Overview

• Goal
• Brief Methodology
• 5-year Review
• Selected Results
• Concluding Thoughts
Research Goals

This research aims to measure social and cultural changes in the Groundfish fishing industry and related communities as a result of the implementation of the catch shares program.
Management Context

This research aims to contribute to and inform the following management actions:

• The 5-year review of the Catch Shares Program
• Other management needs –
  • Pacific Council Ecosystem Initiative
• Contribute to future management needs
  • Continued reviews of the Catch Shares Program
Methodology

• Data Collection
  • 2010 - Baseline
  • 2012 - 1 year post implementation
  • 2015/2016 – 1 year post Quota Share trading
• Surveys and Interviews
• Administered primarily In-person
• Geographic range
  • Bellingham, WA to Santa Barbara, CA
Methodology - Continued

• Participation
  • Anyone connected to the Groundfish Fishery
• Known Participants
  • 2010 - Limited Entry Permit Holders, Processors, Observers
  • 2012 & 2015/2016 – Quota Share Permit Owners, Processors, Observers
• Unknown Participants
  • Snowball for Crew, Fishermen’s Wives, Industry Suppliers, etc.
• Unexpected Participants
  • Fixed Gear
## Methodology - Continued

<table>
<thead>
<tr>
<th></th>
<th>Survey &amp; Interview</th>
<th>Targeted</th>
<th>Survey &amp; Interview Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>201</td>
<td>379</td>
<td>72.3%</td>
</tr>
<tr>
<td>2012</td>
<td>235</td>
<td>500</td>
<td>58.0%</td>
</tr>
<tr>
<td>2015/2016</td>
<td>263</td>
<td>501</td>
<td>59.5%</td>
</tr>
<tr>
<td><strong>Trawl Only</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>172</td>
<td>340</td>
<td>70.3%</td>
</tr>
<tr>
<td>2012</td>
<td>195</td>
<td>386</td>
<td>63.7%</td>
</tr>
<tr>
<td>2015/2016</td>
<td>225</td>
<td>371</td>
<td>66.8%</td>
</tr>
</tbody>
</table>

### Trawl Return Response Rate

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2015/2016*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trawl Return Response Rate</td>
<td>48.9%</td>
<td>34.7%</td>
</tr>
</tbody>
</table>

*2015/2016 only includes those that participated in all survey years*
Results - 5-Year Review

Community Performance
- Infrastructure Changes
- Consolidation Impacts
- Crew and Production Worker Outcomes
- Location of Landings
- Changing Nature of Those Exiting
- Community Variability
- Efficiency of Management
- Interactions Between Trawl and Other Communities
- Interactions with the General Public
- Potential for Ownership
- Fisheries Participation
- Observers
- Safety
- Small Vessels
- Risk Pools
- New Entry
- Quota Share Ownership
- Costs

- Fishing Heritage
- Absentee Owners
- Changing Attitudes
- Employment
- Future Participation
Results – Fishing Heritage

<table>
<thead>
<tr>
<th>Year</th>
<th>Mean Age</th>
<th>Median Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>50.8</td>
<td>52</td>
</tr>
<tr>
<td>2012</td>
<td>52.9</td>
<td>55</td>
</tr>
<tr>
<td>2015/2016</td>
<td>54.2</td>
<td>57</td>
</tr>
</tbody>
</table>

“"In this port I was the youngest skipper when I started running the boat, I was 18. I am still the youngest skipper at 43.”
Fisherman, Fort Bragg, 2010

Percent Over 50
2010 = 54.8%
2012 = 64.6%
2015/2016 = 68%
Results – Fishing Heritage

**WHITING**

50 years & younger
- 2010 = 61.9%
- 2012 = 38.5%
- 2015/2016 = 46.2%

**NON-WHITING**

50 years & younger
- 2010 = 41.6%
- 2012 = 34.4%
- 2015/2016 = 29.6%

“If you just look at the owner, yeah maybe the owners are getting a year older every year. But if you go down to the docks, you’re gonna see tons of young guys…” Industry Participant, Newport, 2015/2016
Results – Fishing Heritage

• Groundfish fishery has a strong inter-generational history

“...we’re a fishing family. We invest together. I’m lucky I got my father and mother, you know they were willing to invest in us and go in partners, take that risk and go in partners with me and [Name omitted – brother] and buyin’ a boat…” ~ QS Permit Owner, Newport, 2015/2016
Results – Absentee Owners

- Percentage of owners that are Absentee -
  - Self-identified as QS owners/co-owners AND who did not identify as captain/crew

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>50.0%</td>
</tr>
<tr>
<td>2015/16</td>
<td>47.3%</td>
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</table>


“As we speak, both the permit and the quota is leased out right now. We can’t afford; we’re too scared; we can’t afford to fish it. Those two reasons: the fear and can’t afford it.” – QS Permit Owner, Astoria, 2015/2016

1 | Not all QS owners/co-owners may be captured in survey data.
Attitudes about role in commercial fishing industry:

- Job satisfaction
- Job stability
- Compensation amount
- Method of compensation
- Standard of living
- Relationships with co-workers

1 Response variable: Likert-scale, Friedman’s Test. Return Respondents
Results – Monitoring Change

Level of employment in groundfish and other fisheries

- Full-time
- Part-time
- Seasonal full-time
- Seasonal part-time
- Self employment

1 | Response variable: Proportions, Cochran’s Q Test. Return Respondents
Results – Future Participation

Future plans for groundfish participation (2015/2016)

- 35.4% maintain current levels of activity
- 32.7% increase levels of activity
- 4.0% decrease levels of activity
- 3.1% exit

“.... If the stocks increase at some point, it would be nice to have enough to continue to operate without relying on leased fish all the time.” – QS Permit Owner, Puget Sound Area, 2015/2016

“And so what our job now is for the future is to continue to acquire additional quota share because we really don’t have enough.” – QS Permit Owner, Fort Bragg Area, 2015/2016
Concluding Thoughts

• Updated 5-year Review with additional analysis
• Still early in this catch share program, making it difficult to detect changes
• Much more data to analyze
• Develop data needs & new questions
• Continue to work with industry members to understand complex issues
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Questions?