Management Context

The New England Region includes the states of Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut. Federal fisheries in this region are managed by the New England Fishery Management Council (NEFMC) and NOAA Fisheries (NMFS) under nine fishery management plans (FMPs). Two of these FMPs are jointly managed with the Mid-Atlantic Fishery Management Council (MAFMC). The NEFMC is the lead Council for the Monkfish FMP and the MAFMC is the lead for the Spiny Dogfish FMP.

New England Fishery Management Plans

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

Of the stocks or stock complexes covered in these fishery management plans, 16 are currently listed as overfished: Georges Bank cod, yellowtail flounder (3 stocks), white hake, Northern windowpane flounder, winter flounder (2 stocks), ocean pout, Atlantic halibut, pollock, witch flounder, winter skate, thorny skate, smooth skate, and Atlantic salmon. Thirteen stocks or stock complexes are currently subject to overfishing: cod (2 stocks), yellowtail flounder (3 stocks), white hake, windowpane flounder (2 stocks), winter flounder (2 stocks), pollock, witch flounder, and thorny skate.

Currently, expansion of the existing sector-based management program, a type of catch share program, initiated during 2004 for the Northeast Multispecies Plan is under development in New England. 1 The proposed changes would expand the number of sectors from 2 to 17. The two sectors currently operating include the Georges Bank cod hook gear sector fishery, which was implemented in 2004, and the Georges Bank cod fixed gear sector fishery, established in 2006. The ex-vessel value of these fisheries totaled over \$1.5 million in 2007. In the sea scallop fishery, a new individual fishing quota (IFQ) program for the general category vessel program is anticipated to start in 2010. In 2007, it was valued at \$32.3 million.

Commercial Fisheries

In 2008, New England commercial fishermen harvested 594 million pounds of finfish and shellfish and generated \$805 million in ex-vessel revenue. Landings revenue was dominated by shellfish such as lobster (\$312 million) and sea scallop (\$203 million) with ex-vessel prices in 2008 at \$3.70 and \$7.03, respectively, lobster contributed 39% to total landings revenue while sea scallops contributed 25%. These and other shellfish species and groups made up

76% of total revenue in New England. Atlantic herring was a significant component of total landings in 2008, making up 28% of the total. However, with an average annual price of \$0.12 per pound in 2008, Atlantic herring contributed only 2.5% to total landings revenue.

Of the five New England states, Massachusetts contributed the most to landings revenue and pounds landed with almost \$400 million and 326 million pounds landed in 2008, followed by Maine (\$301 million, 179 million pounds), Rhode Island (\$67 million, 72 million pounds), New Hampshire (\$21 million, 11 million pounds), and Connecticut (\$17 million, 7 million pounds).

Key New England Commercial Species

- Quahog clam
- Lobster
- Cod and haddock
- Atlantic mackerel
- Flounders
- Sea scallop
- Goosefish
- Sauid
- Atlantic herring
- Bluefin tuna

Economic Impacts

Massachusetts led the region in terms of sales, income, and job impacts related to the seafood industry in 2008. In-state sales in Massachusetts generated nearly \$3.97 billion in 2008 with income impacts totaling \$2.1 billion. Over 73,000 full- and part-time jobs were generated from the seafood industry in this state. Sales impacts in Maine also totaled over a billion dollars. Income (\$527 million) and job impacts (19,800 full- and part-time jobs) in Maine ranked second in New England. In terms of employment, Rhode Island (10,600), New Hampshire (4,800), and Connecticut (4,400) followed.

Landings Revenue

In 2008, ex-vessel revenue from finfish and shellfish harvest totaled \$805 million, a 22% increase (2.7% decrease in real terms) from landings revenue in 1999 (\$662 million) but a 10.9% decrease (19.5% in real terms) from 2007 (\$903 million). Massachusetts fishermen generated 50% of the revenue in New England in 2008. Shellfish revenue accounted for 76% of total revenue in New England, bringing in \$612 million in 2008. This was an 34% increase (7.2% in real terms) relative to 1999 (\$456 million), but a 16% (24% in real terms) decrease relative to 2007 (\$725 million). Finfish revenue decreased 6% (25% in real terms) from \$206 million (1999) to \$193 million (2008). Finfish revenue between 2007 and 2008 increased 8% (2.4% decrease in real terms).

Across New England, finfish revenue decreased in each state between 1999 and 2008 in real terms. Maine had the largest decrease with finfish revenue decreasing 29% (43% in real terms), followed by Connecticut (30%, 45% in real terms), New Hampshire (17%, 34% in real terms), and Rhode Island (17%, 33% in real terms). Massachusetts was the only state to experience an increase (11%) but there was still a 12% decrease in real terms.

In contrast, shellfish revenue varied across the region, with increases in revenue in New Hampshire (131%,

¹The Northeast Multispecies Fishery Management Plan defines a sector as being a group of self selected vessel owners where a catch share is allocated to the group rather than to individual vessels.

84.8% in real terms) and Massachusetts (85%, 48% in real terms) and Maine (25%, less than 1% in real terms). Shellfish revenue decreased in Connecticut (59%, 68% in real terms), and Rhode Island (25%, 40% in real terms).

New England key species and species groups with large changes in total revenue over the 10 year time period include sea scallop which experienced a 158% increase (106% in real terms) and Atlantic mackerel with a 252% increase (181% in real terms). Large decreases were seen in bluefin tuna (79%, 84% in real terms), flounders (29%, 43% in real terms), and squid (68, 74% in real terms).

At the state level, key species or groups with large changes in landings revenue from 1999 to 2008 include: increases in snails or conchs (596%), sea scallop (133%), and scups or porgies (116%), and decreases in lobster (77%), goosefish (34%), and hake (69%) in Connecticut; blood worms (104% increase), blue mussel (135% increase), and sea urchins (74% decrease) in Maine; clams other than ocean clams (3,700% increase), Atlantic mackerel (1,200% increase), sea scallop (171% increase), and lobster (33% decrease) in Massachusetts; Atlantic cod (443% increase), lobster (168% increase), spiny shark (102% increase), and goosefish (85% decrease) in New Hampshire; and scups or porgies (38% increase), quahoq clam (25% increase), squid (74% decrease), Atlantic herring (66% decrease), and lobster (59% decrease) in Rhode Island. The dramatic percent increase in landings revenue from clams and Atlantic mackerel results from unusually low landings of both in 1999.

Landings

Fishermen in New England landed over 594 million pounds in 2008. This was a 1.8% decrease from the 584 million pounds landed in 1999, and a 1.9% decrease from the 583 million landed in 2007. Finfish contributed 66% of total landings in 2008 (394 million pounds), a 2% decrease from 1999. From 2007 to 2008, finfish landings increased 5%. Shellfish landings increased 10% from 1999 to 2008, from 182 million pounds (1999) to 200 million pounds (2008). Shellfish landings decreased 4% between 2007 and 2008.

Finfish landings decreased in four of the five New England states between 1999 and 2008. Connecticut and Rhode Island both decreased 59%. Maine and New Hampshire decreased 40% and 20% respectively. Massachusetts showed an increase in finfish landings with a 77.5% increase between 1999 and 2008.

Shellfish landings increased in Massachusetts (29%), Maine (16%), and New Hampshire (59%), but decreased in Rhode Island (13%) and Connecticut (66%).

Of New England's key species and species groups, Atlantic herring contributed the most to total landings with 164 million pounds landed in 2008. Fishermen in Massachusetts and Maine harvest the majority of this species, landing 94 million pounds and 66 million pounds, respectively.

Key species or groups with the largest increases in annual landings totals from 1999-2008 were Atlantic mackerel (514%) and sea scallop (111%). Total landings of bluefin

tuna (81%), goosefish (63%), flounder (52%), and squid (45%) decreased during this period.

Commercial Fish Facts

Landinas revenue

- In 2008, New England's key species or species groups accounted for 81% of total revenue generated in the region.
- <u>Lobster</u> and <u>sea scallops</u> contributed the most to total revenue, <u>averaging \$322 million</u> and <u>\$161 million</u>, respectively, from 1999-2008.
- Fishermen in Maine generated most of the revenue from lobsters in 2008, while Massachusetts fishermen led the region in sea scallop revenue.
- The largest increase in revenue between 2007 and 2008 was 165% for squid, which increased from \$2.4 million to \$6.3 million. The largest annual decrease in the same time period was an 69% decrease in quahog revenue.

Landings

- New England's key species and groups contributed an average of 66% to total landings in 2008.
- Atlantic herring contributed the most to landings in the region, averaging 180 million pounds from 1999-2008.
 Commercial fishermen in Massachusetts and Maine harvested the majority of this species in 2008.
- Landings of <u>Atlantic mackerel</u> increased dramatically from 2001-2002, <u>increasing 2622%</u> largely due to an increase in landings in Rhode Island. The largest annual decrease in landings was for <u>squid</u> which <u>decreased 89%</u> from 2006-2007.

Prices

- <u>Bluefin tuna</u> (\$6.19) had the highest average ex-vessel price per pound from 1999-2008, followed by <u>sea scallop</u> (\$5.64), <u>guahog clam</u> (\$4.73), and <u>lobster</u> (\$3.97).
- Atlantic herring and Atlantic mackerel had the lowest average ex-vessel price per pound at \$0.08 and \$0.16, respectively.
- Quahog clam had the largest annual increase in ex-vessel price over the last ten years, increasing 130% between 2004 and 2005.
- The largest annual decrease in ex-vessel price over the last ten years occurred between 2001 and 2002 when the price of Atlantic mackerel decreased 50% from \$0.28 to \$0.14.

Prices

With the exception of Atlantic mackerel, lobster and squid, 2008 ex-vessel prices for New England's key species and groups were higher than their 10 year average price per pound. Large double-digit increases in prices were observed for six of the ten key species and groups between 1999 and 2008. The largest increases were for Atlantic herring (100%, 60% in real terms), quahog clam (69%, 35% in real terms), flounders (49%, 19% in real terms) and goosefish (39%, 11% in real terms).

Of the 10 dominant species, 6 experienced a decrease in ex-vessel price in real terms between 1999 and 2008. Atlantic mackerel experienced the largest decline (43%, 54% in real terms) followed by squid (42%, 53% in real terms). The other remaining four species cod and haddock, lobster, sea scallop, and bluefin tuna only experienced declines in real ex-vessel prices.

Relative to ex-vessel prices in 2007, the New England Region's quahog clam experienced the greatest increase (18.2%, 6.7% in real terms) from \$6.59 per pound in 2007 in \$7.79 per pound in 2008. Squid experienced the

greatest decline in ex-vessel price (49%, 54% in real terms) from \$0.88 in 2007 to \$0.45 in 2008.

At the state level, key species or groups with large changes in ex-vessel price from 1999 to 2008, include snails or conchs (338% increase), flounders (93% increase), goosefish (70% increase), and lobster (40% increase) in Connecticut; bloodworms (96% increase), blue mussel (87% increase), Atlantic herring (86% increase), and sea urchins (42% increase) in Maine; Atlantic herring (140% increase), Atlantic mackerel (52% decrease), and clams other than ocean clams (49% increase) in Massachusetts. Atlantic Herring (180% increase), quahog clam (90%), flounders (67% increase), and squid (56% decrease) in Rhode Island; spiny shark (76% increase) in **New Hampshire** which was the largest increase seen in New England between 1999 and 2008.

Recreational Fishing

In 2008, over 1.58 million recreational anglers took 9.2 million fishing trips in New England. Over 88% of these anglers were residents of a regional coastal county. Of the total fishing trips taken, 53.6% of them were taken from a private or rental boat and another 41.3% were shorebased. Striped bass were the most frequently caught key species or species group with over 7.5 million fish caught in 2008, 28.7 % of total fish caught in the region. This is a significant decrease in striped bass landings from 2007 (27% decrease). Almost all of these fish, over 92% of them, were released rather than harvested.

Economic Impacts and Expenditures

The contribution of recreational fishing activities in New England are reported in terms of economic impacts at the state level (employment, sales, and value-added impacts) and expenditures on fishing trips and durable equipment at the region level. Employment impacts in Massachusetts were highest in the region with over 5,900 full- and parttime jobs supported by recreational fishing activities in this state. Connecticut (4,884 full- and part-time jobs), Rhode Island (1,467 jobs), Maine (1,286 jobs), and New Hampshire (357 jobs) followed in terms of jobs supported by recreational fishing activities.

Overall, these jobs were related to expenditures on recreational fishing trips taken by anglers (private or rental boat, for-hire boat, or shore-based trips) or expenditures on durable equipment. Throughout New England, most of the jobs supported in 2008 were related to expenditures on durable equipment: 91% of jobs in Connecticut, 49% of jobs in Rhode Island, 45% of jobs in Massachusetts, 40% of jobs in New Hampshire, and 38% of jobs in Maine.

When looking at which fishing mode contributed most to jobs in each state, shore-based fishing trips supported most of the jobs in Rhode Island, Maine, and Massachusetts. Most of the fishing trip-related jobs in Connecticut were related to private or rental boat trips and in New Hampshire, for-hire boat trips supported most triprelated jobs.

In addition to jobs, the contribution of recreational fishing activities to New England's economy can be measured in terms of sales impacts and the contribution of these activities to gross domestic product (value-added impacts). In 2008, sales and value-added impacts were highest in Massachusetts (\$786 million in sales impacts; \$427 million in value-added impacts) and Connecticut (743 million; \$427 million). These states were followed by Maine (\$108 million; \$57 million), Rhode Island (\$166 million; \$82 million), and New Hampshire (\$39 million; \$21 million).

Key New England Recreational Species

- Striped bass
- Bluefish
- Atlantic cod
- Winter flounder
- Summer flounder
- · Little tunny
- Atlantic mackerel
- Porgies (scup)
- Bluefin tuna
 - Wrasses (tautog)

Most of these sales and value-added impacts were related to expenditures on durable equipment. In terms of which fishing mode contributed the most to sales and valueadded impacts at the state level: shore-based fishing trips contributed the most in Massachusetts, Maine, and Rhode Island; private or rental boat trips in Connecticut; and forhire boat trips in New Hampshire.

Overall, total fishing trip and durable equipment expenditures generated \$1.8 billion across New England in 2008. Approximately 76% of these expenditures were related to durable equipment purchases. Vehicle (\$553 million), fishing tackle (\$428 million), and boat-related expenses (\$311 million) accounted for the majority of durable equipment expenditures. Fishing-trip related expenditures by New England's non-residents totaled over \$231 million and most of this was related to shore-based fishing trips (\$152 million). New Englanders generated \$194 million in trip-related expenditures with most of these expenses related to private or rental boat trips (\$113 million).

Participation

There were 1.58 million recreational anglers who fished in New England in 2008. This was a 90% increase from 1999 (831,000 anglers). These anglers were New England residents from either a coastal (1.39 million anglers) or non-coastal county (187,000 anglers).2 Over 88% of total anglers in 2008 were residents of a coastal county. Coastal county angler participation in 2008 increased 84% relative to 1999 (756,000 anglers) and decreased slightly by 19,000 anglers between 2007 and 2008. Non-coastal county angler participation increased 149% relative to 1999 (75,000 anglers) and decreased 8.8% relative to 2007 (205,000 anglers). Over 82% of New England's anglers fished in Massachusetts.

In 2008, the majority of recreational fishermen in Massachusetts, Connecticut, and New Hampshire were residents of a coastal county within their respective state. These anglers comprised 75% of total anglers in

²At the state level, out-of-state anglers are estimated. However at the region level, out-of-region anglers are not estimated thus only New England resident anglers are discussed here. In Fisheries Economics of the U.S., 2006 (FEUS 2006), angler participation totals from 1997-2006 incorrectly included out-of-state anglers at the region level. In this report, the 1999-2008 angler participation totals excludes these anglers.

Connecticut, 53% of total anglers in New Hampshire, and 51% of total anglers in Massachusetts. In contrast, most of Maine and Rhode Island's anglers in 2008 were out-of-state residents: 180,00 anglers or 58% of total anglers in Maine, and 297,000 anglers or 63% of total anglers in Rhode Island. Throughout New England, anglers from a non-coastal county³ accounted for a minority of total anglers in 2008: 2.9% in Maine, 6.8% in New Hampshire, and 13.1% in Massachusetts.

Fishing Trips

Recreational fishermen took 9.19 million fishing trips in New England in 2008. This was a 42% increase from 1999 (6.5 million trips) and was 500,000 fewer trips than taken in 2007. Approximately half (54%) of total trips in the region were taken from a private or rental boat (4.9 million trips). Shore-based fishing trips were also popular with 3.8 million trips taken in 2008 (41%) of total trips in New England. This fishing mode was the only one to see a significant decrease from 2007 to 2008, decreasing 13%. There were 471,000 fishing trips taken from for-hire boats in 2008, a slight decrease of 1.9% from 2007.

There were 4.5 million fishing trips taken in Massachusetts in 2008. Trips taken from this state comprised most of the fishing trips taken in New England: 49% of total trips in the region. Private or rental boat trips were the most popular fishing mode in Massachusetts (2.3 million trips) despite a 4% decrease from 2007-2008. Connecticut ranked second in terms of the total number of fishing trips taken in New England with 1.9 million trips taken by anglers in 2008. Rhode Island (1.6 million trips), Maine (840,000 trips), and New Hampshire (349,000 trips) followed. Private or rental boat trips accounted for most of the trips taken in Connecticut, Rhode Island, and New Hampshire, while shore-based trips were the most popular mode in Maine.

Harvest and Release

Striped bass had the highest catch totals of any key species and species group in New England. In 2008, approximately 7.6 million fish were caught by anglers fishing in the region and 93% of these fish were released rather than harvested. Over 53% of the striped bass caught in the region were caught in Massachusetts. Little tunny were also released in large numbers (96.2% released rather than harvested). Overall, most of New England's key species or groups were released rather than harvested. Only Atlantic mackerel (86.4%), bluefin tuna (87.5%), and winter flounder (69%) were harvested more often than released.

Many of New England's key species and species groups had dramatic changes in catch totals from 1999 to 2008. Total catch of bluefin tuna increased from less than 1,000 fish caught in 1999 to 14,000 in 2008. Little tunny (31.7% increased), bluefish (77.9%), porgies or scup (72%), and wrasses or tautog (34.9%) all experienced significant increases in their catch totals. Total catch of winter flounder decreased moderately with anglers catching 23.9% fewer fish in 2008.

Recreational Fishing Facts

Participation

- An average of <u>1.32 million anglers</u> fished in New England annually from 1999-2008. Most of these anglers fished in Massachusetts.
- In 2008, <u>coastal county residents</u> made up <u>88% of total</u> <u>anglers</u> in this region. These anglers averaged 90% of total anglers annually over the 10 year time period.
- Non-coastal county resident anglers had the largest annual decrease in participation, decreasing 16% from 1998 to 1999. These anglers also had the largest annual increase in participation, increasing 61% from 1999 to 2000. From 2007 to 2008, non-coastal county resident anglers participation decreased 8.8%.

Fishing trips

- In New England, an average of 8.79 million fishing trips were taken annually from 1999 to 2008. Most of these trips were taken in Massachusetts.
- <u>Private or rental boat</u> and <u>shore-based</u> fishing trips accounted for <u>4.9 million</u> and <u>3.8 million</u> fishing trips, respectively in 2008. Together, these made up 95% of fishing trips taken in that year.
- From 2007-2008 the largest decrease in fishing mode in New England was shore based fishing 13%.

Harvest and release

- <u>Striped bass</u> was the most commonly caught key species or species group, <u>averaging 9.8 million fish</u> caught over the 10 year time period. Of these, <u>94% were released</u> rather than harvested.
- Seven of New England's ten key species or groups were released by anglers rather than harvested over this time period. Examples include <u>striped bass</u> (94% released), <u>little</u> <u>tunny</u> (93%), and <u>bluefish</u> (70%).
- Atlantic mackerel (90% harvested), winter flounder (59% harvested), and porgies or scup (51% harvested) were key species or groups more often harvested than released by anglers.
- Winter flounder had the largest annual increase in catch (150%) from 2007 to 2008, and tautog had the largest

Between 2007 and 2008, large changes in catch totals were observed for the following key species or species group: increases were experienced by winter flounder (150%), summer flounder (41%), porgies (scup) (25%), and Atlantic mackerel (23); and the largest decreases occurred in wrasses (tautog) at 49.8%, bluefin tuna (30%), and striped bass (27%) from 2007 to 2008.

At the state level, striped bass has continued to remain the most caught key species. In Massachusetts, catch decreased from 2007 to 2008 (35%) to a total catch of 4.0 million fish in 2008. Two and a half million striped bass were caught in Connecticut in 2008 (28% increase from 2007). The majority of these fish were released, rather than harvested. Striped bass catches in New Hampshire decreased (69%) from 2007 to 91,000 in 2008.

In Maine, Atlantic mackerel continued to be the most caught species in 2008 (1.1 million) and most were harvested rather than released. This was a relative decrease in catch (14%) decrease from 2007. In Rhode Island, porgies (scup) were the most commonly caught fish species in 2008 (1.85 million), a 56% increase from the previous year.

³All resident anglers in Rhode Island and Connecticut are coastal county anglers.

Marine Economy⁴

In 2007, New England's gross domestic product by state was \$715 billion. Employee compensation totaled \$435 billion and annual payroll totaled \$295 billion. Respectively, these totals were a 48%, 25%, and 46% increase (24%, 4.7%, and 22% increase in real terms) from 1998 levels, and a 3.9%, 5.1%, and 4.4% increase (1.8%, 0.7%, 1.3% decrease in real terms) from 2006 levels. There were approximately 382,000 establishments and 6.1 million full- and part-time employees across the region in 2007. Both of these economic indicators increased slightly between 1998 and 2007 (5.1% and 5.9%, respectively). Between 2006 and 2007 the number of establishments increased 0.39%, but the number of employees decreased 0.33%.

At the state level, Massachusetts had the highest number of establishments and employees, annual payroll, employee compensation, and gross state product levels in the region. Massachusetts' 177,000 establishments employed almost 3.1 million employees in 2007. The gross state product in Massachusetts was \$352 billion, followed by Connecticut (\$212 billion), New Hampshire (\$58 billion), Maine (\$48 billion), and Rhode Island (\$47 billion).

Among the New England states where data was available, Maine had the highest commercial fishing location quotient (CFLQ)⁵ at 14.38 in 2007. This was a 78% increase from 2001 (8.09) and a 13.6% increase from 2006 (12.42). Maine's CFLQ suggests that the level of employment in commercial fishing-related industries in Maine is over 14 times higher than the national level of employment in these industries.⁶ The CFLQ in 2007 was 3.04 in Rhode Island (a 5.6% increase relative to 2001) and 0.52 in Connecticut (a 13% decrease relative to 2001).

Seafood Sales and Processing

In 2007, there were 102 nonemployer firms engaged in seafood product preparation and packaging across New England. This was a 20% increase relative to 1999 levels. Most of these firms were located in Maine (64%). Regionwide, annual receipts for this industry totaled \$11 million in 2007, a 49% increase (32% in real terms) from 1999 to 2007

Employer establishments engaged in seafood product preparation totaled 99 in 2007, with 53% of them located in Massachusetts. From 1999 to 2007, the number of establishments region-wide decreased 3%. Over 3,400 full- and part-time workers were employed by these establishments in 2007 (1% decrease relative to 1999) and the annual payroll totaled \$130 million (51% increase).

In 2007, there were 393 seafood wholesale establishments that employed approximately 3,300 workers with an annual payroll totaling \$137 million. Across New England,

 $^4\mathrm{Data}$ for 2008 were unavailable for this report therefore 2007 information are reported in this section.

⁵The CFLQ for 2007 was not available for New Hampshire or Massachusetts.

⁶The CFLQ for the U.S. is 1.0. This provides a national baseline from which state CFLQs can be compared.

these seafood wholesale establishments, employee numbers, and annual payroll decreased over the time period, 27%, 31%, and 11%, respectively between 1999 and 2007. Similar declining trends were also experienced in all five New England states.

Seafood retail non-employer firms (172 in 2007) and establishments (254 in 2007) increased by 109% and 21% from 1999 to 2007. A 109% increase in firm numbers was observed in Rhode Island, a 53% increase in Connecticut, and a 57% increase in New Hampshire, but decreases occurred in Maine (2%) and Massachusetts (19%). Annual receipts for these firms, which totaled \$20 million in 2007, experienced a 2% decrease (13% in real terms) from 1999.

Employer establishments engaged in seafood retail increased 21% region-wide from 1999-2007. Increases were observed in all states with the largest increases in New Hampshire (114%) and Maine (56%). Employee numbers increased 86% across New England to 1,300 workers in 2007. Annual payroll increased to \$33 million, an 188% increase from 1999 totals (155% in real terms). Almost half of these establishments were located in Massachusetts.

Transport, Support, and Marine Operations

Marina industries had the highest number of establishments in 2007 with 451 establishments across New England. This was a 6% increase over 1999 levels. Most of these marina operations were located in Massachusetts and Connecticut. Ship and boat building industries employed the most people (8,700 full- and part-time workers) and had the highest annual payroll (\$427 million). Large increases were experienced in this industry, with employee numbers increasing 1,350% and annual payroll totals increasing 1,928% from 1999 to 2007 (1,696% in real terms)⁷. Most of the ship and boat building activity in the region occurred in Maine and Rhode Island.

Other industries with large or modest changes from 1999-2007 were coastal and Great Lakes freight transportation (56% increase in establishments in Massachusetts, 64% decrease in Connecticut); deep sea freight transportation (100% increase in establishments in Rhode Island and 40% in Connecticut); deep sea passenger transportation (100% increase in establishments in Maine, Connecticut and New Hampshire and 67% and 50% decreases in Rhode Island and Massachusetts respectively); marina operations (110% increase in annual payroll and 70% increase in employees in Connecticut, and a 84% increase in Massachusetts and 68% increase in Rhode Island in number of employees); marine cargo handling (40% decrease in establishments in Maine and a 67% increase in establishments in Massachusetts); navigational services to shipping industries (50% increase in establishments in Massachusetts); and port and harbor operations (100% increase in establishments in Maine and a 100% increase in Rhode Island).

⁷Payroll and employee number information was not available for Connecticut or New Hampshire.