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# Indices of Community Involvement in the Halibut and Sablefish IFQ Fisheries

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# Community Participation Indices Background

- Community social vulnerability indicators (CSVI)  
(Jepson and Colburn, 2013; Himes-Cornell and Kasperski, 2016)  
<http://www.st.nmfs.noaa.gov/humandimensions/social-indicators/>
  - Social Vulnerability
  - Gentrification
  - Fisheries Participation
- Community participation indices have been included in the Crab Rat 10-year Review, Steller Sea Lion Protection Measures EIS, GOA Sablefish Pot RIR/IRFA, and the Halibut PSC NPFMC analysis.

# Data

- Annual Baseline (1992-1994) through 2014
- Community or regional grouping as the unit of analysis
- 924 communities throughout the US aggregated into 126 communities in Alaska and 5 regional groupings: Seattle Metropolitan Statistical Area (Seattle MSA), Other Washington, Oregon, All Other USA, and Canada

# Methods

- Commercial Fisheries Engagement Indices
  - Commercial Harvesting Engagement
  - Commercial Processing Engagement
- Regional Quotient (RQ)
  - Community share of IFQ total
- Local Quotient (LQ)
  - IFQ share of community total

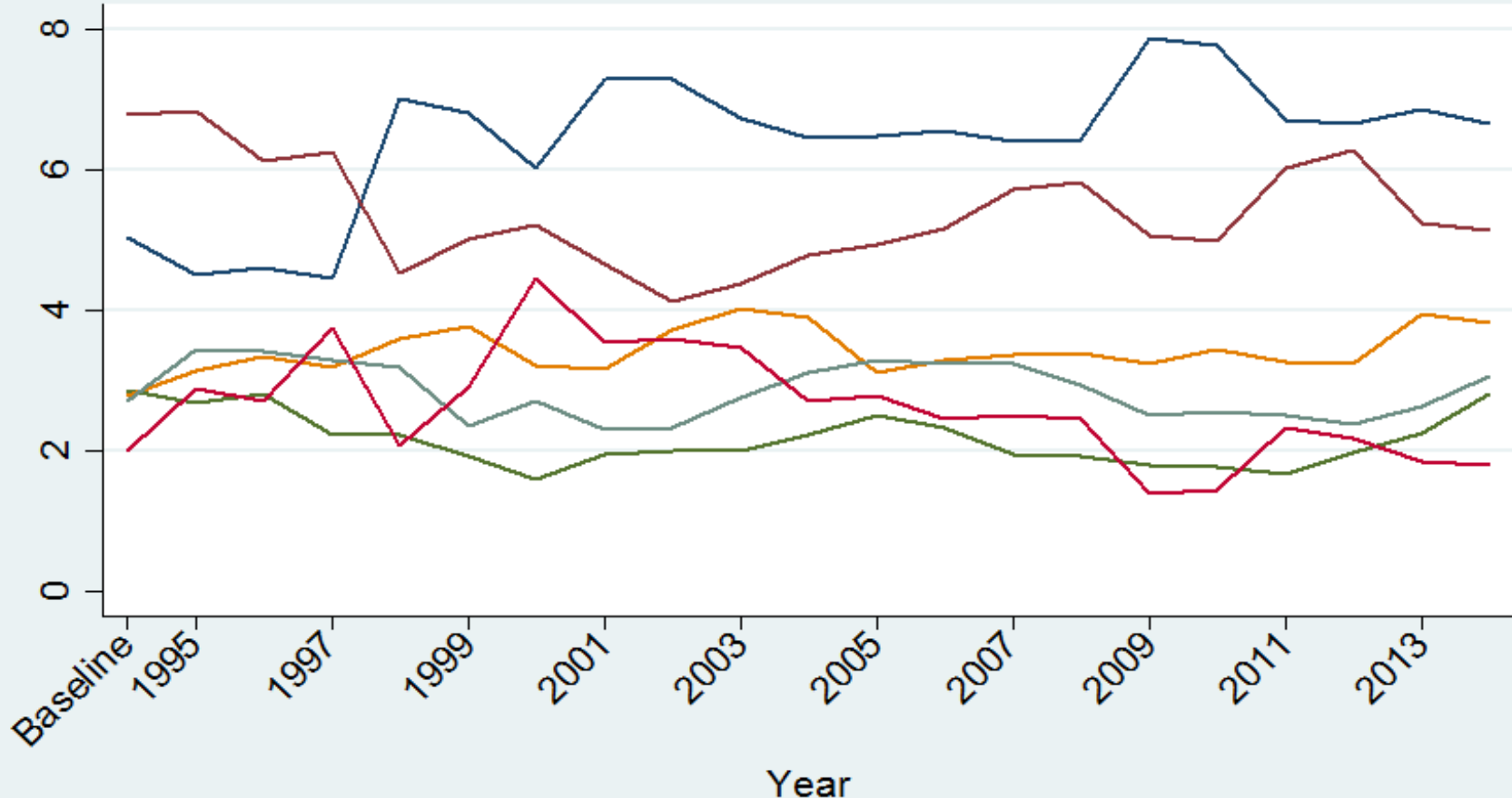
# Methods

- Commercial Processing Engagement
  - Ex-vessel revenue
  - Pounds landed
  - Number of delivering vessels
  - Number of processors
- Commercial Harvesting Engagement
  - Ex-vessel revenue from resident vessel owners
  - Pounds landed by resident vessel owners
  - Number of resident vessel owners
  - Number of IFQ vessels

# Methods

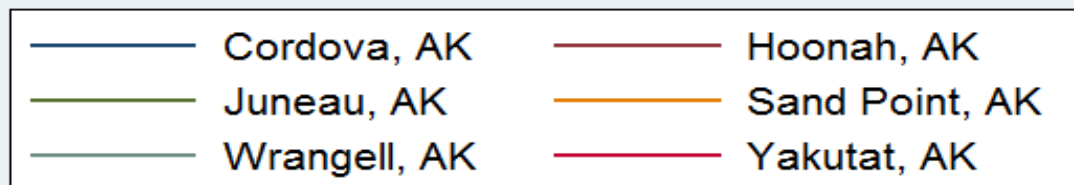
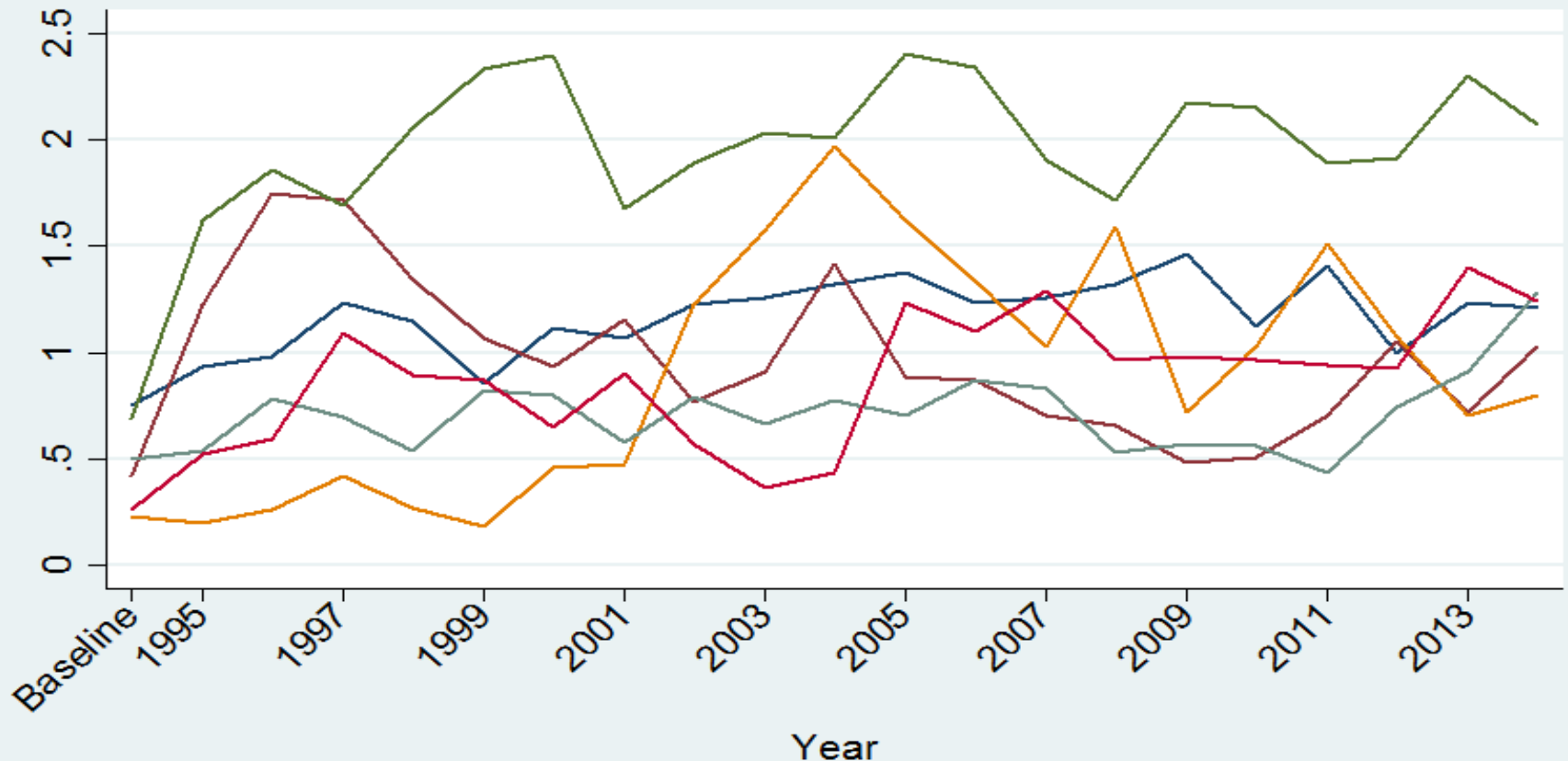
- Regional Quotient
  - Community % of total IFQ program species pounds
  - Community % of total IFQ program species revenue
- Local Quotient
  - Community IFQ program species pounds divided by community total landed species pounds
  - Community IFQ program species revenue divided by community total landed species revenue

# Halibut IFQ Processing Engagement (highly engaged all years)



# Halibut IFQ Processing Engagement

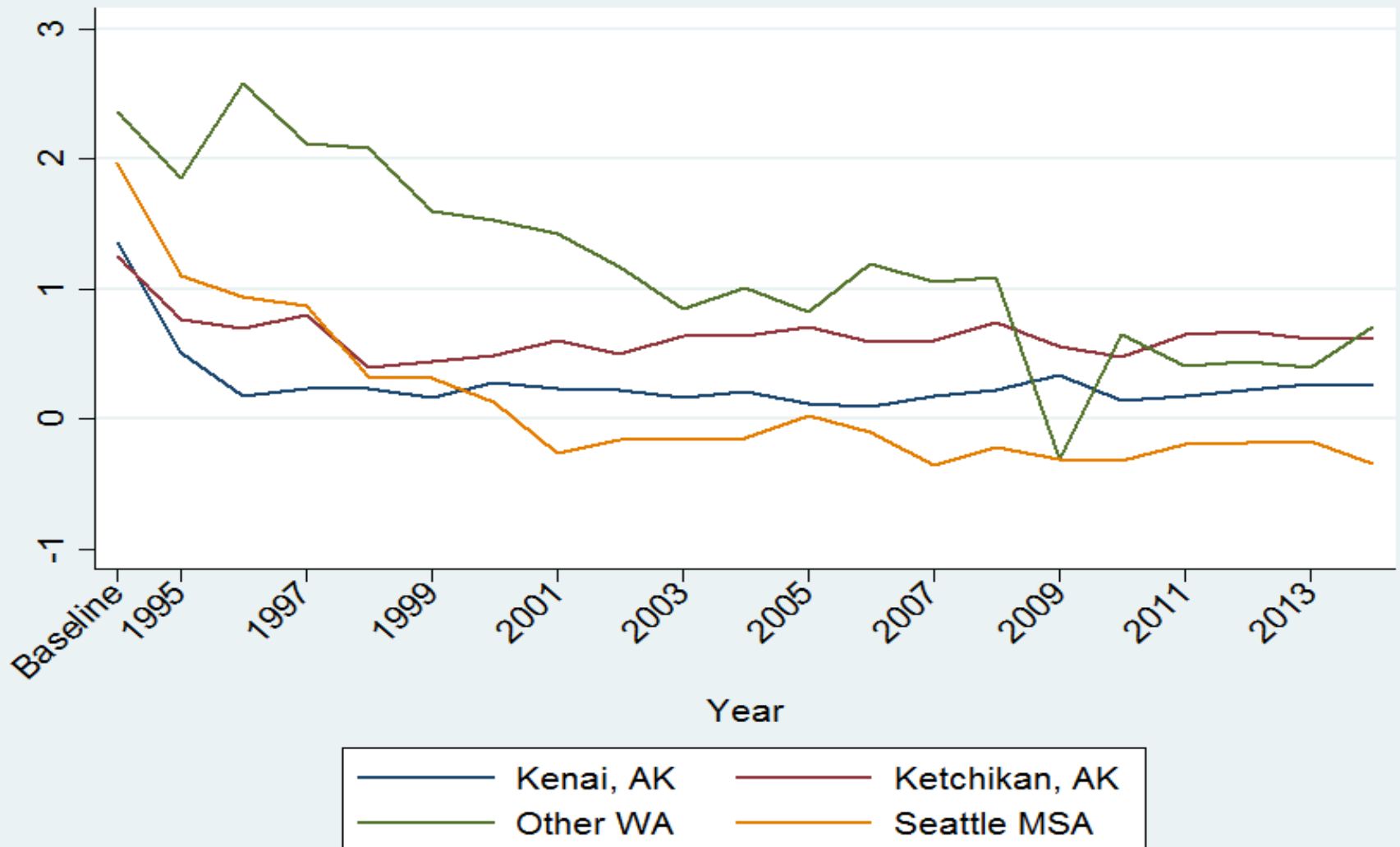
(highly engaged  $\geq 1$  year with 50% *increase* in engagement)



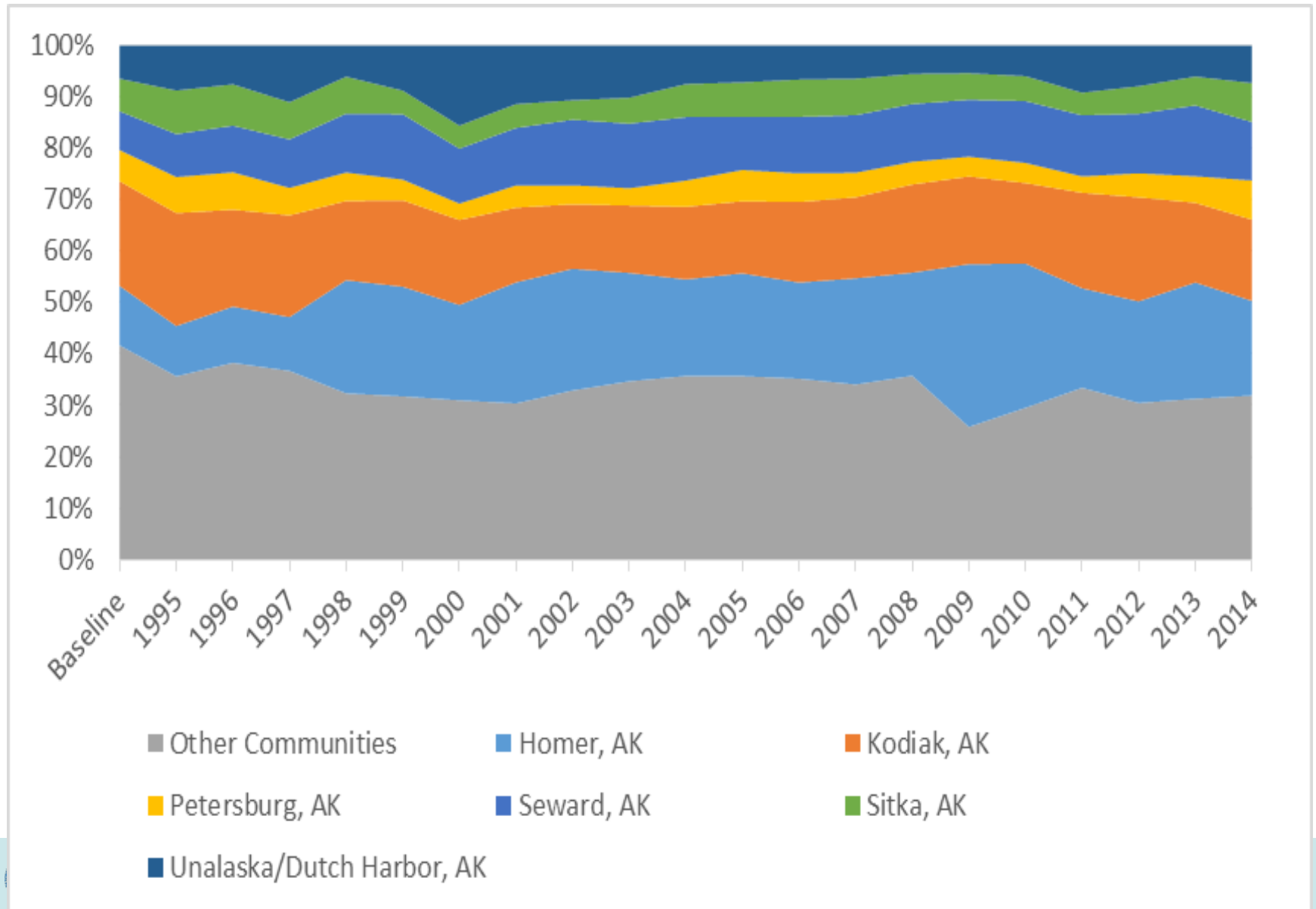


# Halibut IFQ Processing Engagement

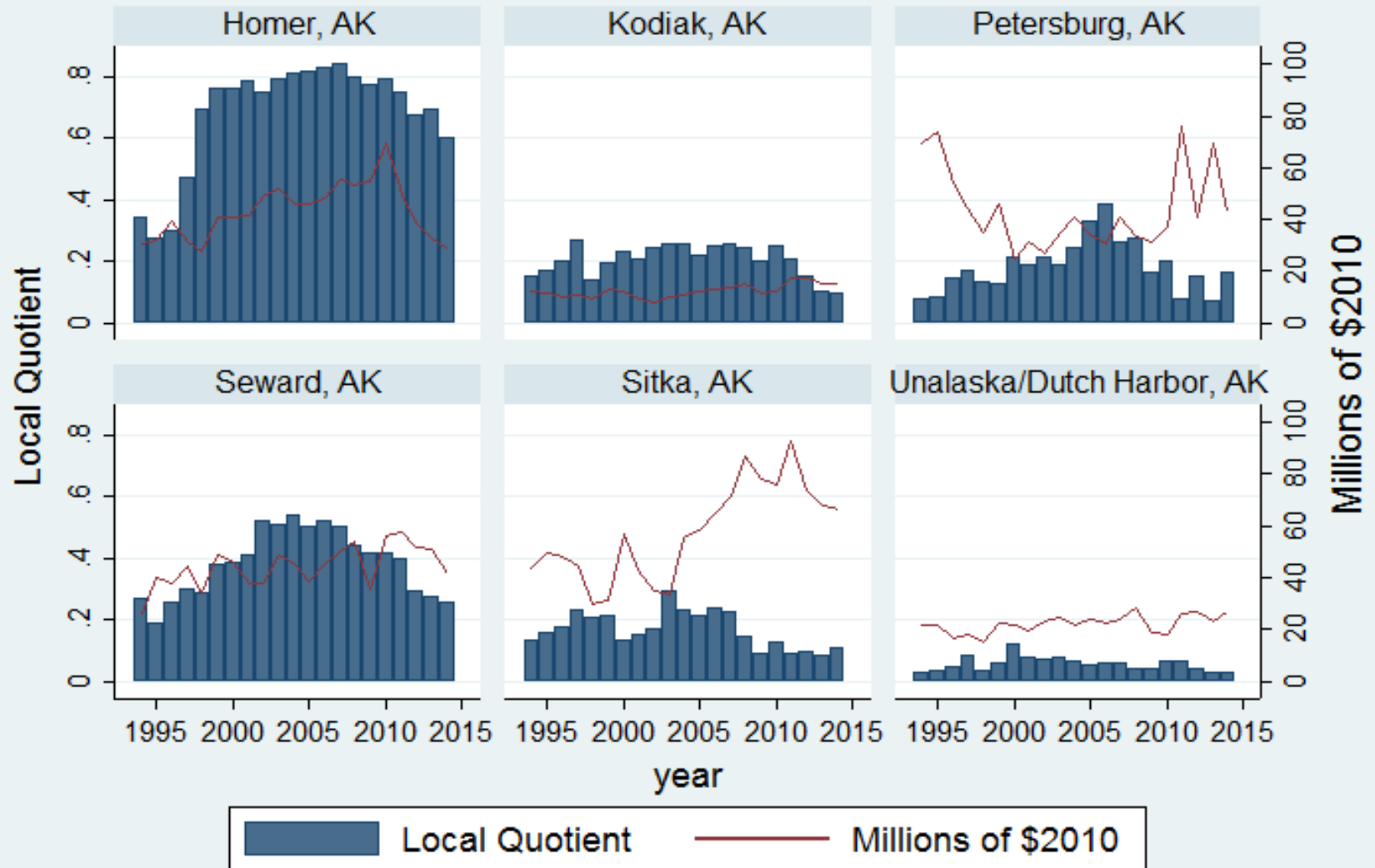
(highly engaged  $\geq 1$  year with 50% *decrease* in engagement)



# Halibut Processing Regional Quotient (revenue)

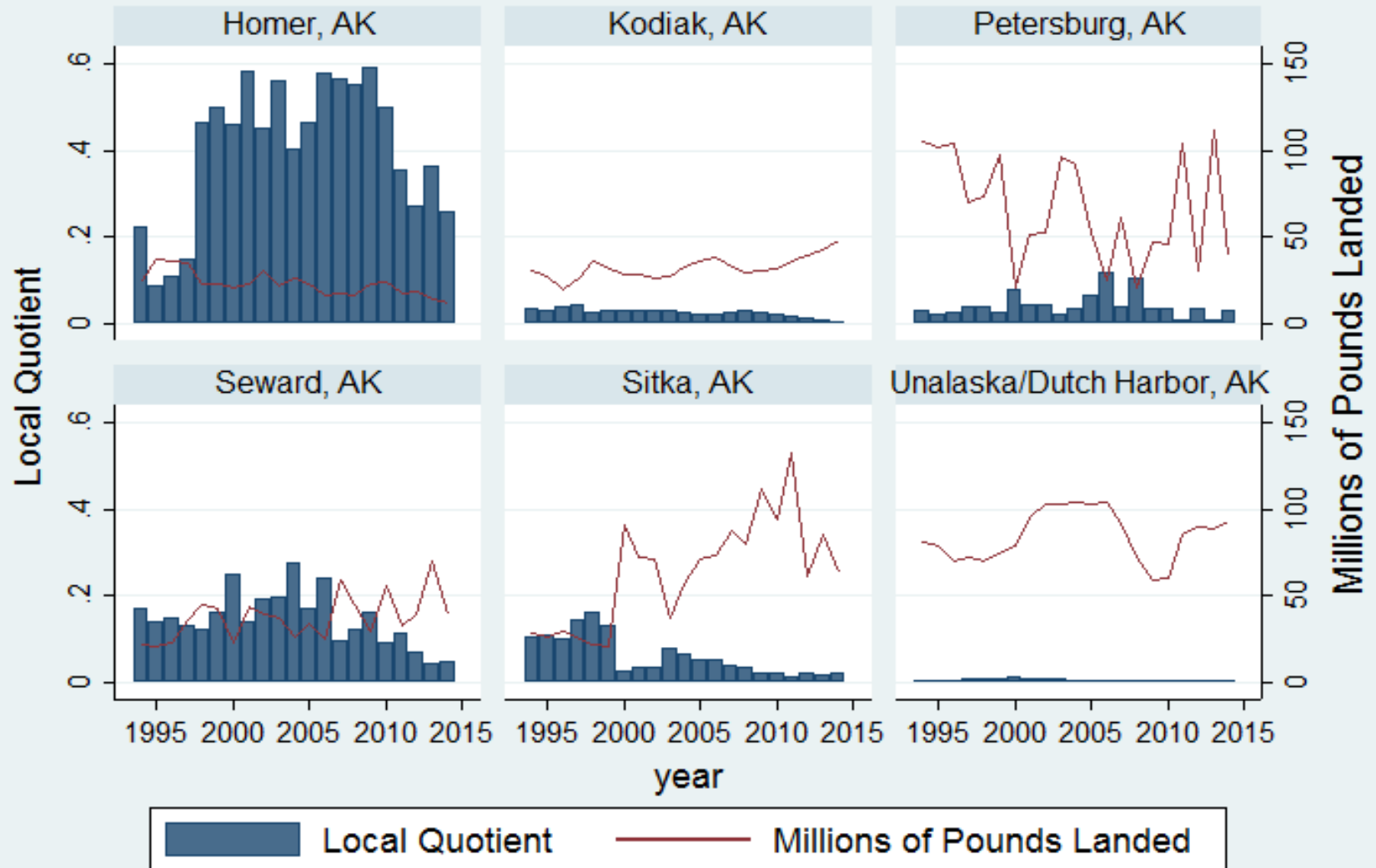


# Halibut Processing Local Quotient (revenue)



Graphs by community

# Halibut Processing Local Quotient (pounds)



Graphs by community

# Halibut and Sablefish Summary

- Communities were categorized into low ( $<0$ ), medium (0-1), and high ( $>1$ ) engagement for each year.
- Halibut
  - 46 communities had medium or high engagement in either harvesting or processing
  - 20 communities were highly engaged in one aspect
- Sablefish
  - 35 communities had medium or high engagement in either harvesting or processing
  - 16 communities were highly engaged in one aspect

# Appendix Summary

- Engagement indices provide additional information than can be learned from landed pounds and revenues alone.
- It's important to distinguish harvesting from processing as different communities are engaged in each aspect.
- LQ and RQ provide additional insights into the importance of the IFQ fishery to communities and the importance of communities to the IFQ Program.



Thank you!

Questions?

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