



Allocating Quota to Processors: US West Coast Shoreside Pacific whiting fishery

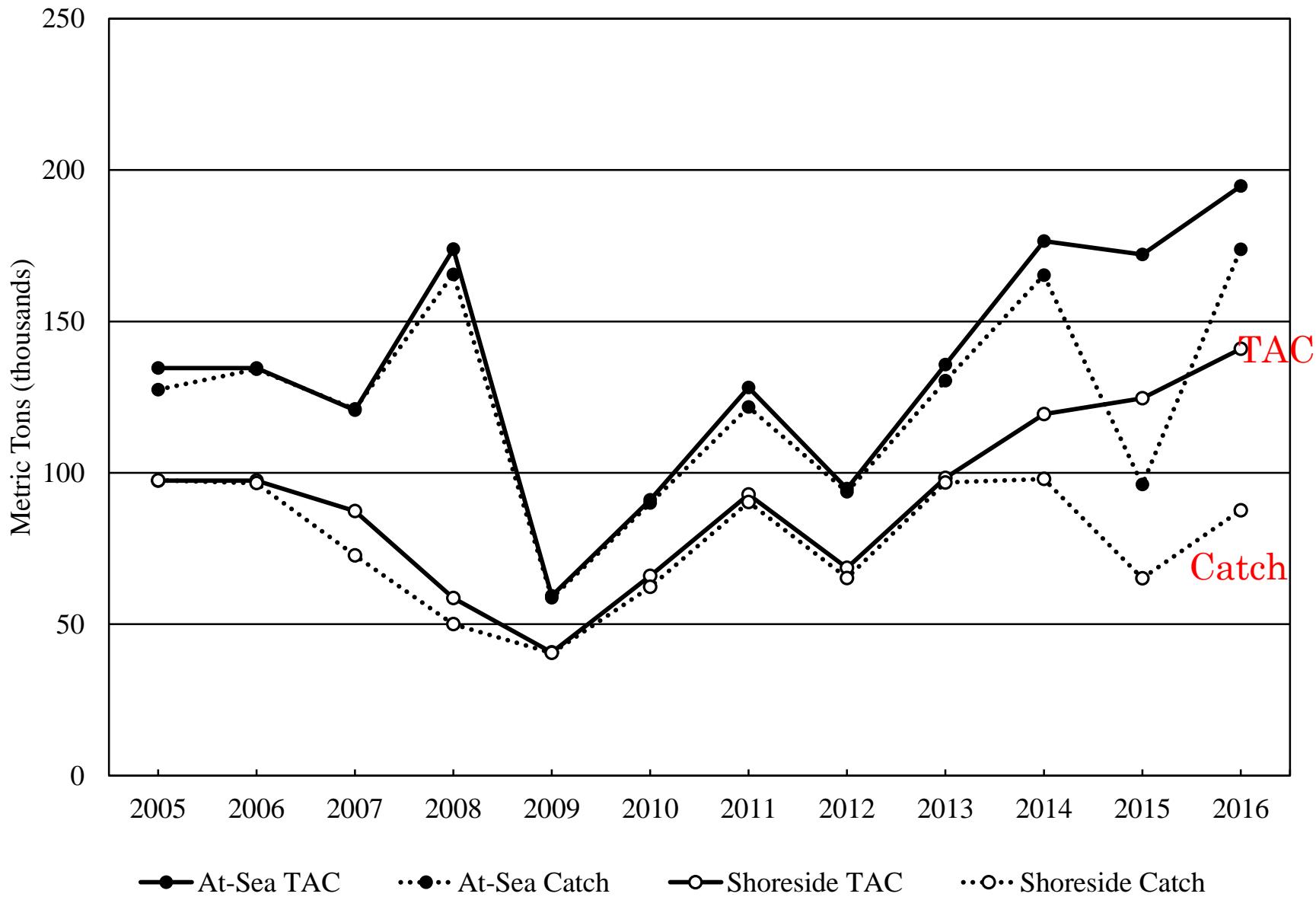
Christopher Anderson, SAFS, University of Washington, USA
Marie Guldin, NWFSC, NOAA Fisheries, USA

Why Processing Quota?

- **Stranded capital**
 - The mid-1990s US & BC halibut ITQ programs saw dramatic changes in processing industry
 - Shift from frozen to fresh market allowed entry of small, lightly capitalized processors, and left incumbent processors with unused freezers
 - Claim business lost value of freezer investment, for which they deserved compensation
- **Rent seeking**
 - The government is passing out potentially valuable rights for free
 - Why not get some?
 - Even if no plans to sell rights, can help cement market share and reduce competition for unprocessed fish

Pacific whiting (hake)





Source: Guldin & Anderson (2018)

Description of fishery

- Regulated by Pacific Fishery Management Council
- Declared overfished in 2002 & quickly rebuilt by 2004.
- Earned MSC certification in 2009 (prior to IFQ implementation) and was recertified in 2014.

The screenshot shows the MSC website interface for the Pacific hake mid-water trawl fishery. At the top left is the MSC logo and the text "Marine Stewardship Council Track a Fishery". To the right is a link "Go to msc.org" with a small MSC logo. Below this is a search bar with a "SEARCH" button. The main content area has a blue header with the fishery name "Pacific hake mid-water trawl" on the left and certification details on the right: "Certifier : MRAG Americas, Inc.", "Certified status : Certified", "Certified since : 19 Nov 2010", and "Certificate expires : 24 Nov 2019". On the left side, there is a navigation menu with links: "Overview", "About this fishery", "Certificates and Traceability", "Market Information", "Assessments", and "Contacts". In the center is a map of the Pacific Northwest with a green location pin. On the right, under the heading "At a glance", there are four key facts: "Species: Hake (North Pacific) (*Merluccius productus*)", "Gear type: Trawls - Midwater trawls", "Location: Northeast Pacific (FAO Area 67)", and "Tonnage: 225148 (2012)".

Photo source: Marine Stewardship Council

Market information

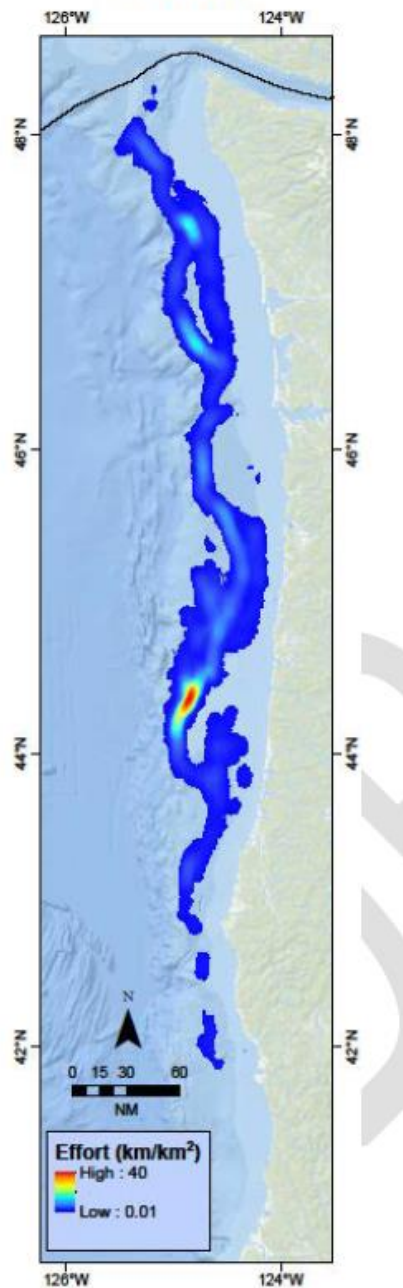
Are you a supplier? For more information on key markets and commercial opportunities for this fishery's produce go to the Market Information section

Fishery latest

To see where this fishery is at and how you can have your say in the audit process go to the Assessment section. [Get updates about this fishery »](#)



2011-2015



Harvesting

- Primary shoreside Pacific whiting season
 - Begins: June 15
 - Ends: End of calendar year, or allocation or bycatch limit is reached
- Fishing effort
 - Generally off coasts of WA & OR
 - Between 15 and 60 nm

Vessels

- Average vessel (2011-16)
 - 24 boats
 - 29 meters in length
 - 1126 hp engine
 - 2-3 paid crewmembers
- Spent an average of 52 days at seas targeting whiting
 - Earning between 26-50% of total fishing income from shoreside Pacific whiting
- Sector
 - ~90 individuals participated as captain or crew
- Many vessels participate in other fisheries



Whiting Products

- Whiting degrades quickly so most products are frozen and exported
 - Products include headed-and-gutted, frozen whole, filleted
 - 2014 – total national exports of whiting were more than 60,000 mt worth \$100 million
 - Majority of exports go to Russia and Ukraine as well as other European countries.
- Processors
 - 8 processors located in 3 major port areas
 - Large multi-species facilities
 - Annual average of 3,000 individuals working in sector as processing workers or other employees



Management

- Pacific Whiting Treaty
 - Bilateral management agreement between US and Canada
 - Sets overall TAC
 - US TAC: set aside for tribal sector, then 42% to shoreside sector & 58% to at-sea sectors
- US Whiting fisheries
 - Managed by Pacific Fisheries Management Council – regional management body
 - Bottom-up management
- Management measures
 - Developed by Council
 - Implemented by federal government via regional offices of National Marine Fisheries Service
 - Enforced by NOAA's Office of Law Enforcement (OLE)



Management: US Council Process

- Established under Magnuson-Stevens FCM Act
- 8 Regional Councils
 - Comprised of political appointees from region
 - Typically industry leaders, bureaucrats, coast guard, NGOs
 - Advised by
 - Advisory Panel (AP) of industry representatives
 - Scientific and Statistical Committee (agency, academics)
- Public meeting process, co-management
 - Policies are developed, analyzed by staff, analysis is reviewed by AP, SSC with opportunities for public input before voting
 - Council must set $TAC \leq$ Allowable Biological Catch from SSC's recommended stock assessment model
 - Allocation issues are more political

Monitoring & Enforcement

- Vessels must submit declaration reports before leaving port – declaring gear type
- VMS is required to transmit location to OLE
- Electronic software assists in recordkeeping for logbooks and fish tickets
- Observers & catch monitors are used
- OLE uses patrol boats & partners with a number of organizations like the US Coast Guard to enforce regulations
- In event of noncompliance, economic sanctions or criminal charges may be applied



History of Management

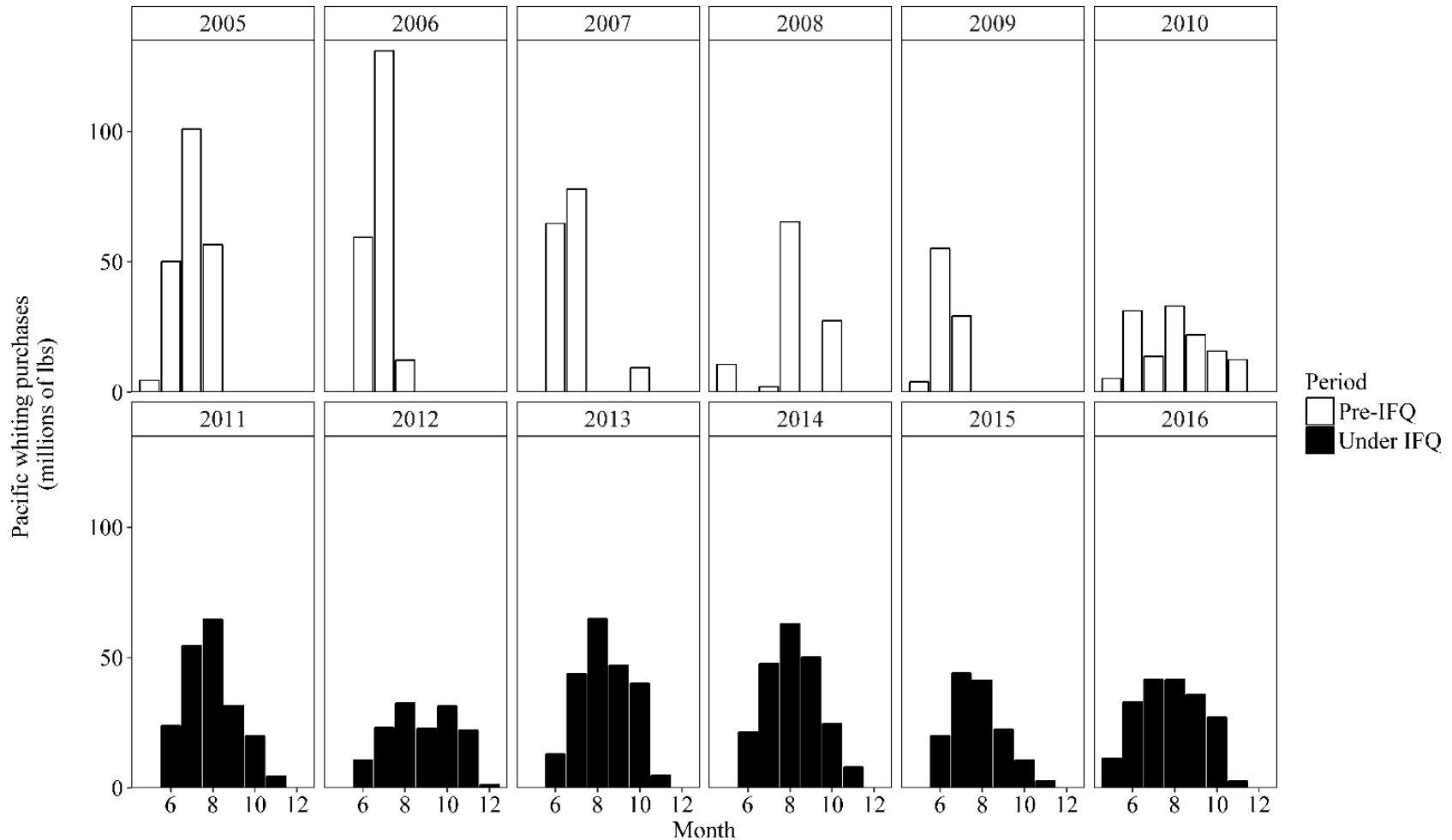
- 1994
 - License limitation program
- 1997
 - Season start dates, sector-specific harvest allocations, provisions for reapportioning unused quota between sectors
- 2002
 - Rockfish Conservation Areas (closed certain areas & depths to fishing in order to minimize bycatch of rebuilding rockfish species)
- 2003
 - Buyback program
- 2011
 - West Coast Groundfish Trawl Catch Share Program
 - Introduced IFQs into shoreside whiting fishery

Rights-based Management

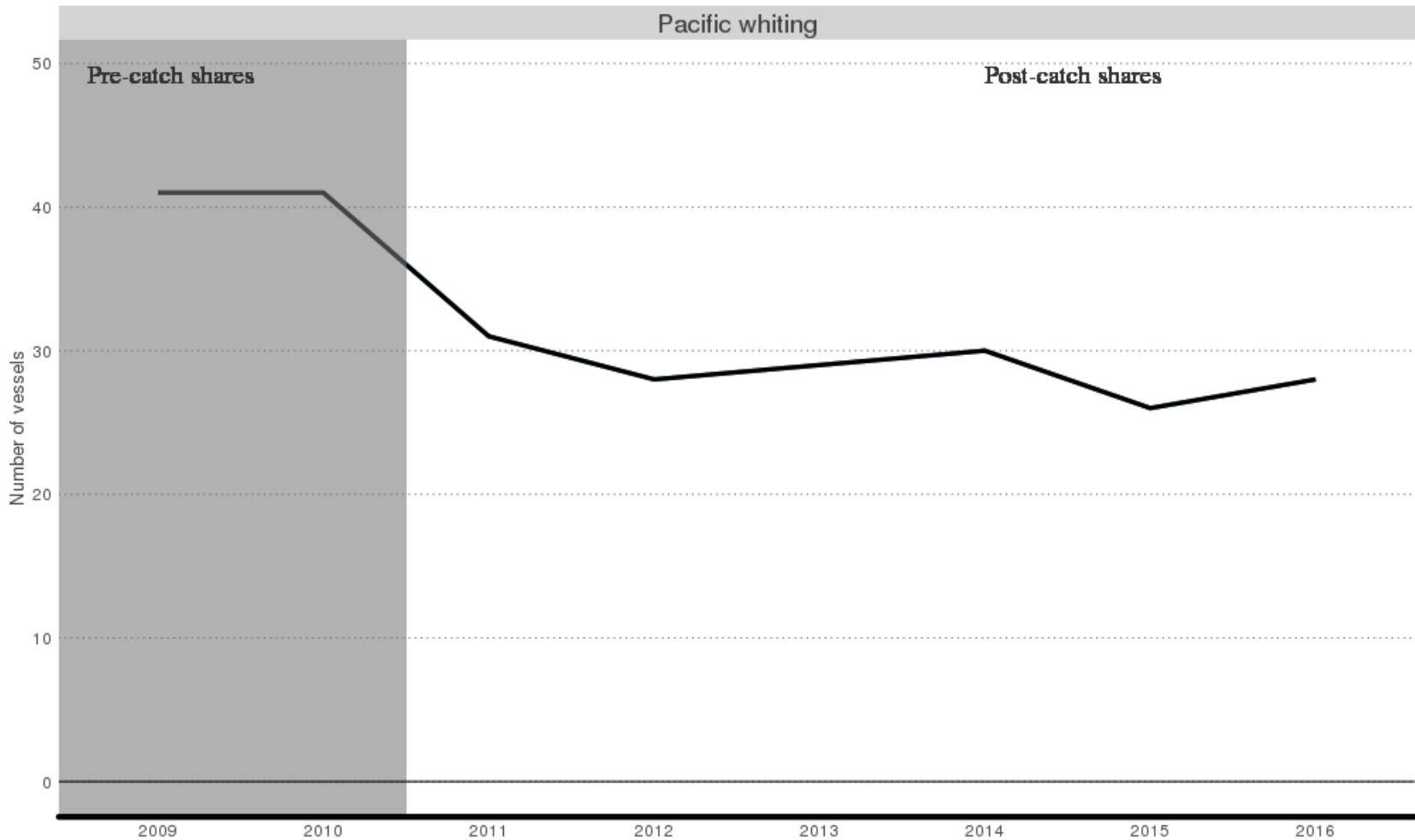
- IFQ Program
 - 80% of harvesting quota allocated to vessel permit owners
 - 20% of harvesting quota allocated to eligible processors
 - Motivation: Concerns of stranded capital in processing sector & potential shifts in bargaining power (PFMC and NMFS, 2010).
- Allocation of quota
 - Permit holders: allocations based on catch histories between 1994 and 2003
 - Processors: allocations based on purchasing histories between 1998 and 2004



Effect of ITQ: Season lengthening

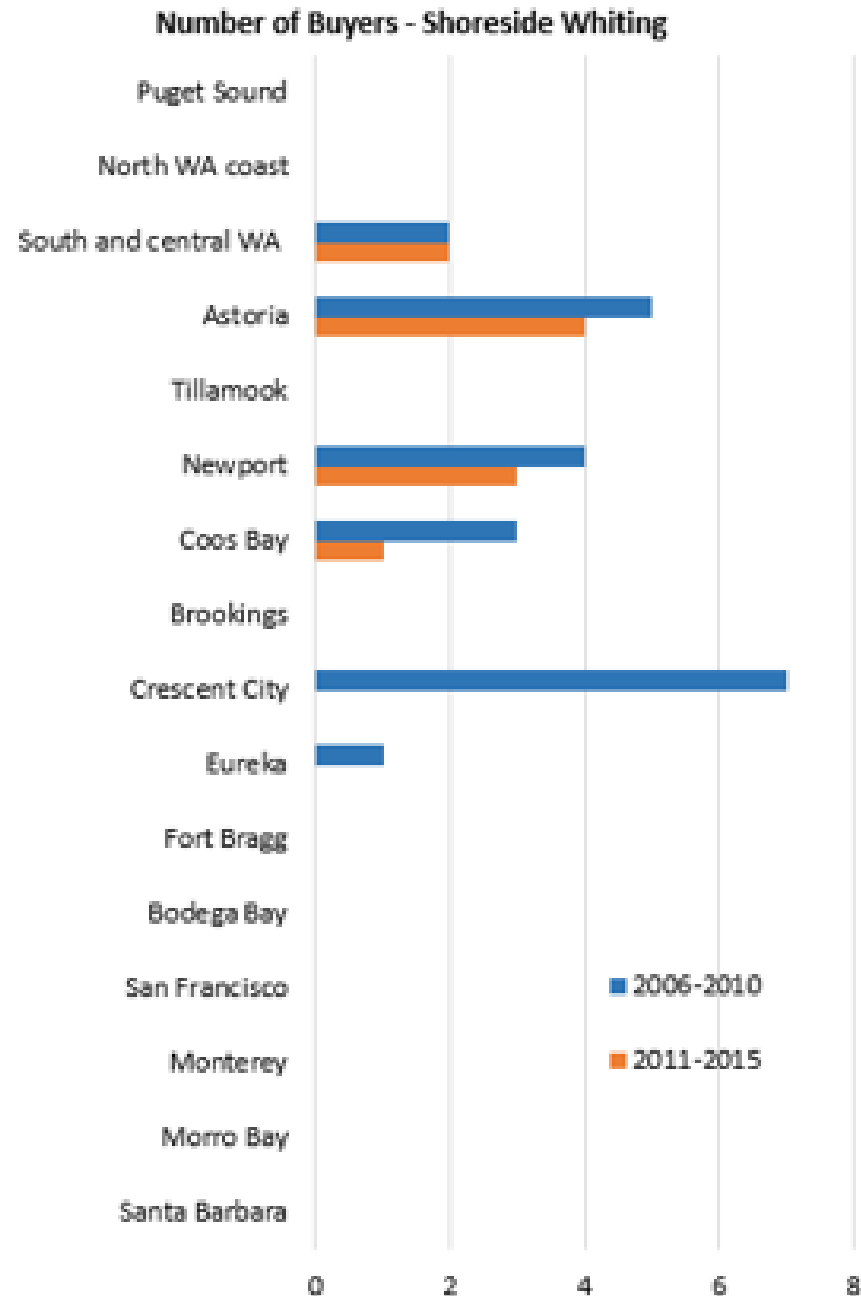


Effect of ITQ: Harvester Consolidation



Effect of Rights: Processor Consolidation

Southern processors were supported by early derby opening in California
Small quantity



Source: Guldin et al. (under review)

Effects of Rights: Net Revenues

- Prices increases were hoped for
 - Longer seasons could mean product improvement
 - Could shift bargaining power from processors to harvesters
- Global market shifts dominated local effects???
 - Russian embargo
 - Frozen whole market meant limited market improvements possible

Harvester Net Revenue/ton caught

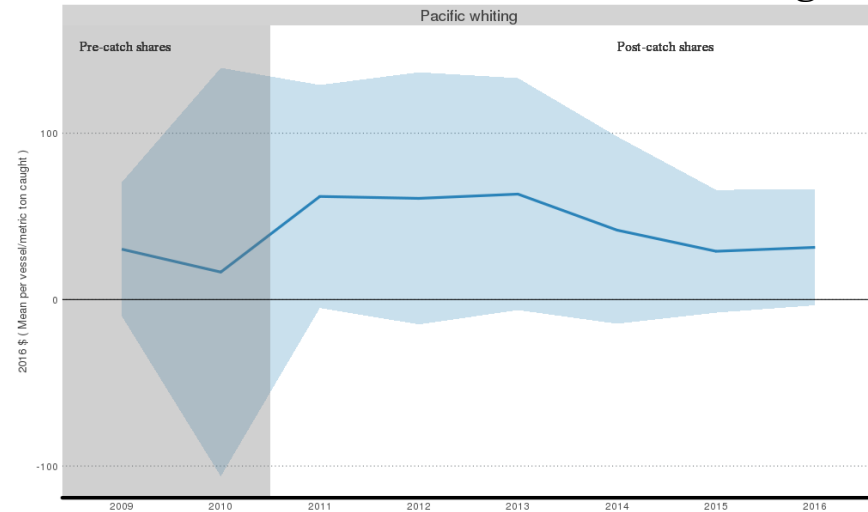
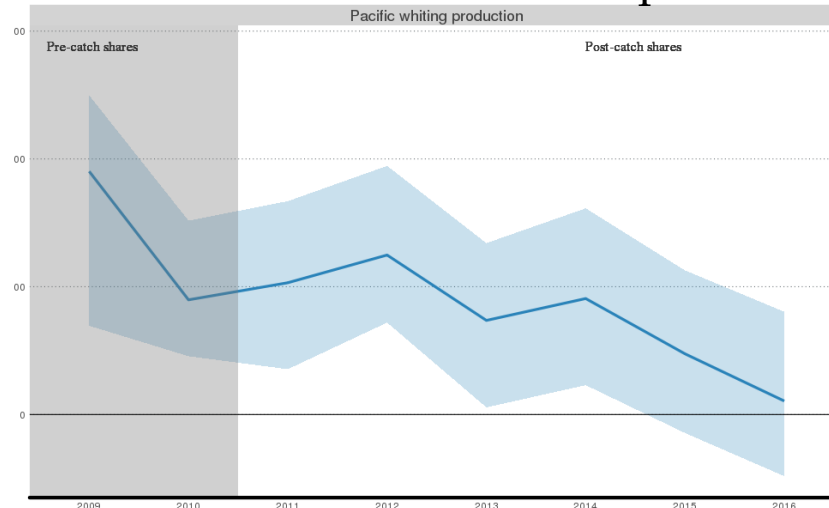


Table 2: Industry average Pacific whiting output prices by product type and input price (2015 \$).

	2009	2010	Pre-catch share avg.	2011	2012	2013	2014	2015	Catch share avg.
Fish output price									
Fillet	1.20	1.28	1.24	0.69	1.04	***	***	***	0.87
Frozen whole	***	0.36	0.36	0.31	0.55	0.26	0.30	0.29	0.34
Headed-and-gutted	0.61	0.61	0.61	0.60	0.68	0.51	0.51	0.37	0.53
Surimi	***	***	***	***	***	***	***	***	***
Unprocessed	***	0.11	0.11	***	***	***	***	***	***
Fish input price	0.09	0.09	0.09	0.12	0.15	0.13	0.12	0.08	0.12

Note: *** indicates that values were suppressed to protect confidential data. Pre- and post-catch share averages are calculated only using years where data have not been suppressed.

Processor Net Revenue/ton processed



Processor-owned quota

- Processors' accounts have increased to 23% quota ownership
- Use of Processor-held Whiting Harvest Quota:
 - Little evidence that processors are directly capturing the value of their quota by leasing in the quota market.
 - Mixed evidence that processors extract value from quota through ex-vessel price adjustments
 - Support bargaining relationships with vessels to secure deliveries, by offering quota as a percentage of landings to delivering vessels.
 - “I entice boats to come in with fish, not money. Fish equals money, right? ... I tell them you bring your fish to me and I will match your deliveries by 20%...I am paying you to catch my fish” —Oregon Processor
 - “We’re not leasing it out, we have to give it to them... You can’t even charge a lease fee for it. If we want their 5 million pounds of whiting, we have to give them 1.5 million of our own” —Washington Processor

Challenges

- Conflicts between fishers
 - Non-whiting trawl IFQ fishery participants feel the program was designed around whiting
- Conflicts between fishers & management
 - Increased accountability taken as sign of distrust
- Conflicts over allocation
 - Mixed support for allocating fishing rights to processors
 - Fishery participants challenged control dates for initial allocations in lawsuit
 - Access to bycatch quota across sectors
- Conflicts between fishers & processors
 - Several lawsuits citing anticompetitive behavior

Moving forward

- IFQs are generally perceived to have improved conditions in the Pacific whiting fisheries, particularly regarding the elimination of the race to fish.
- Largest processors use allocated quota to preserve market share. This is perceived as mutually-beneficial, but more research is required to understand the full effects.
- The complexity of the catch share program and sometimes-competing interests of participants within fisheries as well as across fisheries illustrate the challenges associated with multispecies fisheries management.
- As the program continues to mature and develop, careful consideration will need to continue to be given to interactions between fisheries, communities, and stocks.