquaculture industry](#).

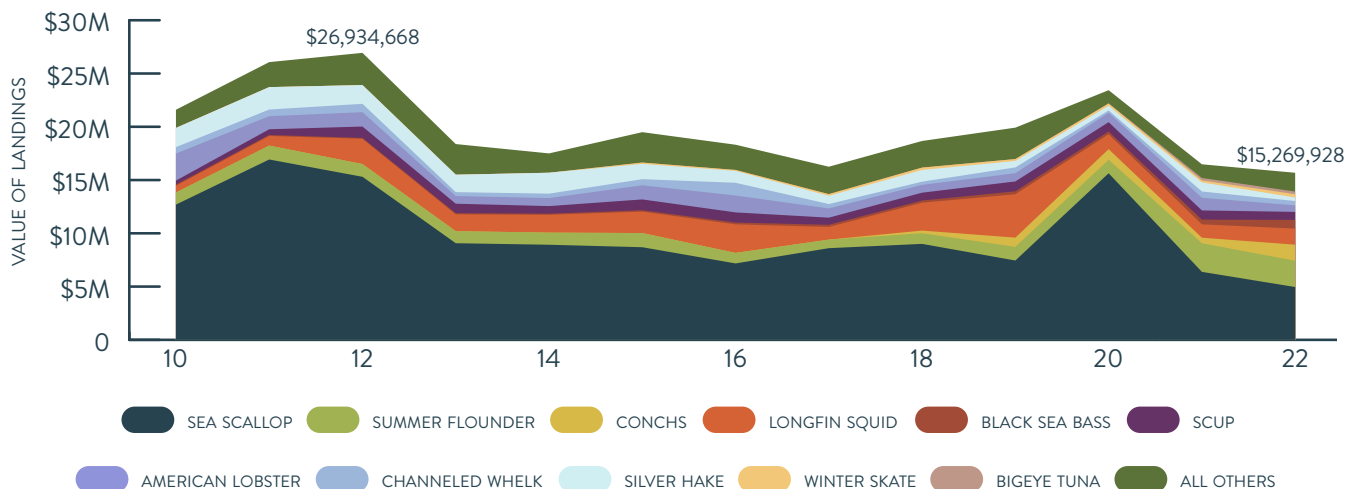


» Pounds of Commercial Seafood Landings



Source: NOAA Fisheries and the Atlantic Coastal Cooperative Statistics Program

» Value of Commercial Seafood Landings



Source: NOAA Fisheries and the Atlantic Coastal Cooperative Statistics Program. Depicted in 2022 dollars.

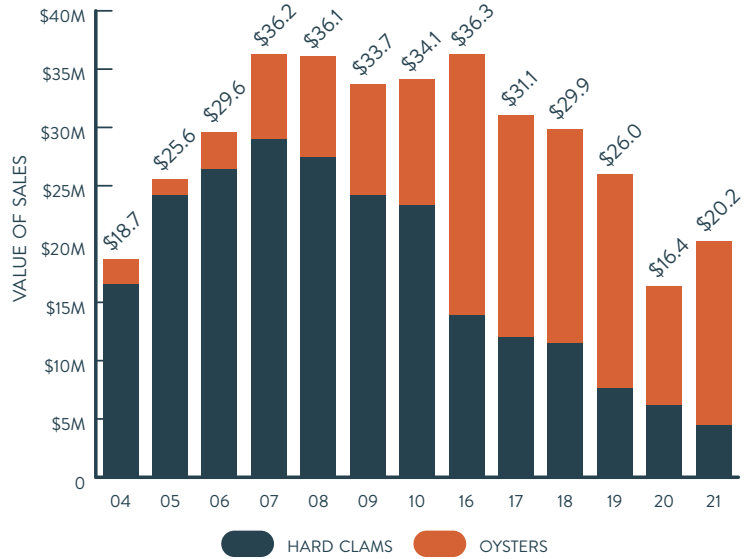


Aquaculture

In 2022, Connecticut had more than **61,000 acres** of shellfish farms. Oysters increasingly account for the majority of shellfish sales. In 2021, total sales equaled **\$20.2 million**, with oysters accounting for 78% and hard clams accounting for 22% of sales.

Source: [Connecticut Department of Agriculture](#)

» Aquaculture Production



Note: The largest cultivated acreage producer failed to report harvest statistics from 2008 to 2010. No data was reported from 2011 to 2015. Sales are reported in 2022 dollars.



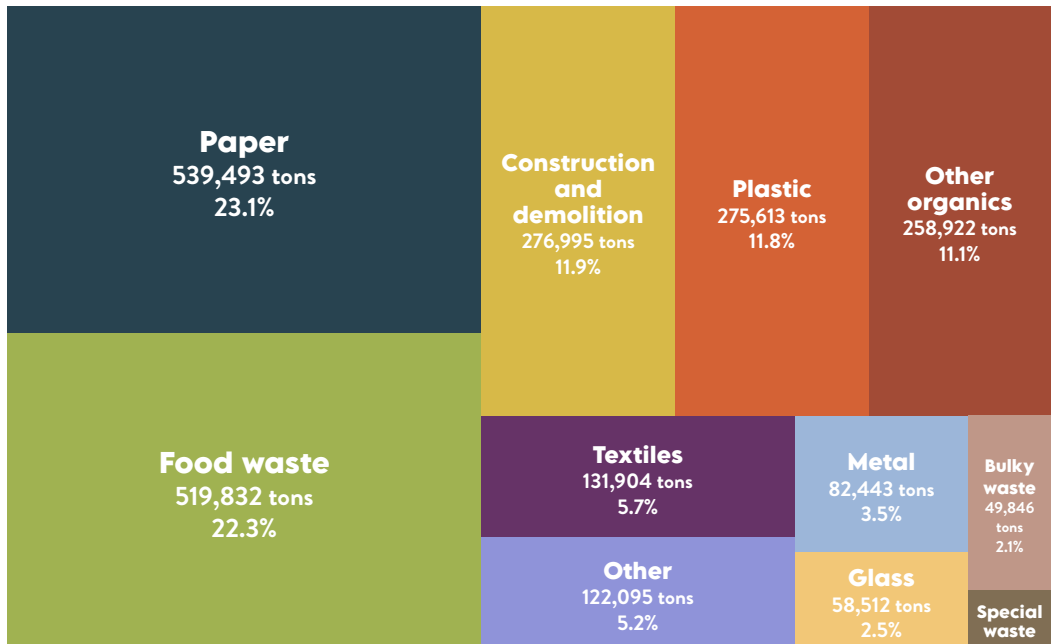
Food Waste

How much food waste is landfilled in Connecticut?

A [2015 “Waste Characterization” study](#) found that food waste (vegetative and protein) is the second most common material in Connecticut’s municipal waste stream at nearly 520,000 tons, or 1 billion pounds.

» Landfilled Food Waste

2,332,598 TONS TOTAL MSW
519,832 TONS FOOD WASTE
272,656 TONS RESIDENTIAL FOOD WASTE
247,176 TONS IND., COM., INST. FOOD WASTE



Source: MSW Consultants, 2016, Connecticut Department of Energy and Environmental Protection, [2015 Statewide Waste Characterization Study](#)

Key Connecticut Strengths, Weaknesses, Opportunities, and Threats

STRENGTHS

Various state and local food policy, planning, and network groups working on supporting farm to school, farmland preservation, beginning farmers, and more

Strong portfolio of food system development funding opportunities and support services offered by [Connecticut Department of Agriculture](#)

Revamped [Connecticut Grown](#) marketing campaign for agriculture and aquaculture

Significant urban agriculture activity in most major cities, including Bridgeport, Hartford, New Britain, New Haven, New London, Waterbury, and other cities

Growing cohort of BIPOC farmers

WEAKNESSES

Farmers and aspiring farmers face challenges with land access, health care, access to capital, farm viability, etc.

Vulnerable to the ebbs and flows of dairy industry

Disparities in healthy food access and food security based on race/ethnicity

BIPOC farmers struggle to secure sufficient land, capital and infrastructure

Lack of statewide food system plan

OPPORTUNITIES

Convene and align state and local food policy, planning, and network development through a state food action plan

Invest in long-term food production (e.g., increase indoor food production, protect and preserve active agricultural land, support [climate smart agriculture](#))

Invest in food security initiatives

Invest in food processing/manufacturing and distribution infrastructure for small and midsize operations, including developing cooperatives (e.g., [Tortilleria Collective](#))

THREATS

Federal cuts to SNAP and nutrition programs

Climate change impacts, including crop loss/damage and changes in abundance and distribution of ocean species

Land development pressures

Next Steps in 2030: What Can Connecticut do to Meet the 30% by 2030 Goal?

Areas of priority include:

- » Fully fund and develop a state food action plan that aligns the state's food system actors around shared goals for local food production, local/regional food consumption, community food security, viable food and farm jobs and businesses, and robust food processing and distribution
- » Complete a Connecticut Local Food Count (underway in partnership with University of Connecticut) to establish a baseline of local food consumption alongside other NE states; collect/identify additional food system indicators
- » Invest in areas indicated in SWOT (processing/infrastructure, beginning farmers, BIPOC farmers and food entrepreneurs, SNAP incentives)
- » Use findings from NEFNE research to inform food system planning
- » Incorporate food and agriculture into climate resilience planning, emergency planning, economic development strategies
- » Further develop [best practices for municipalities](#) to foster farms and food businesses

Funding for this project has been made possible by the **Henry P. Kendall Foundation** and the **Angell Foundation**.