

profitability (or indicators of profitability) might best be measured at the sector member level, rather than at the vessel level. Sector members use vessels for different purposes – some vessels are held for the associated PSC while others are used to fish. Additionally, some complex vessel ownership networks might share resources. Both factors argue for re-thinking how financial viability is typically measured in this fishery.

9. CONCLUDING REMARKS

Our analyses of fishery performance measures of the limited access Northeast Multispecies (Groundfish) Fishery showed marked changes in the fishery during 2011-2012, with many of the positive economic trends observed in last year's groundfish performance report reversing their course in 2012. After increasing in 2011, landed pounds of groundfish are at their lowest point in 2009-2012 for all vessels. Non-groundfish landings are at a four year high, but grew less than 1% from their 2011 levels. Non-groundfish landings and revenues did not compensate for losses in groundfish landings and revenues. This is because non-groundfish landings have not increased significantly and because average non-groundfish price has fallen to its lowest level in the past three years. Overall, total landings have fallen by 5.4% and total gross nominal revenue declined by 7.7% from 2011.

Fishermen actively groundfishing in the Northeast are a shrinking group. The total number of active groundfish vessels continues to contract, with a reduction of 152 vessels over 2009-2012, and 165 fewer vessels taking groundfish trips in 2012 than in 2009. For those vessels remaining in the fishery, the percentage enrolled in sectors is increasing, while the percentage remaining in the common pool is declining. In addition, there are 119 fewer active vessel affiliations in 2012 than there were in 2009. Opportunities for vessel crew are decreasing except for a few limited instances. Overall, there is less effort targeting groundfish in the fishery: fewer boats taking groundfish trips and fewer groundfish trips. However, when fishermen are able to fish, in many cases, their trips appear to be longer. Economic indicators of net revenue suggest that average earnings per day are improving for groundfish trips. However, fishermen may face various limitations in the number of groundfish trips they are able to take, in the form of quota restrictions or other constraints, as aggregate owner's share of net revenue on groundfish trips has declined for most vessels.

Consolidation in the fishery continues, as all species and groundfish revenues are earned by smaller numbers of vessels and vessel affiliations. The high level of concentration of revenues earned by fishermen for all species, and especially for groundfish, continues to persist. The potential movement of the fishery in 2011 towards more equitable distributions of all species and groundfish revenues appears to have come to a standstill in 2012.

In the past year, the Northeast Fisheries Science Center (NEFSC) moved closer to understanding the profitability of different segments of the fleet by expanding its analysis of net revenue to reflect the impacts of leasing activity. For example, sector members that own one vessel with a length of 30' to < 50' are net buyers of quota and their average owner share of net revenue per vessel is reduced by about 5% as a result of this cost. Sector members that own one vessel with a length of <30' are net sellers of quota, and their average owner share of net revenue per vessel is increased by about 167% from revenues earned by selling quota. Reductions in average owner share of net revenue per vessel due to quota costs range from 3.9% to 25.7% based on sector member type, with type being based on number of vessels owned and average vessel size.

The NEFSC continues its work to provide more and better information on the impacts occurring in the groundfish fishery, as well as other Northeast fisheries. NEFSC staff are analyzing cost data recently collected from our survey of commercial fishing vessels for costs incurred in 2011 and 2012, and they are making those data available to NEFMC staff for the analysis of proposed management actions. Those data are especially important because they contain information about the fixed, or non-trip, costs associated with running a commercial fishing business, which is necessary to understand profit. Fixed costs may vary considerably depending on vessel size and primary gear type, among other factors. The NEFSC has also recently collected socio-economic data from vessel owners and vessel crew across fisheries, to better understand how regulations across fisheries affect fishermen in their work and also in their daily lives as individuals and community members. These data will enable further development of governance, stewardship, and well-being performance indicators. In addition, the socio-economic survey of vessel crew will provide needed demographic data on crew (which currently do not exist) and help to better understand how compensation to crew may be changing as fishing regulations change. NEFSC staff are also engaged in work to automate the production of basic performance measures for the Northeast's catch share and non-catch share fisheries, which will enable us to provide basic performance indicators for the other fisheries in the Northeast in a more widespread and timely manner.

Finally, these findings apply to the active participants that have remained in the groundfish fishery. However, they tell us little about the participants that are no longer actively fishing. The NEFSC is currently engaged in ethnographic research to be able to report on the social and economic experiences of fishermen that have transitioned out of the groundfish fishery into other fishing and non-fishing related activities.

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This report is produced through the collaborative efforts of several Social Science Branch (SSB) staff, and our work with staff in the Northeast Regional Office's Analysis and Program Support Division. However, the primary author for this year's report would like to call attention to some more extensive efforts led by particular co-authors that have pushed forward the NEFSC's ability to report on the economic performance of the groundfish fleet. Co-author John Walden calculated the Malmquist Index to measure fleet productivity and continues his research on measuring productivity and profitability in the Northeast's fisheries (see Walden and Kitts, 2013). Co-author Andrew Kitts was the lead author of the first annual groundfish report (Kitts et al. 2011) and is the sole author of Section 8 of this report, which accounts for the impacts of leasing activity on the distribution of net revenues received by the groundfish fleet. This has been

one of the NEFSC's goals for some time, and being able to incorporate this information into the annual economic performance report is a major step towards a fuller understanding of the profitability of groups within the groundfish fleet. Co-author Chad Demarest is the sole author of Section 5, which describes quota leasing activity in the fishery, and sets the stage for Kitts' work in Section 8. Finally, co-authors Daniel Cales (NERO) and David Records (NEFSC/SSB) worked together to identify issues within the DMIS data tool and correct for them appropriately, resulting in a more accurate dataset on groundfish vessels and therefore improving the information contained within this report for FY2009 to FY2012.

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