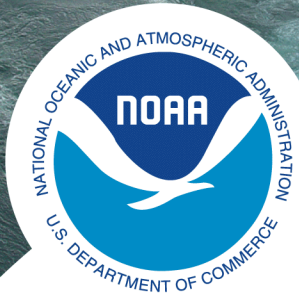




Halibut and Sablefish IFQ Program Review – Review Draft



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Presentation to the NPFMC
Marysia Szymkowiak

October 2016



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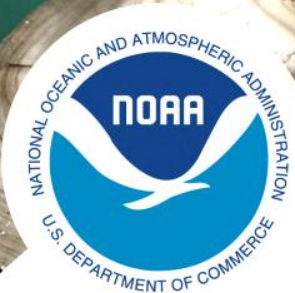
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Presentation objective

- Walk through the IFQ Review
 - Highlight the key findings of each section
 - Note the objectives that the program may not have met or may not be currently meeting
- Feedback on any necessary improvements to this iteration of the IFQ Program Review
- Identify which data and information gaps are most critical to evaluation of the IFQ Program, for future reviews

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Requirement and scope of the review



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IFQ Program Review was conducted to be in compliance with the Magnuson-Stevens Act (MSA)

- MSA does not specify a checklist of required elements for LAPP reviews

Council, AP, and SSC reviewed and approved the work-plan for the review

- Performance of the program in relation to its 10 original policy objectives
 - Plus, entry opportunities and NMFS management issues



Limitations of the Review

Evaluating programmatic success is difficult

- Some programmatic objectives are inherently conflicting
- Objectives are broad and do not include specific, measurable targets

Causal claims are largely not made

- Except from previously-conducted research

Examine trends in metrics, which are consistent with programmatic objectives

Draft review with Council, AP, SSC, and public comment informing revisions



Data and information utilized

Quantitative data sources

- Harvest and administrative data - NMFS RAM and AKFIN
- Processor data - ADF&G's COAR data
- Loan data - NMFS's IFQ loan program data and Alaska DCCED's loan data
- Biological management data – IPHC and AFSC
- Monitoring and enforcement data – NOAA and USCG
- Safety data – NIOSH and USCG

Qualitative information

- IFQ crew workshop held at April 2016 Council meeting
- Conversations with processor representatives, a tender representative, and IFQ participants

Baseline period

- Average of the values of the 3 years preceding the IFQ program (1992 through 1994)
- Less strategic behavior (IFQ program was adopted by Council in October 1992)
- Concerns about reliability of data further back in time



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1.2 Description of the IFQ Program

QS issued by vessel class

QS block program and sweep up provision

- 20K pounds or less in 1994 issued as blocked
- Small QS blocks can be “swept-up” into larger blocks

Fish up/fish down provisions

- Move IFQ across vessel classes

Overage/underage provision

- Up to 10% of remaining balance may be adjusted in following year

IFQ leasing and hired master use

- Leasing allowed for Class A IFQ and catcher vessel IFQ under medical, beneficiary, military, CQE, and GAF leases

QS use and vessel IFQ caps

- Southeast Alaska specific caps



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2.1 Overarching trends and external impacts on IFQ participants

2.1.1 Changes in season duration, TACs, and revenues

- Elongation of seasons from 24-hour openers to 8+ months
- TACs have generally declined since 2004
 - After halibut TAC increase (relative to baseline) in late 1990s
 - Sablefish TACs have been lower than baseline but were increasing in early 2000s
- Increasing ex-vessel prices buffered TAC declines

2.1.2 Impacts on IFQ fishermen external to the IFQ Program

- More limited entry and catch share programs and increasing entry prices, decreasing TACs and revenues in some alternative fisheries, and migration of fishing permits from rural communities
- Diversification more important for lenders
- Increasing USCG and EPA regulations

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2.2 Initial Allocation Process



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Based on a three-year qualifying period (1988-1990) and the sum of the best five years of landings (mid 1980s to 1990)

- To those who had owned or leased a vessel with fixed gear halibut or sablefish landings
- Allowed the Council to fulfill Objectives 2 and 3
 - Link initial allocations to recent dependence (Obj. 2)
 - Broadly distribute QS (Obj. 3)
- QS allocated to larger number of participants than would have participated in any one year
- QS allocations that resulted in uneconomical amounts of IFQ
 - Large QS transfer rates in first several years of IFQ
 - Council adjusted policies on consolidation of small QS amounts – increasing pounds for sweep ups

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2.3 Harvesting flexibility, capacity, and consolidation



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- Several IFQ Program objectives relate to addressing issues with overcapacity while limiting consolidation and maintaining fleet diversity:
 - Objective 1 – excess harvesting capacity, allocation conflicts, gear conflicts, product wholesomeness
 - Objective 4 – maintain the diversity in the fleet with respect to vessel categories
 - Objective 7 – limit the concentration of QS ownership and IFQ usage that will occur over time
- Section 2.3 consists of several sub-sections

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Sections 2.3.1 & 2.3.2



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2.3.1 Gear Conflicts

- Objective 1
- IFQ expected impacts
 - Decrease gear conflicts b/w fixed-gear fishermen
 - Maybe increase conflicts b/w fixed-gear and trawl fishermen
- No quantitative data on gear conflicts
 - Previous research indicated reduction in congestion on fishing grounds (Knapp, 1997; Sigler and Lunsford, 2001)
- Council has iteratively lifted restrictions on longline pot gear in the sablefish IFQ fishery

2.3.2 Allocation Conflicts

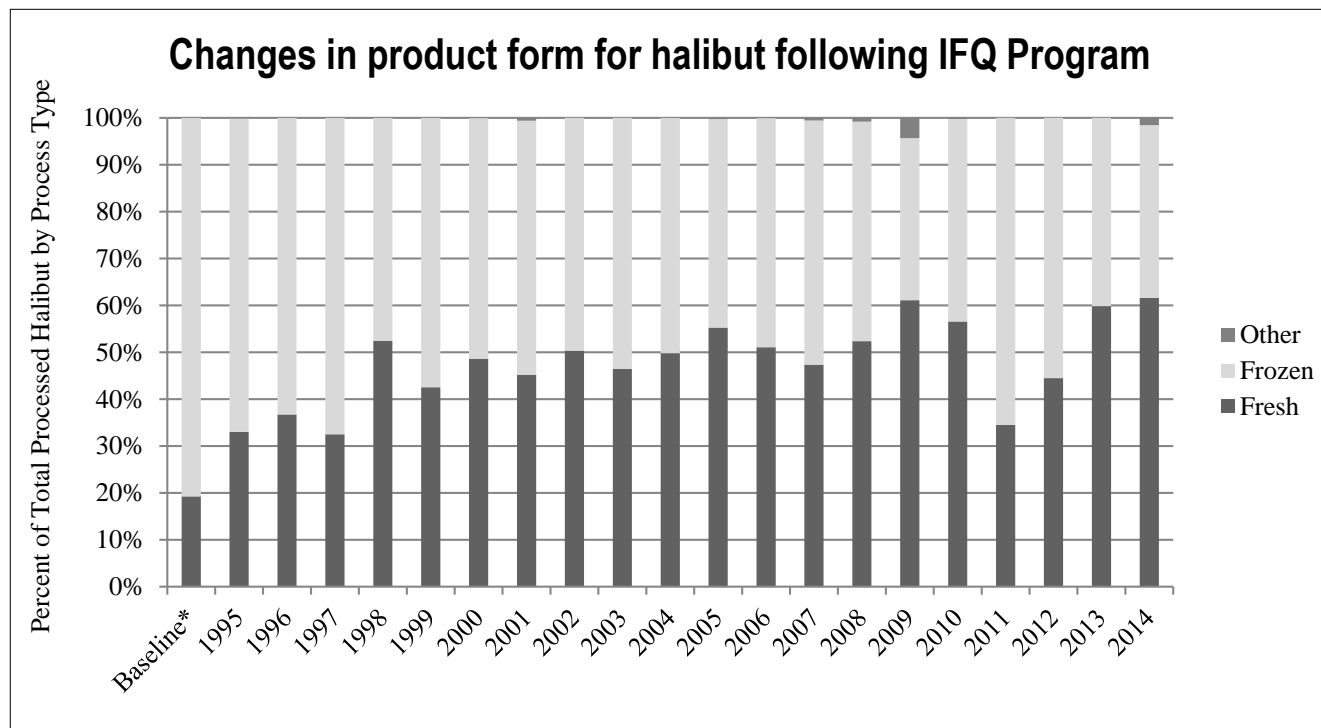
- Objective 1
- Section focuses on administrative appeals over initial allocations
- 18% of initial QS applications were denied
 - 10% (191) appealed
- Impetus for allocation appeals seems to have diminished over time



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2.3.3 Product Wholesomeness



- Objective 1 – product wholesomeness
- Wholesale and ex-vessel prices have increased for both species
- Research indicates increase in price as a result of IFQs for both species (Hermann and Criddle, 2006; Warpinski, Hermann, Greenberg and Criddle, 2016)

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2.3.4 Harvesting Flexibility

- Underage/overage provision is highly utilized
 - Uncertainties over CPUE
 - May prevent highgrading
 - Annual underage adjustments exceed overage adjustments
 - Overage violations (above 10%)
 - 0.7% to 1.2% of all IFQ permit accounts from 2005 to 2015
- Area 4C IFQ and CDQ harvest in Area 4D (2005)
 - In response to low catch rates and localized depletion
 - Combined harvests of 4C and 4D TACs have increased
 - Annual underage adjustments have decreased slightly for 4C and increased slightly for 4D
 - Increased competition

2.3.5 Fleet Diversity



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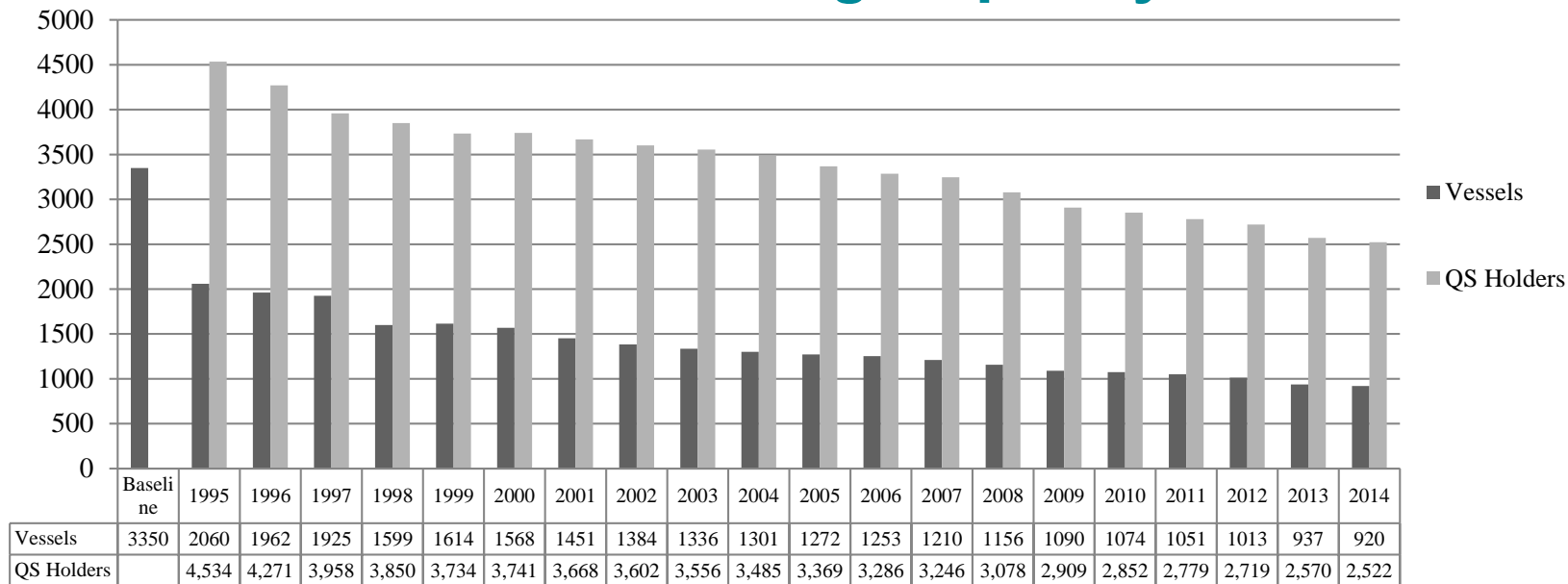
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- Objective 4 – maintain the diversity in the fleet with respect to vessel categories
- QS distributions fixed at initial allocation
- Fish up and fish down amendments allow for movement of IFQ between classes
 - Halibut – increasing portion of landings on mid-size vessels (35 to 60 ft.) and composition of fleet is changing towards these vessels
 - Sablefish – after a slight increase in landings by larger vessel class, composition of fleet has gone back to baseline
- Diversification
 - Increase in percent of vessels fishing across multiple IFQ areas and both IFQ fisheries
 - Kasperski and Holland (2013) found sig. reduction in diversification following IFQ
- Production efficiency costs
 - 25% and 9% of gross ex-vessel revenues for halibut and sablefish, respectively (Kroetz, Sanchirico, and Lew 2015)

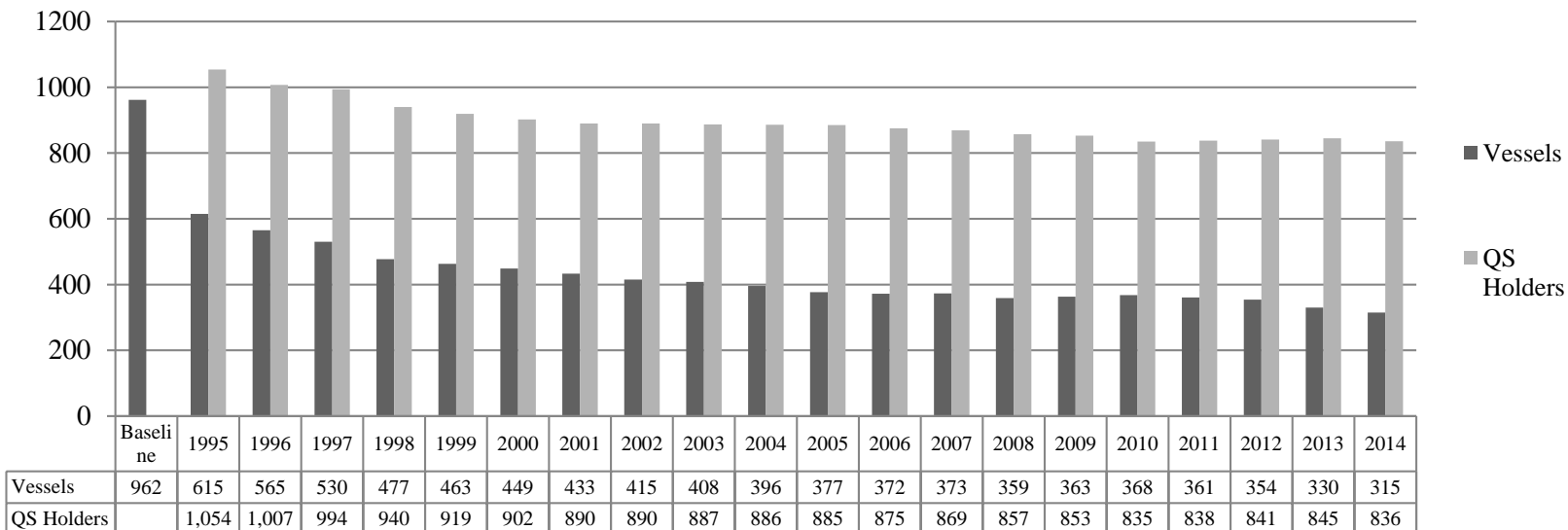
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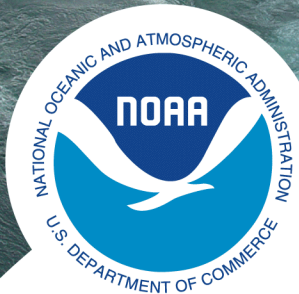
2.3.6 Harvesting Capacity

Halibut



Sablefish





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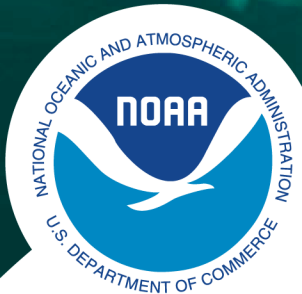
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2.3.6 Harvesting Capacity

- Objective 1 (excess harvesting capacity) and Objective 7 (limit consolidation)
- IFQs have contained harvesting capacity - harvests have not exceeded TACs
- Vessel IFQ caps and QS use caps are generally not constraining
 - Although percent of vessels and QS holders near cap has generally increased
 - 5-6% of vessels, 1-4% of QS holders within 10% of “all areas” caps
 - Sablefish Southeast vessel use cap is most binding (21% of vessels)
- Gini and HHI of vessel IFQ revenue distributions
 - Gini: measures evenness of a distribution
 - Halibut – less even distribution of revenues since IFQ
 - Sablefish – more even distribution of revenues since IFQ
 - HHI: measures market concentration
 - Halibut & sablefish – increase in revenue concentration since IFQ

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2.4.1 Crew Impacts



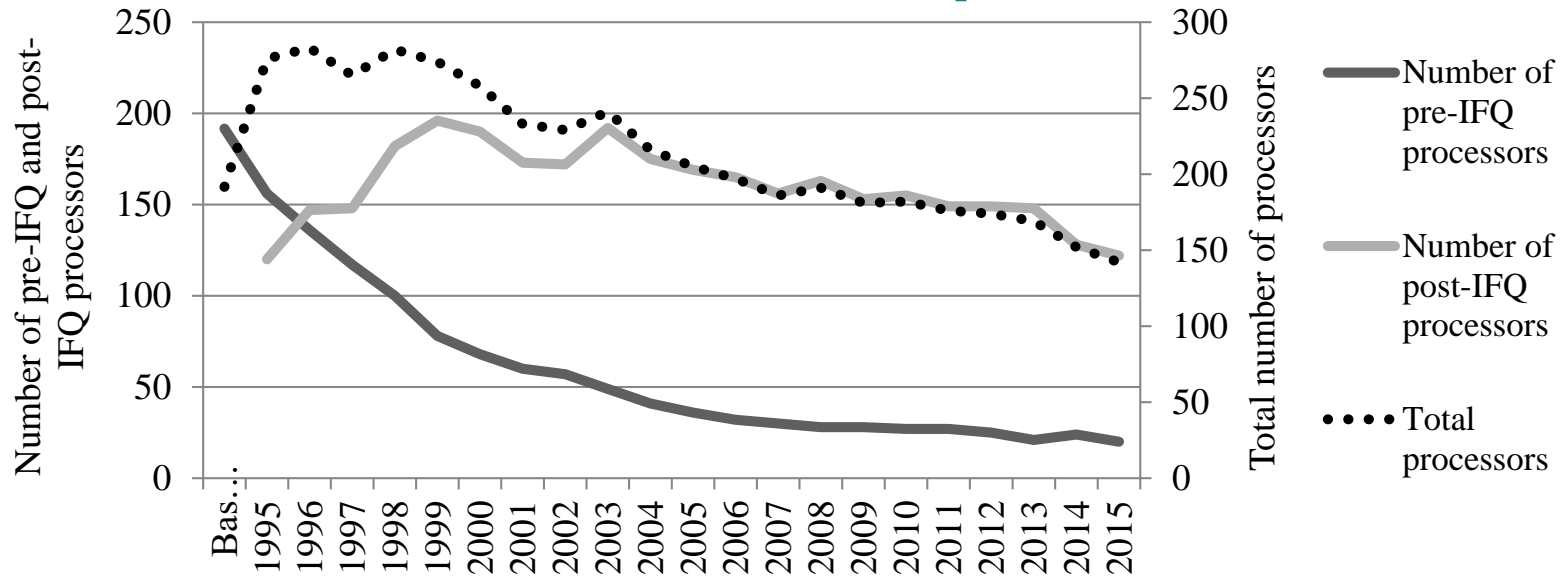
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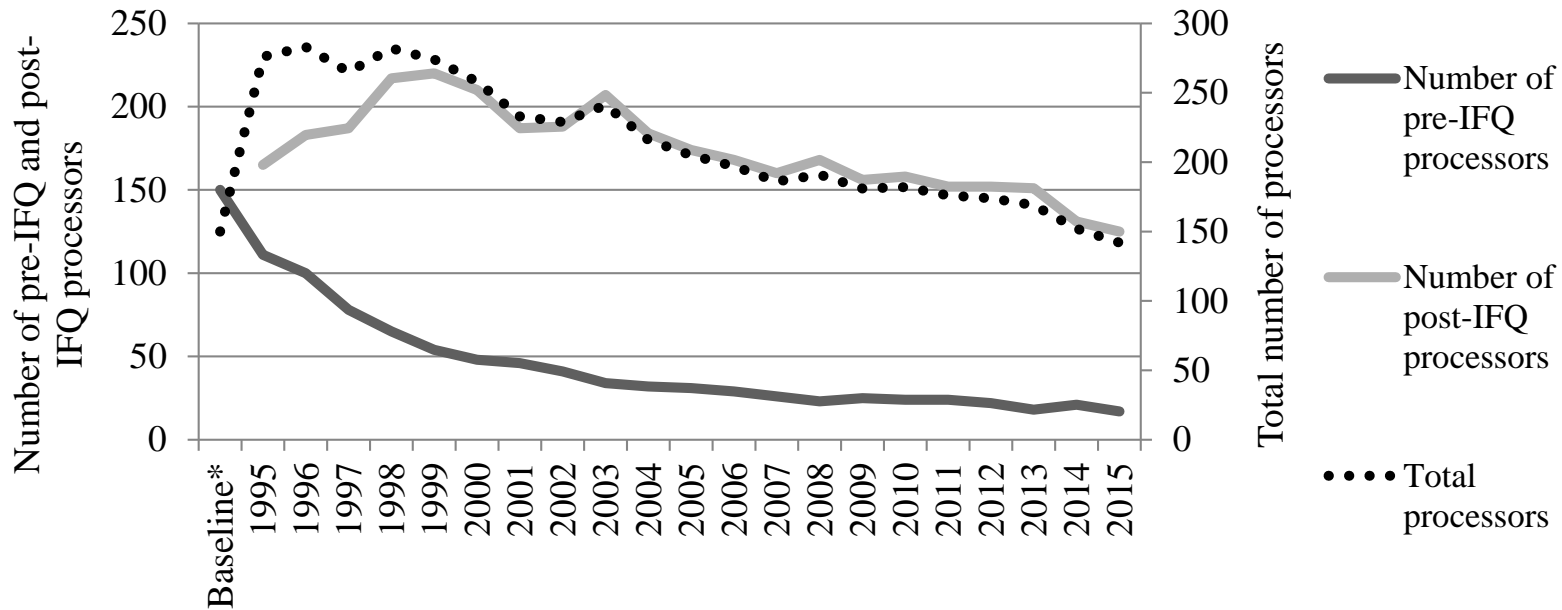
- Objective 5 - Maintain the existing business relationships among vessel owners, crews, and processors
- Crew Impacts
 - Dearth of data > IFQ crew workshop and previous research
 - Loss of several thousand crew jobs
 - Likely decrease in bargaining strength & crew shares
 - Average crew earnings have likely increased and become more stable, though not for all participants
- IFQ Program changed the business relationships b/w vessel owners and crews
- **Obj. 5 may or may not have been met**

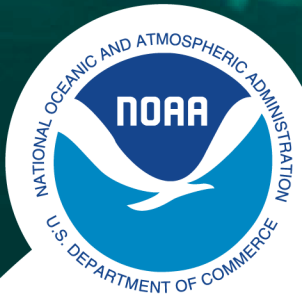
2.4.2 Processor Impacts

Halibut



Sablefish





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2.4.2 Processor Impacts

- Objective 5 - Maintain the existing business relationships among vessel owners, crews, and processors
- Increasing diversification of pre-IFQ processors into the other IFQ species
- Decreasing bargaining strength for processors
 - As demonstrated by changing processor price margins and previous research
 - Relative to pre-IFQ, more equal with harvesters
- Role of tenders was eliminated
- **Obj. 5 may or may not have been met**

2.5 Owner-operator characteristic

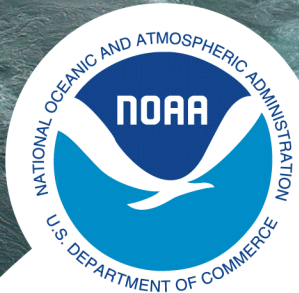


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- Objective 6 - Assure that IFQ fisheries are dominated by owner/operator operations.
- Owner-operator rules focus on catcher vessel QS
- Increase in formal leasing of catcher vessel IFQ
 - Beneficiary, medical, CQE, and GAF
 - Repeated use of medical lease provision
 - 2 out of 5 years for the same medical condition
- Increase in hired master use for catcher vessel IFQ harvest
 - Despite transfers of catcher vessel QS to individuals and regulatory amendments
 - From 1995 to 2014, halibut - 13% to 40%; and sablefish – 12% to 55% of total harvest
 - Although, decrease in hired master use over the last several years
- Some evidence of increasing lease rates
- Formidable incentives for leasing > walk-ons, ride-ons
- **Objective 6 may or may not have been met**

2.6 Entry Opportunities

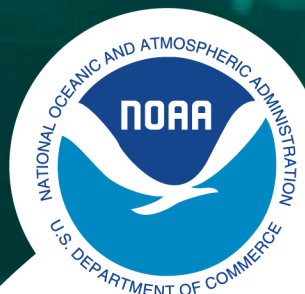


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- Provisions included in the program to provide entry opportunities
 - Block program, fish down provision, vessel and QS use caps
- New entrants hold a majority of the QS in both fisheries
 - Smaller average holdings than initial recipients
 - QS holdings distributions across the vessel classes are generally aligned with total distributions across the classes
 - Rate of entry has fallen over time
- Right-skewed age distribution of initial recipients and increasing use of hired masters > likely stymied new entry opportunities
- Gift QS transfers and transfers b/w family members have increased
 - Tax considerations
- Lenders increasingly relying on secondary collateral, income diversification, and down payments to assess credit risk

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2.7 Community Impacts

- Objective 1 - Provide economic stability to coastal communities;
- Objective 8 - Limit the adjustment costs to Alaska coastal communities;
- Objective 9 - Provide rural coastal communities adjacent to the Bering Sea with the opportunity to participate in the IFQ fisheries (CDQ Program)
- Shoreside landings at Alaska processors of both IFQ species have increased
- Proportion of QS held by Alaska residents has been stable, decreased slightly for WA residents, remained stable for OR residents, and increased slightly for residents of other states
- For both IFQ fisheries, there have been substantial changes in processing and harvesting engagement at the community level since IFQ
 - Communities' engagement may be high in one sector and not the other and may have changed differently since IFQ
- This sub-set of Objective 1 and Objective 8 may or may not have been met
 - Depending on whether one considers impacts at the aggregated level or for individual communities, the baseline used, the metric, etc.

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2.7 Continued



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- Objective 1 - Rural coastal community development of a small boat fleet
- IFQ Program Review examined changes in IFQ landings and QS holdings for “rural” Alaska communities
 - Rural = community with population of fewer than 2,500 people
 - The percent of IFQ landed in rural Alaska communities has been relatively stable
 - Movement of landings away from more remote communities
 - Of the total QS held by Alaskans, the percent held by rural Alaska residents has remained relatively stable
 - Movement of QS holdings away from more remote communities
- This sub-set of Objective 1 may or may not have been met
 - Depending on how rural communities are defined, baseline, metric

2.8 Safety



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- Objective 1 – 10 problem areas: safety
- USCG search and rescue data and the NIOSH safety assessment both indicate a slightly decreasing trend in hazards following IFQ
 - IFQ crew workshop participants noted safety improvements due to the IFQ program and USCG requirements
- Fatalities have continued to occur post-IFQ



2.9 Biological Management

Deadloss from lost or abandoned gear (Obj. 1)

- Amount of halibut mortality due to lost or abandoned gear decreased after IFQ
- No estimates available for sablefish

Bycatch loss (discards of non-target groundfish) (Obj. 1)

- Discards of other groundfish by the sablefish IFQ fleet have decreased relative to pre-IFQ period
- No estimates available for halibut

Discard mortality (Obj. 1)

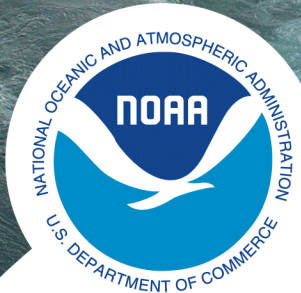
- IFQ Program could have incentivized high-grading
- Discards (in metric tons and as a rate) of sablefish for the sablefish IFQ fleet have been above pre-IFQ baseline
- Sub-legal size discard mortality of halibut has increased since IFQ
 - High-grading of legal-size halibut is assumed to not occur



2.10 Inseason Management

- Potential need for an incidental catch allowance (ICA)
- No TAC is set aside for sablefish caught incidentally in other fixed-gear fisheries (e.g. Pacific cod)
 - Must be discarded and accrues toward the TAC
- Fixed-gear sablefish harvests have exceeded fixed-gear TACs in some areas of the Gulf in some years
- Trawl allocation has generally provided a buffer
 - However, CGOA and WY TACs have been exceeded several times
 - Increased utilization of trawl TAC
 - Total harvest has remained below the area-wide TACs and area-wide ABCs
- NMFS does not consider a management issue but is continuing to monitor it

2.11 Other Issues



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2.11.1 Recordkeeping and reporting

2.11.2 Observer Program

2.11.3 Monitoring and enforcement

- NOAA OLE identified two issues of concern for the IFQ fleet:
1) false reporting of the area of harvest; 2) multiple area violation
 - VMS could be required to address both of these issues

2.11.4 Management costs and recovery

2.11.5 Housekeeping

- Surviving heir provisions – no regulatory definition of “immediate family member”
 - Amend IFQ regs to *court appointed representative* for the QS holder’s estate
- Revise regulations about administrative appeals process
- Remove regulations on initial QS issuance

2.12 Native Village of Eyak



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- The Tribe's proposal for an IFQ allocation
 - 1,502,823 QS units in any vessel class in Area 3A
 - 50% immediately, other 50% over next four years based on TAC increases
 - Regardless of TAC changes, full QS allocation by year 5
 - Equivalent to 0.81% of 3A QS pool or 59,147 pounds in 2016
 - Decrease the percentage of the TAC that each QS holder receives
- The Tribe's past litigation on the IFQ Program
 - 1995 – lawsuit on basis of aboriginal title and exclusive hunting and fishing rights to GOA areas of the EEZ
 - 1998 – IFQ program restricts the exercise of non-exclusive aboriginal hunting and fishing rights in the EEZ
- Description of the Tribe's past request for tribal consultations of IFQ allocations
 - No formal tribal consultations requirements in effect during IFQ Program Development
 - Tribe requested IFQ allocations in a December 12, 1994 letter to NMFS
 - Past the July 15th application deadline for QS
 - No record of one or more vessels owned by the Tribe that would have qualified it for QS

3. Key findings, data and info gaps, potential research interests



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Programmatic provisions of concern

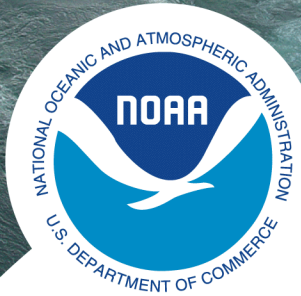
- Sweep-up provision may not be working to facilitate sweep ups
 - Sweep-able holdings represent a small percent of total QS pool; however a considerable percent of persons hold sweep-able QS
 - No. of sweep-up transfers has decreased substantially since IFQ
- Use of medical lease provision
 - Consecutive years of use by a few QS holders
 - Two administrative concerns with the provision
 - NMFS recommends discussion paper

Data and information gaps

- Crew data, VMS data, gear conflicts, lease rates, biological management issues (links between IFQ program and size-at-age, localized depletion, and overall stock health)

Potential research interests

- Entry opportunities, community impacts, QS holders' operational decisions, effects of area-specific regulations, income diversification, processor impacts, variability in violations, CQE program, GAF usage



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10 Original Policy Objectives

1) 10 problems that occurred with the open-access management regime or could emerge from the IFQ Program:

1) allocation conflicts; 2) gear conflicts; 3) fishing mortality due to lost gear; 4) bycatch loss of halibut and sablefish in other fisheries; 5) discard mortality for halibut and other retainable species in the halibut and sablefish fisheries; 6) excess harvesting capacity; 7) product wholesomeness as reflected in halibut and sablefish prices; 8) safety; 9) economic stability in the fixed gear halibut and sablefish fisheries and communities; and 10) rural coastal community development of a small boat fishery.

2) Link the initial QS allocations to recent dependence on the fisheries.

3) Broadly distribute QS to prevent excessively large QS from being given to some persons.

4) Maintain the diversity in the fleet with respect to vessel categories.

5) Maintain the existing business relationships among vessel owners, crews, and processors

6) Assure that those directly involved in the fishery benefit from the IFQ Program by assuring that these two fisheries are dominated by owner/operator operations.

7) Limit the concentration of quota share ownership and IFQ usage that will occur over time.

8) Limit the adjustment cost to current participants including Alaskan coastal communities.

9) Increase the ability of rural coastal communities adjacent to the Bering Sea and Aleutian Islands to share in the wealth generated by the IFQ Program.

10) Achieve previously stated Council goals and objectives and meet MSA requirements.

Data and Information Gaps



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Crew data

- No. crew jobs, crew shares, crew earnings
- Crew size field on fish tickets added in mid-2000s

VMS data

- Could be used to detect violations and provide spatial data for analysis of other things (e.g., gear conflicts)

Gear conflicts

- Council could seek systematic info through survey

Lease rates

- Percent of ex-vessel revenue that the QS holder receives
- Important determinant in how IFQ participants behave and provide information on profitability

Biological management issues

- Links between IFQ program and size-at-age, localized depletion, and overall stock health

Potential Research Interests



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QS holders' operational decisions

- Behavioral choice models of entry/exit, QS diversification, QS holder coordination, etc.

Effects of area-specific regulations

- Counterfactual analysis, D-I-D modeling

Vessel and individual QS holder income diversification

- Can help the Council understand potential impacts of IFQ changes and spillover effects
- AFSC is undertaking a study to examine income diversification at QS holder level

Processor impacts

- Market concentration in the processing sector (HHI), reasons for exit, processor diversification, and shifts in bargaining strength

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Potential Research Interests (cont.)

Entry Opportunities

- Responses to regulations, buying/selling QS decisions (residency factors), count of new entrants, social network analysis of QS transfer networks, and differentiated QS acquisition by recipients of gifted QS

Community Impacts

- Council could choose to define rural, and airport/road access differently
- IFQ impacts on specific communities – econometric or ethnographic techniques

Variability in violations

- Model violations as a factor of permit-holder attributes/area-specific regulations
- Provide NOAA OLE with better understanding of how to allocate enforcement efforts

CQE Program

- Examine community-level issues with QS acquisition and IFQ leasing

GAF usage

- AFSC survey of CHP holders and usage of the GAF program from commercial perspective

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