To: Parties Interested in the Northeast Multispecies Fishery
Fr: Michael Clayton
Founder, Cap Log Group, LLC
Dt: May 24, 2010
Re: Current Level of Consolidation of the Northeast Multispecies (Groundfish) Fishery

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Overview

The following paper attempts to understand the current concentration of landings among boats in the Northeast Multispecies (Groundfish) Fishery.[1] The analysis finds that approximately 20% of the vessels have consistently landed about 80% of the groundfish. It shows that, between 1996 and 2007, the number of vessels actively harvesting groundfish decreased more than the landings or revenue; in the same period, however, the relative concentration of the catch among boats did not change substantially.

Background and Process

In June 2009, the New England Fishery Management Council approved Amendment 16, which implemented new federal legal requirements to cap the amount of groundfish of any species permitted to be caught at levels prescribed by the Council's Scientific and Statistical Committee. Amendment 16 also enabled fishing vessels to join sectors for the purpose of collectively managing a portion of this total allowable catch for the 2010 fishing year. The Council instructed the National Marine Fishery Service (NMFS) to use the combined landings' history of sector members for a defined period of time to determine the portion of the catch allocated to each sector.

Fishermen, Council members and others have expressed concern that the allocation process, along with the reductions in the total allowable catch and the new management measures, will lead to consolidation of the fishery's available catch onto fewer vessels and will concentrate vessel ownership into fewer hands. Concentration of ownership is difficult to determine with the available data.[2] This white paper focuses on the historical distribution of catch among the vessels as recorded in the NMFS dealer database.

[1] The Gordon and Betty Moore Foundation funded this paper in conjunction with the Environmental Defense Fund.

[2] Note that a single owner may own a fleet with multiple vessels (in some cases, more than 20 vessels). Additional analysis is required to understand the landings in relation to individual owners.

To understand the potential for greater consolidation, Cap Log Group, LLC (CapLog) attempted to address the following questions:

- How is the catch currently distributed among permitted vessels?
- Has the concentration of the catch changed dramatically in the past decade?
- How has the number of boats changed in the past decade?
- Did the change in the concentration of the catch differ substantially between fleets by state (based on the vessels' home ports)?

In April, CapLog requested relevant aggregated data on the number of vessels and landings by vessels (by home port and offload port) from 1996 to 2009 from NMFS's Northeast Fishery Science Center.[3]

Framework for Understanding the Current Level of Concentration

Consolidation can be loosely defined as the process of concentrating market share in the hands of fewer companies or individuals. The level of concentration in relation to other industries can be measured by various standard indices that assess the size of active firms in relation to the overall market. Such an analysis is difficult in this fishery due to the limited information available on the owners of multiple vessels. As such, CapLog focused its analysis on the number of vessels active in the fishery over time and the size (in terms of annual landings) of the vessels active in the fishery. The level of concentration of the Northeast Multispecies Fishery can be described in terms of the following characteristics:

- <u>Number of vessels actively fishing in the fishery</u>
  How many vessels actually landed groundfish in the most recent fishing year available? How many would have landed enough to cover the costs of joining a sector? How many landed enough to fish groundfish exclusively (and profitably)? Did this distribution differ substantially by state or home port?

- <u>Percentage of the total harvest by the vessels with the most and least landings</u>
  In relation to the number of vessels that actually landed groundfish, how many vessels landed most of the fish (by weight)? What percentage of the total harvest did these vessels land? Did this distribution differ substantially by state or by home port? Has this distribution changed substantially in the past decade?

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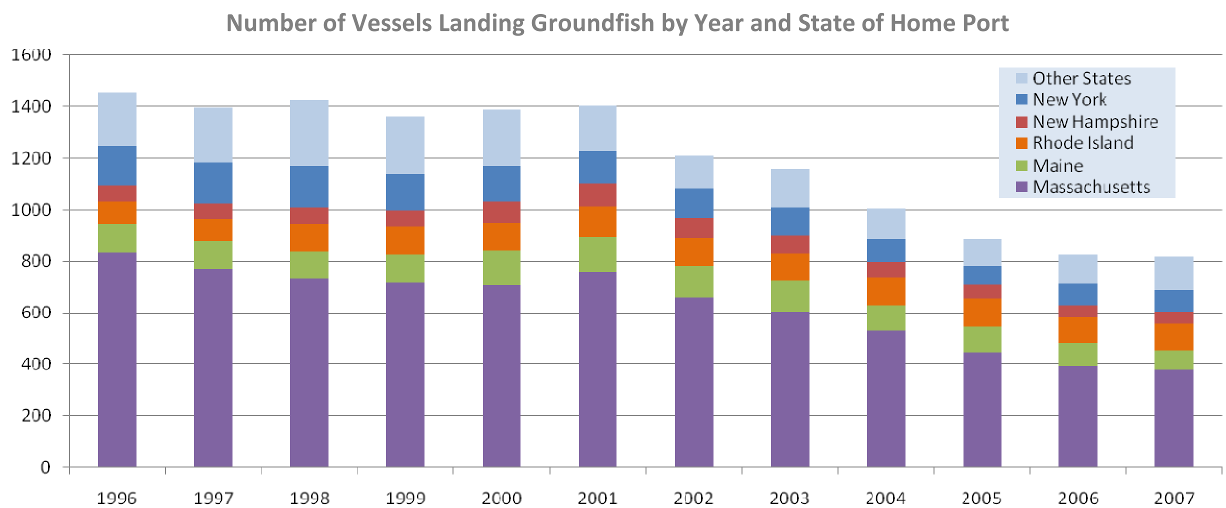
[3] The most recent data available from the Northeast Fishery Science Center was for the 2007 fishing year. The data included all vessels in the Northeast dealer database that landed groundfish. These vessels could be combination vessels (holding both sea scallop and groundfish DAS permits), sea scallop vessels (with some type of groundfish permit), or commercial vessels holding hook gear permits, small boat exemption permits and individual or fleet days-at-sea permits. Additionally, they could be party and charter vessels with commercial permits or handgear permits possibly held by recreational fishermen. Section 6.2.3 in the Environmental Impact Statement for Amendment 16 provides more information on permit categories and landings and revenue by permit category and gear type.

Key Findings

1. In the 2007 fishing year, NMFS authorized 2,822 open and limited access permits for the groundfish fishery. During that year, around 220 vessels landed enough groundfish to fish groundfish "full-time."[4] Another 290 vessels had substantial (but not "full-time") groundfish landings (more than 5,000 pounds but less than 75,000 pounds). Approximately 310 vessels, which possibly included many vessels with open access permits,[5] landed between one pound and 5,000 pounds of groundfish.

2. Between 1996 and 2007, the industry became more consolidated, with fewer vessels landing more pounds of fish per vessel (on average). As shown in the graph below, the number of vessels actively landing groundfish fell by about 40% (from around 1450 to about 820). The number of vessels landing enough to fish groundfish "full-time" fell by about 30% (from about 290 to around 220) while those fishing groundfish "part-time" fell by around 50%. In the same period, fleetwide landings decreased approximately 10%.



Between 1996 and 2007, all states except Rhode Island experienced a substantial decrease in the number of their "home port" vessels recording groundfish landings.

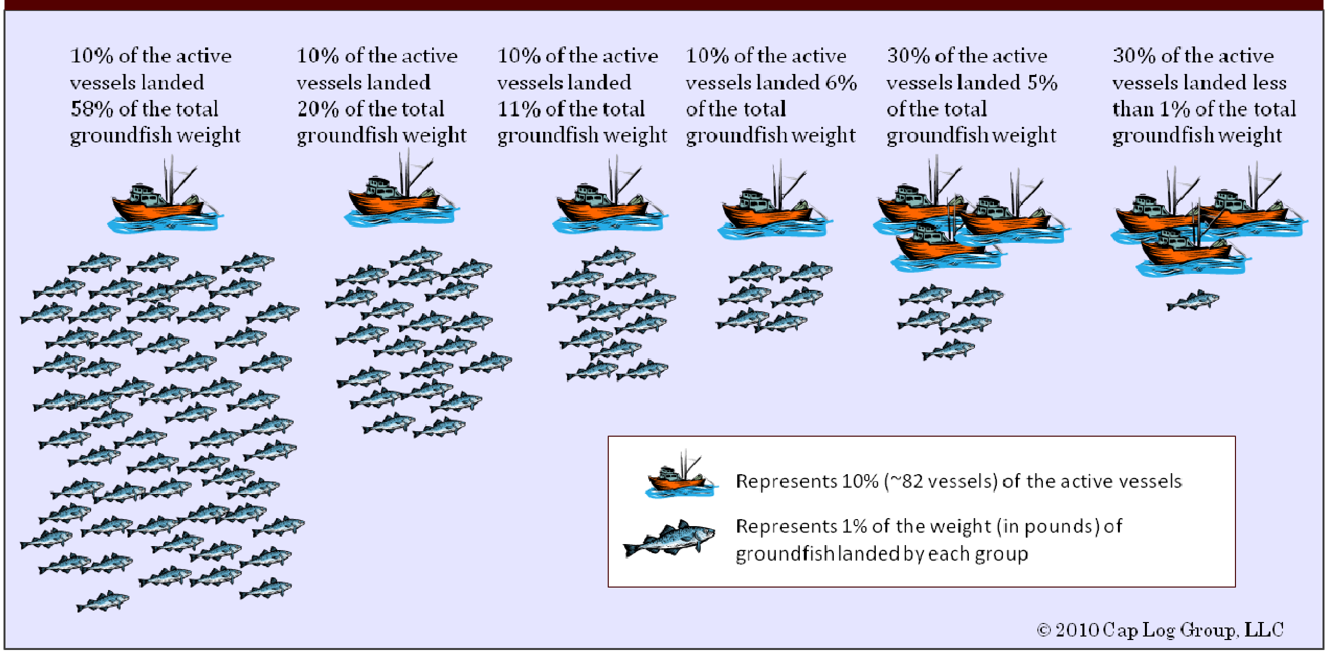
[4] For purposes of this overview, we have assumed that vessels would need to land at least 75,000 pounds of groundfish to have landed enough to fish these stocks "full-time." This rough assumption is based on the concept that a vessel would generate around $35,000 profit with 75,000 lbs at the average 2007 groundfish price of $1.20/lb with a trip profit margin of 50% and at least $10k of fixed costs. It should be noted that groundfish comprised less than half of total landings and less than half of total revenue for all groundfish permit categories from 2004-2007.

[5] About 45% (1292) of the total permits were open access "Handgear B" permits that authorized the permit holder to land up to 75 pounds of cod per trip and up to the possession limit restrictions for other NE multispecies. It is possible that many of the vessels landing between 1 and 5,000 pounds were open access vessels (e.g., vessels fishing in state waters, exempted species, northern shrimp or scallop) that can continue to land groundfish outside of the new management measures adopted under Amendment 16.

Massachusetts saw more than a 50% percent decrease, from 830 to 380 vessels. Major home ports saw changes in the number of vessels landing groundfish differ substantially, with Point Judith seeing the greatest increase (up 60%), Boston seeing the greatest decrease (down 80%), and other major ports such as Gloucester, Portsmouth, Portland and New Bedford experiencing less substantial decreases (down between 10% and 30%). Note that these numbers reflect the listed home port of the boats, not the port where groundfish were offloaded.

3. In 2007, around 820 vessels landed groundfish. Around 250 vessels (30%) harvested nearly 90% of the 60 million pounds of groundfish landed. In contrast, around 410 of the vessels (50%) together landed approximately 2% of the total groundfish harvest.

Relative Landings by Weight (2007) by Size of Fishing Operation



The fleetwide distribution of landings is consistent with the distribution of landings for the 2007 fishing year by state of home port. The landings by the top quartile (25%) of vessels (according to annual landings) ranged between 60% and 95% for each state.

4. The Northeast Multispecies Fishery has approximately followed the 80-20 rule for over a decade, at least. From 1996-2007, the distribution of landings remained fairly consistent with about 20% of the vessels harvesting around 80% of the groundfish. In contrast, about half the vessels landing more than one pound of groundfish caught under 5% of the total catch annually across the same period.

Commentary and Conclusion

The consolidation discussion is taking place following the rapid expansion of the groundfish, monkfish, sea scallop, and other regional fishing fleets that occurred in the 1970s and 1980s. The groundfish fleet doubled from approximately 600 active vessels in the early 1970s to approximately 1200 active vessels in 1980. These additional vessels tended to have greater fishing power than the older boats. Since at least 1996, the number of vessels in the Northeast Multispecies Fishery has been contracting more than the decline in landings and revenues; nevertheless, it is still larger than the groundfish fleet in the 1960s, which also had access to grounds now considered Canadian. Regardless of management measures, the regional fishing fleet may thus be going through an adjustment process that will bring it into balance with available resources and revenue.

That said, unlike in the past when the Council took no action to affect the level of consolidation in the fishery, the Council and sectors themselves could decide, as part of the sector approach, to address the consolidation issue. Doing so may reduce the overall efficiency and profitability of a more "naturally" consolidated fleet but, nevertheless, may be entirely appropriate to affect the future profile of the fishery. Below are a few of many factors that may impact future levels of concentration:

- The allocation methodology approved by the Council for sectors (generally based on the 1996-2006 fishing years), in effect, adopted the level of concentration of catch among the permits that existed in the fishery during the qualification period. Other allocation methodologies could potentially affect the future level of concentration.
- Single owners likely control multiple vessels landing the most fish, signaling an even more concentrated fishery than described above. Accumulation caps on individual owners could potentially affect the future level of concentration of ownership.
- The relatively high percentage of active vessels (310 vessels) landing between one pound and 5,000 pounds of groundfish suggests that many of the vessels in this fishery experience groundfish landings either as by-catch to another fishery or as a minor supplement to their core revenue. For those vessels in this category affected by Amendment 16 and thus eligible to join sectors (see footnote on Page 3), the fixed fee requirements (e.g., $2500 sector membership fee) that most sectors have implemented seemingly makes sectors economically impractical. For the 290 vessels deriving substantial "part-time" revenue from groundfish landings (between 5,000 and 75,000 pounds) and the 200 vessels landing "full-time" groundfish revenue in 2007, the fixed fee requirement seems to place a disproportionately higher cost on

those vessels landing less rather than more groundfish. Defining equitable ways to continue to provide access to "part-time" vessels (e.g., converting the membership fees to a deposit against landing fees) could affect the future level of consolidation.

- Many participants in the groundfish fishery support a permit buyout. The nature of a permit buyout is to consolidate the available catch onto fewer boats. The effect of a buyout on ownership concentration would depend on whether owners of multiple vessels were more or less likely to sell out than the owners of individual boats.

Additional Analysis and Information

Additional analysis, including the number of vessels and landings' distribution by state and by the major homeports in New England, is available by request at info@caploggroup.com. Additional data on the number of active permits by category and the total landings and landings of groundfish by permit category is available on the New England Fishery Management Council web site at http://nefmc.org/nemulti/index.html.

Company Background

The Cap Log Group, LLC seeks to help fishermen solve business and financial problems. The Group's unique network of fishermen, economists, entrepreneurs and bankers offers tools and services to help fishermen overcome business and financial challenges that appear during the transition to catch shares. It also provides data and information analysis to help interested parties understand the economic profiles of commercial fisheries.