



Fleet Diversity, Allocation, and Excessive Shares in the Northeast Multispecies Fishery:

Draft White Paper

**New England Fishery
Management Council
September 30, 2010**

Policy and Management Objectives

MSA LAPP provisions 303A(c)(5)(D)

- Ensure that holders don't acquire “an *excessive* share” of privileges by:
 - Establishing a maximum share (expressed as a percentage) AND
 - Other measures necessary to “prevent an *inequitable concentration.*”

Fleet Consolidation

- Can happen naturally or directed to achieve a desired outcome
- Trade-off between over-consolidation and fleet efficiency/profitability
- *What constitutes an “acceptable” fleet size?*
 - Maintain some character (e.g. geographic diversity) of current fleet
 - Create more crew employment, economic benefit to communities
- *Should fleet characteristics be considered?*



Overview

June 23, 2010 Council motion:

- 1) Maintain inshore and offshore fleets;
- 2) To the extent possible, maintain a diverse groundfish fishery, including different gear types, vessel sizes, geographic locations, and levels of participation;
- 3) Maintain a balance in the geographic distribution of landings to protect fishing communities and the infrastructure they provide and
- 4) Prohibit any person from acquiring excessive access to the resource, through in order to prevent extraction of disproportionate economic rents from other permits holders.

Paper Outline

- Introduction
- Groundfish Fleet Diversity
 - Definitions of Fleet Diversity
 - Baselines for the Northeast Groundfish Fishery
- Design Considerations for Accumulation Limits
 - Types of Accumulation Limits
 - Ownership (Control) Limits
 - Vessel (Usage Limits)
 - Sector Limits
 - Other Considerations for Accumulation Limits
 - Summary
 - Accumulation Limits in Other Fisheries



Definitions of Fleet Diversity

- Very difficult to find actual definitions in other fisheries
- Gear type, geographic area, and boat size were considered in some other management decisions
- Other types of diversity could be considered, including fishing strategies and differences in output, or product type and quality
- “Diversity” was generally not predefined, and strict definitions were found to conflict with adaptive management strategies

Baselines: How can we describe changes in the fishery?

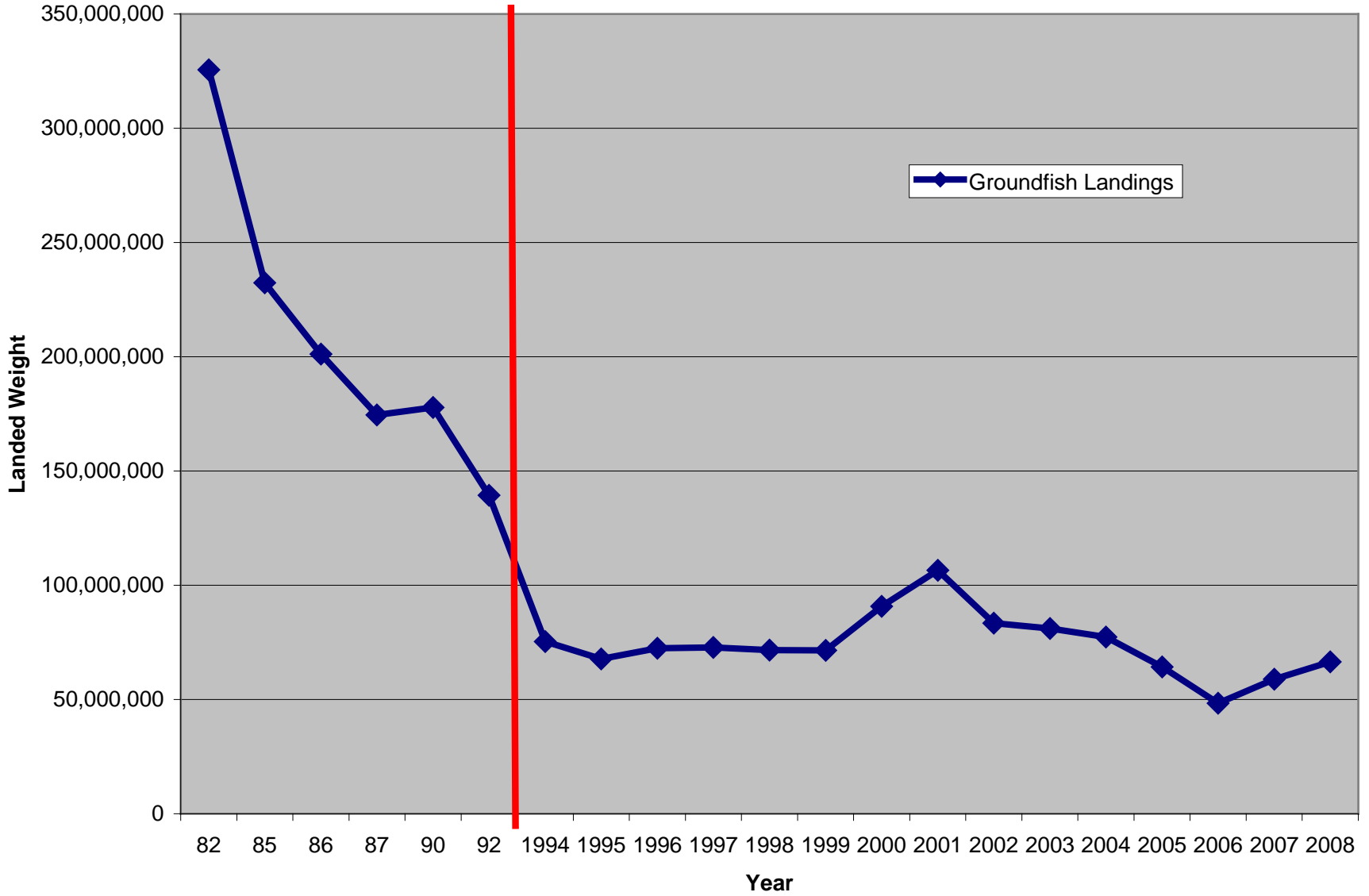
- Six characteristics:
 - Homeport state
 - Landing port
 - Gear
 - Vessel size
 - Area fished
 - Owners (work pending)
- Two general time periods:
 - Pre-limited entry (1982 – 1993)
 - Post limited entry (1994 – 2008)
- Data issues: small ports/vessels may be under-surveyed before 1994



Metrics

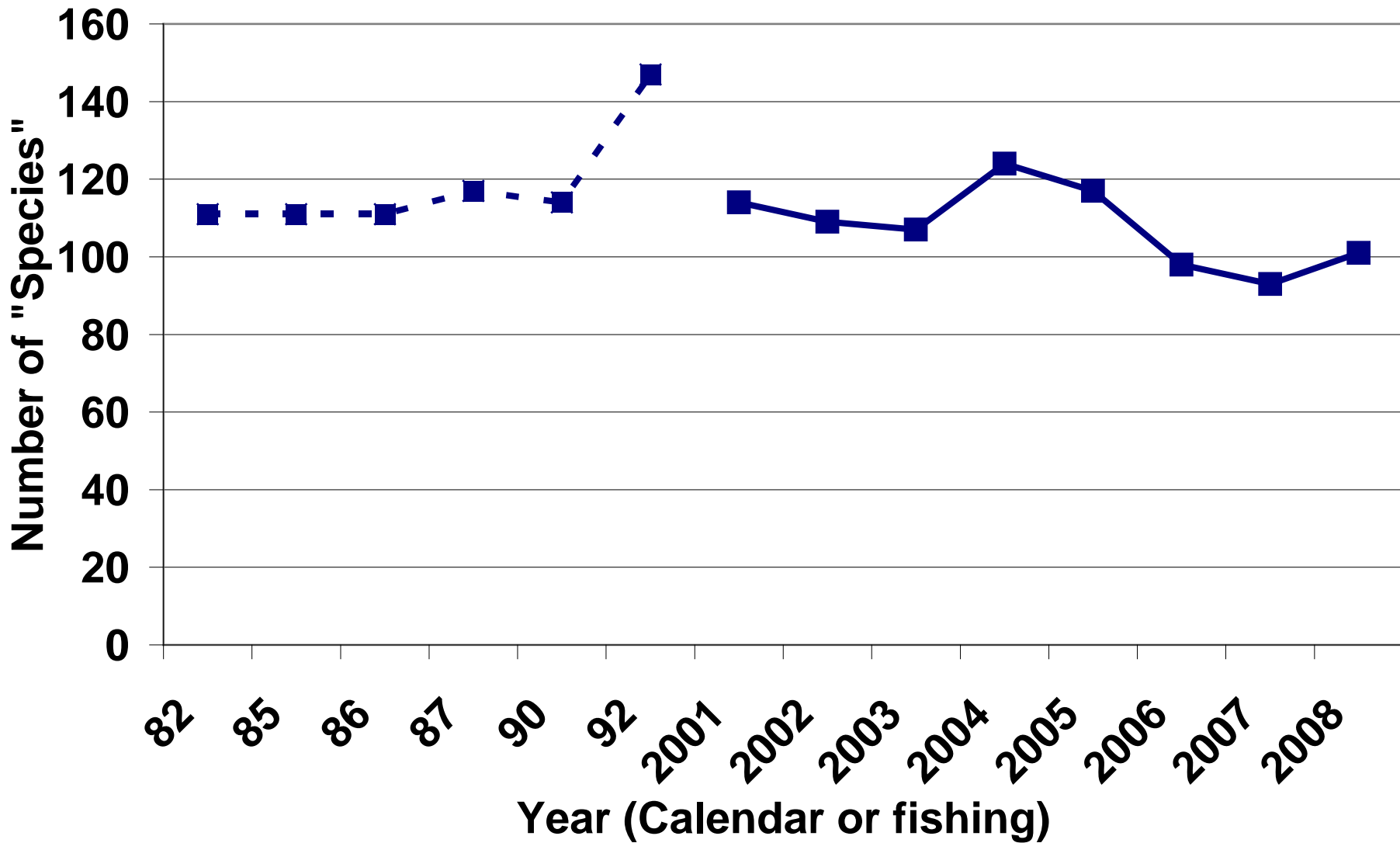
- Data summaries: landings, number of permits, areas fished, etc.
- “Species richness”: combinations of landing port/gear/vessel size
- Diversity index: based on similar studies in ecology and economics

Groundfish Landings



"Richness"

(maximum=460)

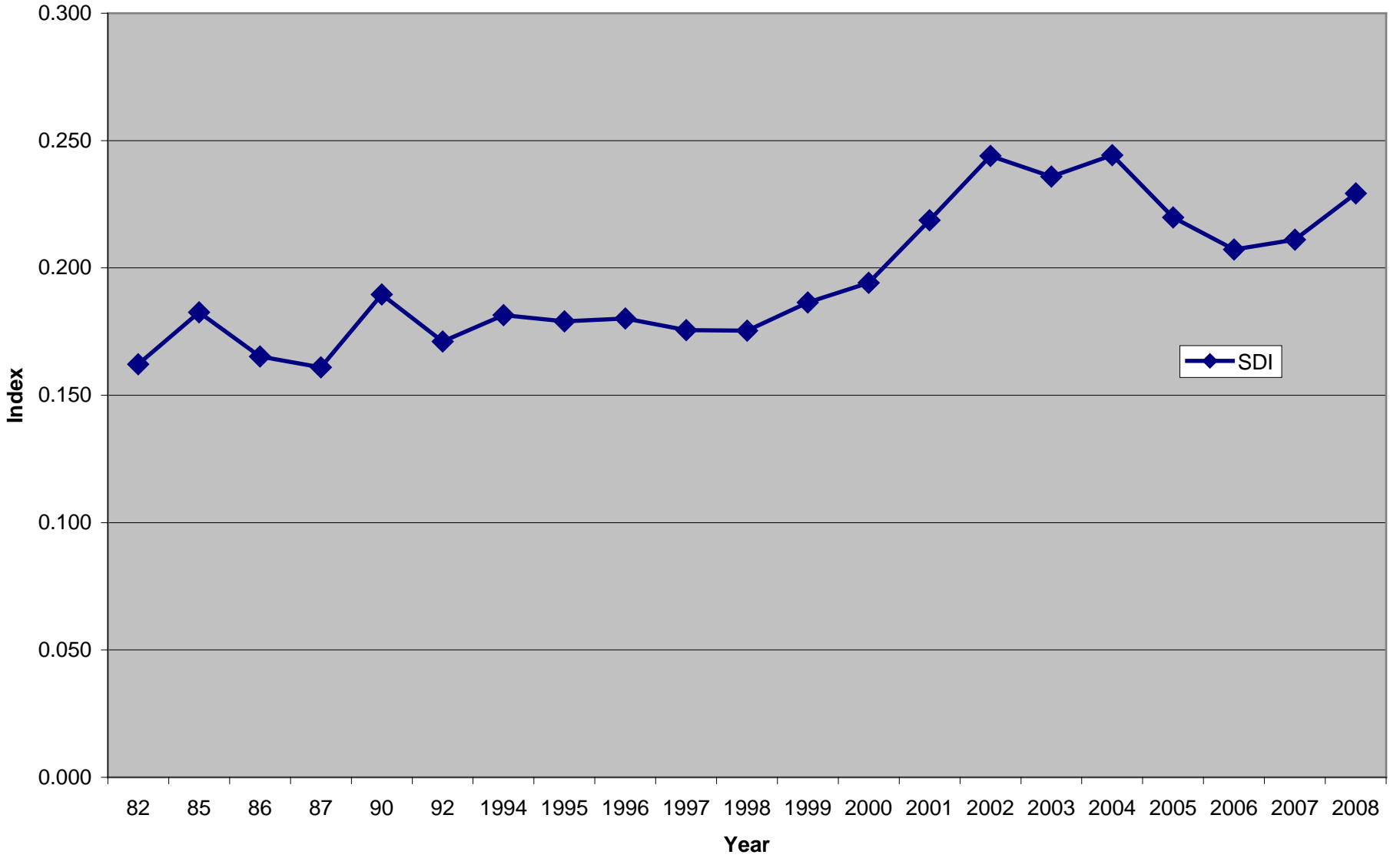


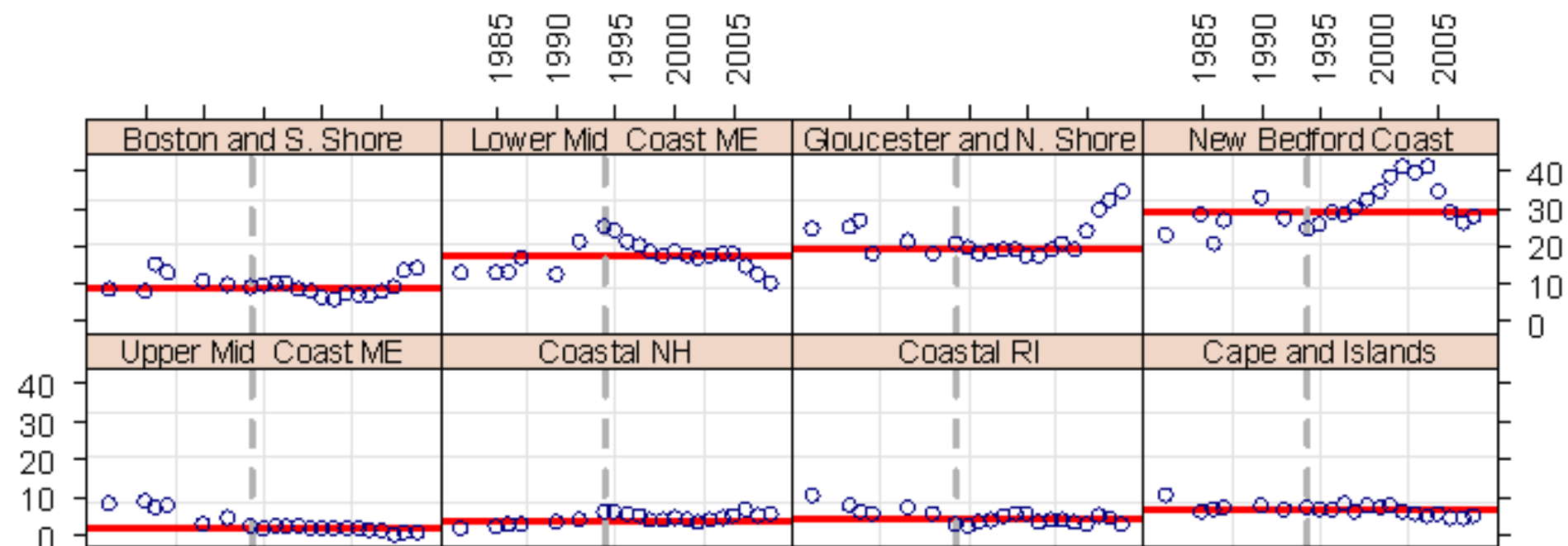
Diversity Index

- Builds on Simpson's Diversity Index and Hirschman-Herfindahl Index
- Reduces changes in concentration to one number
- Increase means more concentration

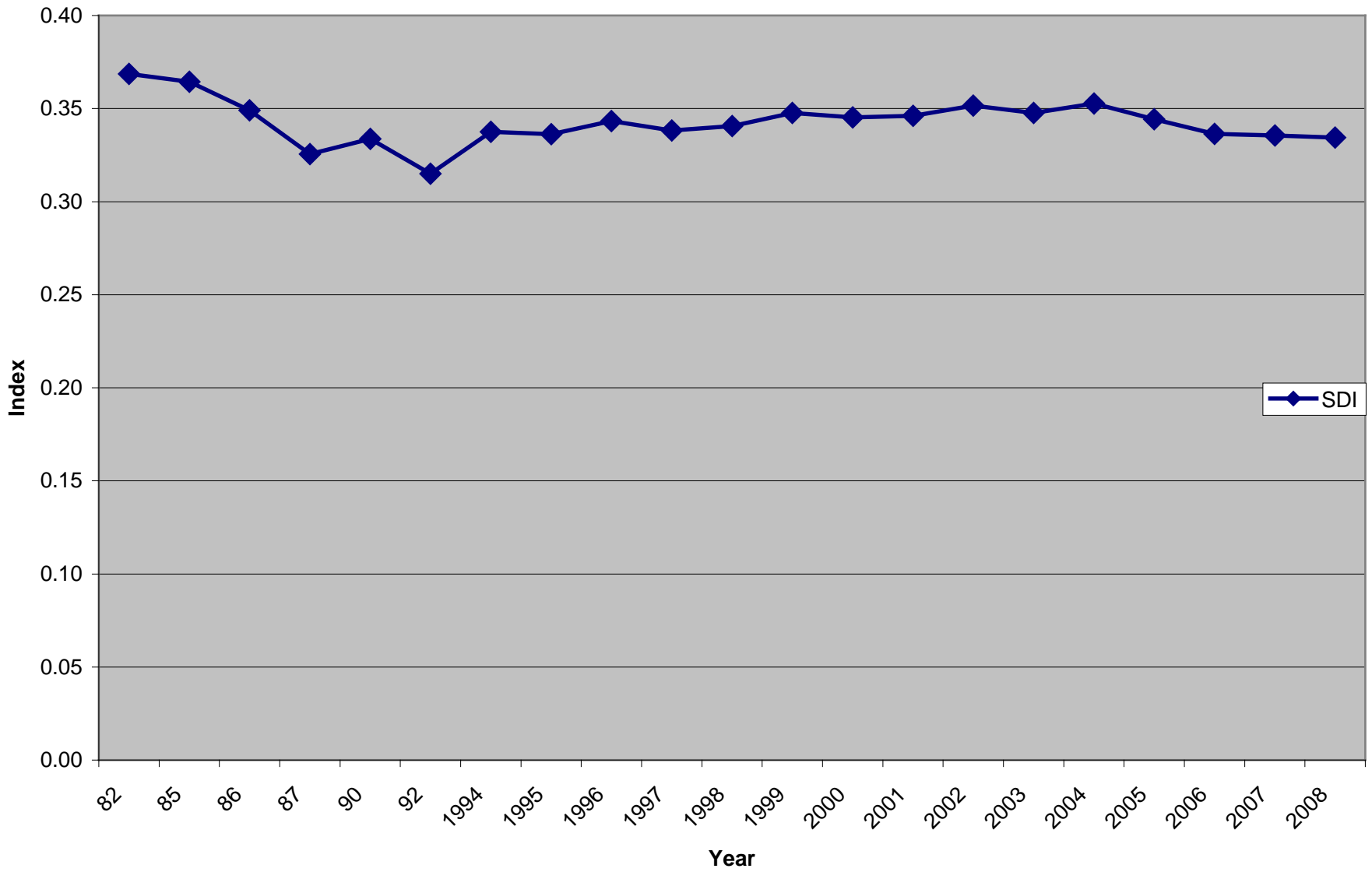
$$\text{SDI} = \sum_{i=1}^N s^2$$

SDI by Port Group

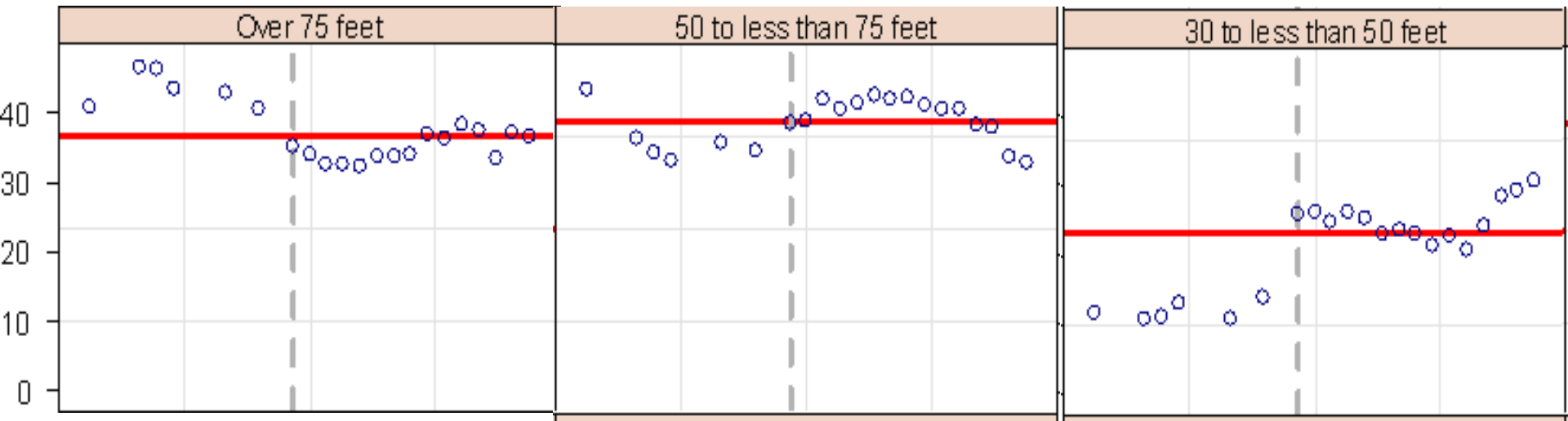




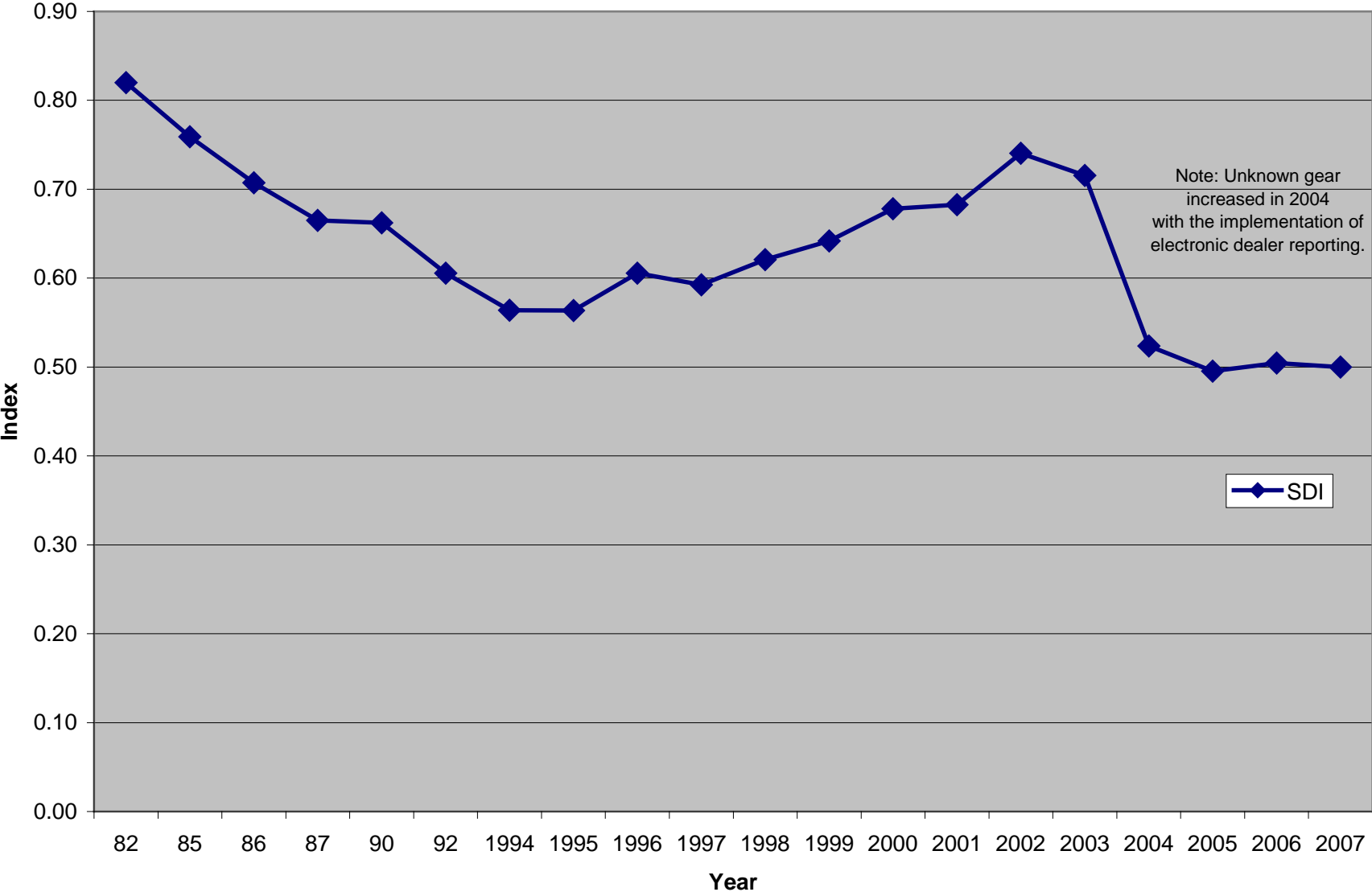
SDI Groundfish Landings by Length Group



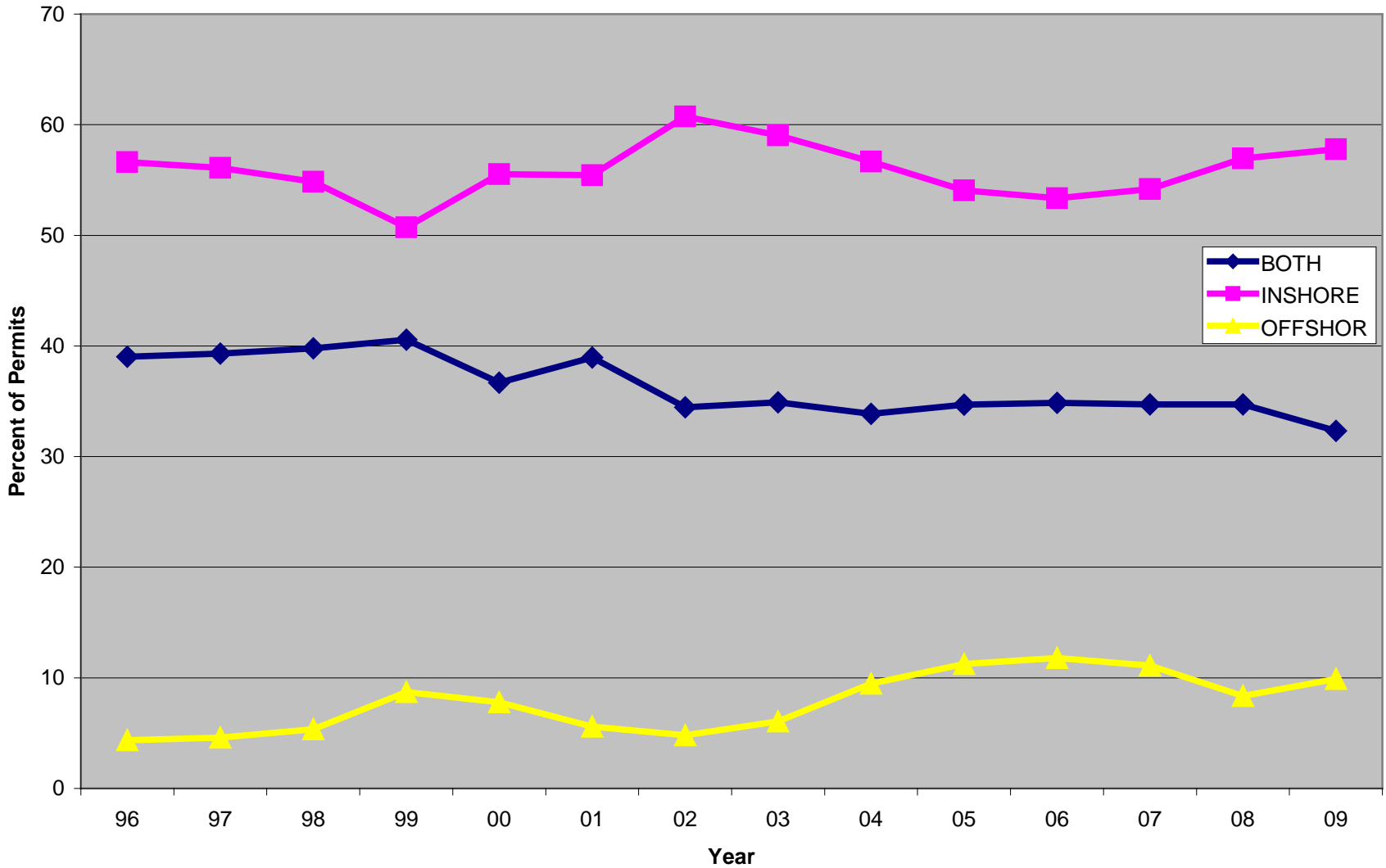
Length Group



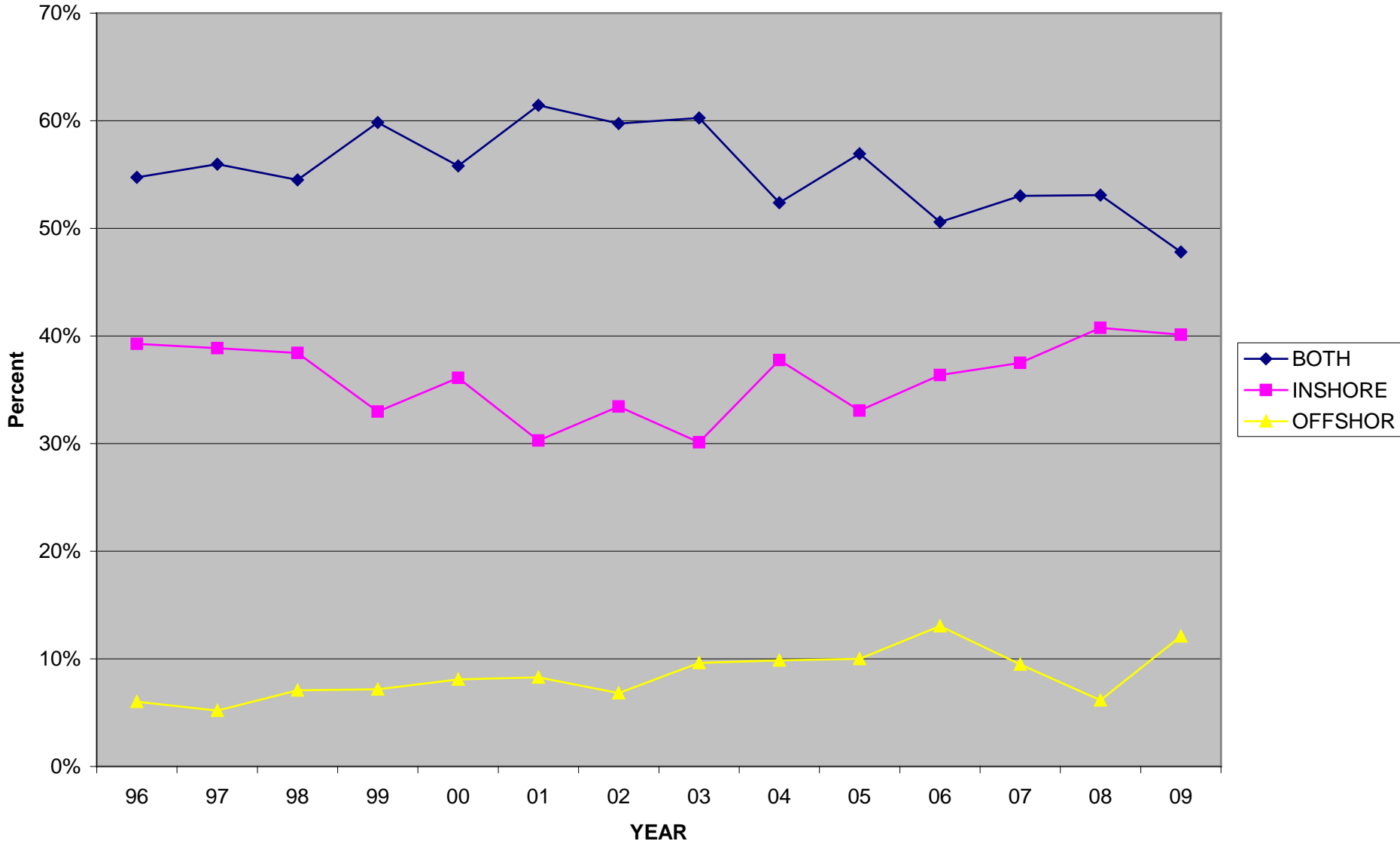
SDI by Gear (including "unknown" gear)



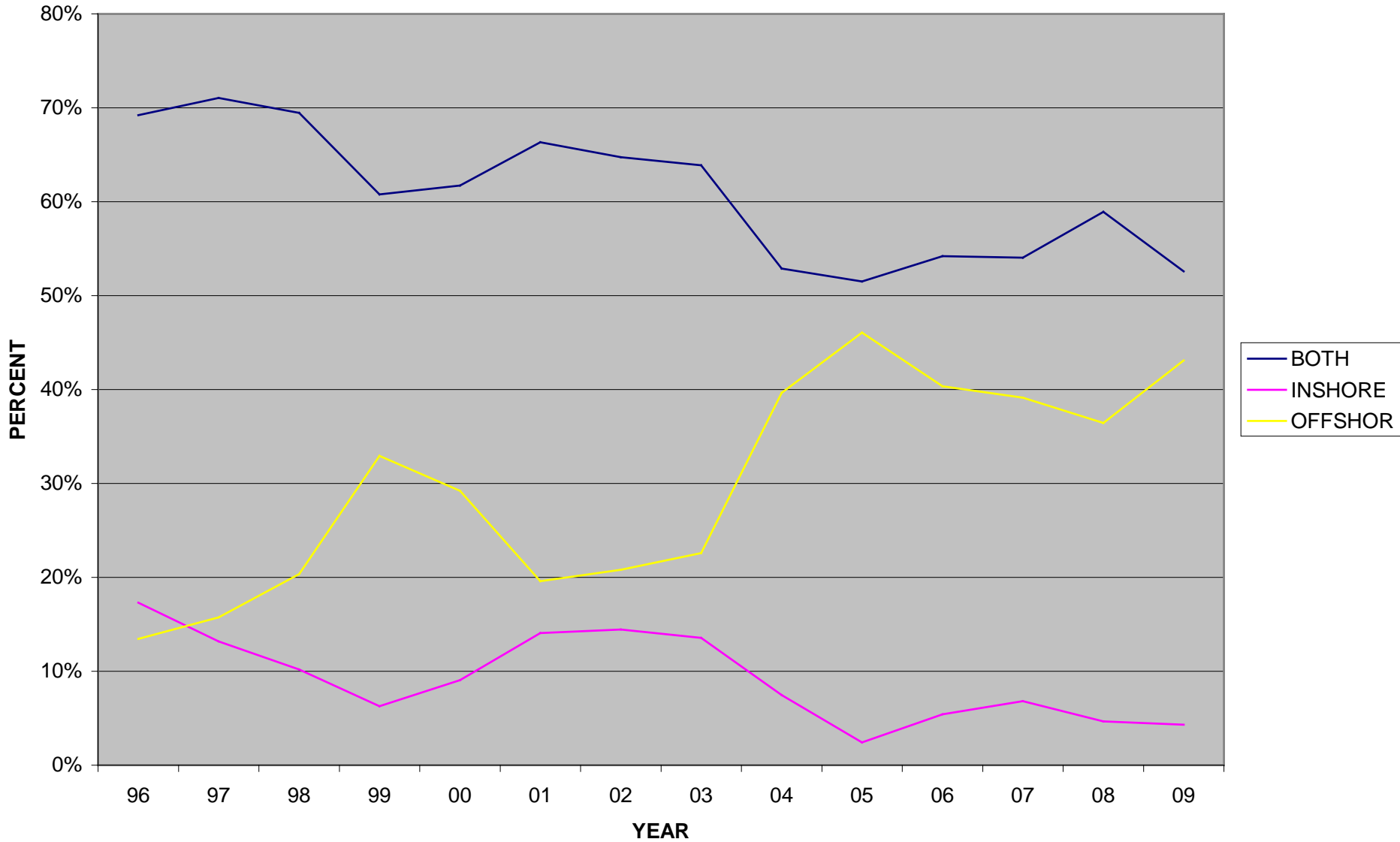
All Permits



50 TO LESS THAN 75



75 AND OVER





Baselines: Summary

- Data exists to characterize how the distribution of groundfish landings has changed over time
- Still need to summarize ownership
- What else would the Council like to see?



Considerations for Accumulation Limits

- Two reasons for use – to prevent market control or achieve management goals
- Three types of limits: by ownership, usage, or sector
- Ownership issues may be separate from “diversity”
- Different caps are appropriate for achieving different management goals
- Other tools to consider: community set-asides, owner-onboard requirements, etc.



Types of Accumulation Limits

- Vessel Usage Limits
 - Aimed at keeping a minimum number of vessels, maintaining some of character and geography of today's fleet.
 - Questions on fleet consolidation would need to be addressed.

- Control Limits
 - Meant to ensure that no person captures an unreasonable share of a public resource.
 - Buffer against anticompetitive effect of concentrated ownership.

- Sector Limit

Other Considerations: Species vs. Aggregate Limits

- Species-specific
 - Substitutes for a stock, regional distinctiveness, and underutilization would generally drive higher limits

- Aggregate Limit
 - Could counter effect of relatively high species-specific limits
 - Assume entities divest their least valuable species first to stay under the aggregate limit
 - Weighted formula automatic or changed by Council action?



Other Considerations: Control Date

- ❑ Sets a date after which acquisition of permits will not count toward quota share holdings on date cap is set
- ❑ Puts industry on notice
- ❑ This motion failed at April Council: “to direct the Groundfish Committee to provide recommendations to the Council at its June meeting on establishing an accumulation limit control date.”

<i>Problem category</i>	<i>Management objective:</i>	<i>Appropriate measures may include:</i>
Rationalization	Reduce excess capacity	Use allocation criteria, not accumulation limits
	Allow market to determine participation	Absence of accumulation caps
Diversity	Comply with NS 4	Vague; Any limits could be used
	Provide opportunity for entry	Control limits; New entrant set-aside
	Ensure geographic diversity of fleet	Control limits; Usage limits; Sector limits with area-based membership rules
	Protect rural communities	Community development set-asides
	Preserve historic access	Vague; Usage limits; Size-horsepower restrictions
	Protect shoreside infrastructure	Measures to promote geographic diversity; Processor/dealer quotas
Ownership	Ensure access to reasonable number of participants	Control limits; Owner-onboard requirements; Usage limits
	Prevent windfall to small number of individuals at expense of others	Sector limits; Control limits
	Prevent market control and price-fixing by small number of owners	N/A: not a concern in the multispecies fleet

Accumulation Limits in Other Fisheries

- Very difficult to gather data, especially on the development and objectives of accumulation limits
- Most catch share fisheries do have individual limits
- Wide range of limits in other fisheries, from none to 1% to 49%.
- Other tools are often used in conjunction with accumulation caps to limit control of quota



Conclusions / Next Steps

- ❑ MSA requires caps for LAPPs in the interest of fairness
- ❑ Fleet size and attribute goals should be considered when choosing type of cap
- ❑ Balance efficiency with appropriate amount of consolidation
- ❑ Different types of caps affect outcomes



Questions for Consideration:

- 1) Is any additional baseline information needed?
- 2) What types of analysis can be performed to inform the Council's consideration of accumulation limits?

QUESTIONS?
