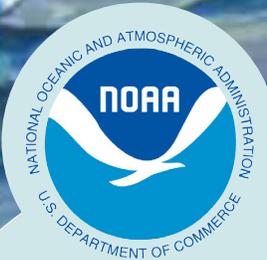


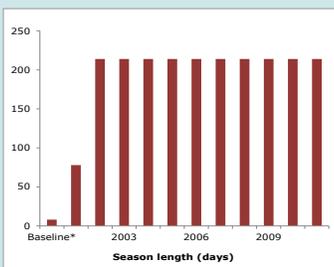
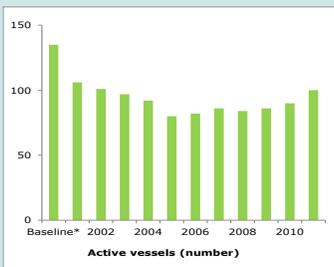
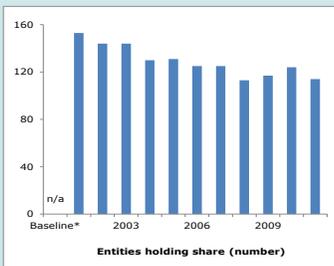
NOAA Catch Share Performance Indicator Series

Pacific

Pacific Coast Sablefish Permit Stacking Program



NOAA
FISHERIES
Science & Technology



NOAA Fisheries has developed standard indicators to measure the economic performance of individual U.S. catch share programs over time. To calculate these metrics catch, effort, landings, revenue, share accumulation and cost recovery data are used.

Management History: Overcapacity in the Pacific sablefish fishery during the 1990's led to derby fishing, seasons as short as five days long, market gluts, and compromised safety at sea. As a first step in controlling the derby, the Pacific Fishery Management Council implemented a system in which each permit is assigned a maximum harvest level. With the end of the Magnuson-Stevens Act moratorium on new individual quota systems, the Council was able to extend the season length to seven months, effectively making the individual permit's maximum harvest level into defacto quotas. In the same action, the Council allowed the "stacking" (combining) of up to three sablefish permits, making the fishery more economical.

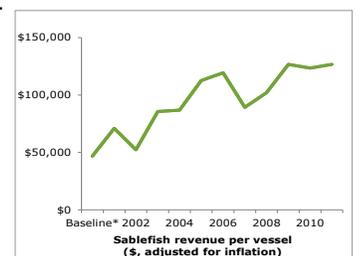
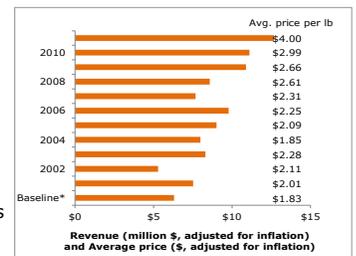
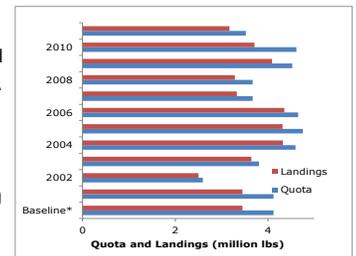
Objectives: The Pacific Coast Sablefish Permit Stacking Program (Program) was developed by the Pacific Fisheries Management Council as Amendment 14 to the Pacific Groundfish Fishery Management Plan. The catch share program manages 85% of the sablefish allocated to the limited entry groundfish fixed gear fishery, which is about 30% of all commercially harvested sablefish on the West Coast. The Program aims to improve economic efficiency, increase benefits for fishing communities, promote equity, mitigate reallocation effects of previous harvest regulations, promote safety, and improve product quality and value.

Key Management Events: Under the Program, each permit is associated with an individual quota (based upon a vessel's historical catch), and owners may register more than one sablefish endorsed permit (and associated quota) to their vessel. This stacking allows the number of overall vessels participating in the fishery to decline without reducing the total quota allocation. Amendment 14 to the Fishery Management Plan prohibited permit ownership by corporations and partnerships, and included an owner-on-board requirement, introduced in order to preserve the owner-operator nature of the fleet.

Quota allocated to the Program was reduced by 37% in 2002 when compared to the previous year. Quota was subsequently increased (by 47%) the following year and followed an upward trend until 2006. In 2006 and 2007, the quota was again reduced by 2% and 21% when compared to the previous years, respectively. Sablefish quota increased for the following three years and was reduced in 2011 by 24%, relative to 2010. These reductions in quota were implemented to manage Pacific Coast Sablefish stocks and would have occurred regardless of whether the catch share program was implemented.

Performance Trends: The fishery opens on April 1 and ends on October 31 of the same year. Information is shown for 2001 onwards; however, the Permit Stacking Program was only partially implemented in 2001 therefore this was an incomplete fishing year. Amounts reported are based on sablefish harvested in the primary limited entry groundfish fixed gear fishery and do not include sablefish harvested in the daily fishery component of the limited entry fixed gear fishery. Revenue and pricing information are presented in real terms (adjusted for inflation with the GDP 2010 index).

Economic efficiency, as measured by revenue per vessel, improved significantly under the Program. Revenue per vessel in 2011 is 165% greater than in the Baseline Period*. The Program was also successful in reducing capacity, with the number of vessels active in 2011 26% less than in the Baseline Period*. The number of entities holding shares also declined over the course of the Program, from 154 in 2001 to 114 in 2011. The Program also ended derby fishing, with season length increasing from five days a year to over 200 days annually.



For more information contact:

Ayeisha Brinson
ayeisha.brinson@noaa.gov

Eric Thunberg
eric.thunberg@noaa.gov

*Baseline Period refers to the average of three years prior to implementation of the Pacific Coast Sablefish Permit Stacking Program (1998 - 2000).
U.S. Department of Commerce | National Oceanic and Atmospheric Administration | National Marine Fisheries Service

Cost Recovery Fees: The Magnuson-Stevens Act authorizes the Secretary to adopt regulations implementing a cost recovery program to recover the actual cost of managing and enforcing limited access privilege programs.

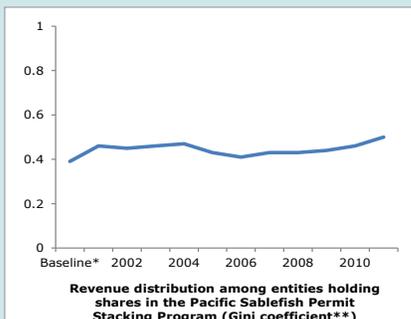
Cost recovery provisions have not yet been implemented in this Program. The Council is working to incorporate cost recovery provisions in the future.

Share Caps: The purpose of excessive share caps is to prevent individuals from controlling production and prices, as well as to achieve management objectives, per the Magnuson-Stevens Act and the National Standards.

There is no explicit share cap for sablefish. Sablefish is allocated to permit holders based on three different tier levels, and no vessel may hold more than three permits. Given the limit associated with each permit, the implicit share cap for any one vessel is 4.2%.

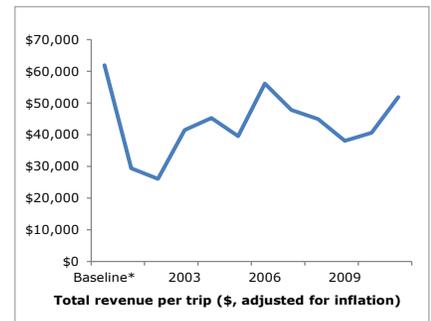
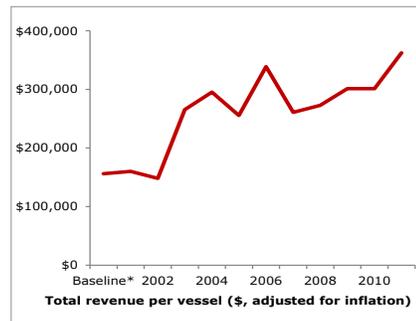
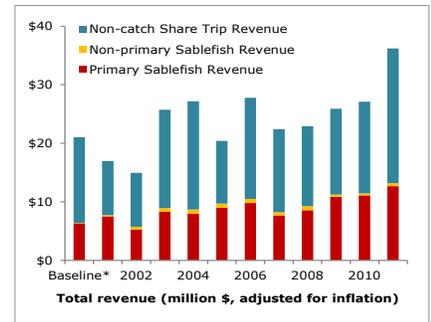
Revenue Distribution: The Gini coefficient measures the evenness of a distribution. Here, it measures the distribution of revenue among entities holding shares in the Pacific Coast Sablefish Permit Stacking Program. A value of 0 indicates that all shareholders earn the same amount of revenue, while a value of 1 indicates that one shareholder earns all of the revenue.

The Gini coefficient calculated for the Pacific Coast Permit Stacking Program was 0.39 in the Baseline Period* and 0.46 in 2011. It subsequently increased to 0.50 in 2011.



**0 = perfect equality; 1 = perfect inequality

Total Revenue: Vessels participating in the Program generate revenue on primary sablefish trips from both sablefish and non-sablefish landings. In addition, these same vessels also participate in other fisheries (including non-catch share programs), and this revenue contributes to their total revenue. Over the course of the catch share program history, total revenue was lowest in 2002 at \$14.9 million and greatest in 2011 at \$36.2 million, amounting to a more than 72% increase when compared to the Baseline Period*. Total revenue increased in all but four years between the Baseline Period* and 2011. Declines in two of those years (2002 and 2007) coincided with declines in the quota allocated to the catch share program and catch share species revenue, as well as declines in the non-catch share trip revenue. In 2005, the decline in total revenue came from a decrease in non-catch share trip revenue. The 2001 total revenue decline coincided with a substantial decline in non-catch share trip revenue.



Total revenue per vessel and total revenue per trip: Total revenue per vessel increased in all years except for 2002, 2005, 2007, and 2010. Declines in catch share quota coincided with falling catch share revenues in 2002 and 2007 (see above); whereas, the decline in total revenue per vessel in 2005 coincided with a decline in non-catch share trip revenue. The 2010 decline in total revenue per vessel is most likely due to an increase in the number of active vessels participating in the Permit Stacking Program. In 2011, total revenue per trip was \$52,000, a 16% decline over the Baseline Period* value.

Catch Limits: Following implementation of the catch share program, catch limits have not been exceeded in the Pacific Coast Sablefish Permit Stacking Program.

For more detailed information on the Pacific Coast Sablefish Permit Stacking Program, please visit: <http://www.nwr.noaa.gov/fisheries/management/sablefish.html>

More fact sheets can be found at: <http://www.st.nmfs.noaa.gov/economics/fisheries/commercial/catch-share-program/fact-sheets/index>

For more information on catch share programs: http://www.nmfs.noaa.gov/sfa/domes_fish/catchshare/index.htm

*Baseline Period refers to the average of three years prior to implementation of the Pacific Coast Sablefish Permit Stacking Program (1998 - 2000).