



**NEW ENGLAND  
FEEDING  
NEW ENGLAND**



# **NEW HAMPSHIRE**

## **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 New Hampshire’s food system possess and what opportunities can be pursued? What weaknesses persist and what threats loom?**

**This State Brief contextualizes important characteristics of New Hampshire’s food system for consideration.**

New Hampshire’s food system is a unique mixture of characteristics found in the five other New England states. For example, New Hampshire’s top agricultural and seafood products—milk, vegetables, greenhouse/nursery products, and lobster—mirror top product categories in Connecticut, Maine, and Vermont. Like Connecticut, Massachusetts, and Rhode Island, New Hampshire has a high percentage of people employed at stores and restaurants.

New Hampshire, along with 19 other states, has the *lowest* minimum wage in the country but it also has the *lowest* rate of food insecurity in the country.

Dollar stores are the most common type of major grocery chain in New Hampshire, but the state also has a significant number of independent grocery stores, food cooperatives, and many country stores. These smaller stores have the ability to facilitate access to regional food.

New Hampshire has an opportunity over the next ten years to reimagine what it will take to increase the total amount of land in agriculture; increase vegetable, produce, livestock, and grain production; and continue investing in food and beverage processing and manufacturing.





# NH Food Alliance

The [NH Food Alliance](#) is a statewide network that connects the people, businesses, organizations, and communities dedicated to growing a thriving, fair, and sustainable local food system in the Granite State.

Together, the network builds relationships to amplify collective impact through six focus areas: increase farmland conservation and access; support local farm, fish, and food businesses, grow the movement of local eaters, improve food security and local food access; respond and adapt to climate change; and promote racial equity in our food system.

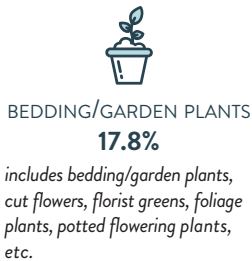


The NH Food System Statewide Gathering is an annual event that brings food system stakeholders together to grow a thriving and fair food system.

## State Snapshot

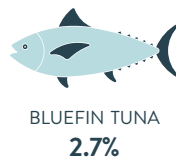
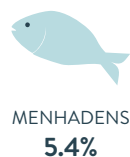
### Top Agricultural Products by Sales, 2017

Milk from cows (\$42 million), bedding/garden plants (\$32 million), and vegetables/melons (\$20 million) accounted for the majority of agricultural products sales in New Hampshire.

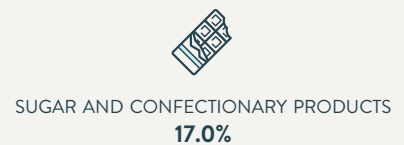


### Top Seafood Products by Sales, 2022

In 2022, lobster accounted for **87.3%** (\$32,588,447) of the value of sales and **45.3%** (5,262,127) of pounds landed.

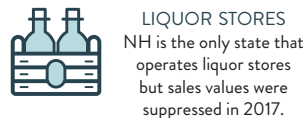


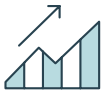
### Top Manufactured Products by Sales, 2017



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





# Food System Economy

## How big is New Hampshire's food system? What sectors are growing? What sectors are contracting?

New Hampshire's food system employs over **92,000** people and generates about **\$14.2 billion** in sales. Agricultural and fisheries employment was flat or decreased slightly from 2007 to 2017. Agricultural sales decreased in this timeframe, while seafood sales increased. Employment and sales were strong in every other category, except beverage manufacturing employment and sales and store sales.

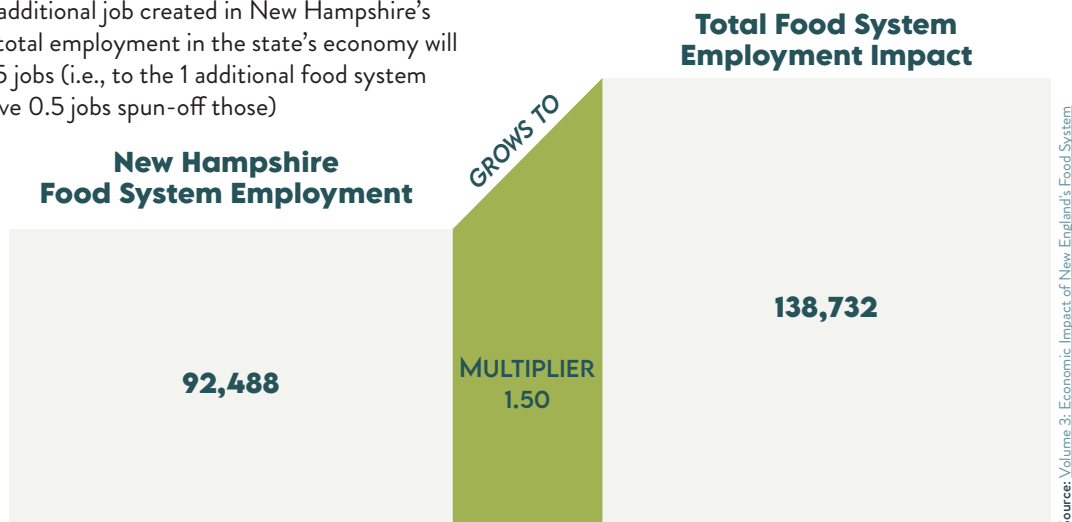
### » Economic Impact of New Hampshire's Food System, 2017

	2017 Employment	% of Total	Growth from 2007- 2017	2017 Sales	% of Total	Growth from 2007- 2017
Agriculture	12,545	13.6%	0.0%	\$198,249,800	1.4%	-2.1%
Fisheries	309	0.3%	-0.5%	\$38,454,000	0.3%	3.5%
Food Manufacturing	2,989	3.2%	3.9%	\$1,214,889,300	8.6%	3.7%
Beverage Manufacturing	879	0.9%	-0.5%	\$564,113,000	4.0%	-2.4%
Wholesaling + Distributing	3,875	4.2%	0.4%	\$3,501,831,600	24.7%	1.2%
Stores	21,789	23.6%	0.5%	\$5,563,018,900	39.3%	-0.3%
Food Services + Drinking Places	50,102	54.2%	0.9%	\$3,087,303,800	21.8%	1.2%
<b>TOTAL</b>	<b>92,488</b>	<b>100.0%</b>	<b>0.7%</b>	<b>\$14,167,860,600</b>	<b>100.0%</b>	<b>0.5%</b>

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 New Hampshire's food system, total employment in the state's economy will increase by 1.5 jobs (i.e., to the 1 additional food system job, we will have 0.5 jobs spun-off those)



The additional one-half 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.

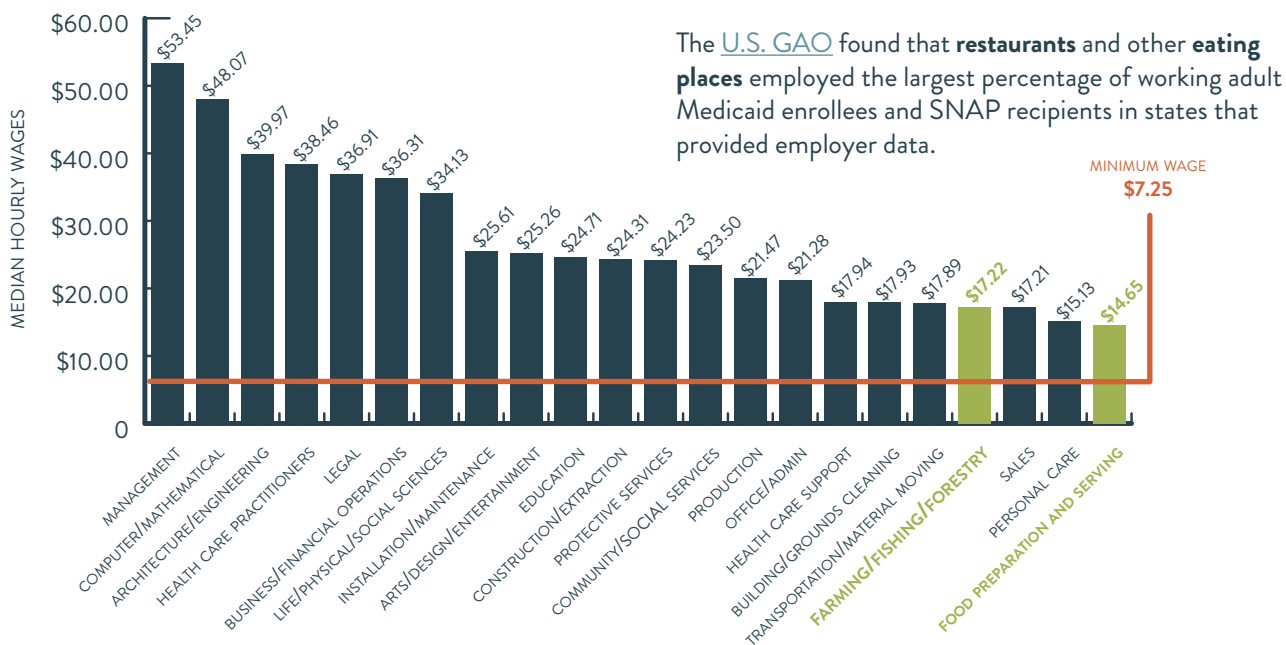


# Food System Wages

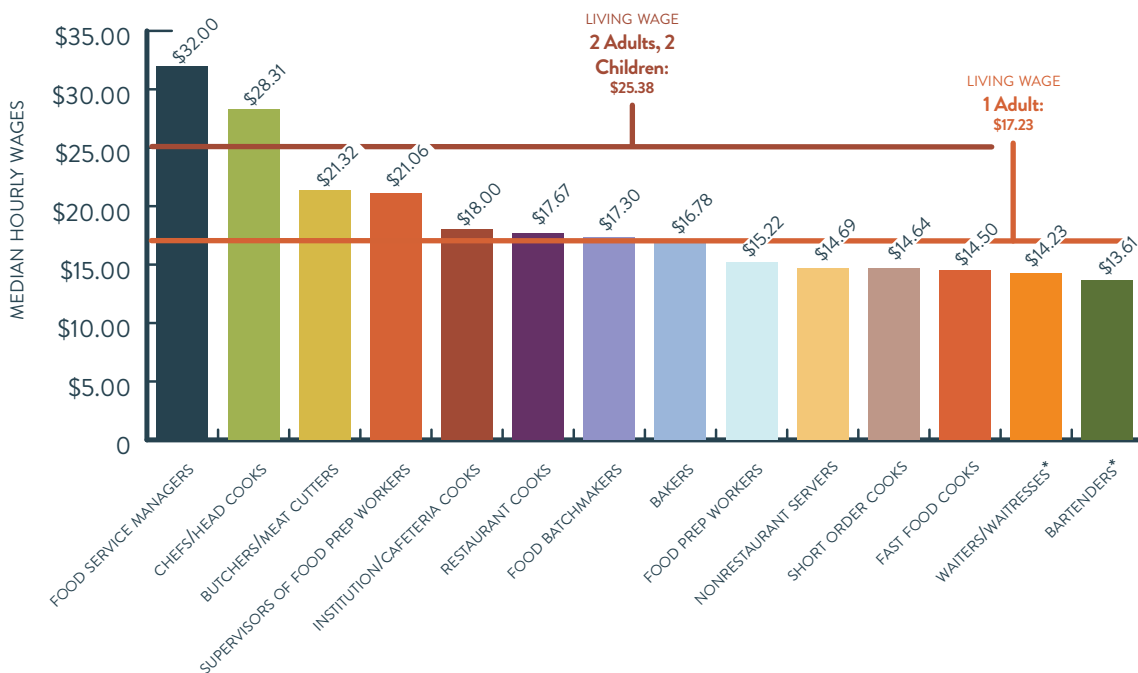
## How much do food system workers in New Hampshire earn?

[Wages/salaries](#) are the most common source of income for the majority of Americans. Unfortunately, New Hampshire's food system workers, particularly food service workers, receive some of the *lowest* wages of any occupational category in the state. New Hampshire has the *lowest* minimum wage of the New England states, and median hourly wages for many food system jobs are below living wage levels.

### » Median Hourly Wages by Major Occupational Category, 2022



### » Median Hourly Wages by Selected Food System Occupations, 2022



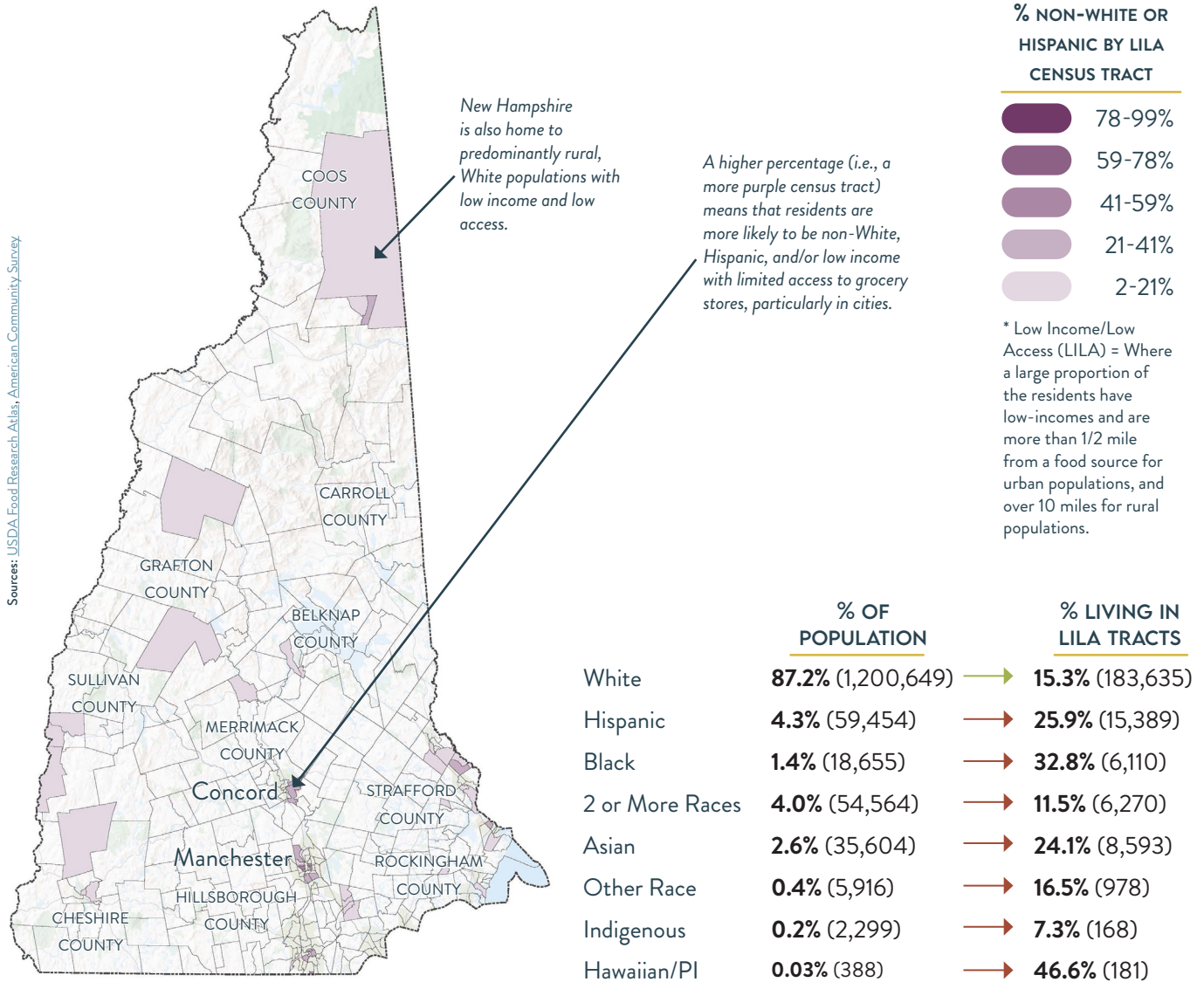
Source: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, MIT, Living Wage Calculator. \* wage data includes tips.



# Food Access

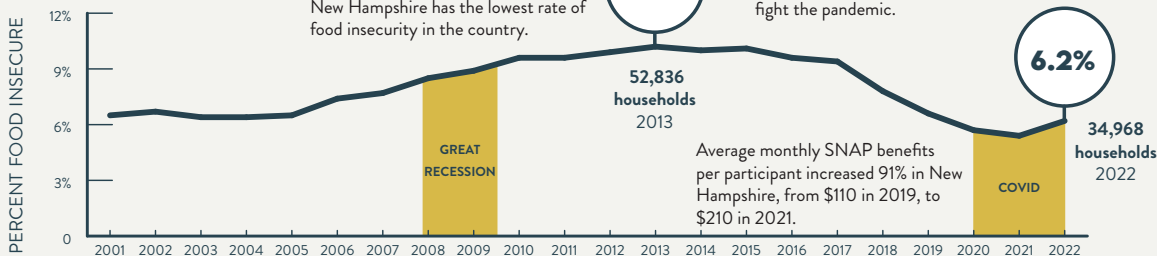
## Do Granite Staters have equitable access to food stores?

New Hampshire's biracial, Hispanic, Asian, Black, and other non-White populations disproportionately live in low income/low access (LILA)\* census tracts.



## Food Insecurity

In the past 20 years, food insecurity was highest in 2013, as a result of a slow recovery from the Great Recession. New Hampshire has the lowest rate of food insecurity in the country.



The COVID-19 pandemic 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.

However, other research estimated that the food insecurity rate was 6.8% in New Hampshire in 2021, and as high as 10.2% in Coos County

Source: Feeding America

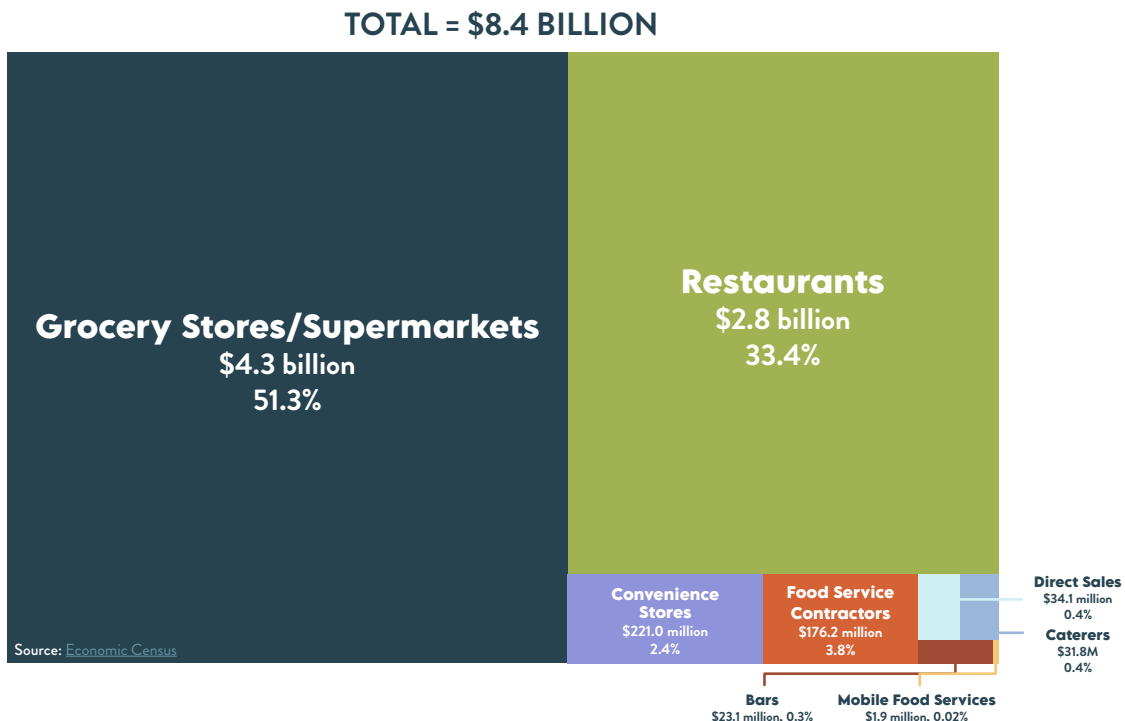


# Food Expenditures

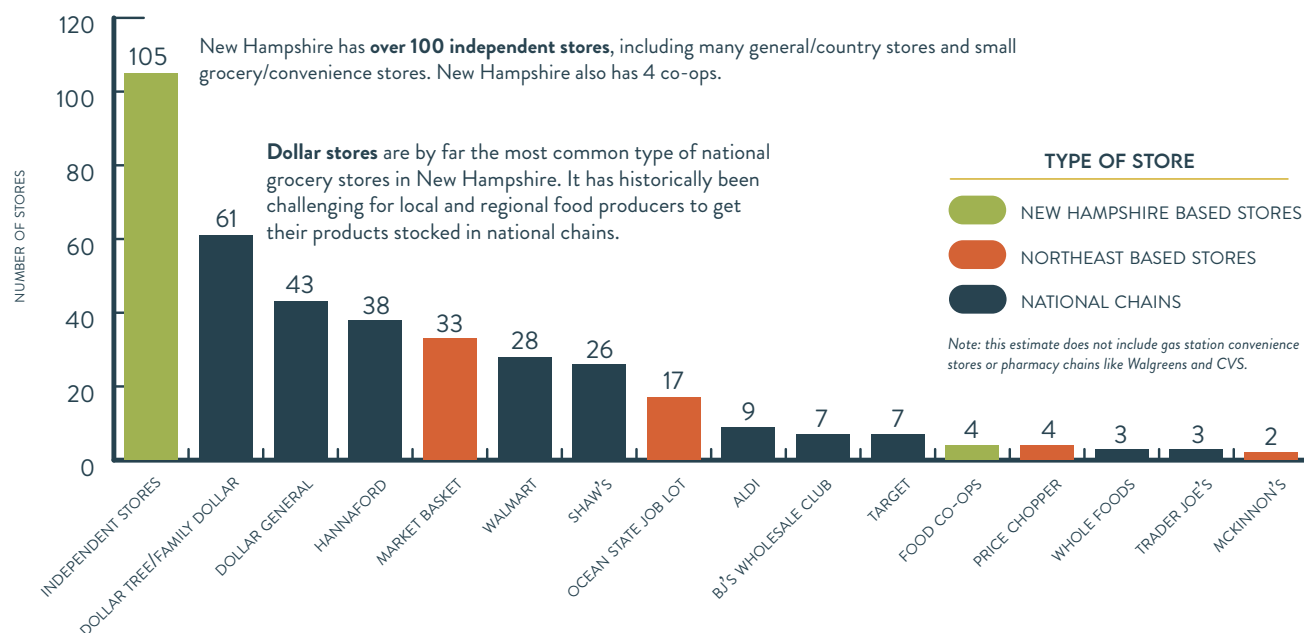
## How much do Granite Staters spend on food? Where do they shop?

People in New Hampshire spent over **\$8.4 billion** at stores and restaurants in 2017. Grocery stores (51.3%) and restaurants (33.4%)—which includes full-service and fast food restaurants—accounted for 84.7% of total sales. Direct sales from farmer to customer made up less than 1% of total retail sales.

### » Food Stores and Services Sales, 2017



### » Count of Food Stores in New Hampshire

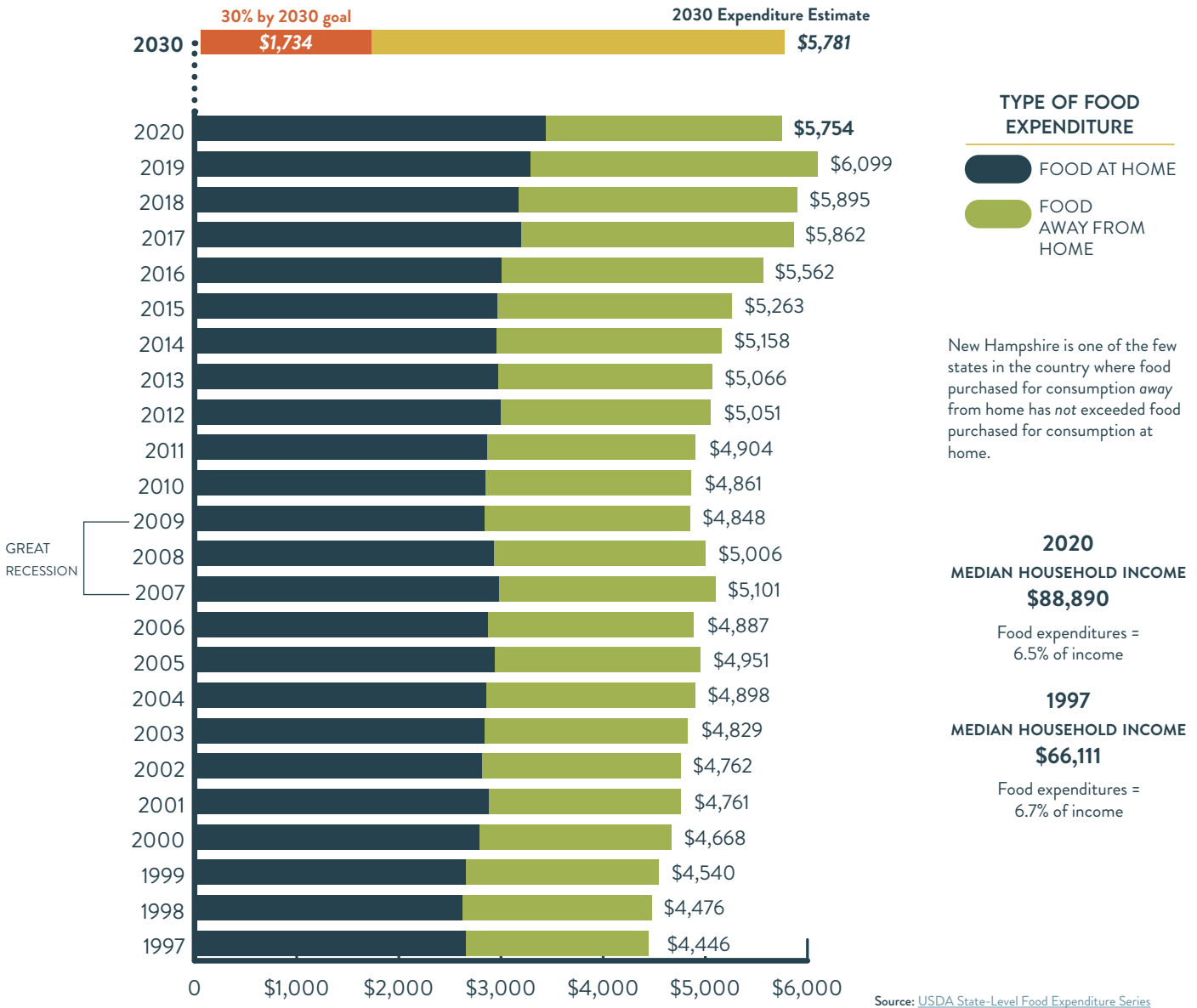




## What would it take to meet a 30% food expenditure goal?

#3

New Hampshire had the third highest per capita food expenditures (**\$5,754**) of any state in the country in 2020. With an average annual food expenditure growth rate of 1.8% from 1997 to 2020—and population increase to 1,646,470 by 2030—per capita food expenditures may reach **\$5,781** by 2030. About **\$1,734** per capita would then have to be spent on regional food to meet our 30% goal.



Northeast consumer expenditure data indicates that ultraprocessed food 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 New Hampshire's food system?

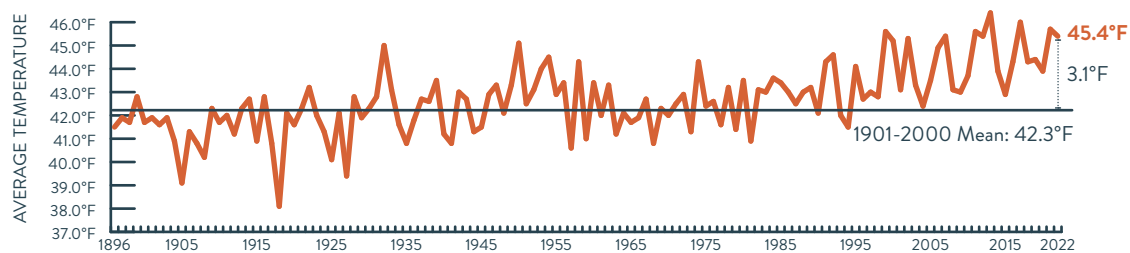
Food system activities like cultivating crops, raising livestock, and land use changes, are major drivers of climate change *and* food systems are particularly vulnerable to climate change. [July 2023](#) was the warmest month on record and major changes are already underway across New Hampshire and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

- » **Loss of Seasonality:** less distinct seasons, milder winters, earlier spring conditions, and [more unpredictable weather](#) are expected to impact agricultural production. For example, maple syrup production is expected to decrease as climate change impacts the range in which tree species can survive, shortens the length of the sugaring season, and aids in the expansion of invasive tree pests.



The average temperature in New Hampshire in 2022, 45.4°F, was 3.1°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.

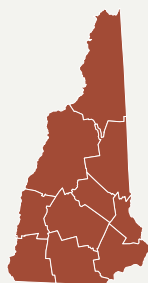
### » Projected Climate Risks

HIGH 
  MEDIUM 
  LOW 
  NO RISK

#### EXTREME RAIN



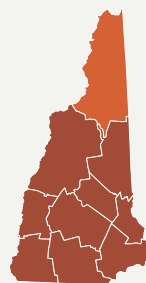
Annual precipitation and extreme precipitation events in New Hampshire have been [above average](#) in recent years.



#### HURRICANES



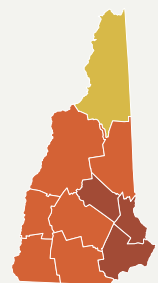
Hurricanes Sandy (2012), Irene (2011), Floyd (1999), and Gloria (1985), were all [billion-dollar disasters](#) that impacted New Hampshire.



#### WATER STRESS



New Hampshire has experienced more [abnormally dry days](#) during the past 10 years than it did in the early 2000s.

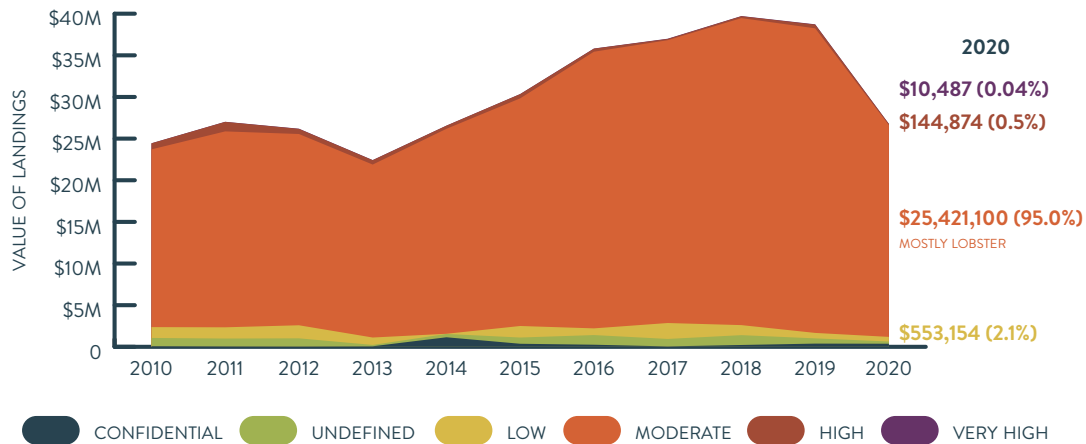


- » **Ocean Under Threat:** the Atlantic Ocean supports tourism, recreation, and economic activities, including fisheries. Warmer ocean temperatures—the [Northeast Continental Shelf](#) is warming much faster than the global average—sea level rise, acidification, and increased storm frequency and intensity all threaten marine ecosystems and the communities that depend on them. For example, lobster populations have declined in southern regions of New England where temperatures have increased too much.

<1%

Less than 1% of New Hampshire's seafood catch in 2020 was classified as having very high or high vulnerability to changes in abundance or distribution due to climate change. The top New Hampshire catch, lobster, was deemed to be at moderate risk.

» **Climate Vulnerability of New Hampshire Catch**



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

- » **Risks to Cities:** the Northeastern U.S. is home to densely populated cities, like [Concord](#), critical transportation corridors and infrastructure, and culturally and historically significant sites. Climate change impacts, including from sea level rise, flooding, and hurricanes can damage infrastructure, displace populations, strain our emergency response system, and disproportionately affect historically marginalized and low-income communities. Source: Fourth National Climate Assessment, [Chapter 18: Northeast](#)

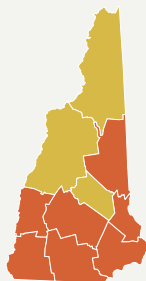
» **Projected Climate Risks**

HIGH (Red) MEDIUM (Orange) LOW (Yellow) NO RISK (Green)

WILDFIRE



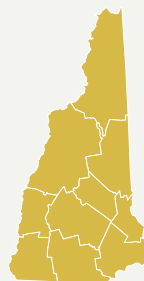
Large wildfires are not very common in New Hampshire, but ≈250 [small fires](#) (≈1 acre) occur per year.



HEAT STRESS



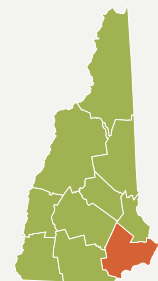
Temperatures have risen [about 3.0°F](#) since the beginning of the 20th century, resulting in warmer nights, shorter freeze-free seasons, and longer growing seasons.



SEA LEVEL RISE



[Tidal-gauge records](#) in Portsmouth Harbor indicate sea level rise of about 8 inches since 1900. Sea level is expected to rise 1-8 feet by 2100.

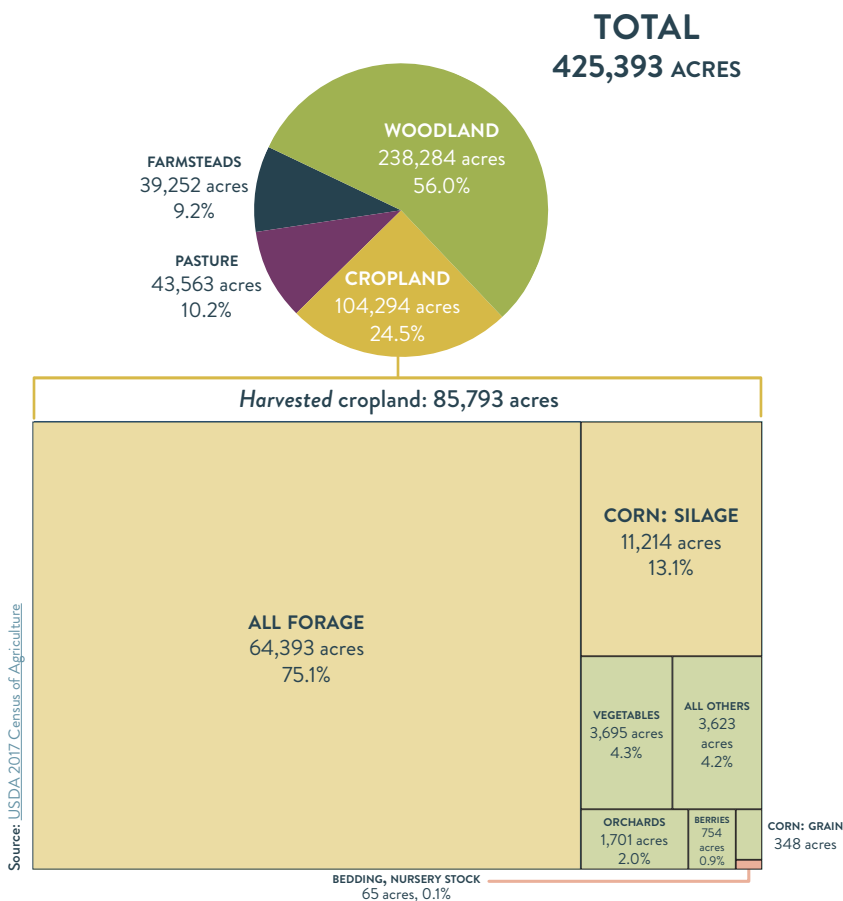




# Agriculture

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

### » Land in Agriculture



**#48**

New Hampshire ranked 48th in national agricultural sales

**-80%**

Cropland decreased from 509,000 acres in 1945 to 104,000 acres in 2017

**-85%**

Pastureland decreased from 231,000 acres in 1945 to 44,000 acres in 2017

**56%**

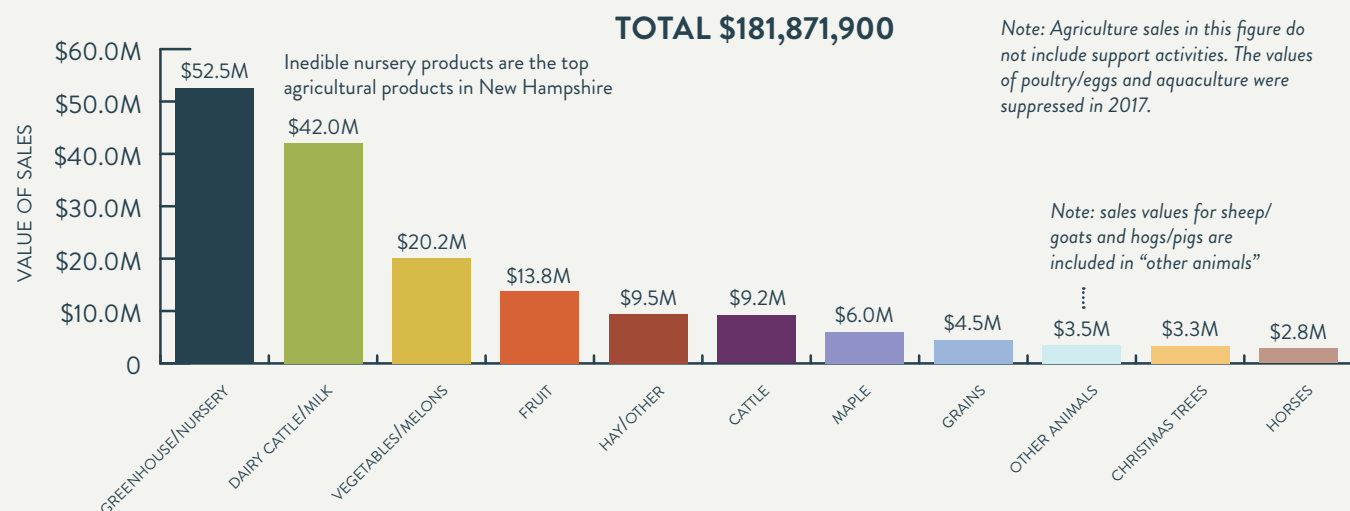
New Hampshire has the highest % of woodland as a % of agricultural land, 56%, of any state in New England

#### END USES

- ANIMAL FEED
- EDIBLE
- LANDSCAPING

Acres for animal feed equaled **88.2% (75,607 acres)** of harvested cropland and 17.8% of total land in agriculture. Boosting vegetable, fruit, and grain production—whether in the open or indoors—is one way New Hampshire could help the region.

### » Agricultural Sales, 2017



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

### TOTAL

**425,393 ACRES** EXISTING ACREAGE  
**-35,600 ACRES** BUSINESS AS USUAL SCENARIO

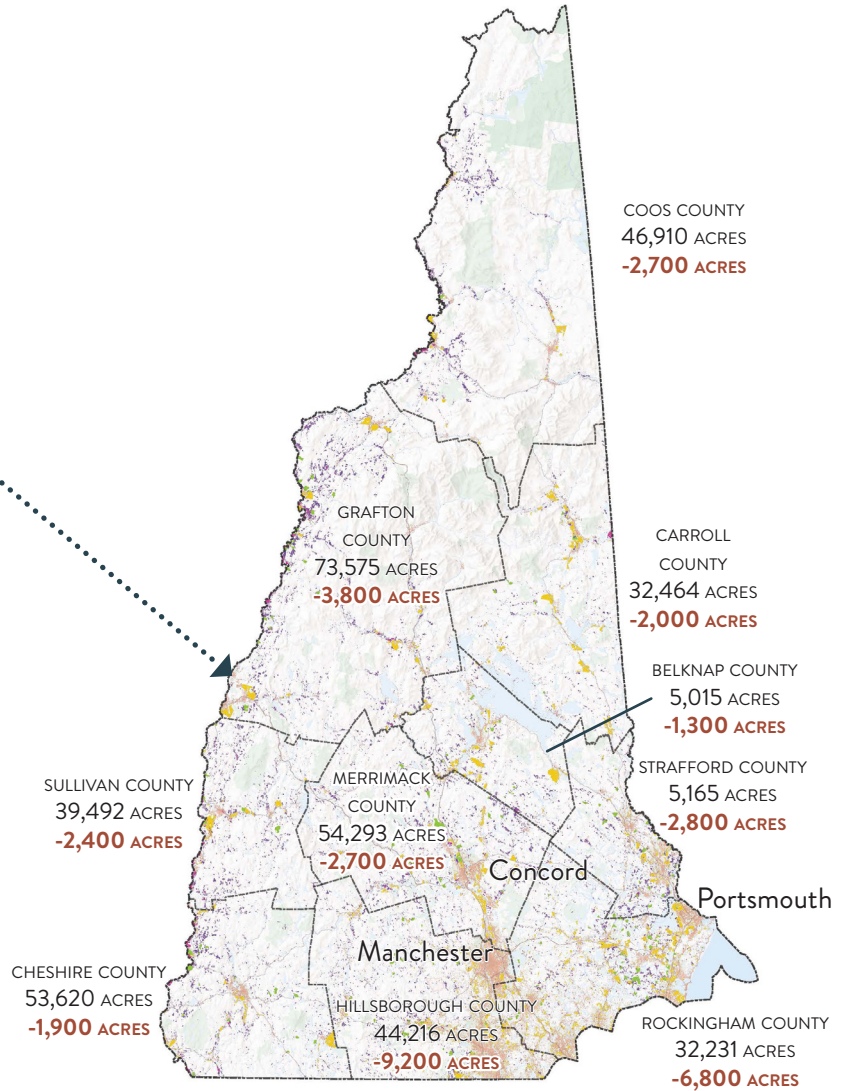
#### LAND USES

- CULTIVATED CROPS
- PASTURE/HAY
- EASEMENT
- DEVELOPED LAND
- PROJECTED URBAN AND HIGHLY DEVELOPED AND LOW-DENSITY RESIDENTIAL

An analysis from the American Farmland Trust (AFT) estimates that New Hampshire could lose an additional **35,600 acres** by 2040 under a “Business as Usual” development scenario and **43,200 acres** under a “Runaway Sprawl” scenario.

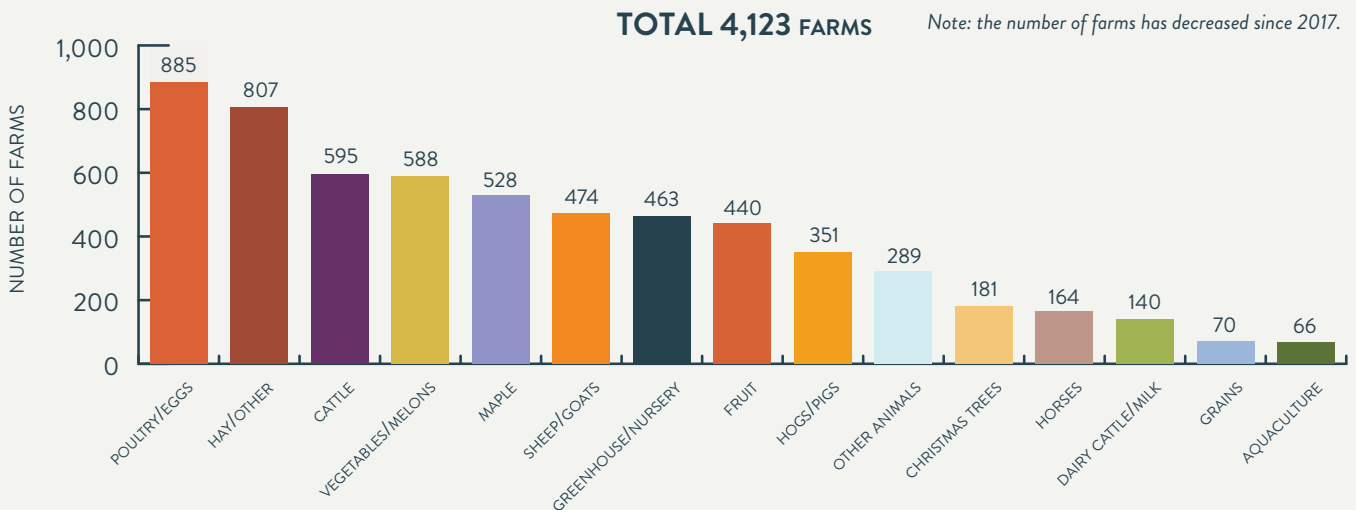
AFT projects that **Hillsborough, Rockingham, and Grafton** counties will experience the biggest decreases in land in agriculture.

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



**#6** New Hampshire has the lowest percentage of cropland, 24.5%, of any New England state

## Number of Farms Engaged in Each Category, 2017





# Fisheries

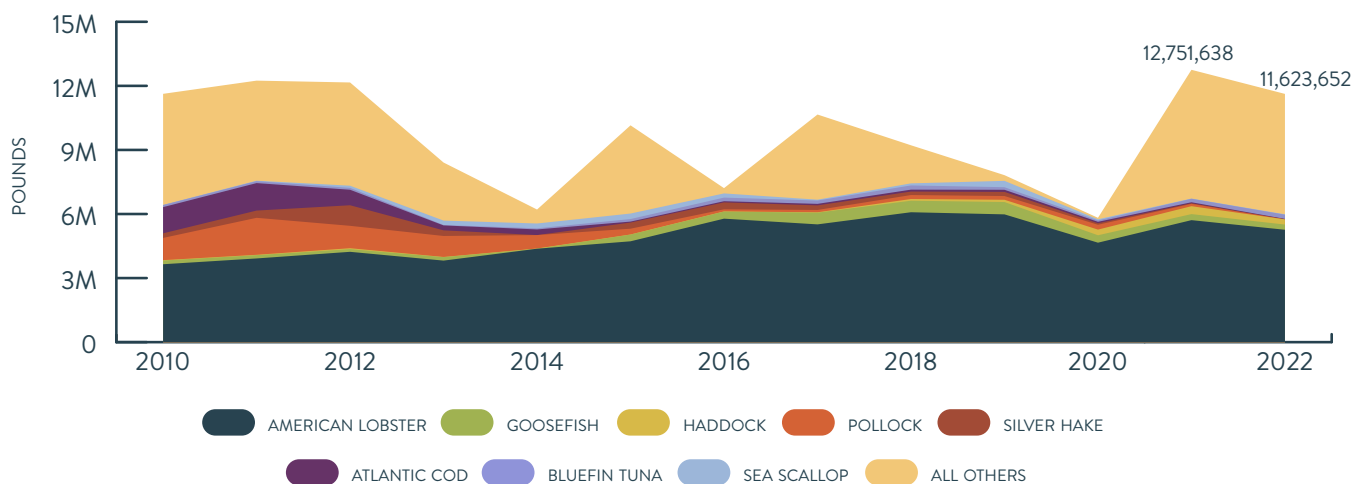
## What kinds of seafood products does New Hampshire harvest?

**18** New Hampshire has the shortest coastline of any state in the country: about 18 miles.

American lobster is the top species by weight and value harvested by New Hampshire fishermen.

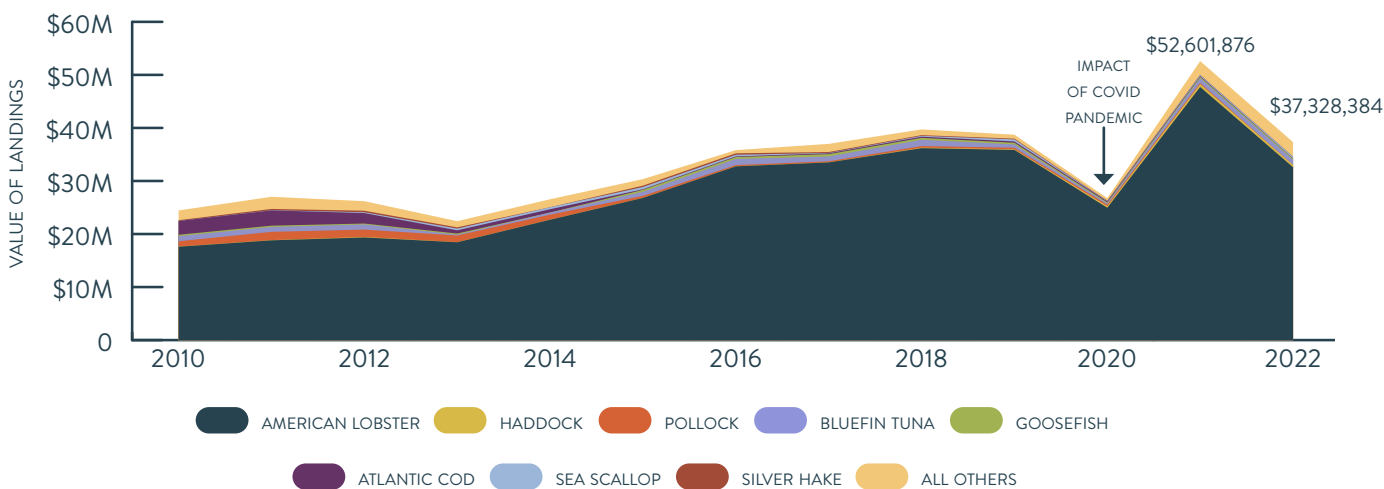


### » Pounds of Commercial Seafood Landings



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

## Next Steps: What Can New Hampshire do to Meet the 30% by 2030 Goal?

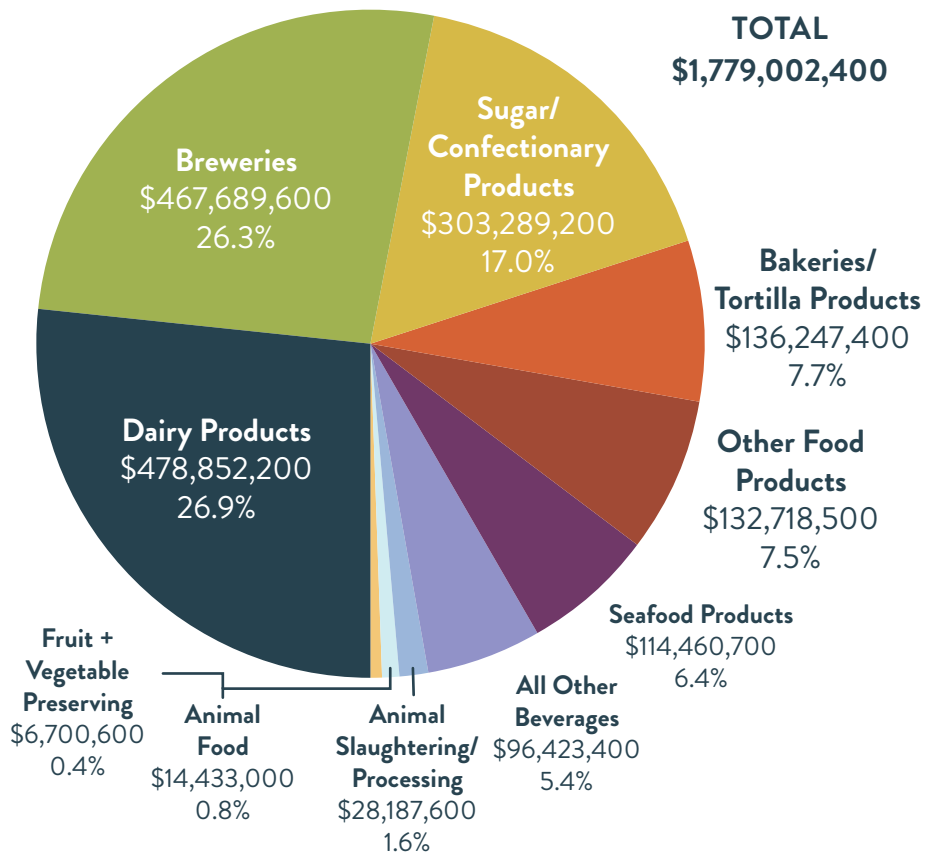
To strengthen our food system and make progress towards the region's goal, New Hampshire will develop a 2025-2030 NH Food System Strategic Plan. As part of the plan's development, we will:

- » Align, clarify, and prioritize strategies for individuals, businesses, and organizations working to support farmers, fishermen, and food producers in the state through the NH Food Alliance network of partners.
- » Complete a NH Local Food Count to inform food systems and economic development work, establishing a baseline for progress towards the stated goal. This project, led by the NH Food Alliance, launched in July 2023. Results are expected to be published sometime in early 2024.
- » Utilize the data provided through the [New England Feeding New England Project](#) and [A Regional Approach to Food System Resilience](#) report to develop a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis for the state's food system.

To accomplish its aims, and the region's, New Hampshire will closely coordinate with the other New England states and Food Solutions New England through the New England Food System Planners Partnership (NEFSPP). Both the NH Food Alliance and the NH Department of Agriculture, Markets and Food are partners in the NEFSPP.



» Food and Beverage Product Manufacturing Sales, 2017



Source: [Volume 3: Economic Impact of New England's Food System](#)