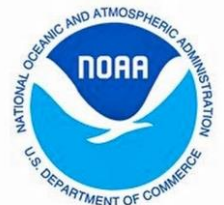


U.S. WEST COAST TRAWL GROUND FISH: HAVE ECONOMIC GOALS BEEN MET UNDER CATCH SHARES?

Melissa Errend^{1,2}, Lisa Pfeiffer², Erin Steiner², Marie Guldin², and
Amanda Warlick²

¹Integrated Statistics in support of NOAA Fisheries, Northeast Fisheries Science Center

²NOAA Fisheries, Northwest Fisheries Science Center



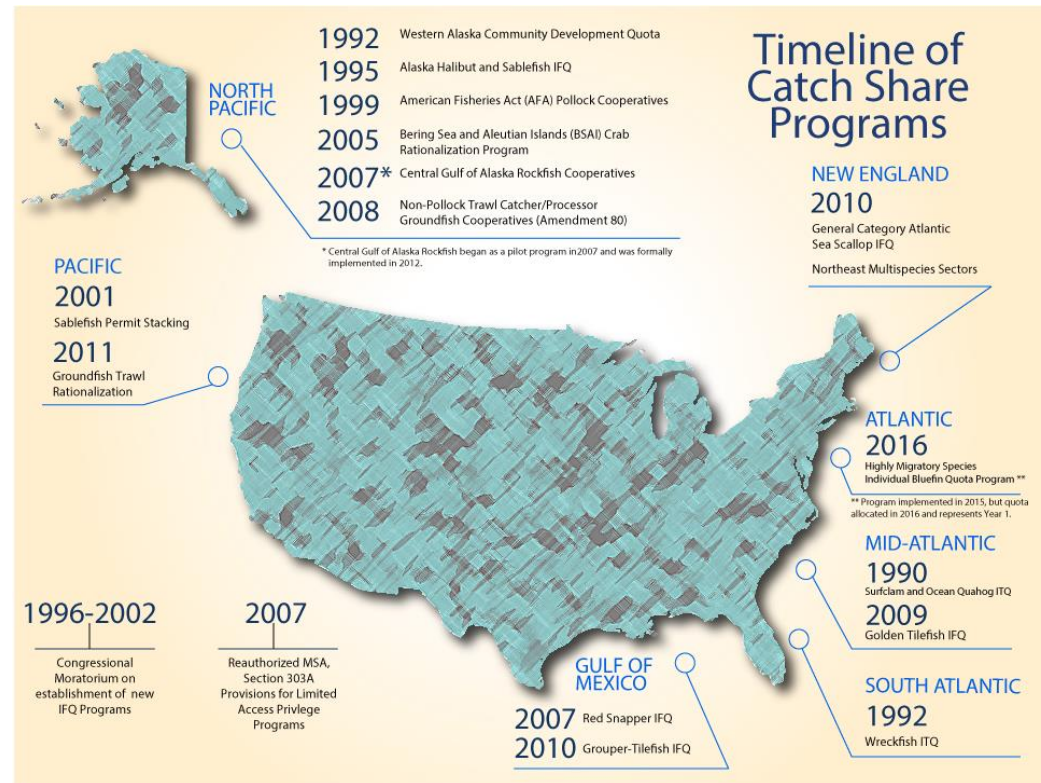
NOAA
FISHERIES

Why evaluate catch share program performance?

- MSA requires it!

But really why?

- Contentious
- Complicated
- Important for exporting lessons learned



Source: NOAA Fisheries

This talk summarizes (a piece) of the interagency effort to review the West Coast Groundfish Trawl Catch Share Program

Outline

- West Coast Trawl Groundfish
- Design of the Catch Share Program
- Economic Goals, Objectives & Expectations
- Data & Metrics
- Results by goal/objective



PC: Kevin Dunn, F/V Iron Lady

West Coast Groundfish Trawl Fishery

- Pacific whiting fishery:
 - Shoreside and at-sea fleets
- Overcapitalization, race to fish
- Non-whiting fishery:
 - >90 spp
 - ~100 shoreside vessels
- Overcapitalization and high discards, 10 historically overfished species



Catch Share Program Design

- Implemented in 2011
- Cooperatives for at-sea sectors
- ITQ program for shoreside catcher vessels
- Full accountability:
 - Cover all catch with quota (landings and discards)
 - 100% at-sea and dockside monitoring
- Mandatory cost and earnings information from all participants (EDC Program)



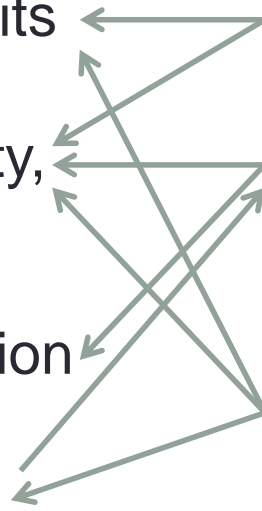
Economic Goals and Expectations

Goals and Objectives

1. Increase net benefits
2. Increase profitability, efficiency, stability
1. Achieve full utilization
2. Increase flexibility
1. Individual accountability of catch and bycatch

Expectations

1. Consolidation: 30% to 66%
2. Increase utilization: \$25-30 million more in ex-vessel revenue
3. Eliminate race to fish incentives
4. Increases in profitability > increases in mgmt costs

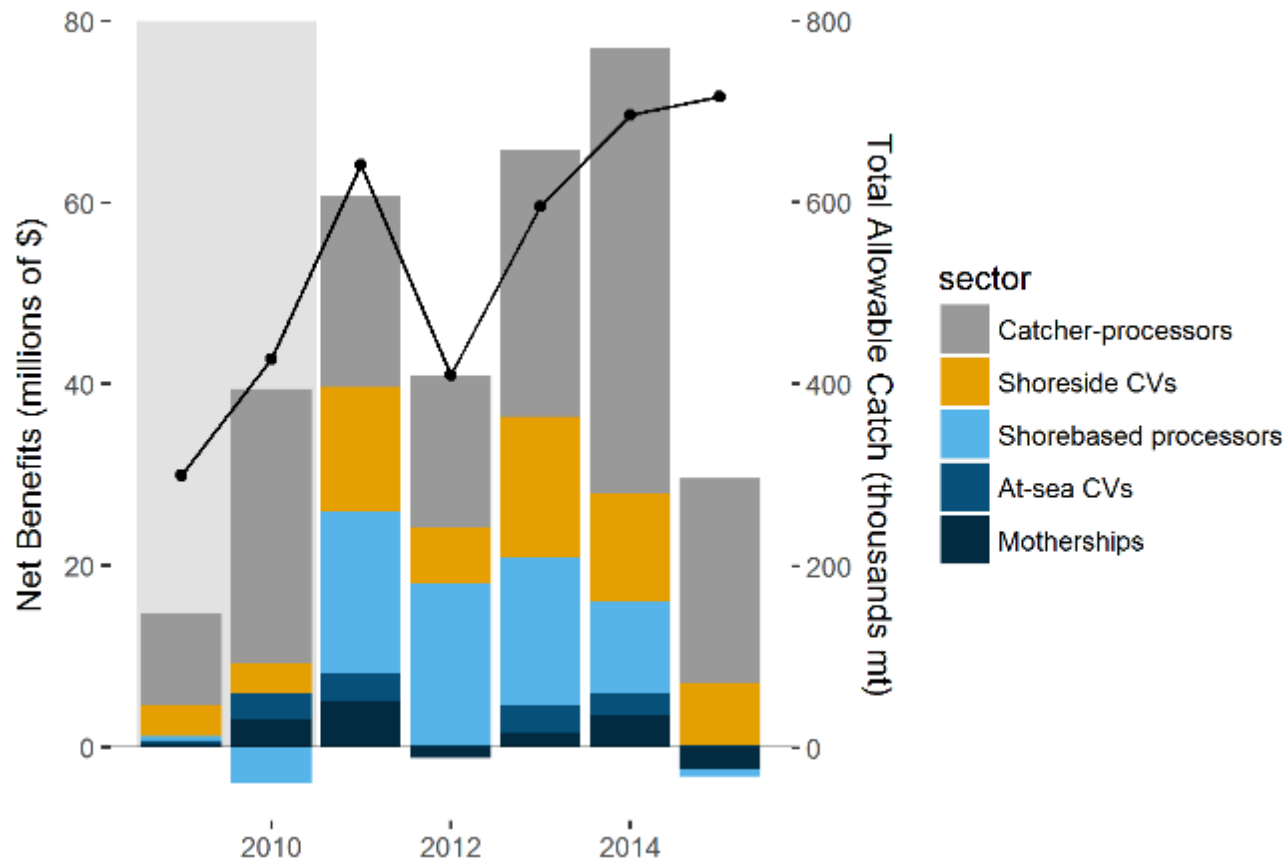


Data & Metrics

- Economic Data Collection Program
- PacFIN Fish tickets
- West Coast Groundfish Observer Program
- National Catch Share Performance Indicators (Brinson and Thunberg 2016)

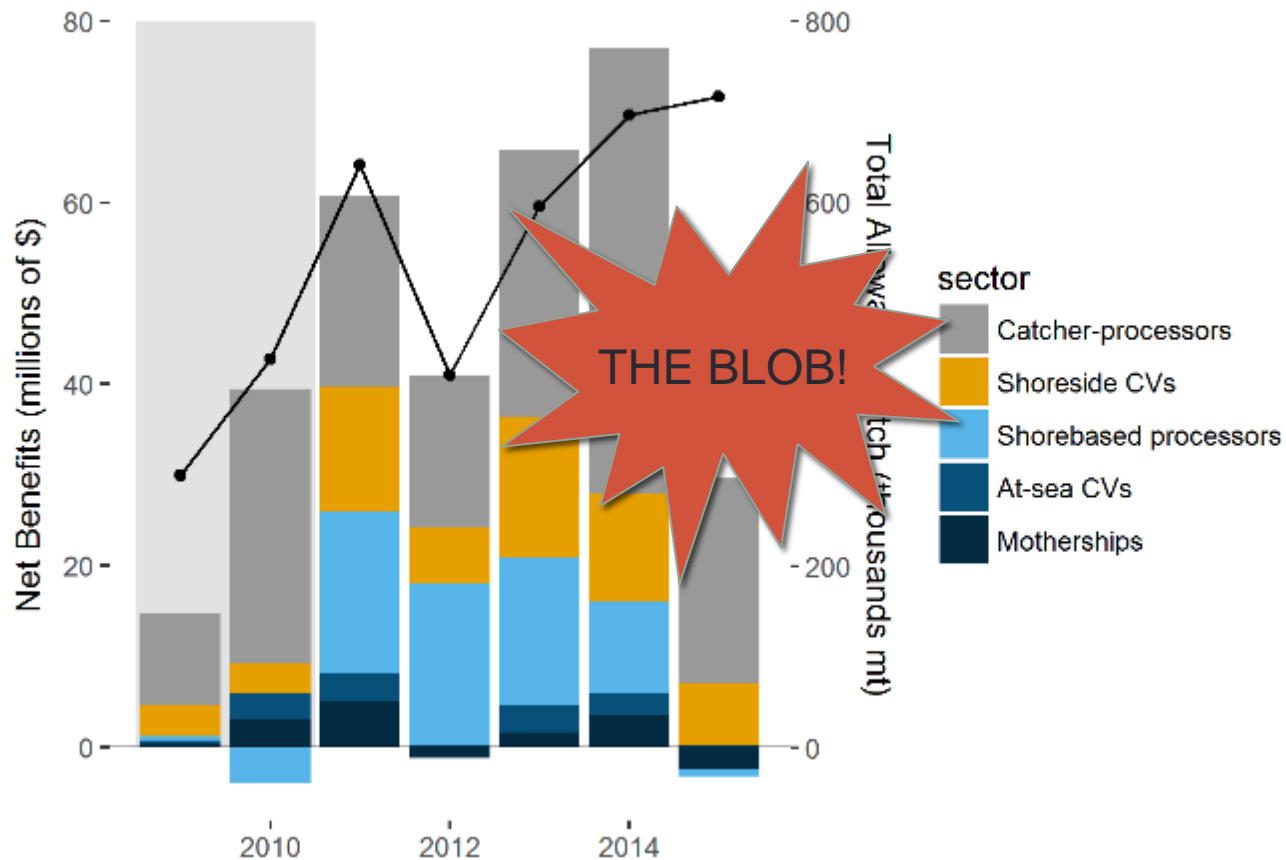
1) INCREASE NET BENEFITS

Net benefits have increased...



...but are coincident with increasing TAC

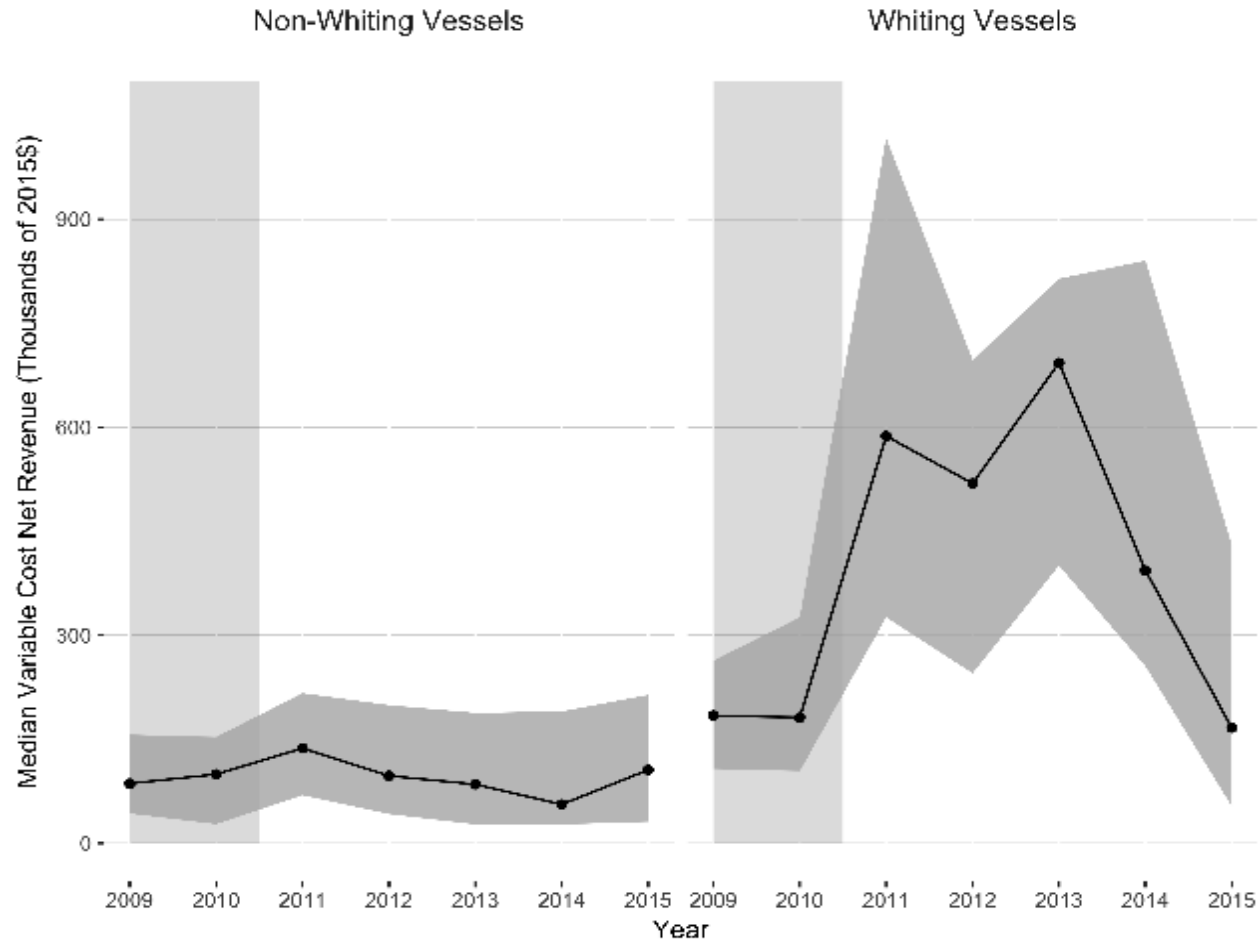
Net benefits have increased...



...but are coincident with increasing TAC

2) INCREASE PROFITABILITY,
EFFICIENCY, STABILITY

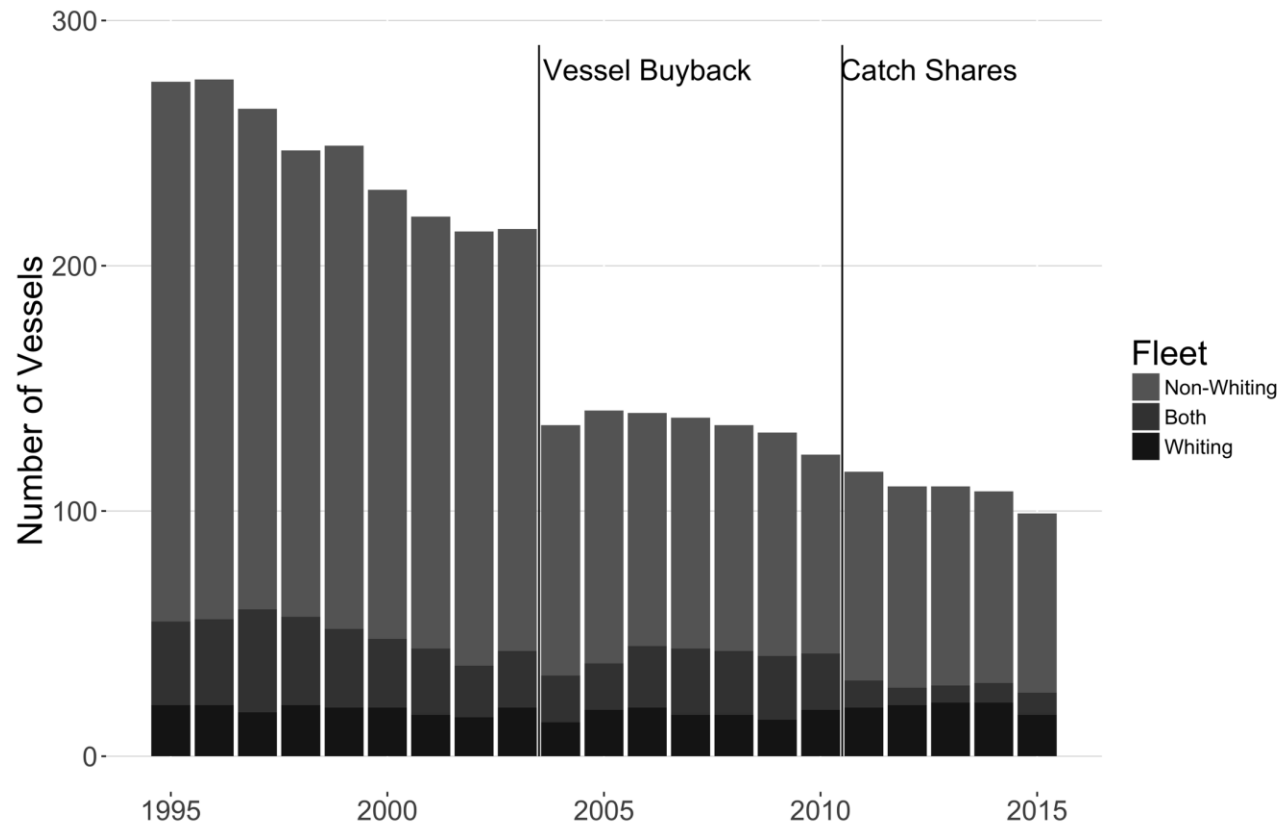
Profitability has increased most for whiting vessels...



Consolidation has been less than expected for the non-whiting fleet

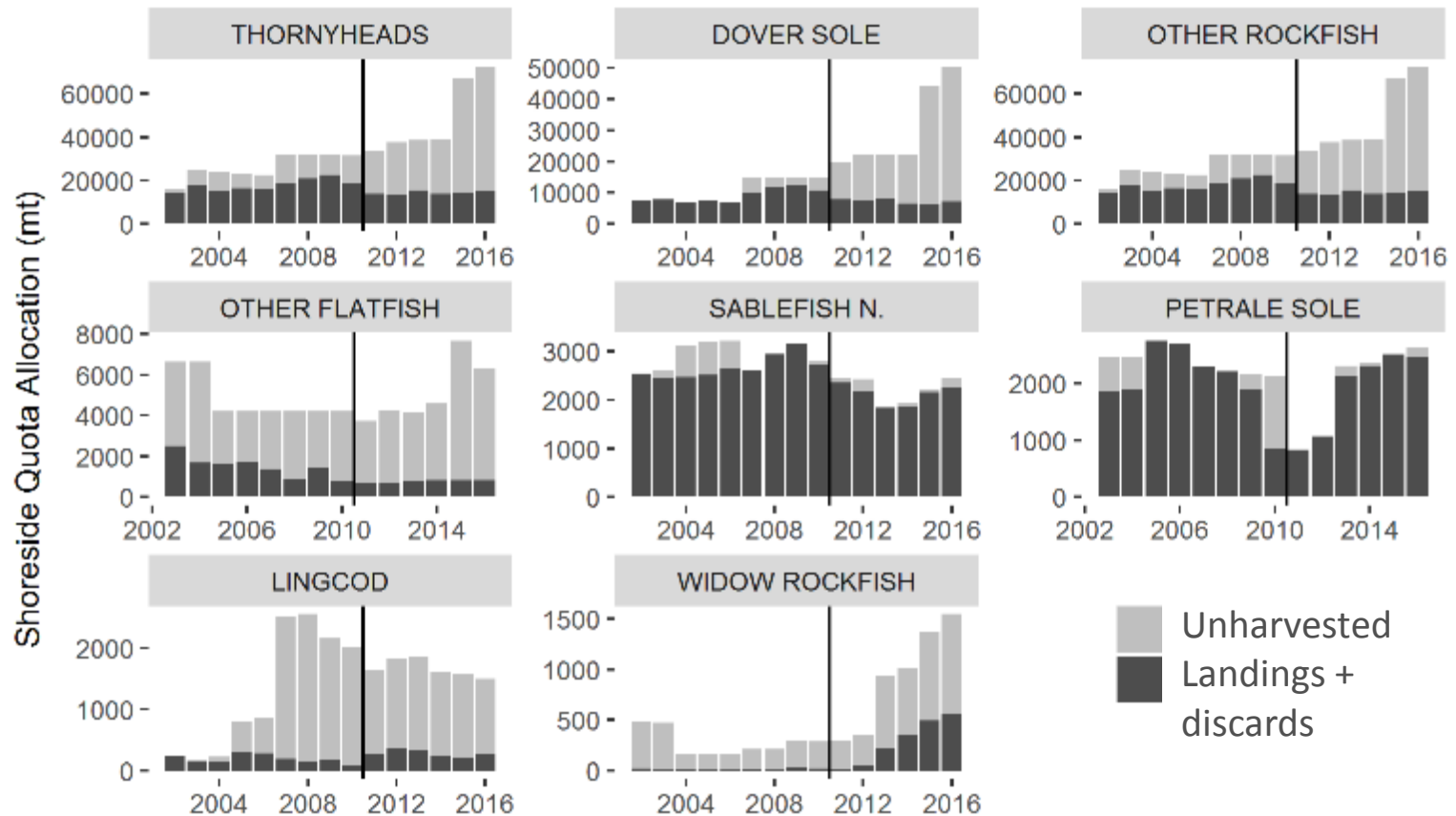
Whiting fleet: declined by 26-37%

Non-whiting fleet: declined by 24%



3) ACHIEVE FULL UTILIZATION

Utilization rates for most species/groups have not increased...

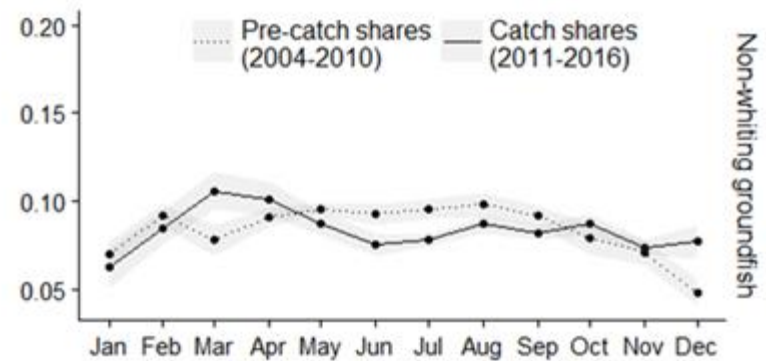
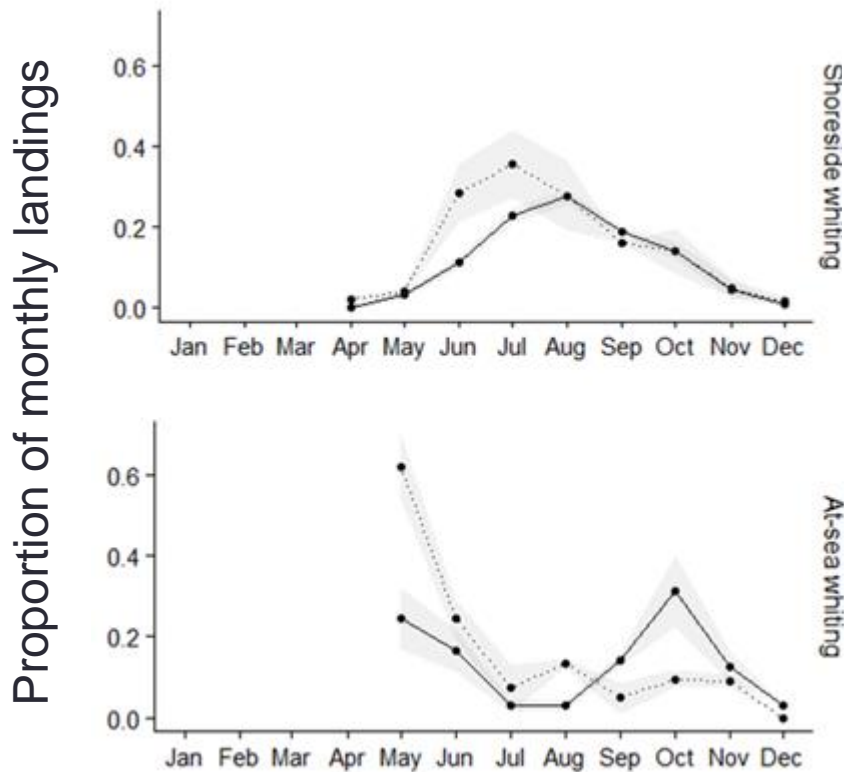


...Average ~20% utilization

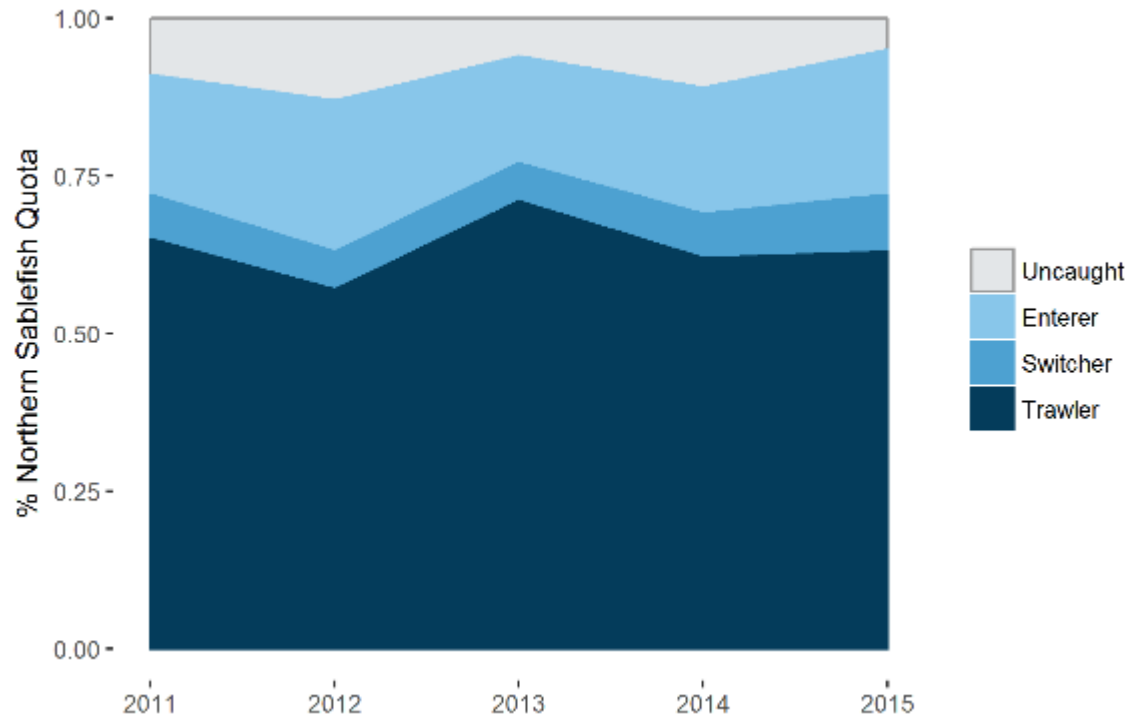
4) INCREASE FLEXIBILITY

Timing of landings, gear switching

Following elimination of race to fish, season length for whiting vessels has increased.



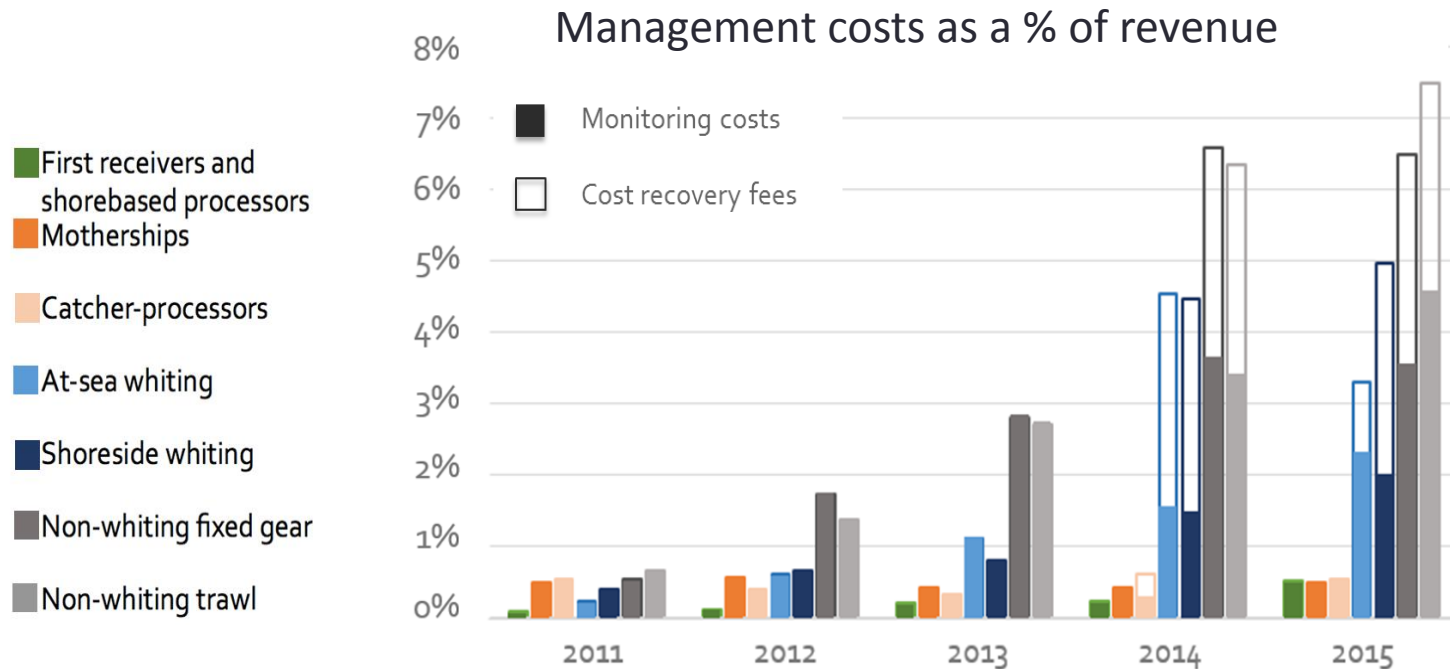
Gear-switching has allowed some unanticipated outcomes...



More sablefish are caught by 'enterers' than 'switchers', the intended users of the provision



5) ACHIEVE INDIVIDUAL ACCOUNTABILITY

Individual accountability is achieved, but at a cost...



...Particularly for the non-whiting fleet

Economic Goals and Objectives

- 1) Increase net benefits 
- 2) Increase profitability, efficiency, stability 
- 3) Achieve full utilization 
- 4) Increase flexibility 
- 5) Full individual accountability of catch and bycatch 

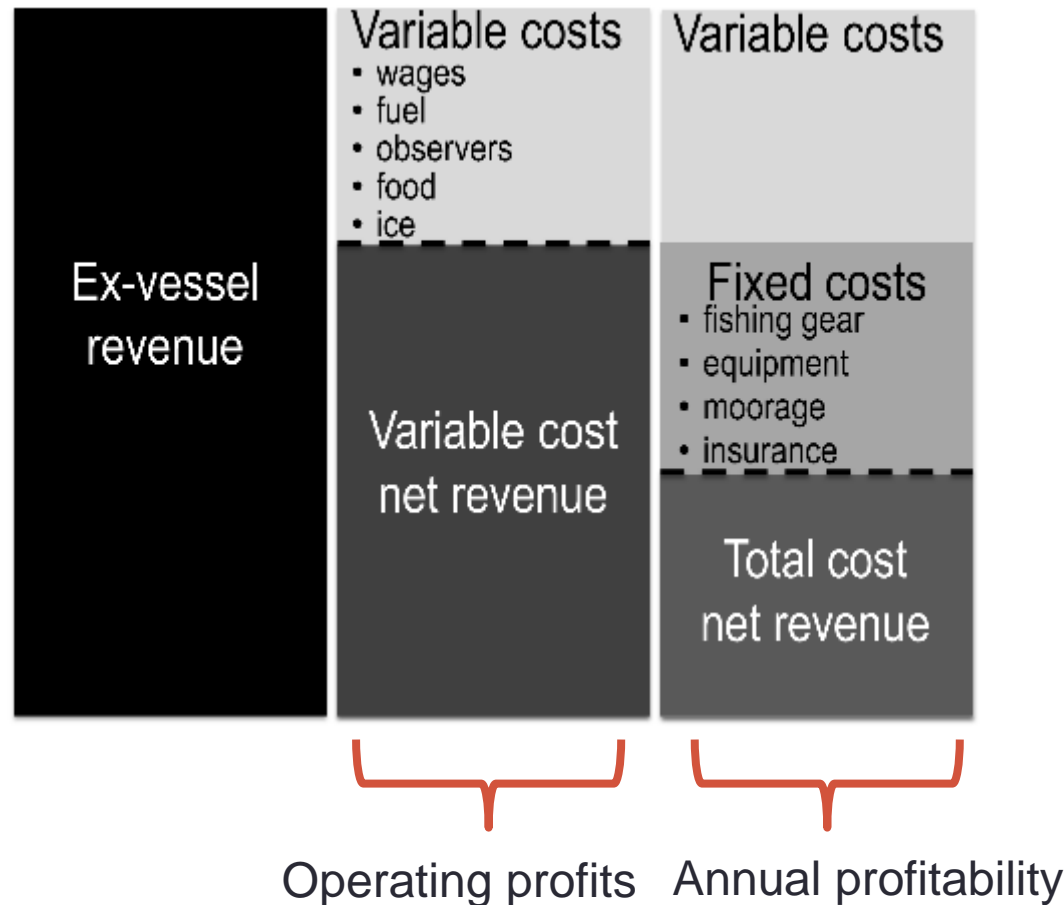
Conclusion

- Some major economic goals were met:
 - Net benefits increased
 - Profitability and productivity improved, particularly for whiting
- However, obstacles remain:
 - Utilization and profitability of non-whiting fishery not as large as predicted
 - Flexibility from gear-switching is a trade-off
 - Costs of individual accountability are high

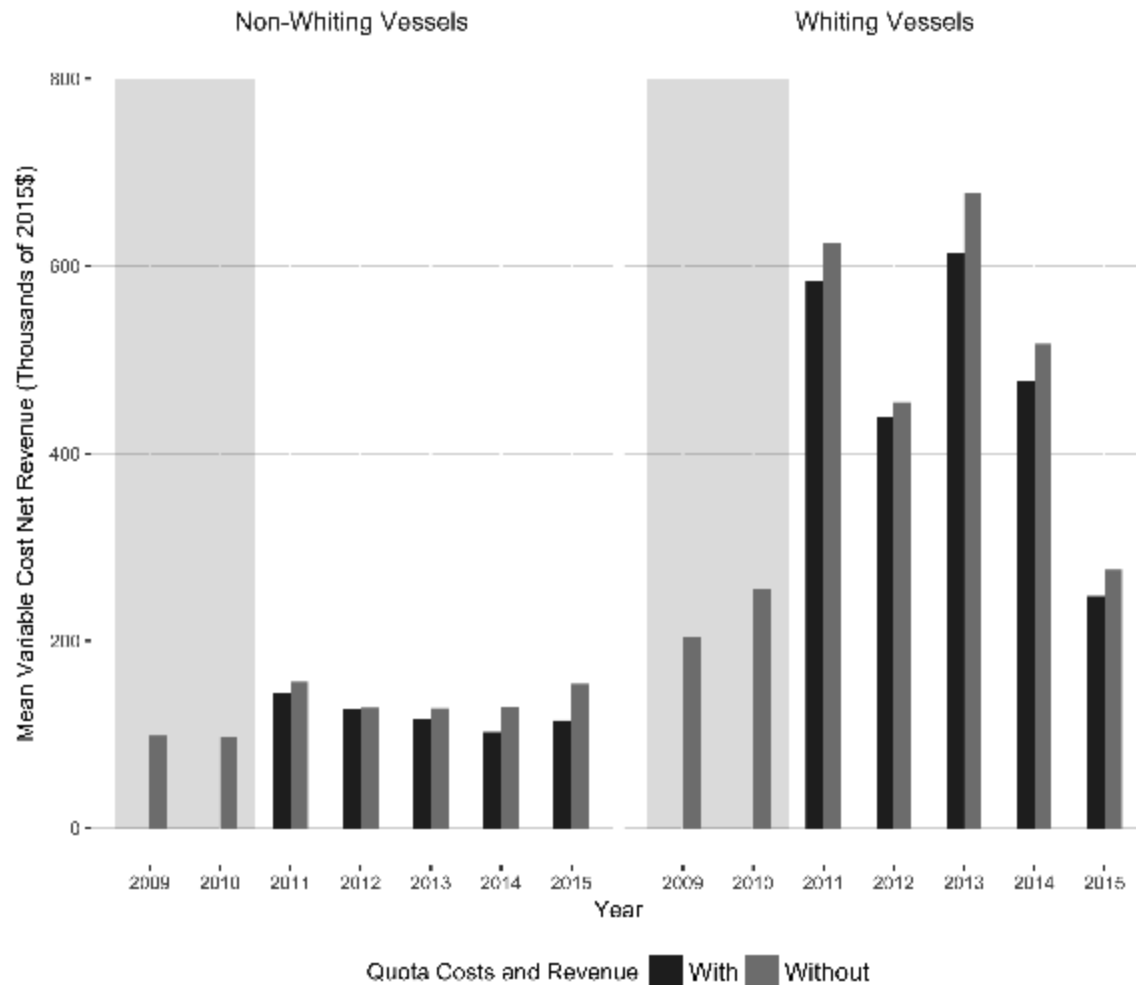
Questions?



Indicators of Profitability



Even when factoring in quota costs and revenue...

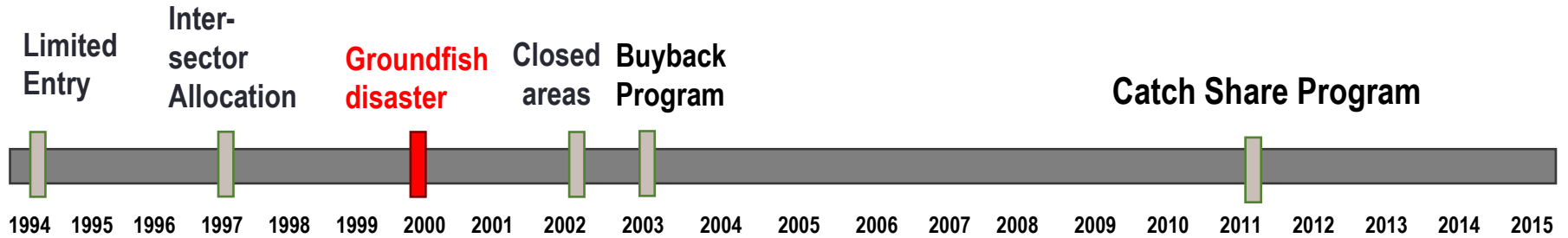


Productivity has also increased...

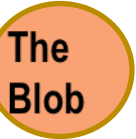
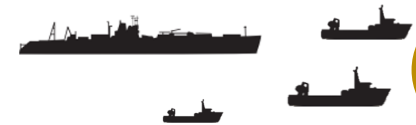
Lowe Multifactor Productivity Index

	2009	2010	Pre-catch share avg.	2011	2012	2013	2014	2015	Catch share avg.
Non-whiting vessels	0.96	1.05	1	1.24	1.25	1.29	1.33	1.43	1.31
Shoreside whiting vessels	1	1	1	1.84	1.28	1.56	1.49	1.11	1.46

Lots of different factors affect the fishery before and during catch shares



Ongoing consolidation



Overfished (1999-2002):
8 species of groundfish and Pacific whiting



2004 Rebuilt: Pacific whiting
2005 Rebuilt: Lingcod

Overfished 2010:
Petrale sole



Rebuilt 2012:
Widow rockfish