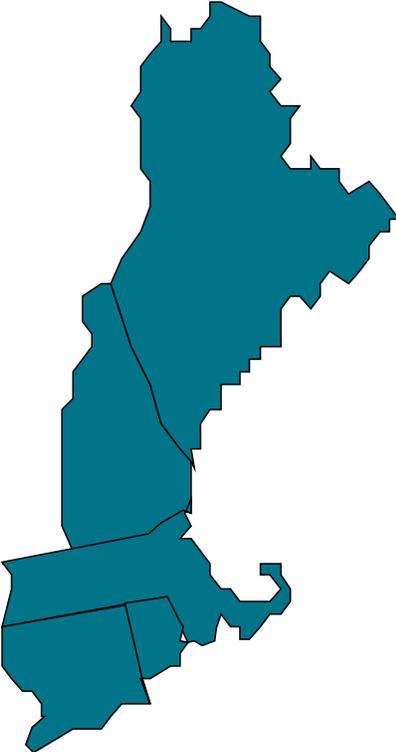


# New England

- Connecticut
- Maine
- Massachusetts
- New Hampshire
- Rhode Island



# New England Summary

## Management Context

The New England region includes Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut. Federal fisheries in this region are managed by the New England Fishery Management Council (NEFMC) and the National Marine Fisheries Service under one of nine fishery management plans (FMPs). Two of these FMPs are jointly managed with the MAFMC. The NEFMC is the lead council for the Monkfish FMP, while the MAFMC is the lead council for the Dogfish FMP.

### **New England Fishery Management Plans**

1. Northeast Multispecies
2. Atlantic Sea Scallops
3. Monkfish (with the MAFMC)
4. Atlantic Herring
5. Small Mesh Multispecies
6. Dogfish (with the MAFMC)
7. Deep-sea Red Crab
8. Northeast Skate Complex
9. Atlantic Salmon

Of the stocks covered in these fishery management plans, 17 are currently listed as overfished: cod (2 stocks), haddock (2 stocks), American plaice, yellowtail flounder (3 stocks), white hake, windowpane flounder, winter flounder, ocean pout, Atlantic halibut, winter skate, thorny skate, smooth skate, and Atlantic salmon. Nine stocks are currently subject to overfishing: cod (2 stocks), yellowtail flounder (3 stocks), white hake, winter flounder (2 stocks), and thorny skate.

There are currently two limited access privilege programs or LAPPs in place in New England. The Georges Bank hook sector fishery was implemented in 2004 and the Georges Bank fixed gear sector fishery was established in 2006. The ex-vessel value of these fisheries was \$600,000 and \$900,000, respectively, for 2007.

## Commercial Fisheries

In 2006, New England commercial fishermen received \$953 million for their harvest (701 million pounds). The ex-vessel value of shellfish landings (237 million pounds) was \$769 million, with lobster and sea scallops accounting for almost 70% of total landings revenue. The commercial fishing industry had the highest sales, income, and employment impacts in Massachusetts (\$4.4 billion in sales, \$2.3 billion in income, and 83,000 jobs).

### **Key New England Commercial Species**

Commercially-important species and species groups in New England include: quahog clam, cod and haddock, flounders, goosefish, Atlantic herring, lobster, Atlantic mackerel, sea scallops, loligo squid, and bluefin tuna.



Restaurant sign in Maine, outside Acadia National Park

## Economics Impacts

Overall, Massachusetts led the region in commercial fisheries-related sales and income, and full- and part-time jobs. Maine also generated over a billion dollars of in-state sales (\$1.4 billion), with a quarter billion dollars of sales generated by the harvest sector alone. The commercial fishing industry generated \$706 million, \$340 million, and \$311 million in sales in Rhode Island, Connecticut, and New Hampshire, respectively.

## Landings Revenue

Overall, ex-vessel revenue increased 66% from 1997 to 2006 (41% after adjusting for inflation), largely due to the increase in ex-vessel revenue from shellfish (108% nominally, 76% in real terms). Ex-vessel revenues from finfish and other fishery products declined 9% (23% in real terms). Overall, Massachusetts had the highest average landings revenue (\$304 million nominally, \$321 million in real terms) followed by Maine (\$292 million nominally, \$308 million in real terms), Rhode Island (\$78 million nominally, \$83 million in real terms), Connecticut (\$33 million nominally, \$35 million in real terms), and New Hampshire (\$16 million nominally, \$17 million in real terms). New Hampshire, Maine, and Massachusetts experienced the largest growth in ex-vessel revenue during this period, increasing 50%, 61%, and 95%, respectively.

The ten key species/species groups were on average 84% of ex-vessel value in New England, with American lobster accounting for 42% of total landings revenue. Maine's harvest of American lobster accounted for 58% of New England's landings revenue from this species in 1997 but has averaged 76% of American lobster revenue since 2002. The ex-vessel value of sea scallops has increased more than fourfold since 1997, earning New England fishermen \$264 million in 2006. Massachusetts generates the majority of

sea scallop revenues, on average accounting for 91% of New England's landings revenue for this species.

**Commercial Fish Facts**

**Landings revenue**

- On average, the key species or species groups accounted for 83.7% of the total revenue.
- American lobster and sea scallops accounted for ~71% of the average annual revenue for all key species combined.
- The largest annual increase during the 10 year period was 764% for Atlantic mackerel (2001-2002). This species also had the largest annual decrease in revenue, declining 69% from 2004-2005.

**Landings**

- On average, the key species or species groups accounted for 73% of total landings.
- Atlantic herring averaged over 180 million pounds from 1997-2006. On average, this species contributed 43% of all finfish and other fishery landings.
- Landings for Atlantic mackerel increased 1575% from 2001-2002, the largest increase in landings in the 10 year period. This species also had largest annual decrease in landings, declining 90% from 2004-2005.

**Prices**

- Bluefin tuna, sea scallops, and quahog clams had the highest average prices per pound at \$6.09, \$5.58, and \$4.03, respectively.
- Atlantic herring, Atlantic mackerel, and loligo squid had the lowest average prices per pound at \$0.07, \$0.22, and \$0.62, respectively.
- The largest annual increase in ex-vessel price was 227% for Atlantic mackerel (2004-2005), which experienced the largest annual price decrease (-61%) the following year.

**Landings**

Over the 10 year period, total landings averaged 639 million pounds, ranging from a low of 576 million pounds (2000) to a high of 718 million pounds (2004). Shellfish landings increased 35% during this period, averaging 199 million pounds. Landings of finfish and other fishery products were relatively stable, averaging 441 million pounds.

Despite being a lower value species averaging \$0.07 per pound, Atlantic herring contributes more to New England's harvest than any other species or group, approximately 29% per year. Maine's contribution to Atlantic herring harvest is the highest for the region, approximately 51% per year.

Overall, Massachusetts had a 52% increase in landings, largely due to an increase in Atlantic mackerel landings (1.2 million pounds in 1997 to 89 million pounds in 2006). All other states experienced a decline in landings.

**Prices**

From 1997-2006, ex-vessel prices for high-valued species such as quahog clams (\$4.03 average annual price) and American lobster (\$3.78 average annual price) increased 84% and 30%, respectively. Adjusting for inflation, the prices of quahogs and American lobster increased 56% and 10%, respectively. Ex-vessel prices for sea scallops (\$5.58 average annual price) and bluefin tuna (\$6.09 average annual price) declined 4% and 16%, respectively. Atlantic mackerel, a low-value species (\$0.22 average annual price), experienced the largest price decline, decreasing 56% (63% in real terms).

Connecticut oysters had the largest annual increase in price, increasing from \$3.38 per pound to \$28.61 per pound. The \$25.23 increase in price was due to a change in product form to the growing half-shell oyster market.

All but one key species or species group had higher ex-vessel prices in 2006 relative to its average price over the time period. Quahog clams in 2006 were \$6.37 per pound compared to an average of \$4.03 per pound, a 58% increase over the average price. Atlantic mackerel had an average ex-vessel price of \$0.22 per pound but was at \$0.14 per pound in 2006, a 38% drop relative to its average price from 1997-2006.

**Recreational Fishing**

There were 2.8 million recreational anglers in the New England region in 2006. These anglers took 9.7 million fishing trips. Expenditures on recreational fishing trips and fishing-related equipment in 2006 were \$438 million and \$1.44 billion, respectively. Total sales generated by recreational fishing activities ranged from \$56 million (New Hampshire) to \$803 million (Massachusetts).

**Key New England Recreational Fishing Species**

New England's recreationally important species are: striped bass, Atlantic mackerel, bluefish, scup, summer flounder, Atlantic cod, tautog, winter flounder, little tunny, and bluefin tuna.

**Participation Rates**

In 2006, the number of recreational anglers in 2006 was highest among residents of coastal counties in New England: 1.4 million anglers. There were approximately 1.2 million out-of-state anglers, and 188,000 anglers from non-coastal counties in New England. This pattern of participation has remained consistent from 1997 to 2006 with coastal county residents outnumbering out-of-state anglers, followed by non-coastal county anglers.

## New England Summary

Participation generally increased annually for all three angler groups from 1997-2006: an average 5% increase in total anglers. However, participation fell both overall and within each group from 1998-1999 (13% annual average decrease) compared to 1997. The largest annual increase for anglers in all three groups occurred from 1999-2000: 38% for coastal county anglers, 61% for non-coastal county anglers, and 24% for out-of-state anglers.

### Recreational Fishing Facts

Of the top ten species caught in each of the five New England states only Atlantic cod, bluefish, striped bass, and winter flounder appear on all five state lists.

#### Participation

- The total number of anglers between 1997 and 2006 increased **47%**. Participation increased in all three angler groups: coastal county residents (41%), non-coastal county residents (51%), and out-of-state (53%).
- Massachusetts had the greatest number of recreational anglers in 2006 with **1.26 million**.
- New Hampshire had the fewest of any state in the region with **187,000** anglers.

#### Recreational trips

- In 2006, the number of fishing trips taken on a private or rented boat comprised **49%** of total fishing trips. This was followed by fishing trips taken from shore (47%) and from a party or charter fishing boat (5%).
- Fishing trips taken from a private/rental boat outnumbered those taken from shore in every year except 1997. These two fishing modes outnumbered party/charter fishing trips in all years.

#### Catch data for key species

- The total number of striped bass caught in 2006 was over **8 million** higher than the number caught in 1997; a **92%** increase.

was in 1997, when the number of fishing trips from shore was higher than the number of fishing trips from a private/rental boat. The largest annual increase in total fishing trips (all three fishing modes) was 35% from 1999-2000. The 1997-1998 period saw the biggest drop in the number of total fishing trips with an 11% decline.

### Expenditure and Economic Impacts

Overall, Massachusetts had the highest number of jobs sustained and total sales impacts related to recreational fishing with over 6,081 jobs and \$803 million in sales in 2006. Massachusetts was followed by Connecticut (over 4,353 jobs and \$664 million in sales) and Maine (2,044 jobs and \$175 million in sales).

Fishing trip-related expenditures for all three fishing modes was higher for non-residents than residents in 2006: \$252 million compared to \$186 million, respectively. Residents spent more when taking trips on a private boat (\$104 million) compared to non-residents who spent more when fishing from shore (\$184 million). For all participants, expenditures on durable equipment were highest for vehicle expenses (\$582 million) and purchases of new boats (\$360 million). Total trip-related and durable goods expenditures in 2006 was \$1.87 billion.

Economic impacts to the economy of each state are reported in terms of jobs sustained and sales of durable equipment grouped by fishing mode. When looking at which fishing mode generated the highest sales impacts in each state, shore trips in Massachusetts (\$215 million), Maine (\$65 million), and Rhode Island (\$36 million) ranked highest. In New Hampshire, party/charter fishing trips accounted for the highest total sales impacts (\$11 million). Private boat trips had the highest total sales impacts (\$23 million) in Connecticut.

### Recreational Fishing Trips

New England anglers took 9.7 million recreational fishing trips in 2006 in one of three fishing modes: party/charter fishing boat, privately-owned or rented fishing boat, or from shore. More fishing trips were taken in Massachusetts than in any other state in the region: 4.7 million trips were taken in 2006. Rhode Island had the second highest number of fishing trips, (1.7 million trips), closely followed by Connecticut (1.5 million), and Maine (1.2 million).

Trips taken on a private or rented boat were the most common fishing mode with 4.7 million trips taken in New England in 2006. Fishing from shore was also popular, numbering 4.5 million trips. In contrast, the number of trips taken on a party or charter fishing boat was significantly lower, numbering 458,000 trips. This ranking of fishing modes is reflected over the time period. The only exception

### Recreational Harvest and Released Catch

Of the ten key species caught in New England in 2006, striped bass was harvested and released the most: 585,000 fish harvested and 16.3 million released. The number of striped bass caught over the time period varied from an annual increase as high as 55% (1999-2000) to an annual decrease as low as 34% (1998-1999). Massachusetts had the highest number of released (8.7 million) and harvested (340,000) striped bass in the region in 2006. Maine reported the second highest numbers of released striped bass in 2006 (4 million), while Connecticut ranked second in the number of striped bass harvested (83,000).

Atlantic mackerel had the second highest levels of recreational catch across New England. In contrast to striped bass, most of this catch was harvested (4.8 million fish) rather than released (328,000 fish). Bluefish, scup,

and summer flounder were also caught in large numbers in 2006, while bluefin tuna had the lowest catch level (17,000 fish).

**Marine Coastal Economy**

When considering all industries in the New England region, Massachusetts has the highest number of establishments, employees, and annual payroll, followed by Connecticut, New Hampshire, Maine, and Rhode Island. In 2005, the gross domestic product by state in this region ranged from \$320.1 billion in Massachusetts (2.6% of the national total) to \$43.6 billion in Rhode Island (0.4% of the national total).

When considering commercial fishing-related industries in 2006, the Commercial Fishing Location Quotient (CFLQ) for Maine was the highest in the region at 12.43. That is, the proportion of Maine workers employed in commercial fishing industries is over 12 times higher than the proportion of U.S. workers engaged in this sector nationally. This was a 54% increase from 8.09 in 2001. Maine was followed by Massachusetts (9.54), Rhode Island (3.91), and Connecticut (0.52). This measure was unavailable for New Hampshire.

**Seafood Sales and Processing**

In 2005, there were 161 non-employer firms engaged in seafood retail across New England. The number of these firms remained stable over the time period, increasing only 3% from 156 firms in 1998. Annual receipts were flat across the region but increased 81% in New Hampshire and at least 20% in Maine, Rhode Island, and Connecticut. Annual receipts in Massachusetts, however, declined 37%, from \$8.7 million in 1998 to \$5.5 million in 2005.

Employer firms engaged in seafood retail increased in all states between 1998 and 2005, ranging from over 70% increases in Maine and New Hampshire, to an 8% increase in Massachusetts. Across the region, annual payroll increase 151% between 1998 (\$12.7 million) and 2005 (\$31.9 million). Annual payroll increased in all states except for New Hampshire (data was unavailable for this state): Massachusetts (154%), Connecticut (124%), Maine (121%), and Rhode Island (75%). Massachusetts employed the greatest number of employees in this industry: 53% of employees in 2005.

In 2005, there were 97 non-employer firms engaged in seafood processing activities. Over half of these firms were found in Maine, which also had the highest annual receipts: \$5.1 million in 2005 or 47% of receipts in the region. Massachusetts (\$2.3 million or 21% of annual receipts) and Rhode Island (\$2.0 million or 19% of annual receipts) followed.

Employer establishments engaged in seafood product processing remained flat across New England. Double digit increases in establishments in New Hampshire (25%) and Massachusetts (22%) were offset by double digit declines in Connecticut (25% drop), Maine (23% drop), and Rhode Island (13% drop). In 2005, annual payroll in this industry was \$154 million across the region, with Massachusetts contributing 75% (\$115 million). Annual payroll increased in Massachusetts from \$73 million in 1998 to \$116 million in 2005, a 59% increase. Massachusetts also contributed most to employees in this industry: 65% of the over 4,000 employees region-wide.

Employer establishments engaged in the seafood wholesale industry declined 31% overall, from 560 establishments in 1998 to 387 in 2005. All states in New England reported declines in establishments engaged in seafood wholesale, ranging from 16% in Maine to 41% in New Hampshire and Massachusetts. Annual payroll and employee numbers were available for Maine, Massachusetts, and Rhode Island only. All three of these states showed 10-19% declines in annual payroll, and 24-49% declines in employee numbers.

**Transport, Support, and Marine Operations**

With the exception of the marina industry, data was largely unavailable for this sector. The number of marina operations remained flat across the region but annual payroll increased 51% between 1998 (\$83 million) and 2005 (\$125 million). Annual payroll in all five states in this region increased, ranging from 72% increases in Massachusetts to a modest 8% increase in Maine. Massachusetts and Connecticut had the highest number of establishments and contributed the most to annual payroll in this industry. Of the 444 establishments engaged in marina operations in 2005, 31% were in Massachusetts (139 establishments) and 26% were in Connecticut (117 establishments). Annual payroll in these states was roughly equal: both Massachusetts and Connecticut contributed \$43 million each to the region in 2005.