

Non-groundfish effort increased for sector vessels in 2013. Sector vessels took 4.2% more non-groundfish trips (+728 trips) than in 2012, reaching a four-year high. Total days absent on non-groundfish trips also increased to a four-year high for sector vessels, with 575 more days absent in 2013 than in 2012, a 3.5% increase. In contrast, effort measures for non-groundfish decreased slightly for common pool vessels in 2013 compared with 2012; common pool vessels took 435 fewer non-groundfish trips (-2.7%), with 288 fewer days absent on non-groundfish trips (-2.2%; Table 1).

2. LANDINGS AND GROSS REVENUES

Gross revenues are one important indicator of financial performance. In commercial fishing, gross nominal revenues are a function of the amount of fish landed and the price paid at the time of sale. Prices paid by dealers vary by species and may fluctuate as a result of short- and long-term market changes. Annual changes in gross revenues can result from three different factors: changes in prices paid for fish at the dock, changes in quantity of landings, and changes in the species composition of the landings. Flexibility to target specific species and/or market categories at times when market values are high can be important in maximizing gross fishing revenues. Information is provided below on landings, overall gross revenues, and prices in 2013 compared with those in 2010 through 2012.

In this report, nominal revenues have been adjusted to account for the effects of inflation. Nominal revenues observed throughout the four-year time span were converted to real revenues using the GDP Implicit Price Deflator, with the second quarter (April-June) of calendar year 2010 as the base time period. Nearly all revenues contained in this report are in constant 2010 dollars. This approach differs from previous reports. In the 2010, 2011 and 2012 reports, nominal revenues were presented for most revenue metrics, with the exception of groundfish revenues, non-groundfish revenues, and all species revenues from all trips, which were presented in both nominal and real dollars.¹⁴ In this year's report, we report monetary metrics in nominal amounts observed in 2013 for selected metrics only (see Tables 1-3). Unless otherwise indicated, the discussion in this report refers to monetary amounts in real or constant terms, i.e. amounts that have been adjusted for inflation.

2.1. Landings

Groundfish landings in 2013 continued the decline that the limited access groundfish fleet experienced in 2012. Declining groundfish landings were coupled with little growth in non-groundfish landings for the fleet in 2013. Total landings of all species on all trips were 256.4 million pounds in 2013, a 1.6% decrease from 2012 (260.5 million pounds). In 2013, total landings of all species were at their lowest point over the 2011-2013 time period, but higher than they were in 2010 (232.9 million pounds; Table 2). Total groundfish landings on all trips decreased to a four-year low of 42.2 million pounds in 2013, compared with 58.7 million pounds in 2010. Total groundfish landings on all trips declined 10.9% in 2013 compared with 2012 and 28.0% overall from 2010 to 2013. Total non-groundfish landings on all trips in 2013 were 214.2 million pounds, a four-year high, but less than 1% greater than in 2012. Groundfish landings

¹⁴ Table 2 (Total landings and revenue from all trips by fishing year) in the FY2010, FY2011, and FY2012 reports.

accounted for 16.5% of total landings in 2013, down slightly from 18.2% of total landings in 2012 (Table 2).

Total landings in 2013 of all species on groundfish trips decreased to a four-year low of 61.2 million pounds. Groundfish landings on groundfish trips also decreased to a four-year low of 42.1 million pounds.¹⁵ The overall decline in groundfish landings on groundfish trips from 2010 to 2013 is 28.1%, with an 11.1% decline occurring from 2012 to 2013. Non-groundfish landings on groundfish trips decreased to 19.1 million pounds, compared with 23.5 million pounds in 2010. Overall, non-groundfish landings on groundfish trips declined 18.6% from 2010 to 2013, with a 29.7% decrease in 2013 from 2012 (Table 3). The trends for landings data in 2013 follow the pattern seen in 2012: the groundfish fleet appears unable to adapt to the negative trends in groundfish landings by substituting non-groundfish landings.

2.2. Gross Revenues

Gross revenues for the groundfish fleet began declining in 2012 and continued to decline in 2013. Non-groundfish revenues earned by the fleet have fallen in the past two years and therefore cannot offset losses in groundfish revenues. Total gross revenue in 2013 from all species landed on all trips was \$269.9 million, an 8.8% decrease from 2012 (\$296.0 million). Gross revenue for all species landed on all trips taken by the limited access groundfish fleet was at a four-year low in 2013, declining 8.0% overall from 2010-2013 (Table 2).

Groundfish revenue in 2013 on all trips decreased to a four-year low of \$55.2 million (18.6% lower than in 2012), with a 33.6% decline from 2010 to 2013. Non-groundfish revenue on all trips decreased to \$214.7 million (-5.9%) compared with 2012 and was at a three-year low for the 2011-2013 period, but the revenue was still higher than it was in 2010 (Table 2).

Total gross revenue from all species landed on groundfish trips in 2013 was \$75.5 million, a four-year low, with a 18.6% decline from 2012 and a 29.2% decline from 2010 (Table 3). Groundfish revenue on groundfish trips in 2013 was \$55.0 million, a four-year low for the 2010-2013 time period, with an 18.7% decrease from 2012 and a 33.7% decrease from 2010. Non-groundfish revenues on groundfish trips decreased in 2013 to a four-year low of \$20.5 million, from \$25.1 million in 2012 (Table 3).

2.2.1. Revenues by Landing Port and Home Port

Trends for all species revenues in 2013 by landing state and home port state (Table 4 and Table 5) were mixed. New England states that are home port states for vessels that have traditionally targeted groundfish experienced mostly negative trends. All species revenues for Massachusetts, New Hampshire, and New York were at four-year lows in 2013, from both a landed port and home port perspective. Massachusetts experienced the biggest declines in absolute terms and New Hampshire experienced the biggest declines in percentage terms. Massachusetts has seen all species revenues decline by \$25.5 million (-14.6%) as a landed port state and \$21.4 million (-14.3%) over 2010-2013. In New Hampshire, all species revenues have fallen over 2010-2013 by \$2.2 million (-31.9%) for the state as a landed port state and \$2.1 million (-27.0%) for the state as a home port state (Table 4 and Table 5).

¹⁵ Note that almost 100% of groundfish landings occurred on groundfish trips. For that reason, groundfish landing values for all trips and groundfish trips are nearly identical.

Rhode Island was the only state to see gains in all species revenue in 2013 from both a landed port and home port perspective. Overall, from 2010 to 2013, all species revenue has increased \$6.7 million (+22.0%) for Rhode Island as a landed port and \$2.1 million (+5.9%) for the state as a home port state (Table 4 and Table 5).

Maine has experienced more mixed trends for all species revenue, depending on whether all species revenues are viewed from a landed or home port state perspective. Overall, since 2010, all species revenues for Maine as a landed port state have increased 7.6%, while all species revenues earned by active limited access groundfish vessels that are homeported in Maine have fallen 13.1% over the same period. In the remaining Northeast states, trends for all species revenues varied (Table 4 and Table 5).

The value of groundfish landed on all trips was at a four-year low for Massachusetts and New Hampshire in 2013 from both a landed and home port state perspective. Massachusetts experienced the greatest losses in absolute terms; over the past four years, Massachusetts has lost \$29.0 million (-39.4%) in groundfish revenues as a landed port state and \$22.2 million (-37.4%) as a home port state. In percentage terms, New Hampshire has lost \$1.3 million (-40.3%) as a landed port state and \$1.3 million (-36.4%) as a homeport state in groundfish revenues over the same period. Groundfish revenues earned by vessels homeported in Maine were at a four-year low in 2013, declining 18.4% over 2010-2013. As a landed port state, groundfish revenues for Maine were lower in 2013 than in 2011 and 2012 but higher than they were in 2010.

Connecticut was the only state to see a four-year high for groundfish revenues as both a landed and home port state in 2013. Over 2010-2013, groundfish revenues have grown by \$117,103 (1302.5%) for Connecticut as a landed port state and by \$34,420 (62.6%) as a home port state. As landing port states, New Jersey, New York, and Rhode Island all saw four-year highs in 2013 for groundfish revenues. From a home port state perspective, these three states experienced increases in groundfish revenues from 2012, ranging from 2.0% (Rhode Island) to 186.4% (New Jersey).¹⁶ However, groundfish revenues from groundfish vessels homeported in New Jersey, New York, and Rhode Island have fallen overall since 2010, by 51.2%, 24.6%, and 23.8%, respectively (Table 6 and Table 7).

All species and groundfish revenues are also presented for the six major groundfish ports in the Northeast. Massachusetts ports Boston, Gloucester, and New Bedford have been especially hard hit in 2013; both all species and groundfish revenues were at a four-year low in 2013 for the three ports, both from the landed and home port perspective.

Gloucester has seen all species revenues decline 37.2% (-\$14.8 million) as a landed port and 31.8% (-\$8.0 million) as a home port over the past four years (Table 4 and Table 5). Declining all species revenues in Gloucester are being driven by the port's losses in groundfish revenues. Groundfish revenues for Gloucester have fallen 47.4% as a landed port and 43.9% as a home port over the 2010-2013 time period (Table 6 and Table 7).

The value of all species landed in Boston has decreased 11.6% (-\$1.7 million) from 2010 to 2013 (Table 4). All species revenues earned by groundfish boats homeported in Boston fell 9.8% (-\$2.7 million) over the past four years (Table 5). Groundfish revenues also fell to four-year lows in 2013 for Boston as both a landed port and a home port. Over the past four years, groundfish revenues have declined 16.4% for Boston as a landed port and 25.9% as a home port (Table 6 and Table 7).

¹⁶ The growth seen in groundfish revenues from 2012 to 2013 for New Jersey, New York, and Rhode Island as home port states may be due to the influence of Superstorm Sandy, which occurred in late October 2012. For all three states as home port states, groundfish revenues were at a four-year low in 2012.

The limited access groundfish fleet in the port of New Bedford has also experienced declines, despite being less dependent on groundfish revenues than the groundfish fleet in Gloucester and Boston. New Bedford has lost 9.0% (-\$8.7 million) in the value of all species landed in the port from 2010 to 2013 (Table 4). As a home port, all species revenues declined 11.2% (-\$7.3 million) in the past four years (Table 5). Groundfish revenues for New Bedford are at a four-year low from both the landed port and home port perspective. As a landed port, New Bedford experienced a 37.3% (-\$11.0 million) loss over 2010-2013 (Table 6). Groundfish revenues earned by groundfish vessels homeported in New Bedford have fallen 31.4% (-\$5.8 million) from 2010 to 2013 (Table 7).

Massachusetts' southernmost major port, Chatham, has seen more positive trends in all species revenues, for the portion of limited access groundfish fleet active there, than northern ports in the state. This is partially because, by 2013, many of the limited access groundfish vessels active in Chatham were targeting non-groundfish species rather than groundfish. Over the four-year time series, all species revenues peaked in 2011 for Chatham as a landed port and grew 9.0% overall (Table 4). Chatham saw a similar trend in all species revenues earned by groundfish vessels homeported there; all species revenues for Chatham as a home port peaked in 2011 and grew 23.6% over 2010-2013. However, groundfish revenues for Chatham as both a landed port and a home port were at a four-year low in 2013. As a landed port, groundfish revenues declined 66.6% (-\$1.5 million) over 2010-2013 (Table 6). Groundfish revenues for Chatham as a home port declined 68% (-\$1.6 million) over the same time period (Table 7).

Portland, Maine, experienced small increases in all species revenues in 2013, both as a landed port and a home port. All species revenues as a landed port increased 2.8% (+\$0.2 million) from 2012 to 2013 to achieve a four-year high and grew 39.1% (+\$2.5 million) over the four-year time span (Table 4). All species revenues from groundfish vessels homeported in Portland have stayed in the 12- to 13-million-dollar range over 2010-2013, growing 5.7% from 2012 to 2013 and declining very slightly by 0.1% over the four years (Table 5). While groundfish revenues fell in 2013 by 10.7% (-\$0.6 million) compared with 2012 for Portland as a landed port, they have grown 54.1% (+\$1.9 million) over 2010-2013 (Table 6). As a home port, Portland experienced a slight increase of 4.7% (+\$0.4 million) in groundfish revenues in 2013 compared with 2012, but groundfish revenues have declined by 7.5% (-\$0.8 million) over the four-year time span (Table 7).

The port of Point Judith, Rhode Island, saw mostly gains in 2013. All species revenues for the port as landed port were are four-year high in 2013, growing 30% (+\$6.6 million) from 2010-2013 (Table 4). From a home port perspective, all species revenues grew 13.9% (+3.2 million) for the four-year time span (Table 5). In 2013, revenues for groundfish landed in the port achieved a four-year high, growing 39.9% (+\$0.6 million) over the four-year period (Table 6). For vessels homeported in Point Judith, groundfish revenue increased 7.8% from 2012 but declined 19.5% (-\$0.5 million) over the four-year time series (Table 7).

2.2.2. *Revenues by Species*

Most allocated groundfish species saw declines in revenues from 2012 to 2013. Groundfish revenues from cod, yellowtail flounder, American plaice flounder, witch flounder, redfish, white hake and pollock all decreased compared with 2012. These revenue decreases ranged from 9.5% for American plaice flounder to 45.2% for yellowtail flounder. The only two

allocated groundfish species to see increases in revenue in 2013 were haddock (+46.3%) and winter flounder (+0.9%; Table 8).

Revenue from cod declined to a four-year low of just under \$9.0 million in 2013, declining \$17.6 million and 66.2% over the four-year time span. In 2013, both decreased landings of cod and a decreased price for cod contributed to the drop in revenue. The price of cod in real terms decreased from \$2.41/lb in 2012 to \$2.11 in 2013. Revenues for American plaice flounder, yellowtail flounder, and witch flounder also fell to four-year lows in 2013. American plaice flounder revenues decreased 9.5% from 2012; this decline can be attributed to both lower landings and a lower price in 2013 compared with 2012. The decrease in yellowtail flounder revenues (-\$2.1 million) is due to lower landings of the species in 2013; the price of yellowtail flounder increased from \$1.43/lb in 2012 to \$1.48/lb in 2013. Similarly, the declines in witch flounder in 2013 were due to decreased landings, with landings falling from 2.0 million pounds to 1.3 million pounds. The price of witch flounder increased from \$1.88 in 2012 to \$2.28 in 2013 (Table 8).

Haddock and winter flounder revenues both increased in 2013 compared with 2012. From 2012, haddock revenue increased 46.3% (+\$2.3 million) in 2013. This increase occurred due to higher landings of haddock, which rose from 2.2 million pounds in 2012 to 5.5 million pounds in 2013. The price of haddock fell from \$2.29 in 2012 to \$1.34 in 2013. Over the four-year time span, haddock revenues have decreased 64.3% from 2010 to 2013 (Table 8). Winter flounder revenues slightly increased (+0.9%) in 2013 compared with 2012. This is due to an increase in landings from 4.8 million pounds to 5.9 million pounds; the price of winter flounder decreased to \$1.56/lb (Table 8).

The top ten non-groundfish species landed by limited access groundfish vessels by value are presented in Table 9. Sea scallops were the mostly highly valued non-groundfish species landed by limited access groundfish vessel, bringing in \$72.6 million in revenue in 2013. Revenue from sea scallops landed while fishing under a limited access groundfish permit accounted for 26.9% of total all species revenue and 33.8% of total non-groundfish revenue. While sea scallop revenue has grown 1.3% over the four-year time span, it decreased 15.5% (-\$13.3 million) from 2012 to 2013. This was due to a 26.5% fall in sea scallop landings; the price of scallops rose from \$9.63/lb in 2012 to \$11.07 in 2013 (Table 9).

Lobster, loligo squid, herring, skate and Jonah crab all saw increases in revenue from 2012 to 2013. These increases ranged from 6.0% for loligo squid to 21.6% for herring. For lobster, loligo squid, herring and Jonah Crab, increases in revenues are due to increased landings; prices fell in 2013 for each of these species. In 2013, skates were the only non-groundfish species that had an increase in revenue, but a decrease in landings (-6%) from 2012. The increase in revenue from skates is due to a price increase from \$0.28/lb in 2012 to \$0.32/lb in 2013 (Table 9).

Revenues decreased in 2013 for monkfish, summer flounder (fluke), silver hake (whiting), and scup landed by the limited access groundfish fleet, with revenues for all but scup at four-year lows. From 2012 to 2013, monkfish revenues decreased by 14.6% to \$13.0 million. This decline is due to both lower landings (-6.9%) and a decrease in the price of monkfish; the price of monkfish fell from \$2.15/lb in 2012 to \$1.97 in 2013. Summer flounder (fluke) revenues fell by 7.7% in 2013 from 2012 to a four-year low of \$15.6 million. The decline was due to decreased landings, which more than offset the price increase of \$0.16/lb from 2012 to 2013. Silver hake (whiting) revenues were at a four-year low of \$8.4 million in 2013, a 9.5% decrease from 2012 and a 23.9% decrease since 2010. Both landings and the price of silver hake (whiting)

were at a four-year low in 2013. Revenues for scup landed by the fleet were down 3.9% in 2013 but were higher than they were in 2010 or 2011; scup revenues have grown 26.5% from 2010-2013. The decline in scup revenues for 2013 is due to decreased landings; the real price of scup increased by \$0.01/lb (Table 9).

Revenues from non-groundfish species landed by the limited access groundfish fleet fell 5.9% in 2013 from 2012. While non-groundfish revenues have grown slightly (+2.0%) from 2010-2013 (+\$4.6 million), the 2013 decline in total non-groundfish revenues is especially notable because this means groundfish fishermen who tended to land non-groundfish species that experienced declining revenues in 2013 were unable to offset the significant drop in groundfish revenues with revenues from non-groundfish landings (Table 2).

2.3. Prices

Data on average groundfish and non-groundfish price trends are presented in Table 1 and Figure 1, and data for price trends for the nine allocated groundfish species are presented in Figure 2. Price data presented in Table 1, Figure 1 and Figure 2 reflect prices after adjusting for inflation; prices are in real terms (in constant 2010 dollars). Nominal average prices for groundfish and non-groundfish in 2013 are also presented in Table 1, along with real average prices for 2013.

In 2013, the average price of the nine allocated groundfish species (as a group) fell to four-year low, as did the average price of all non-groundfish species (as a group; Figure 1). From 2012 to 2013, average groundfish price fell from \$1.43/lb to \$1.31/lb, while average non-groundfish price declined from \$1.07 to \$1.00 (Table 1). The prices of yellowtail flounder, witch flounder, and pollock all increased in 2013 from 2012. These increases ranged from \$0.05/lb for yellowtail flounder to \$0.40/lb for witch flounder. The price of yellowtail flounder reached a four-year high in 2013 at \$1.48/lb, as did the price of pollock, at \$1.08/lb. All of the remaining allocated groundfish species experienced price decreases from 2012 to 2013. The largest price decreases occurred for haddock (-\$0.95/lb), winter flounder (-\$0.33/lb) and cod (-\$0.30/lb), with winter flounder and cod at four-year lows of \$1.56/lb and \$2.11/lb, respectively. American plaice flounder, redfish, and white hake also saw price decreases ranging from \$0.02/lb for white hake to \$0.08/lb for redfish. The price of redfish was at a four-year low of \$0.50/lb in 2013 (Figure 2).

Using the simple average real prices of all groundfish species combined that are presented in Table 1 to compare changes in prices over time may be misleading, because, although this average has been adjusted for inflation, it does not account for annual changes in the quantity and mix of groundfish species landed. A price index was therefore constructed to more accurately reflect price trends of groundfish species. The approach used the “Fisher Ideal” index (Balk 2008), which was constructed from price and quantity data recorded in dealer purchases of all groundfish species. Quarterly data were used in all fishing years from 2007 through 2013. May-July (quarter 1) of 2007 was set as the base period, with a value of 1. The Fisher Price Index is constructed using nominal prices.

The index values (Figure 3) show how combined nominal prices have changed in relation to quarter 1 2007 nominal prices. A value less than 1 means that prices are lower compared with the base time period, while a value greater than 1 indicates that prices have increased relative to quarter 1 in 2007. In 2013, the quarterly adjusted groundfish price index declined in quarters 1 and 2, from 2012 quarter 4 levels. The index then rose in quarter 3, before falling again in quarter 4. Compared with 2007, all values were greater than 1, indicating higher prices.

Generally, the price index was lower in 2013 than in 2012. However, the decline in 2013 is in relation to prices that reached a six-year high in the fourth quarter of 2012.

3. NUMBER OF VESSELS AND EFFORT

Effort indicators provide information about the amount of fishing that occurred to produce the landings. In this report, three indicators were used to measure fishing activity and effort: the number of active fishing vessels, the number of fishing trips, and the number of days absent from port.

3.1. Number of Vessels

The number of active vessels in the groundfish fleet continued to decline in 2013, and was at a four-year low for the 2010-2013 period. Both the number of vessels with revenue from any species and the number of vessels with revenue from at least one groundfish trip continued to fall. The total number of groundfish limited access eligibilities fell by 61 eligibilities in 2010-2013. The percentage of inactive vessels with a limited access groundfish permit has remained around 34-39% from 2010 to 2013, with 2013 having the lowest percentage of inactive vessels (34%) in the four-year span. Both the number and the percentage of groundfish limited access eligibilities placed in CPH have grown over the 2010-2013 period. In 2010, 94 eligibilities (6.5% of total eligibilities) were placed in CPH. In 2013, 45 additional eligibilities were placed in CPH, a 19.7% increase from the number of eligibilities in CPH in 2012 (228 eligibilities), for a total of 273 eligibilities in CPH, accounting for 19.7% of the total number of eligibilities (Table 10).

The number of vessels with revenue from any species fell from 763 in 2012 to 735 in 2013 (-3.7%). Since 2010, the number of vessels with revenue from any species has fallen 14.0%, with the fishery losing 120 active vessels (Table 11). The number of vessels with revenue from a groundfish trip declined 18.3% from 2012 to 2013 (400 to 327 vessels). From 2010 to 2013, the number of vessels with revenue from a groundfish trip fell from 446 vessels in 2010 to 327 vessels (-26.7%) This suggests that the contraction of the limited access groundfish fleet is being driven partially by the declines in the number of vessels that take groundfish trips (Table 12).

The reduction in the number of active vessels in the groundfish fleet should be interpreted carefully. Amendment 16 implemented a number of measures that induced the fishery toward fewer vessels, without necessarily requiring owners of non-active vessels to leave the fishery entirely. For example, an owner with a groundfish permit on each of three vessels is now allowed to stack all three permits onto one active vessel to reduce costs. In addition, Amendment 16 allows owners of permits held in CPH, which are not associated with an actual fishing vessel, to participate in sectors (i.e., allows the owner of permits in CPH to contribute the landings history for permits in CPH as PSC toward a sector's yearly allocation of ACE). Alternatively, if the eligibility in CPH is in the common pool, the holder of that eligibility can lease DAS to other vessels, with some restrictions. Clearly, fewer vessels now actively fish under a limited access groundfish permit, and fewer vessels within the total groundfish fleet are earning revenue on groundfish trips. However, we cannot conclude that all owners of inactive vessels are no longer participating in the fishery at all; some are gaining revenue as lessors of PSC/ACE or DAS.