

# Community Elements in North Pacific Catch Share Plans

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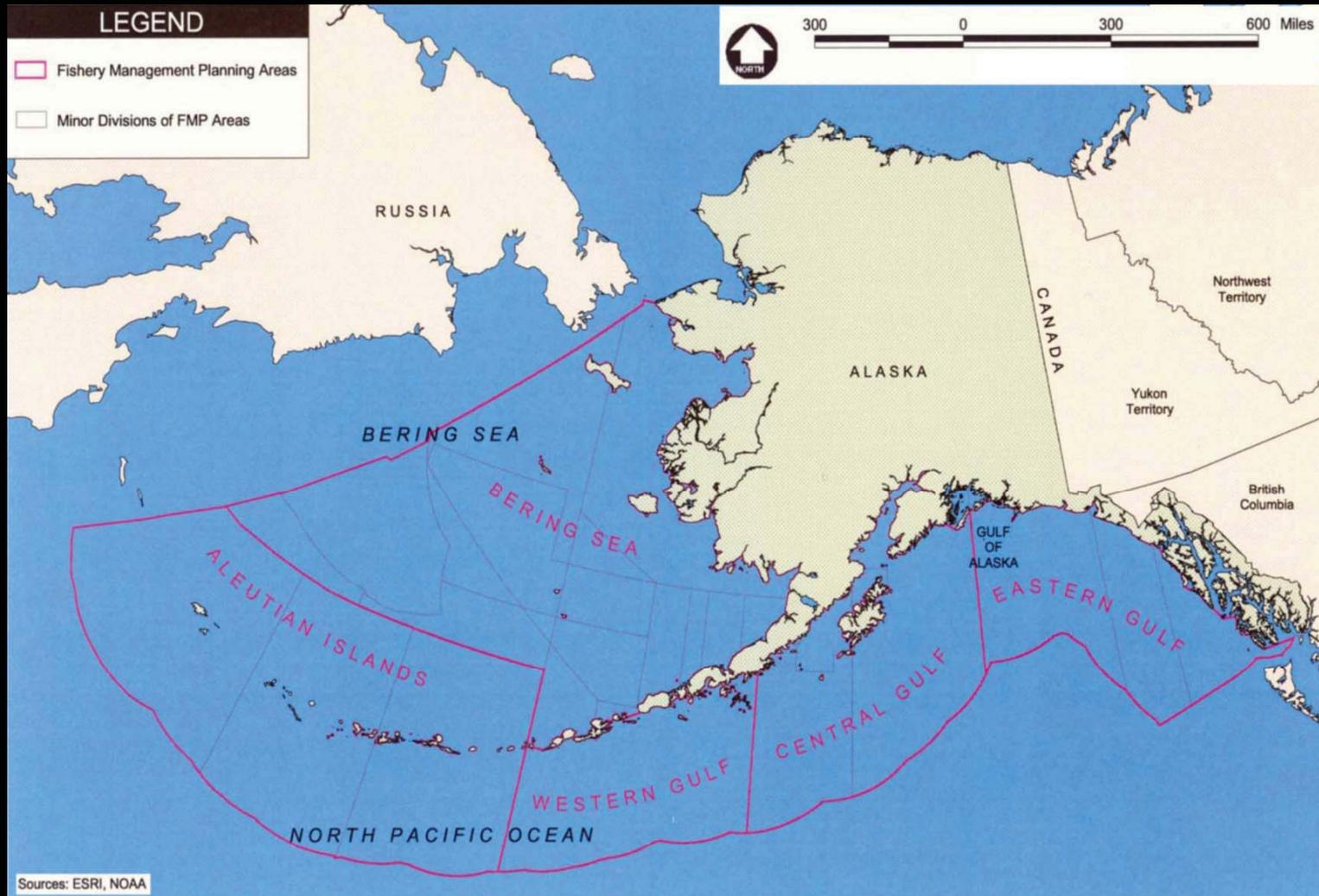
**AECOM**

# Overview of North Pacific Community Elements and BSAI Crab Rationalization Example

- Background of the BSAI crab fishery
- North Pacific context of catch share community elements
- Pre- and post-implementation measures of change
- Initial allocation and most recent season measures of change
- Efficacy of community measures
- Other social impact issues



# Bering Sea and Aleutian Islands (BSAI) Fishery Management Plan Areas



## Multiple Crab Fisheries – 2 Major Species

- Bristol Bay red king crab (*Paralithodes camtschaticus*)
- Bering Sea snow crab (*Chionoecetes opilio*)



## BSAI Crab Rationalization Context

- Management trend: Shift from common quota to rationalized (aka “catch share”) management systems in the North Pacific region:
  - Halibut
  - Sablefish
  - Pollock
  - Crab
- Substantial fleet consolidation
- Changes in community engagement and dependency
  - Landing patterns
  - Vessel ownership/homeport/activity
  - Crew engagement
  - Support services



## BSAI Crab Rationalization Context

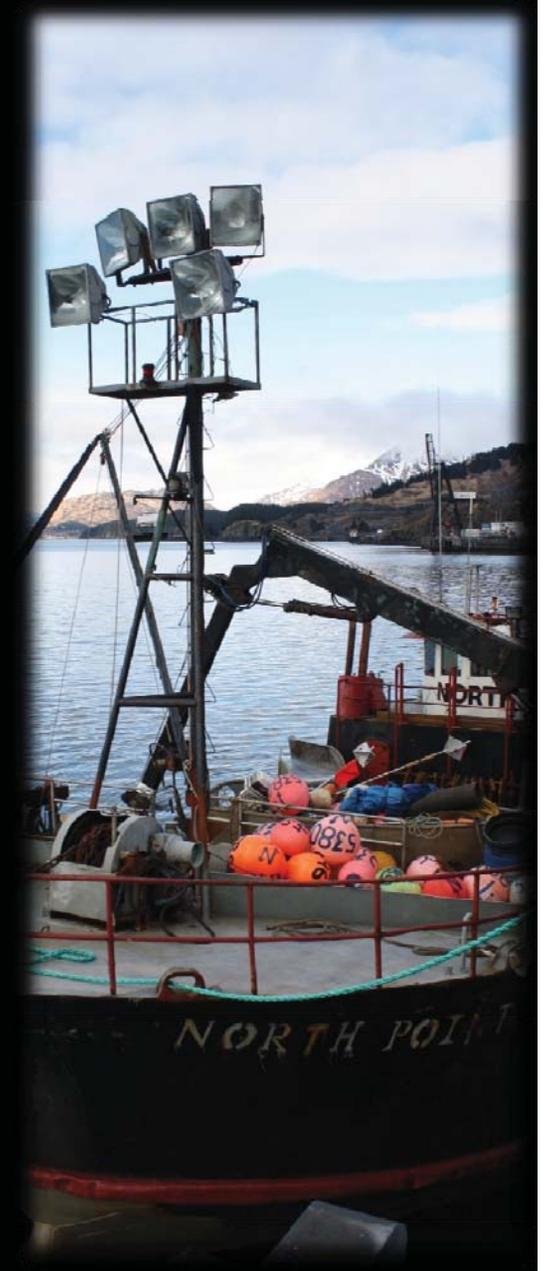
Community elements in other North Pacific catch share plans:

- Western Alaska Community Development Quota program (initially pollock, later multispecies)
- Gulf community quota share purchase program (halibut, sablefish)
- Adak Aleutian Islands pollock fishery allocation
- Others
  - American Fisheries Act
  - Amendment 80
  - Gulf of Alaska Rockfish



## How was BSAI crab rationalized?

- Transition from “Derby” or “Olympic” style to a catch share system
- Traditionally vessel owners/fishermen (IFQ), but also processors (PQ) and captains/crew (“C” shares)
- Includes Community Development Quota (CDQ)
- Complex relationship between IFQ, PQ, CDQ, and the different types of shares provided to each entity



## BSAI Crab Rationalization: Community Protection Measures

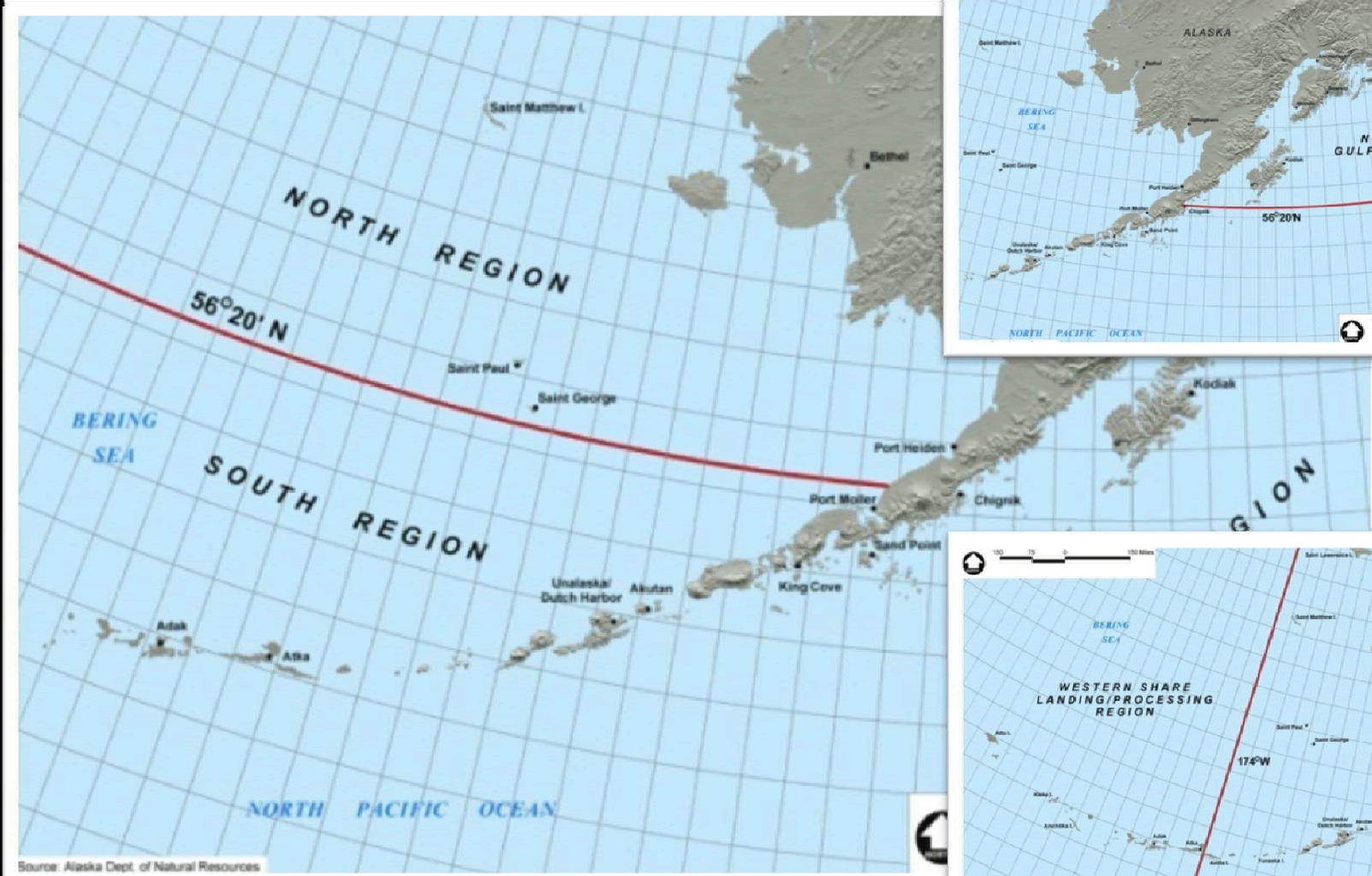
- Focused largely on processing location
- Regionalization of landings
  - Northern region
  - Western region
- Restrictions on processing quota share movement
  - Cooling off period
  - Rights of first refusal
- Direct golden king crab allocation to Adak
- Kodiak GOA based quota sweep up



# Alaska BSAI Crab-Dependent Communities (Pre-implementation)



# Regionalization Measures



## BSAI Crab Rationalization: Community and Crew Protection Measures

Five year outcomes:

- Nature of fishery has changed
- Communities experience these impacts differently
- “All rationalization is local”



## Patterns of BSAI Crab Vessel Participation by Community of Ownership: Pre-Rationalization

- Alaska (1991-2000 annual average  $\geq 2.0$  vessels)
  - Kodiak (20.9)
  - Homer (8.3)
  - Anchorage (6.1)
  - Petersburg (4.0)
  - Sand Point (3.8)
  - King Cove (3.1)
  - Unalaska (3.0)
  - Cordova (2.0)
  - Less than 2.0 vessels/year: Kenai, Seldovia, Yakutat, Seward, Sitka, Akutan, and Soldotna

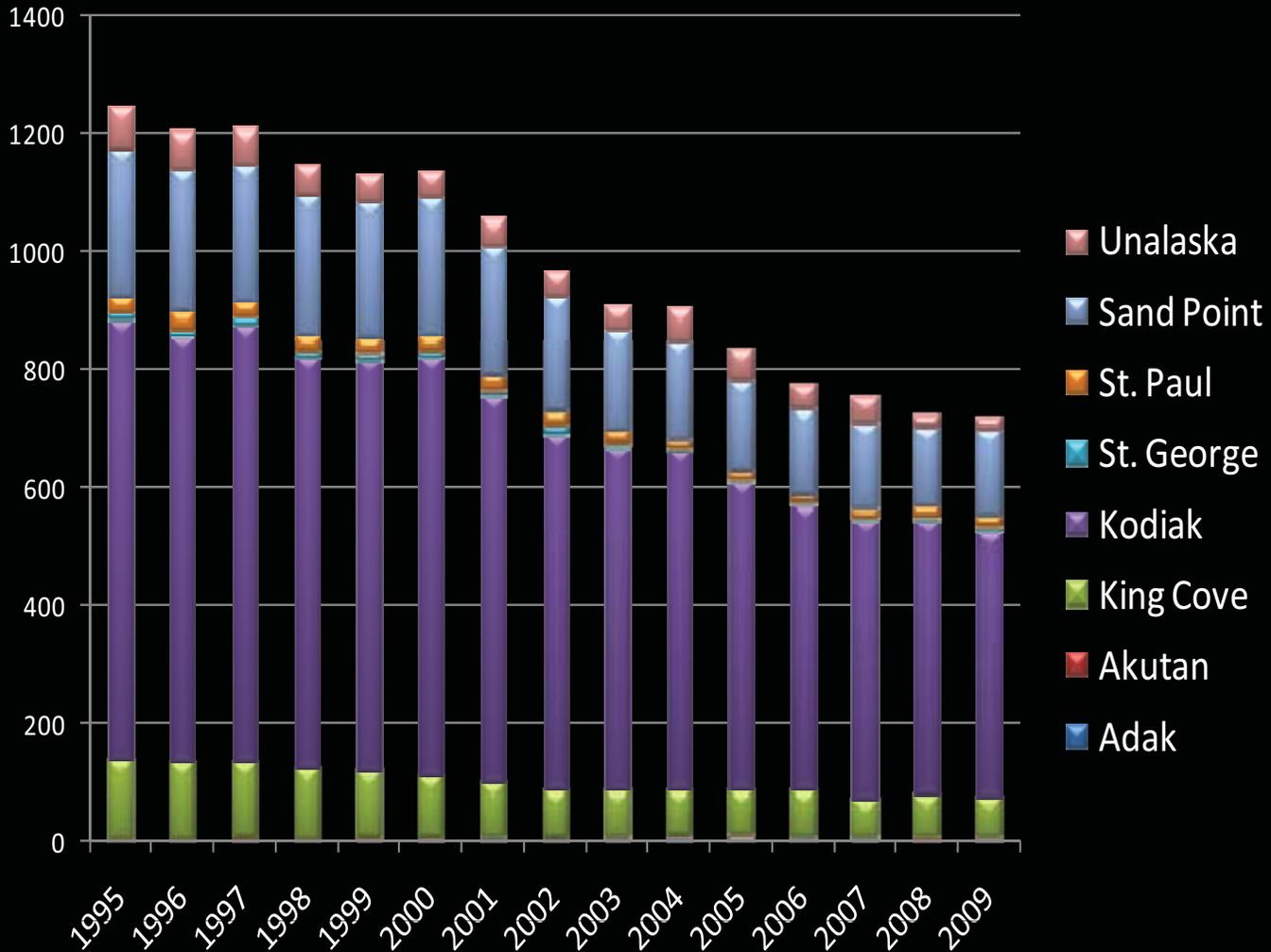


## Patterns of BSAI Crab Vessel Participation by Community of Ownership: Pre-Rationalization

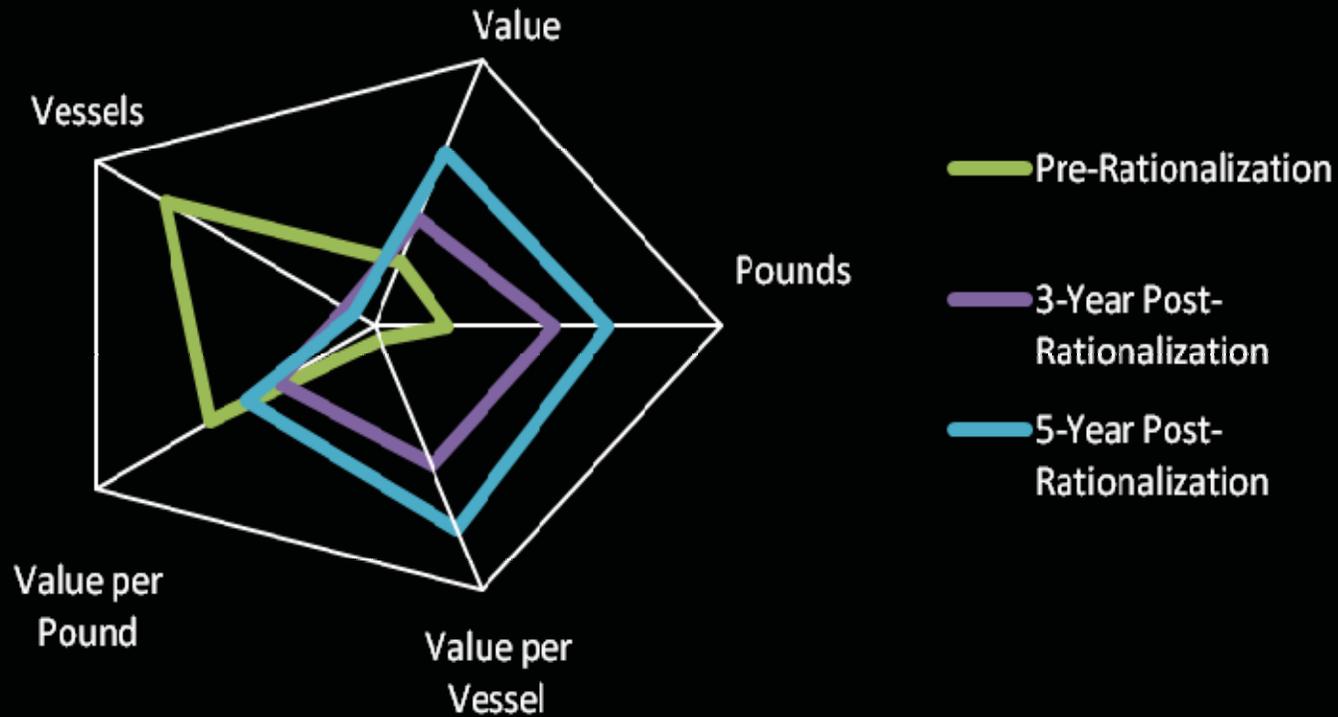
- Oregon (1991-2000 annual average  $\geq 2.0$ )
  - Newport (9.4)
- Washington (1991-2000 annual average  $\geq 2.0$ )
  - Seattle-Tacoma CMSA (146.0)
  - Bellingham (2.3)



# Key Crab Community Trends: Total Vessel Changes in Study Communities



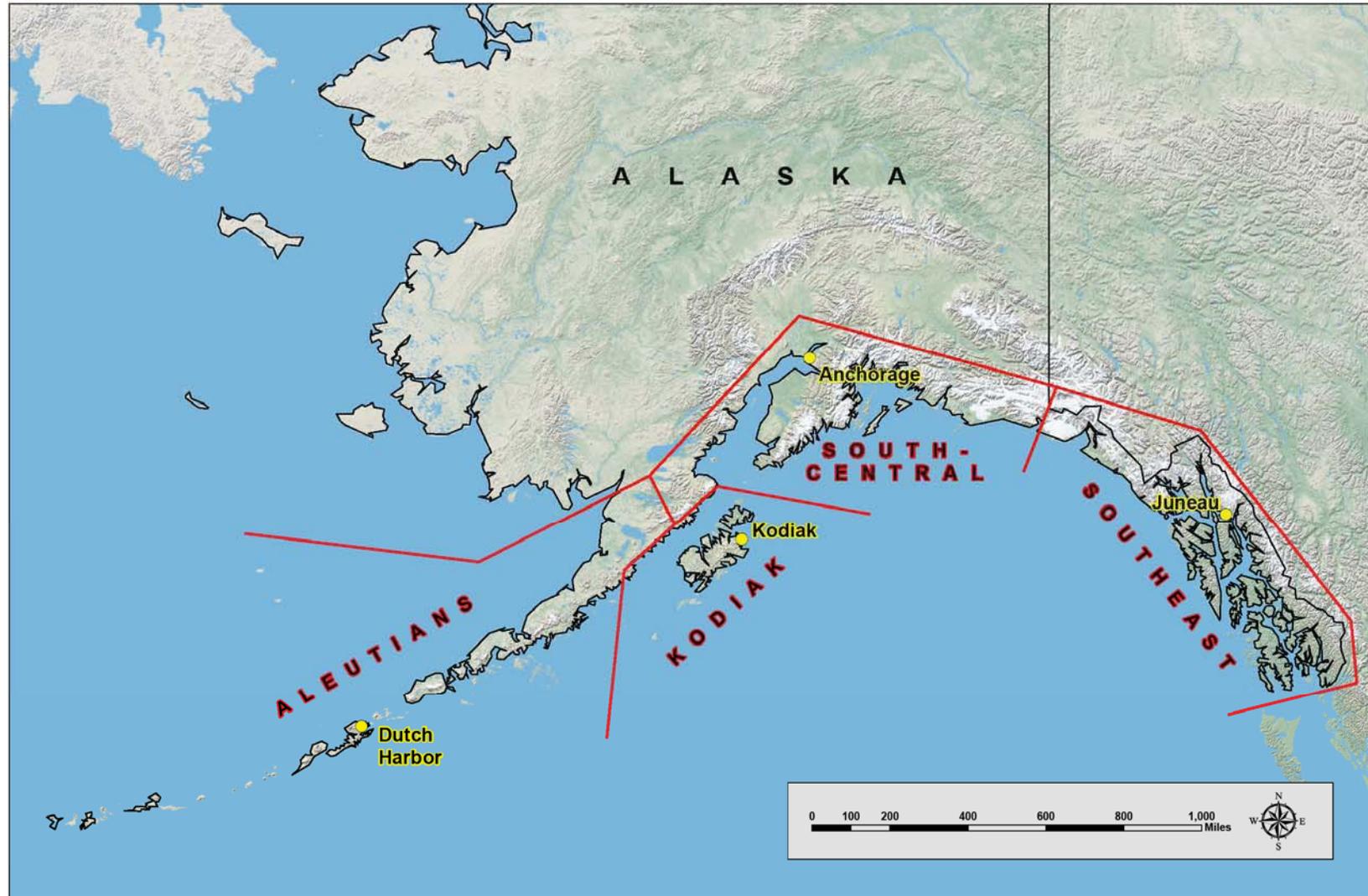
# Changing Nature of Bristol Bay Red King Crab (BBR) Fishery



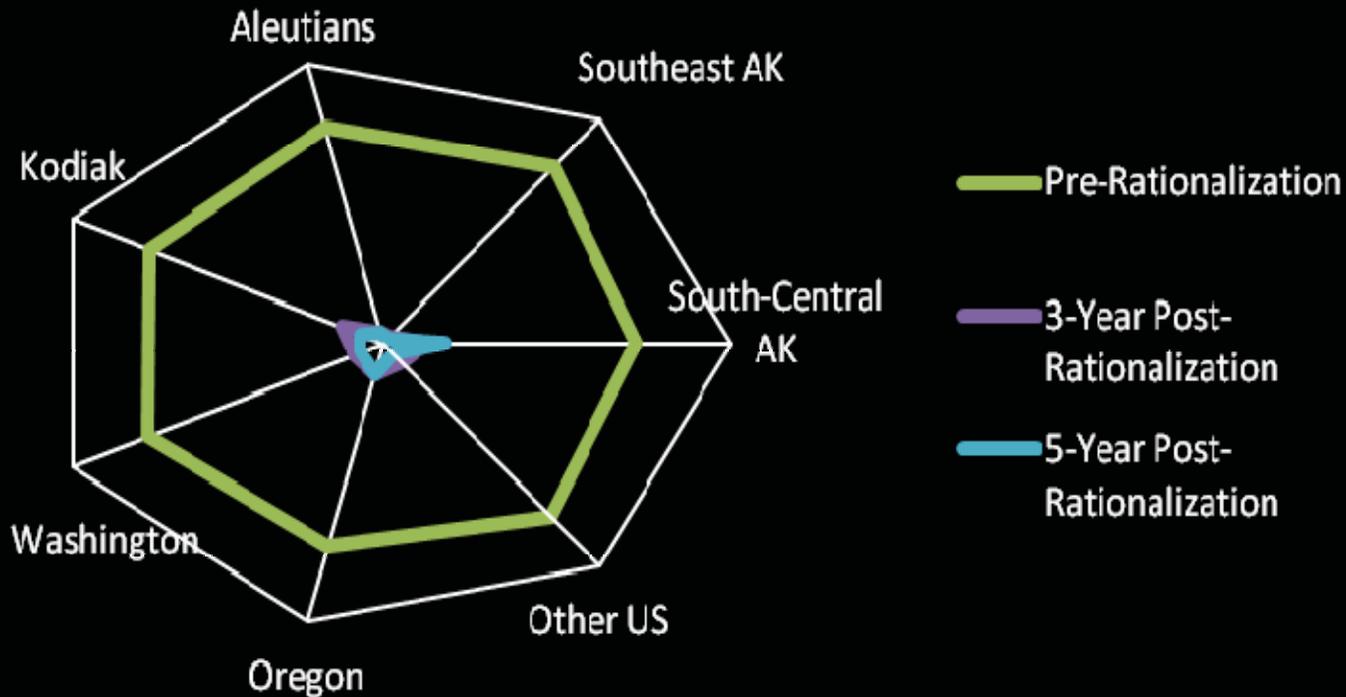
Phase	Pounds	Value	Vessels	Value per Pound	Value per Vessel
Pre-Rationalization	11,165,019	\$52,936,158	249	\$4.74	\$212,230
3-Year Post-Rationalization	15,266,528	\$61,625,275	85	\$4.04	\$725,003
5-Year Post-Rationalization	17,312,411	\$75,690,248	77	\$4.37	\$982,990



# Alaska Regions

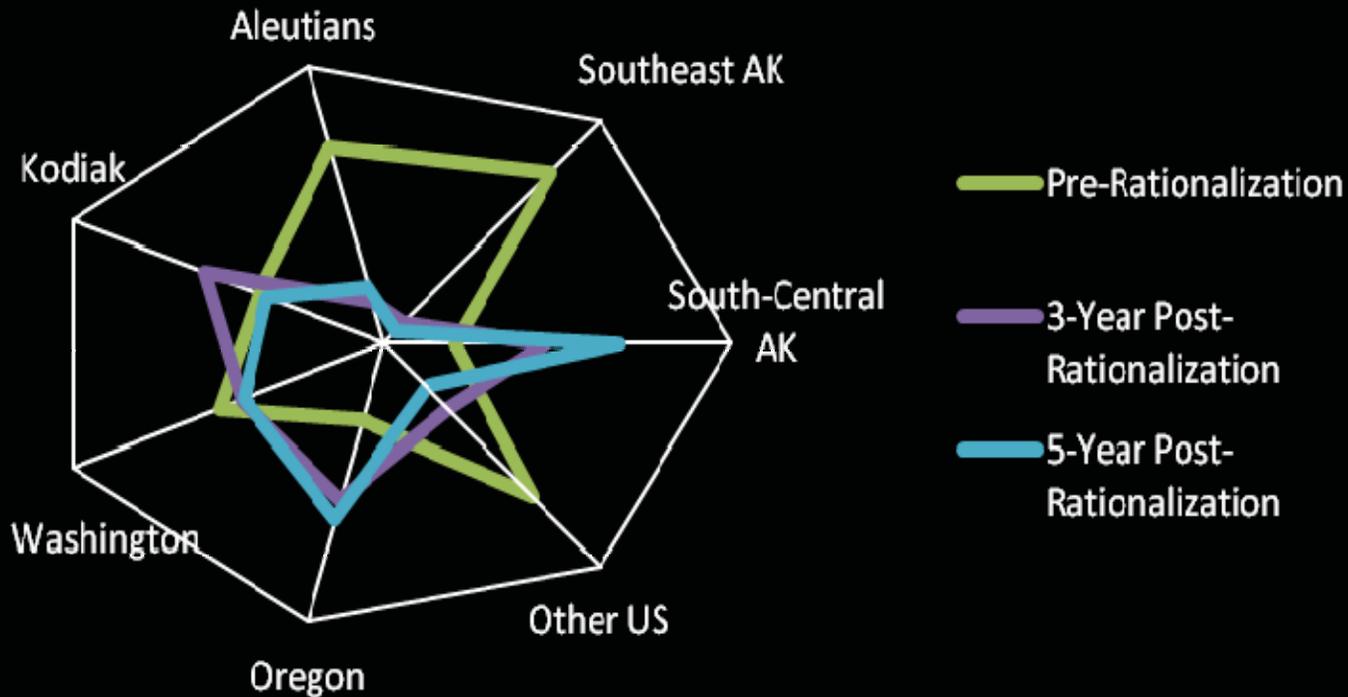


# Vessel Ownership Numbers by Region (BBR)



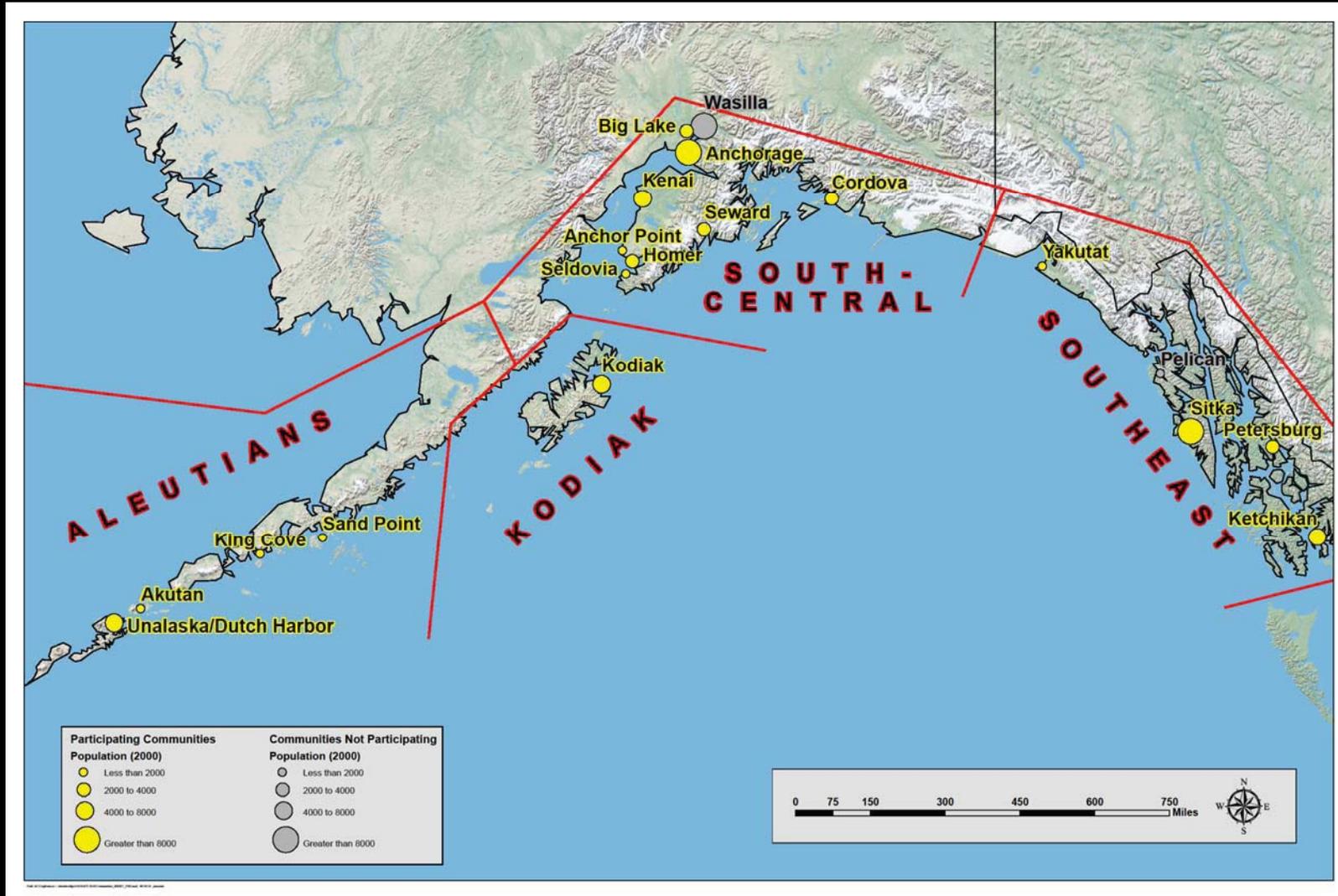
Phase	South-Central AK	Southeast AK	Aleutians	Kodiak	Washington	Oregon	Other US
Pre-Rationalization	15.6	5.6	5.6	33.6	157.9	20.0	6.3
3-Year Post-Rationalization	7.0	0.5	1.0	12.5	51.0	8.5	1.5
5-Year Post-Rationalization	7.8	0.4	1.0	10.4	47.6	8.4	1.2

# Vessel Ownership Percentage by Region (BBR)

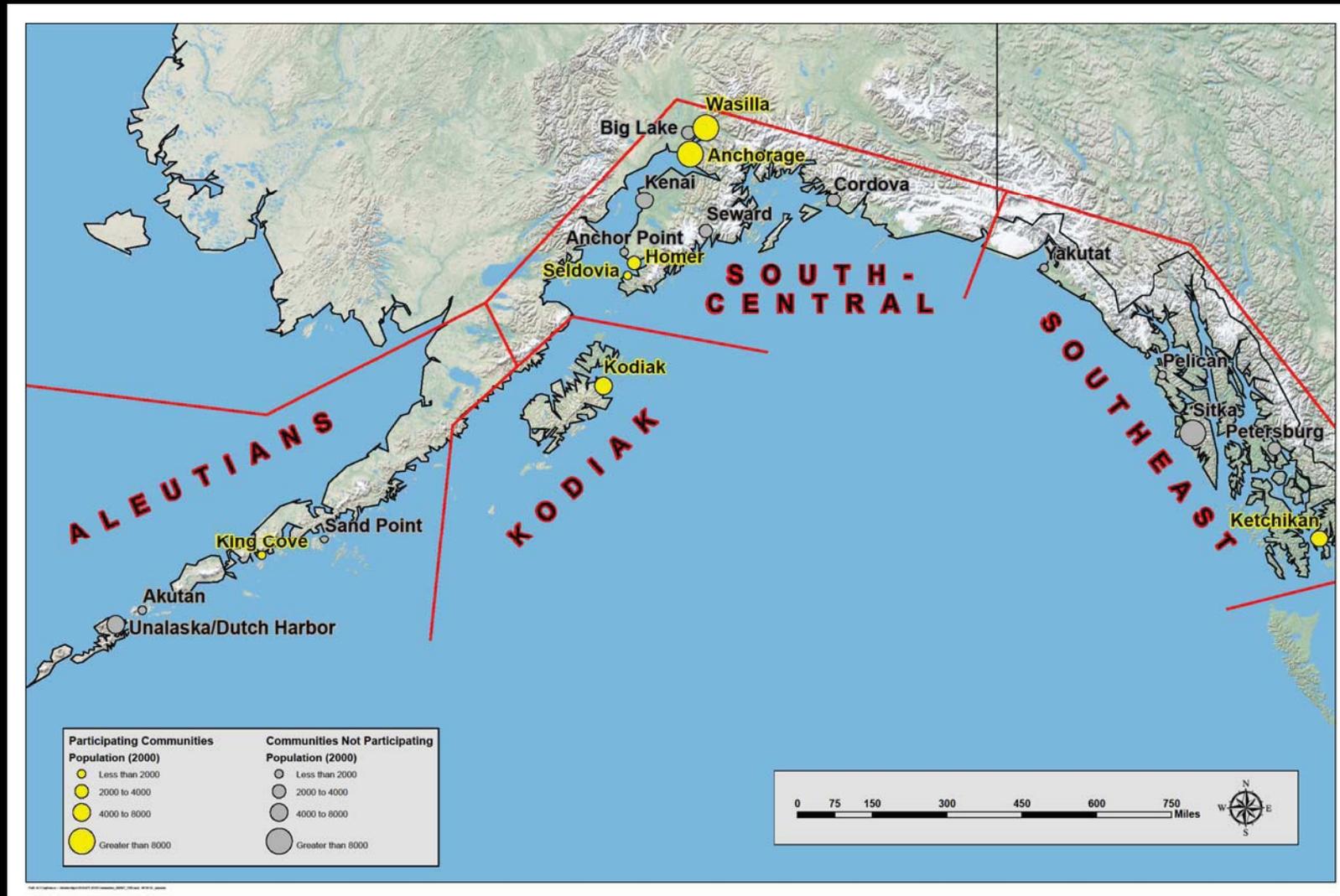


Phase	South-Central AK	Southeast AK	Aleutians	Kodiak	Washington	Oregon	Other US
Pre-Rationalization	6.4%	2.3%	2.3%	13.7%	64.6%	8.2%	2.6%
3-Year Post-Rationalization	8.5%	0.6%	1.2%	15.2%	62.2%	10.4%	1.8%
5-Year Post-Rationalization	10.2%	0.5%	1.3%	13.5%	62.0%	10.9%	1.6%

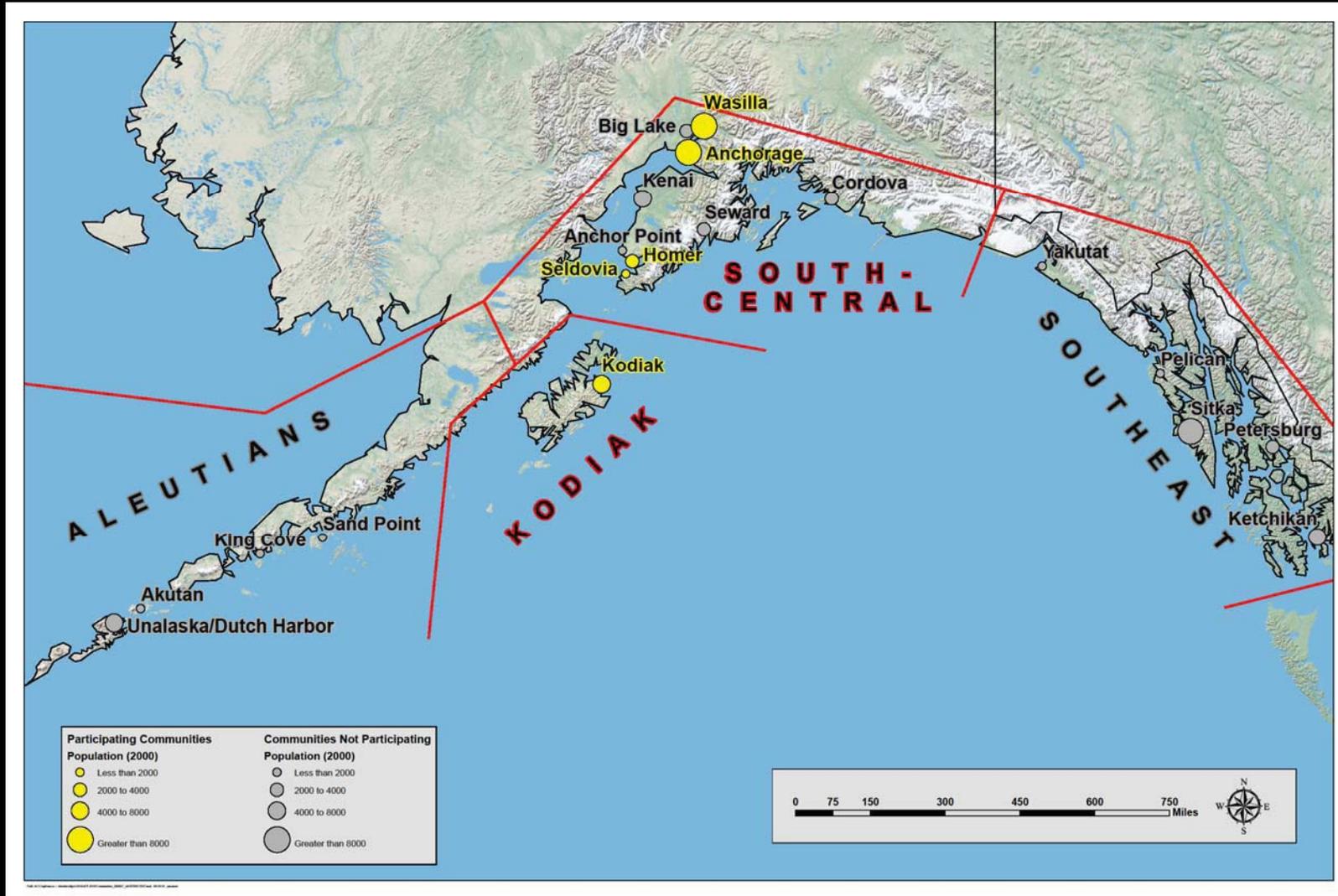
# Vessel Ownership Pre-Rationalization (BBR)



# Vessel Ownership All Years Post-Rationalization (BBR)

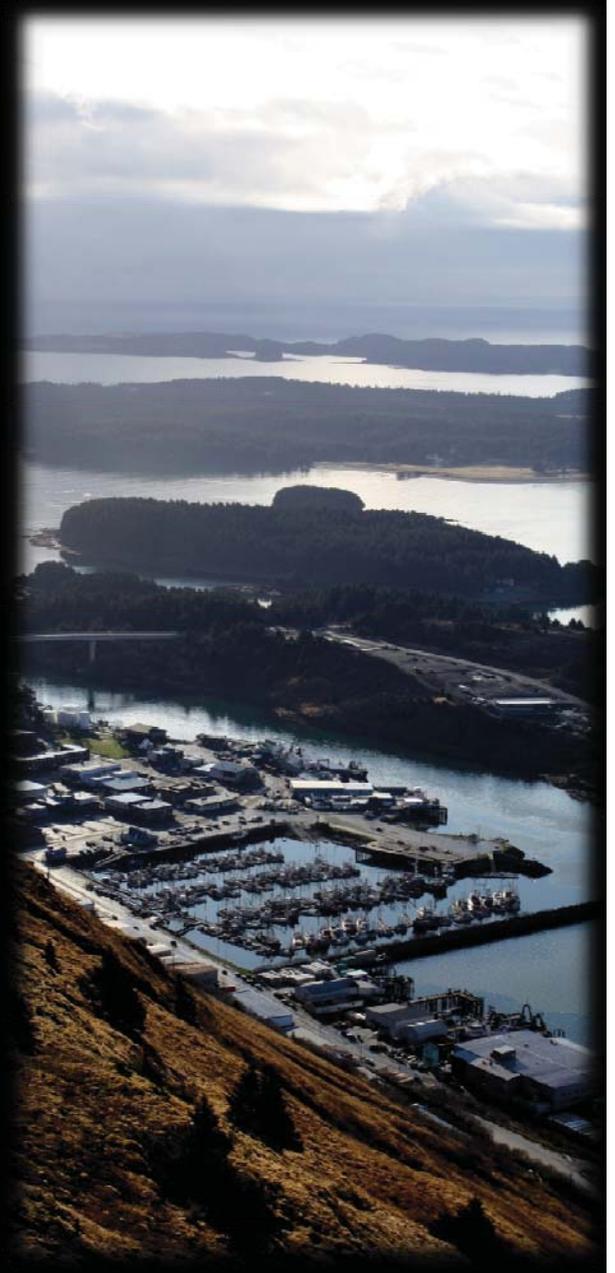


# Vessel Ownership Most Recent Year (BBR)

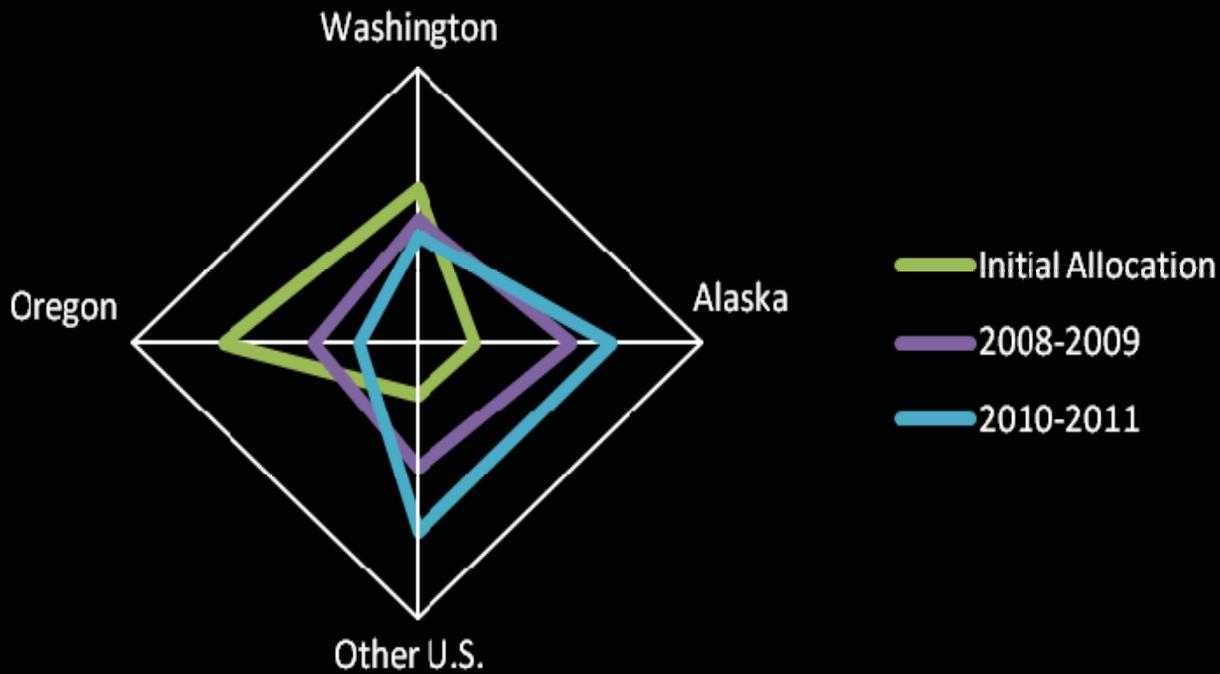


## Geographic Distribution of Vessel Ownership

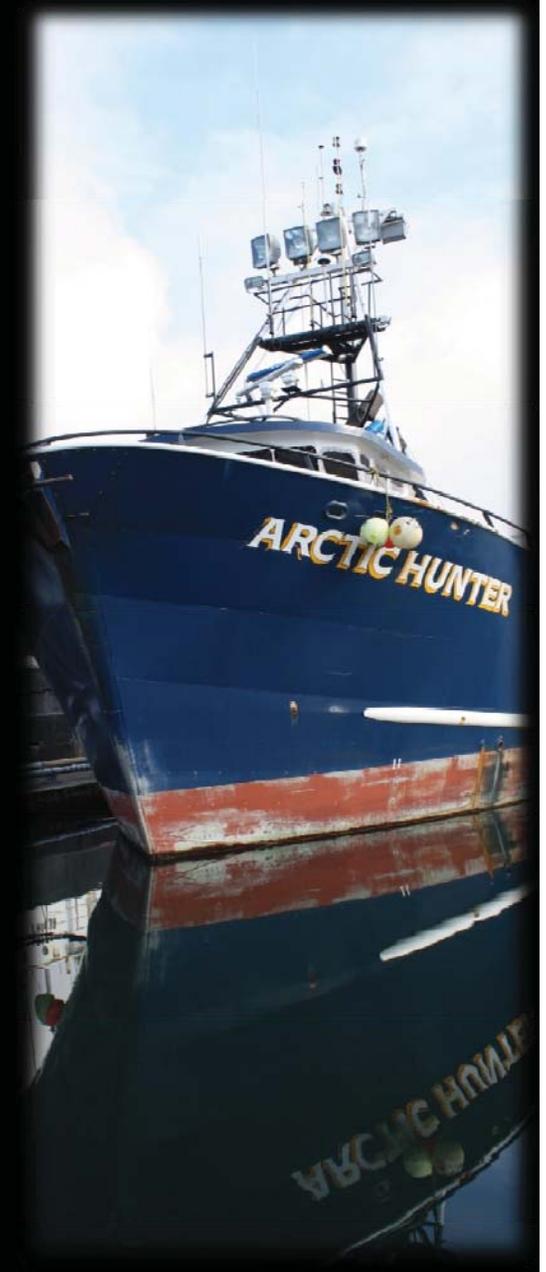
- Regional concentration of vessel ownership
- Consolidation into fewer communities within regions
- Consolidation into larger communities within regions



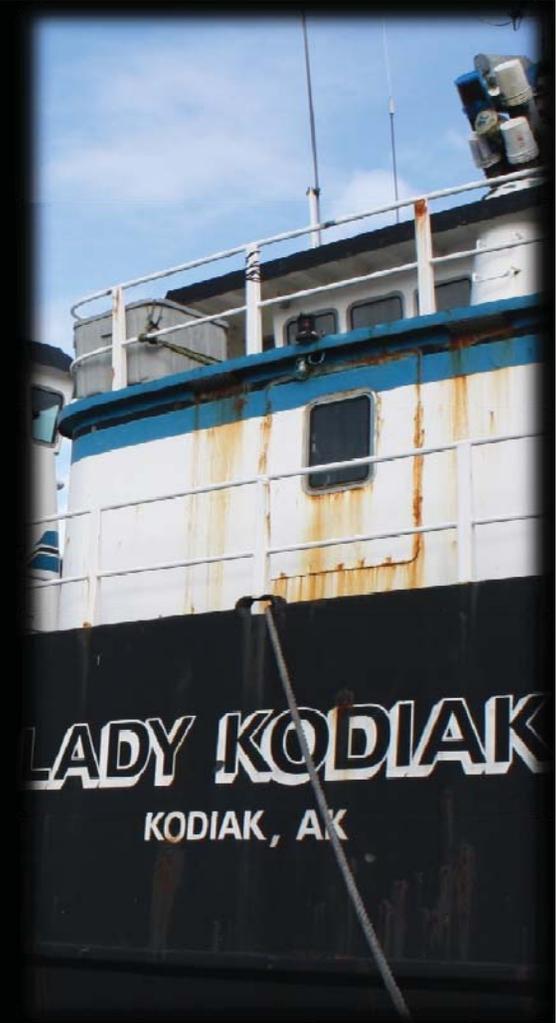
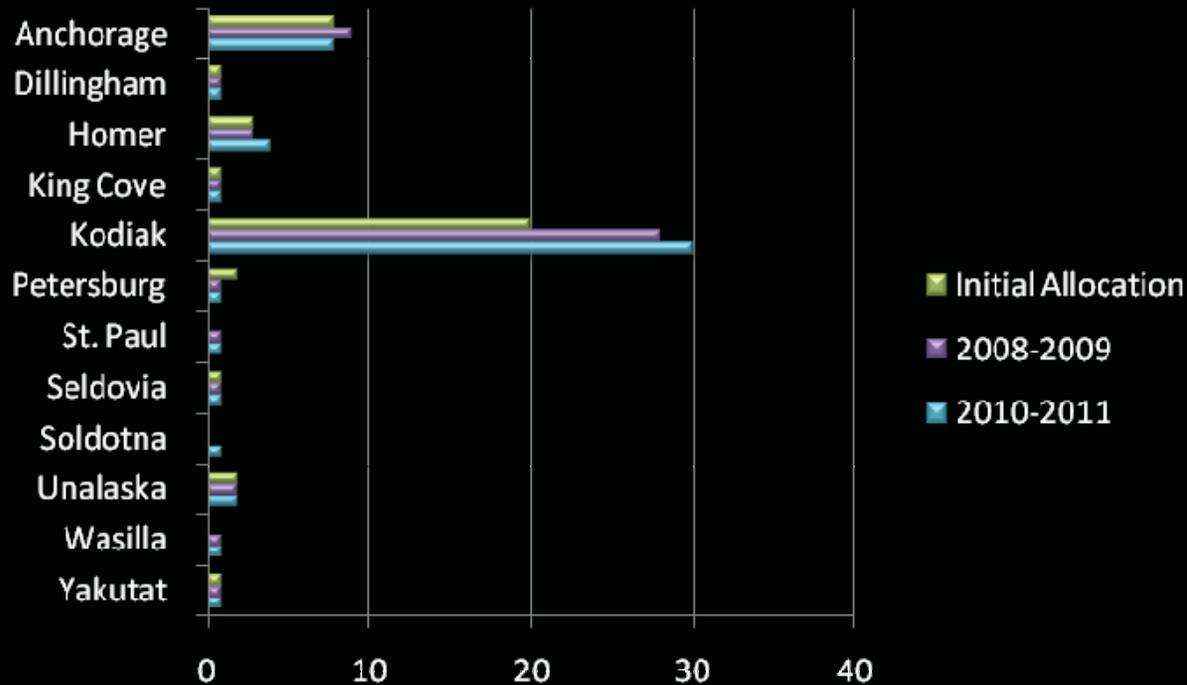
# Catcher Vessel Owner Shares: Initial Allocation, 2008/09, and 2010/11 Shareholders (BBR South)



Phase	Alaska	Washington	Oregon	Other U.S.
Initial Allocation	16.2%	69.3%	11.9%	2.6%
2008-2009	22.8%	64.8%	9.0%	3.5%
2010-2011	25.6%	62.6%	7.5%	4.3%

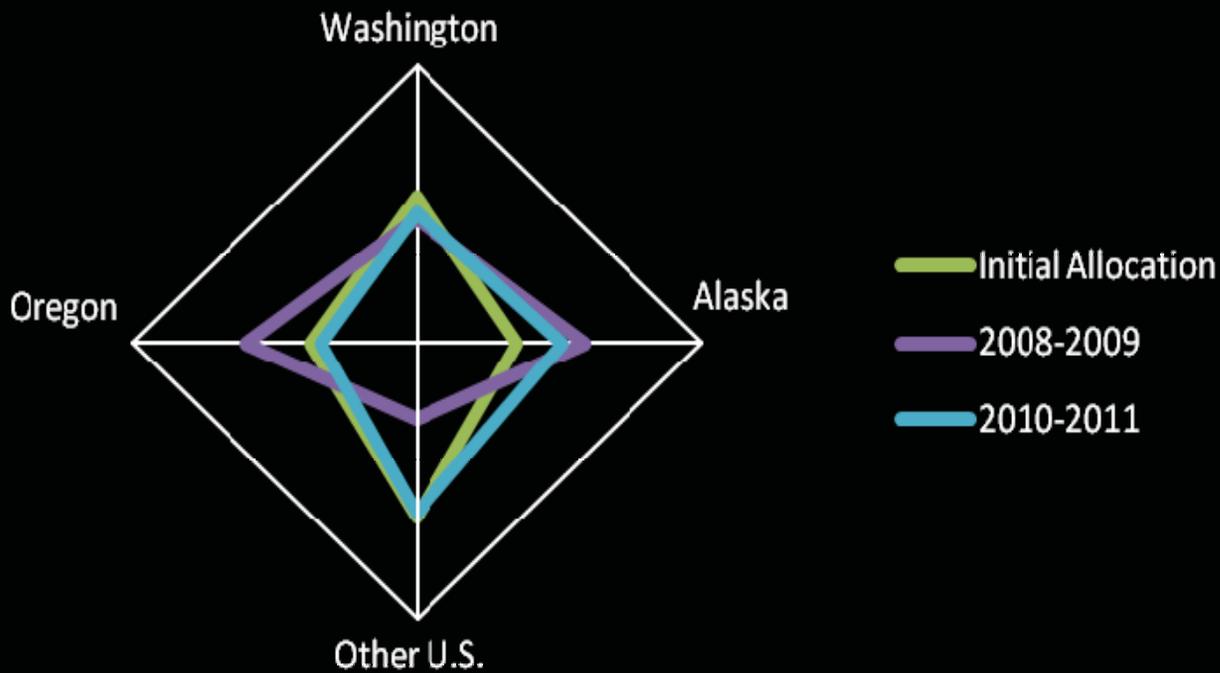


# Catcher Vessel Owner Shares: Initial Allocation, 2008/09, and 2010/11 Shareholders (BBR South)



Phase	Anchorage	Dillingham	Homer	King Cove	Kodiak	Petersburg	St. Paul	Seldovia	Soldotna	Unalaska	Wasilla	Yakutat
Initial Allocation	8	1	3	1	20	2	0	1	0	2	0	1
2008-2009	9	1	3	1	28	1	1	1	0	2	1	1
2010-2011	8	1	4	1	30	1	1	1	1	2	1	1

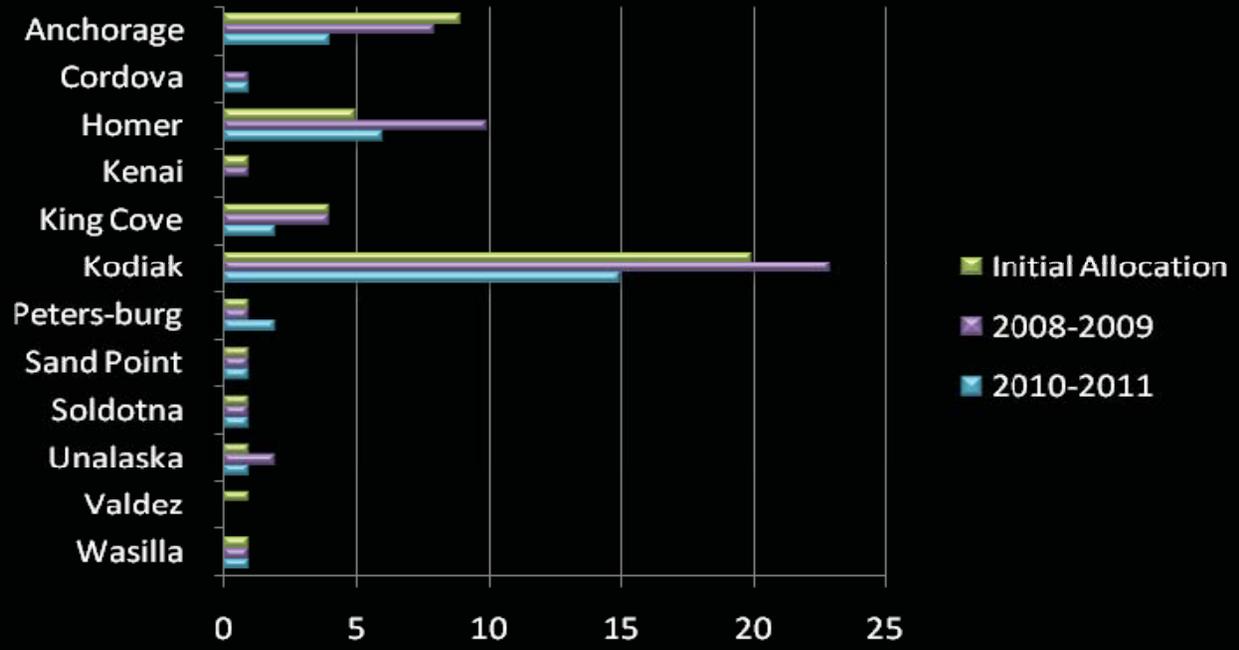
# Catcher Vessel Crew Shares: Initial Allocation, 2008/09, and 2010/11 Shareholders (BBR South)



Phase	Alaska	Washington	Oregon	Other U.S.
Initial Allocation	20.2%	63.7%	7.9%	8.2%
2008-2009	23.6%	61.0%	9.2%	6.2%
2010-2011	22.5%	61.7%	7.7%	8.1%



# Catcher Vessel Crew Shares: Initial Allocation, 2008/09, and 2010/11 Shareholders (BBR South)

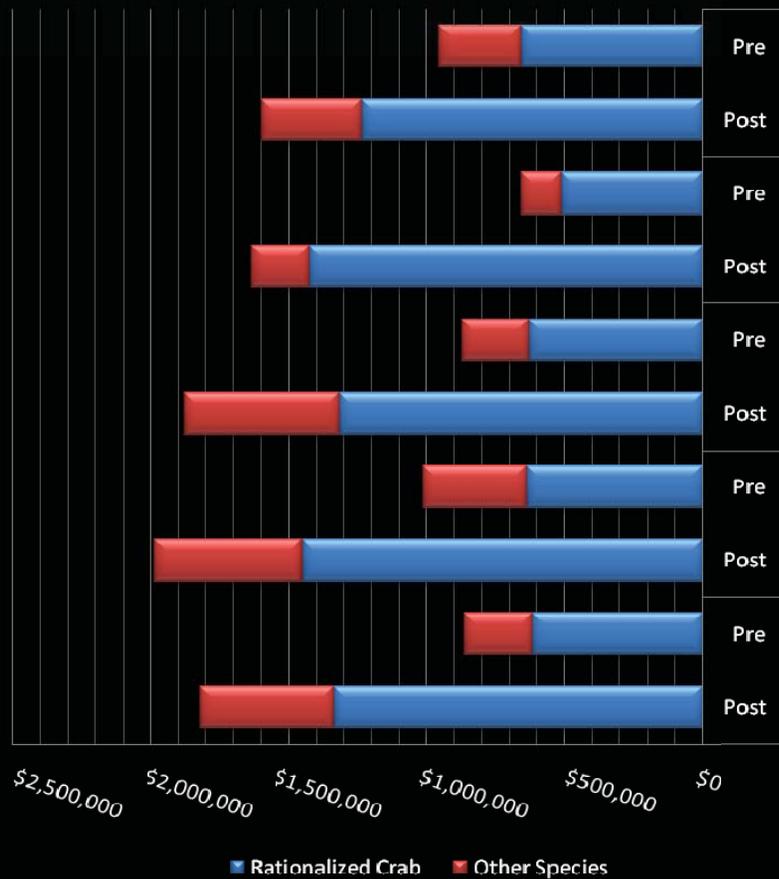


Phase	Anchorage	Cordova	Homer	Kenai	King Cove	Kodiak	Petersburg	Sand Point	Soldotna	Unalaska	Valdez	Wasilla
Initial Allocation	9	0	5	1	4	20	1	1	1	1	1	1
2008-2009	8	1	10	1	4	23	1	1	1	2	0	1
2010-2011	4	1	6	0	2	15	2	1	1	1	0	1

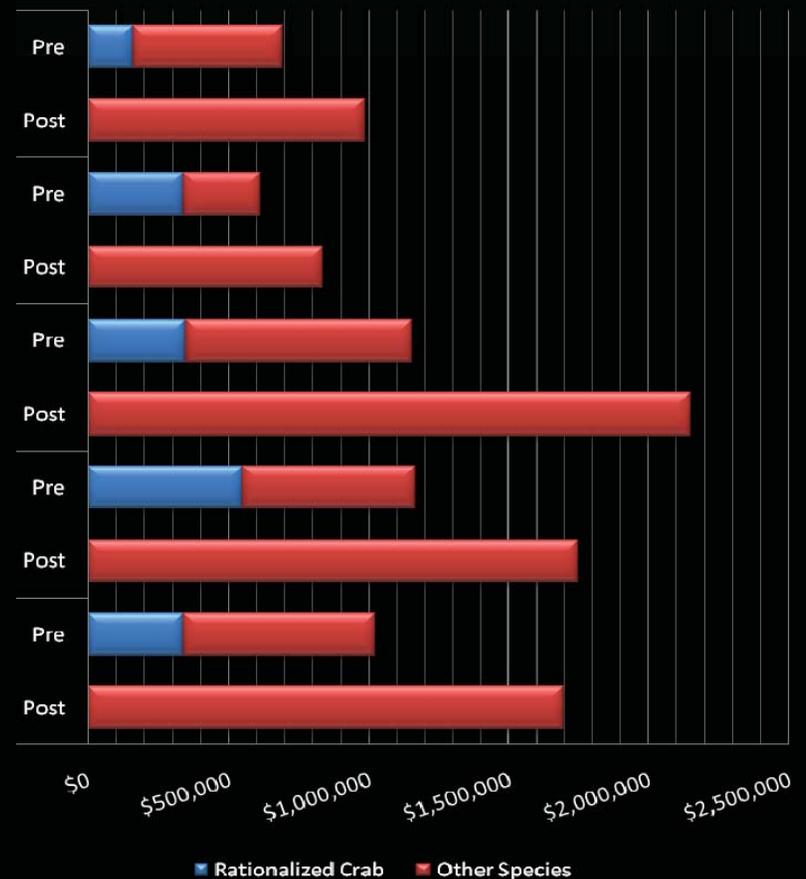
# Harvest Comparison of BSAI Crab Vessels In/Out of the Rationalized Crab Fisheries, Value per Vessel

## In Rationalized Crab

## Out Rationalized Crab



Kodiak  
Other Alaska  
WA  
OR and Other US  
All States



## Other Issues: Nature of Crew and Community Engagement

- Captain and crew issues salient in few communities
  - Kodiak
  - King Cove
- Employment and economic plurality
  - Employment plurality remains a key strategy in rural communities with few steady opportunities
  - Economic plurality seen as key strategy for communities given short- and long-term resource fluctuations
- Employment incompatibility
  - includes participation in local commercial fisheries, among other income producing activities
  - extends to non-employment activity conflicts, including subsistence and family/community obligations



# Other Issues: Efficacy of Community Protection Measures

- Regionalization
  - Northern Region: landing requirements (Pribilof Islands)
  - Western Region: Adak
    - Landings requirement
    - Community allocation
  - Gulf of Alaska: Kodiak quota sweep-up
- Processing quota transfer restrictions
  - Few transfers through formal ROFR process
  - Forced divestitures have largely stayed local
  - Community definition: False Pass
- Community Development Quota
  - Expansion of quota percentage
  - Investments in crab fisheries



## Other Issues

- Processing employment not a substantial issue
- Arbitration system apparently functioning as designed
- Community protection measures were designed to protect then-participating entities
  - Community preclusion a concern, but difficult to measure
- C-share modification proposals would benefit current participants
  - historical participants who would have benefitted from a different initial allocation would not benefit
- Philosophical opposition to rationalization in some communities, independent of material benefit considerations



# Questions

