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# Ownership concentration and potential caps

Chad Demarest  
Social Science Branch, NEFSC  
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## Where we left off in June:

- Ownership of PSC is highly concentrated (Gini = 0.78) but widely distributed (1000+ firms)
- PSC ownership share varies across stocks
  - *GB winter flounder most concentrated (Gini = 0.93)*
  - *GOM cod least concentrated (Gini = 0.77)*
- Top five owner's shares increased from 8% of total in 2007 to 21% in 2010, remaining nearly constant thereafter
- Owner-level accumulation seemed to have occurred from '07 to '10, with little change thereafter



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## What we were missing last time:

### CPH permits:

- CPH permits not in PERMIT data, ownership info not updated annually
- *Two snapshots of full ownership: April 7, 2011 and September 13, 2013*

### Individual owners:

- Looked at OWNER GROUPS but not individual owners
- *New analyses include concentration/accumulation at individual owner level*



## A note of caution:

**THESE DATA ARE INCOMPLETE, POTENTIALLY INACCURATE, AND ARE PRESENTED FOR REFERENCE AND DISCUSSION ONLY**

Drawing off several databases: PERMIT, OWNER, BUSINESS, MQRS, SECTOR

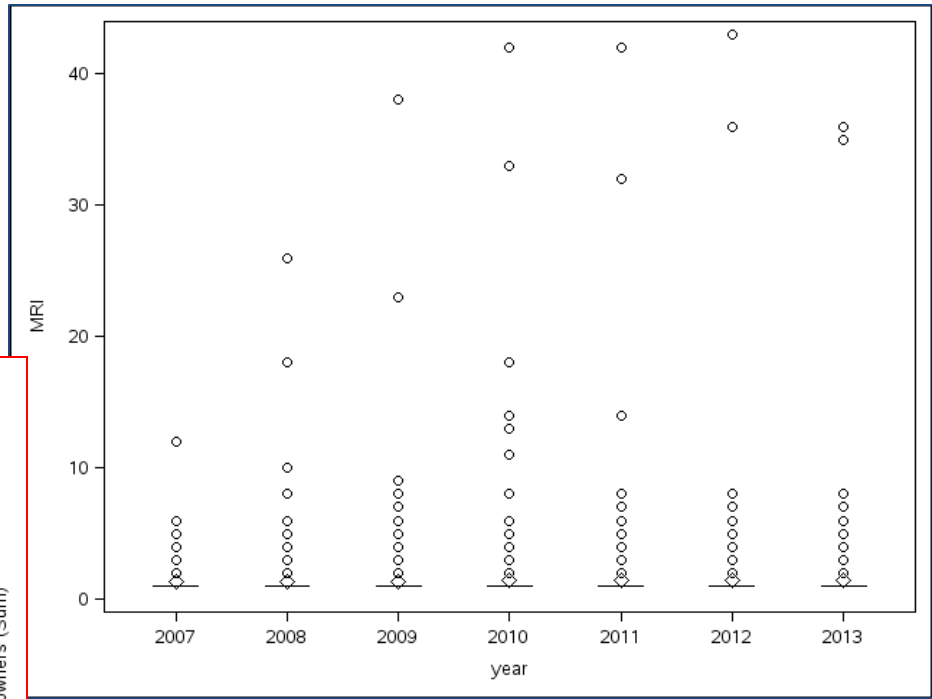
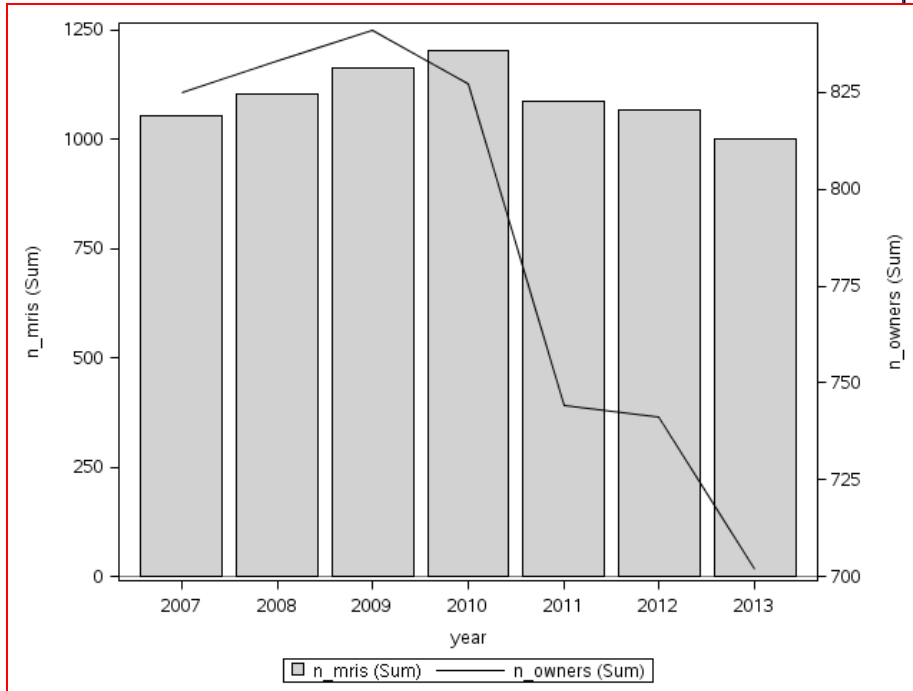
2013 Example:

- OWNER database = 1459 MRIs
- When filtered through PERSON and BUSINESS = 1440
- Merge with SECTOR for Sector affiliations = 1433
- Merge with MQRS for PSC allocations = 1396
- Eliminate duplicate MRIs = 1232

Permits and MRIs may not track – some MRIs are affiliated with multiple permits (or none), and vice versa.



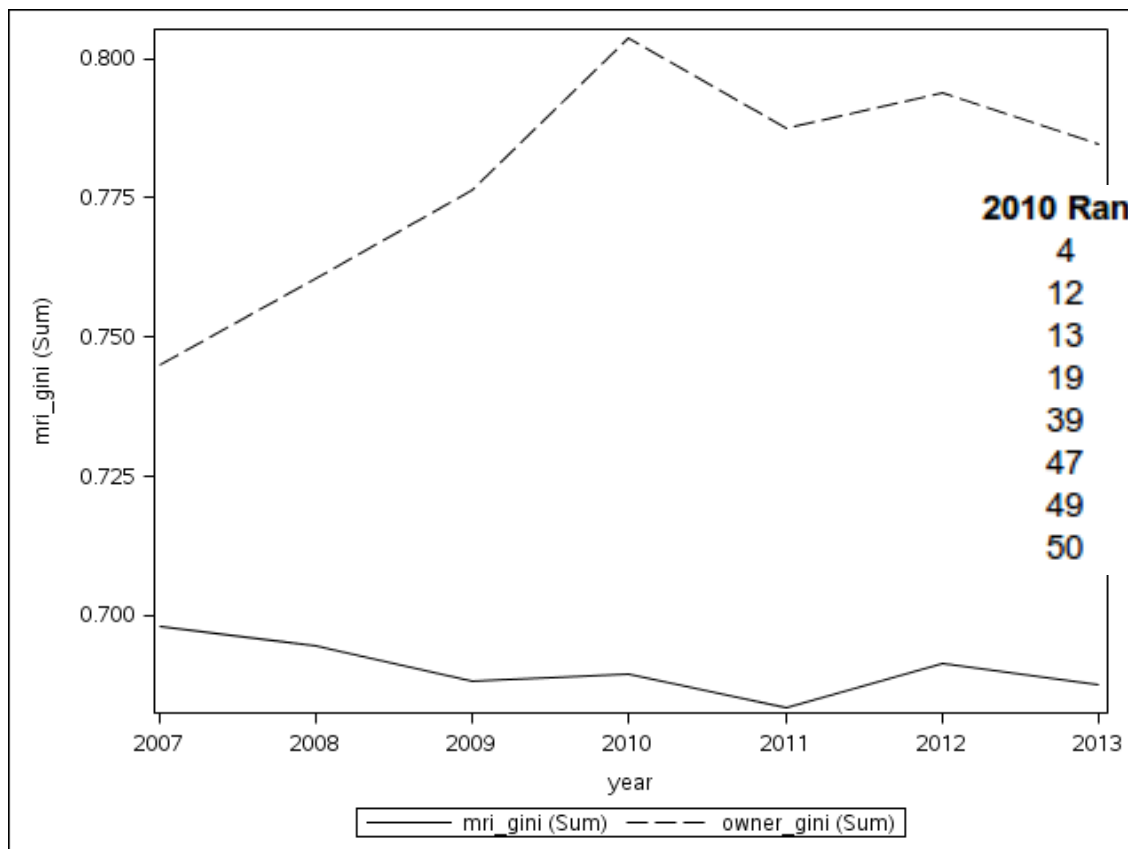
The no. of MRIs is relatively stable while no. of ownership groups has declined substantially since 2009



The no. of MRIs per ownership group increased from 2007-2010 and has remained (relatively) constant since



Gini coefficients demonstrate a concentrated fishery at both **MRI** and **ownership group** levels...



2010 Rank	State	Gini
4	New Hampshire	0.425
12	Maine	0.437
13	Delaware	0.44
19	Vermont	0.444
39	Rhode Island	0.467
47	Massachusetts	0.475
49	Connecticut	0.486
50	New York	0.499

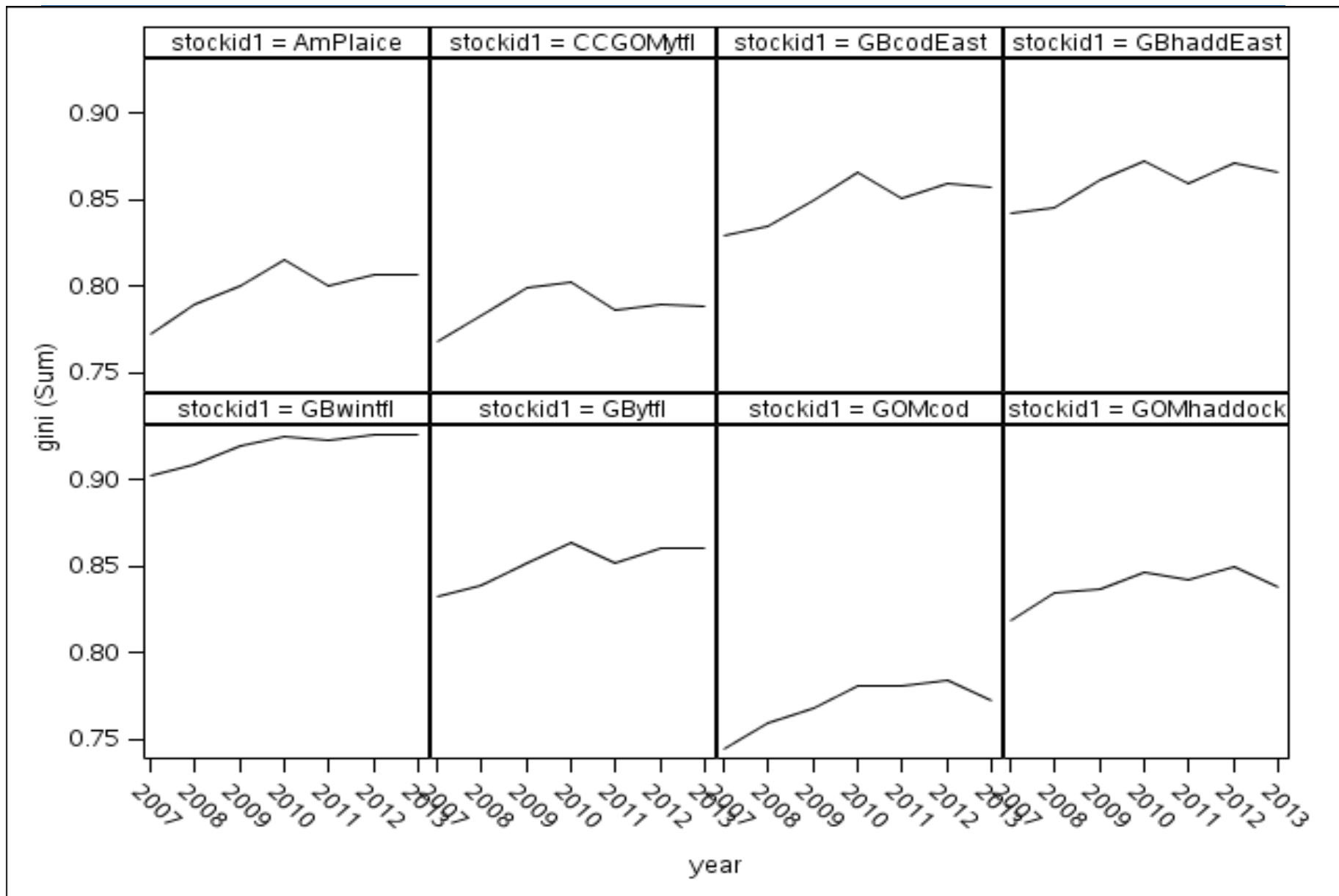


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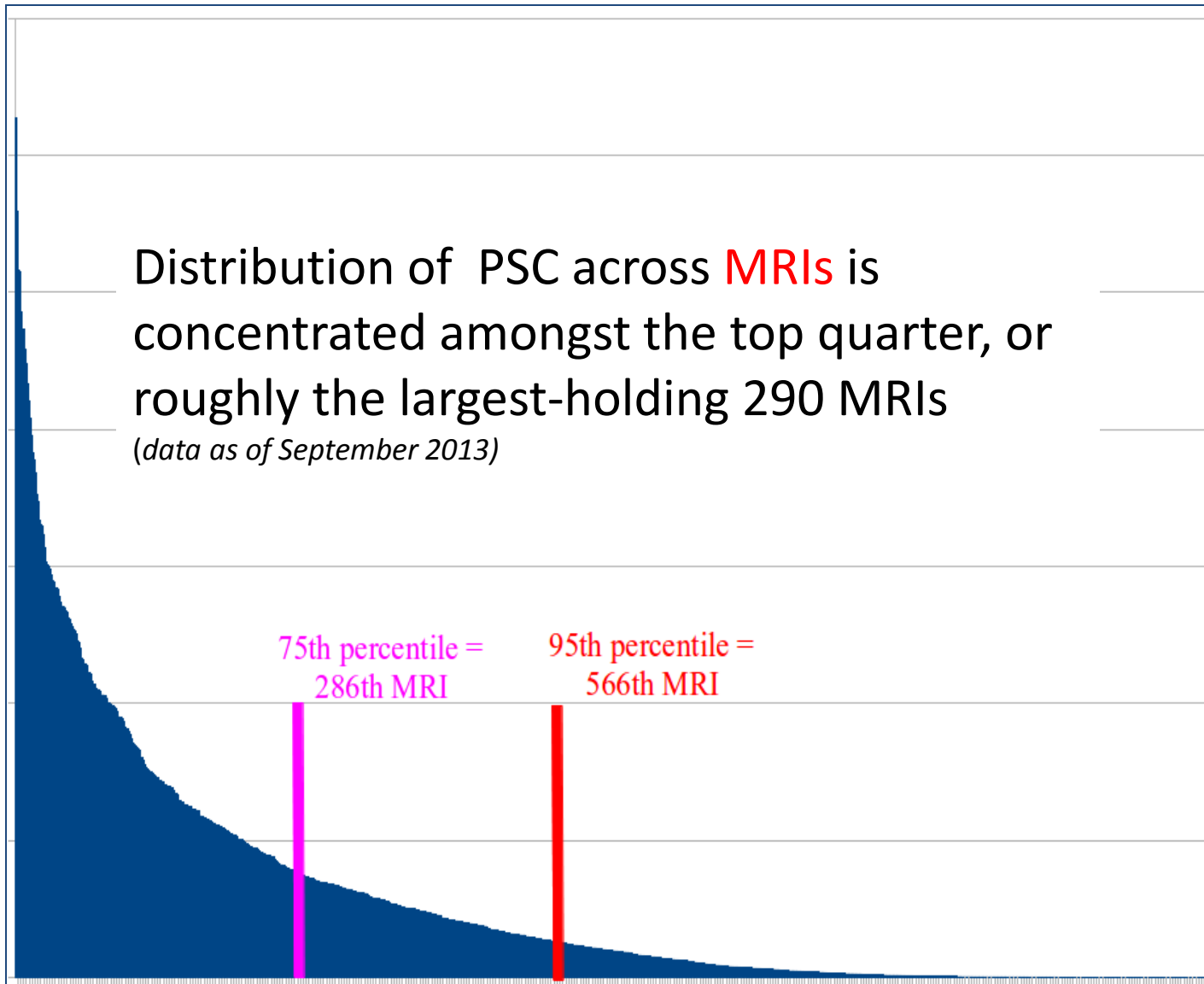
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Distribution of PSC across **MRIs** is concentrated amongst the top quarter, or roughly the largest-holding 290 MRIs  
*(data as of September 2013)*







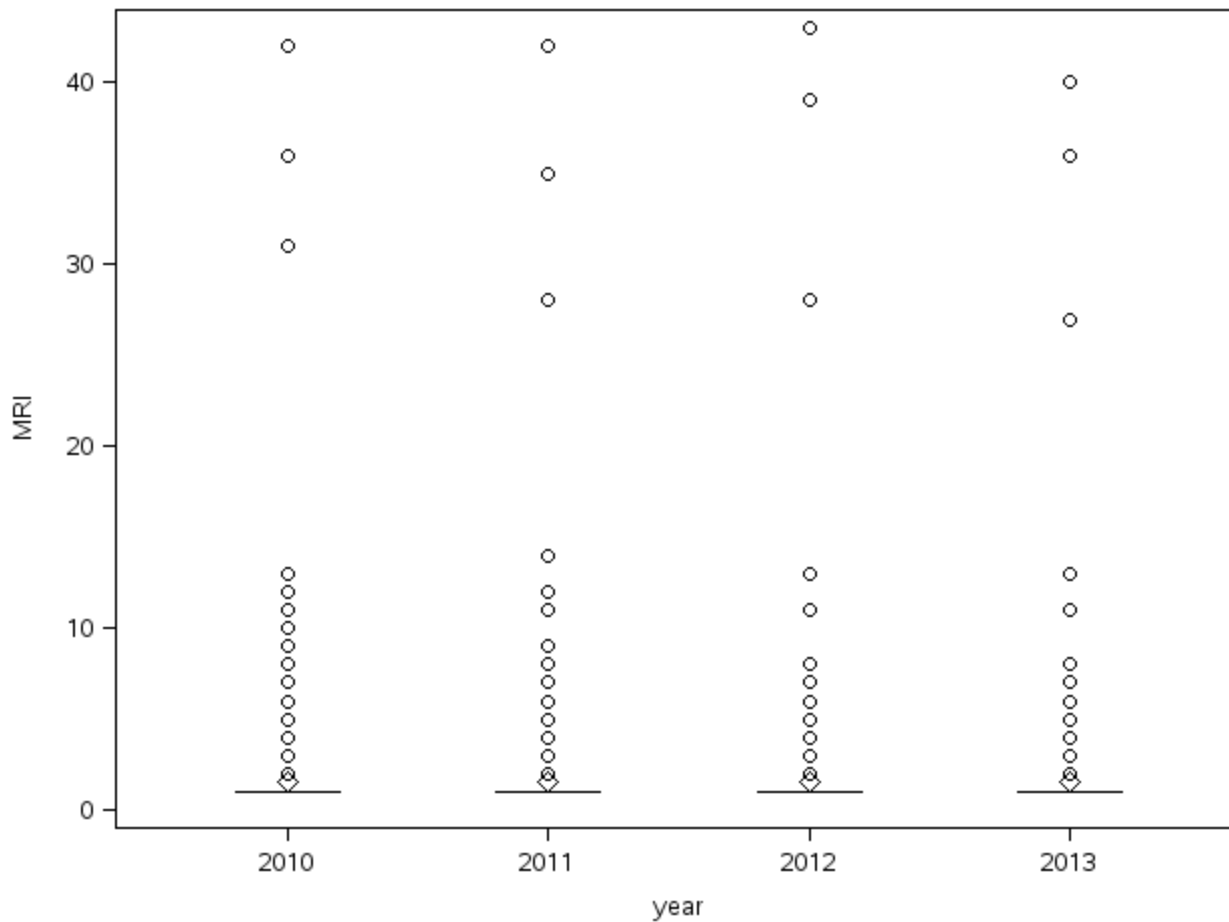
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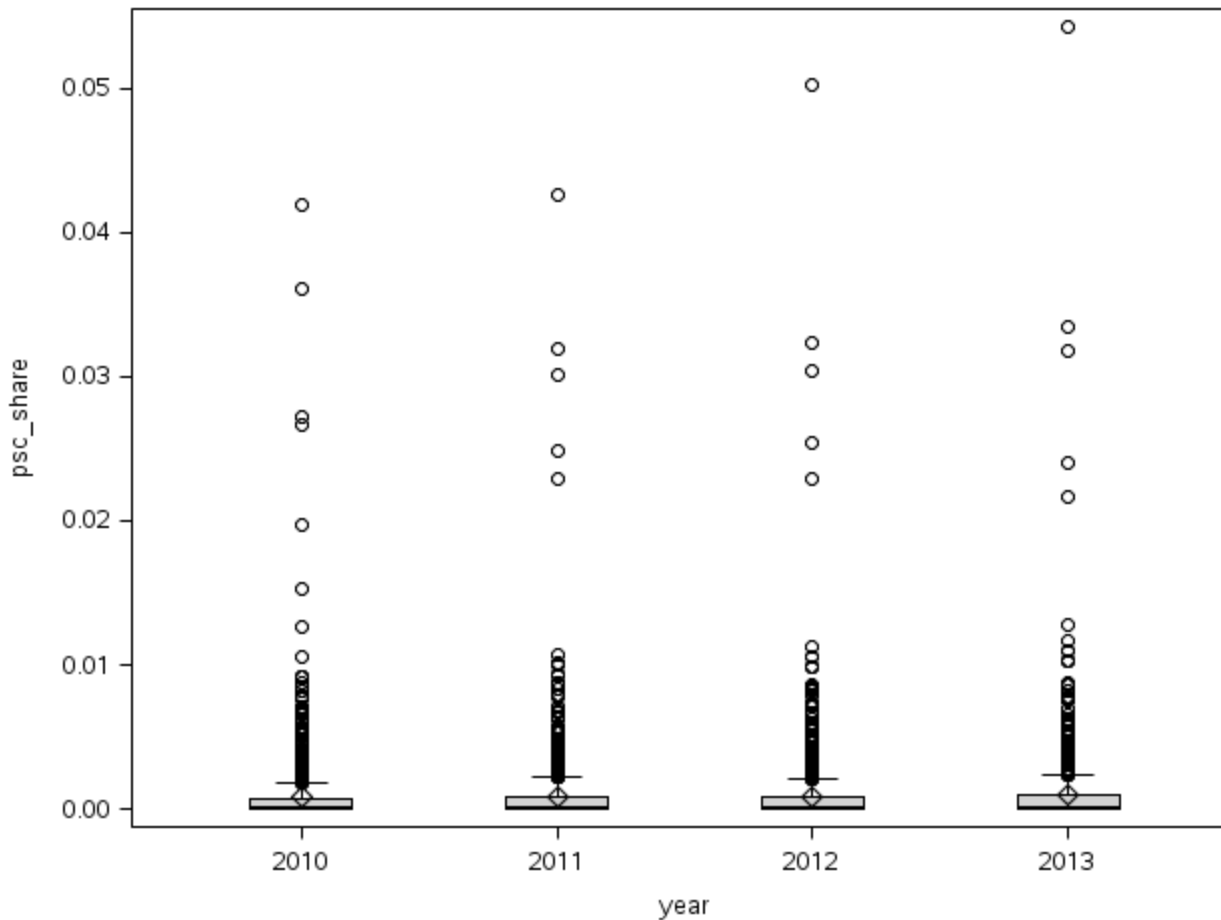
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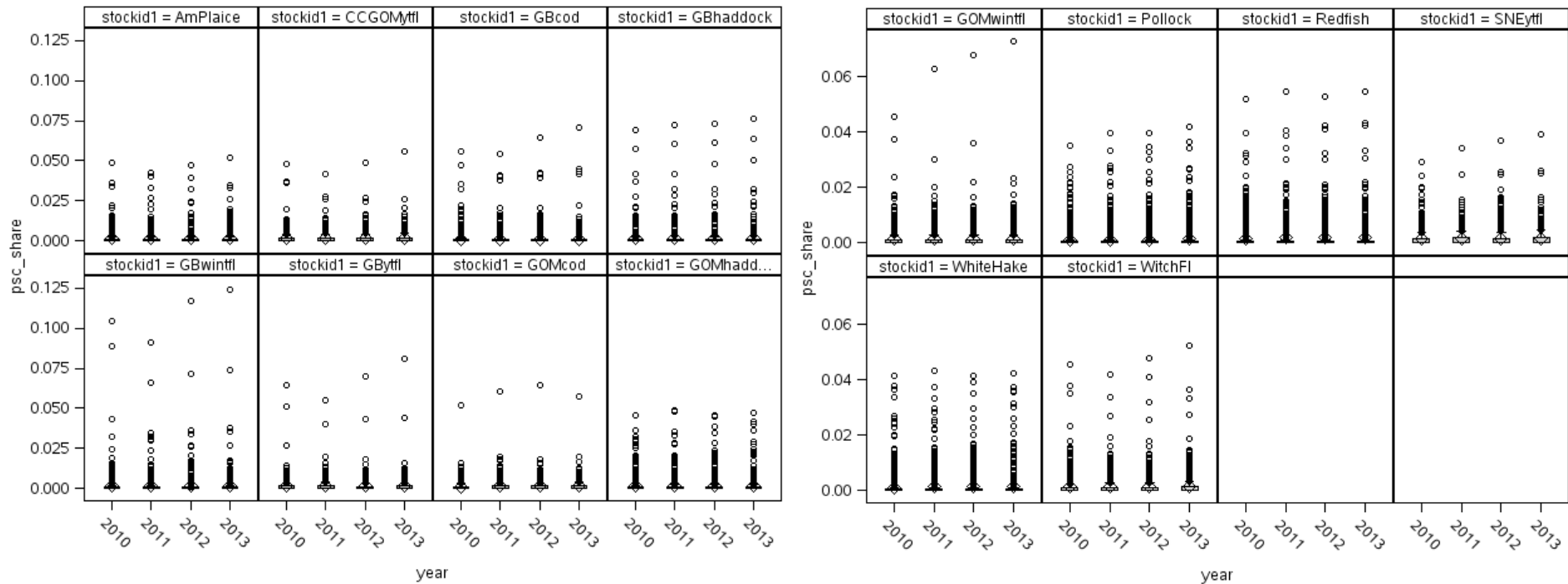


Looking at it  
from the  
perspective of  
**individual listed  
owners** does not  
change our  
perception of  
ownership  
stability post-  
2010...





Similarly, it appears that the largest **individual owners** hold between 2-6% of all PSC shares and this is relatively constant over the past four years...



For stock-level allocations, the highest **individual ownership** percentage appears to be between 10 and 12.5% (*GB winter fl*). All other stocks range between 4 and 7.5%.



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## CPH Vessels

*CPH is a good way to maintain access rights while minimizing compliance costs...*

2011:

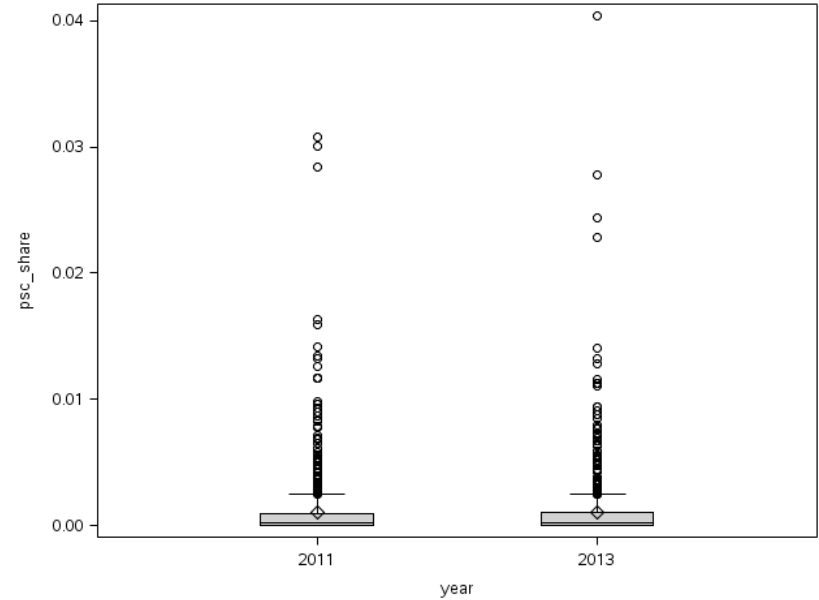
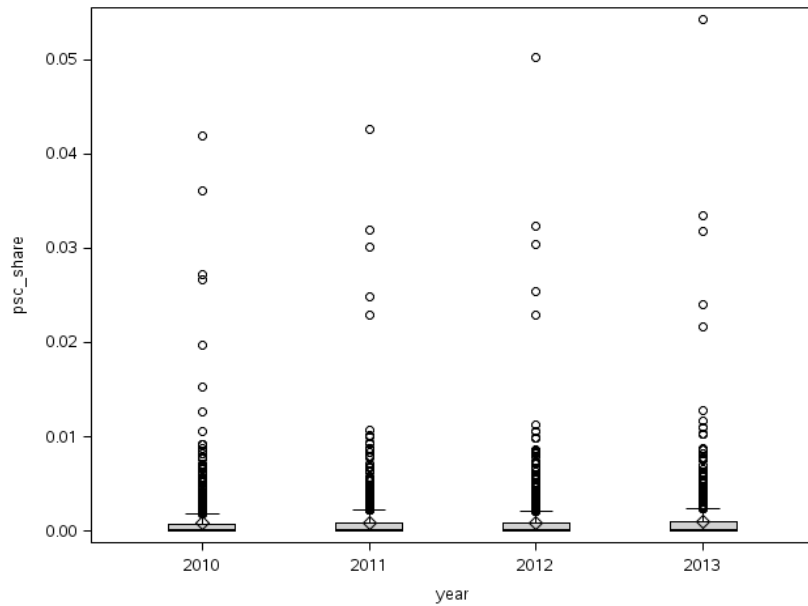
AUTH_TYPE	
CPH	165
HISTORY RETENTION	1
PREQUALIFICATION	257
QUALIFICATION	344
REPLACEMENT	656
<b>Total Result</b>	<b>1423</b>

2013:

AUTH_TYPE	
CPH	283
HISTORY RETENTION	2
PREQUALIFICATION	207
QUALIFICATION	275
REPLACEMENT	607
<b>Total Result</b>	<b>1374</b>



The inclusion of CPH vessels does not appear to change our broad conclusions regarding ownership concentration...





This may be masking some differences in BUSINESS\_ID, PERSON\_ID and OWNER\_ID affiliations across years...

...implying a need for care when considering the appropriate level for potential ownership limits.

BUSINESS_ID rank (largest to smallest)	Number MRIs at CONTROL DATE (of which CPH) *April 7, 2011*	Number MRIs in 2013 (of which CPH) September 13, 2013*
1	38 (3)	49 (19)
2	16 (11)	25 (25)
3	7 (0)	11 (11)
4	6 (0)	8 (2)
5	6 (0)	6 (1)
6	6 (1)	6 (6)
7	6	6
8	6	5
9	5	5
10	5	5
11	5	5
12	5	5
13	5	5
14	5	5
15	4	4
16	4	4
17	4	4
18	4	4
19	4	4
20	4	4
21	4	4
22	4	4
23	4	4
24	4	4
25	4	4
26	3	4
27	3	4
28	3	4
29	3	3
30	3	3



# What might ownership caps look like?

**PERMIT CAP:** *Maximum PSC allocation acquirable to attain target permit cap threshold (2013 data with CPH)*

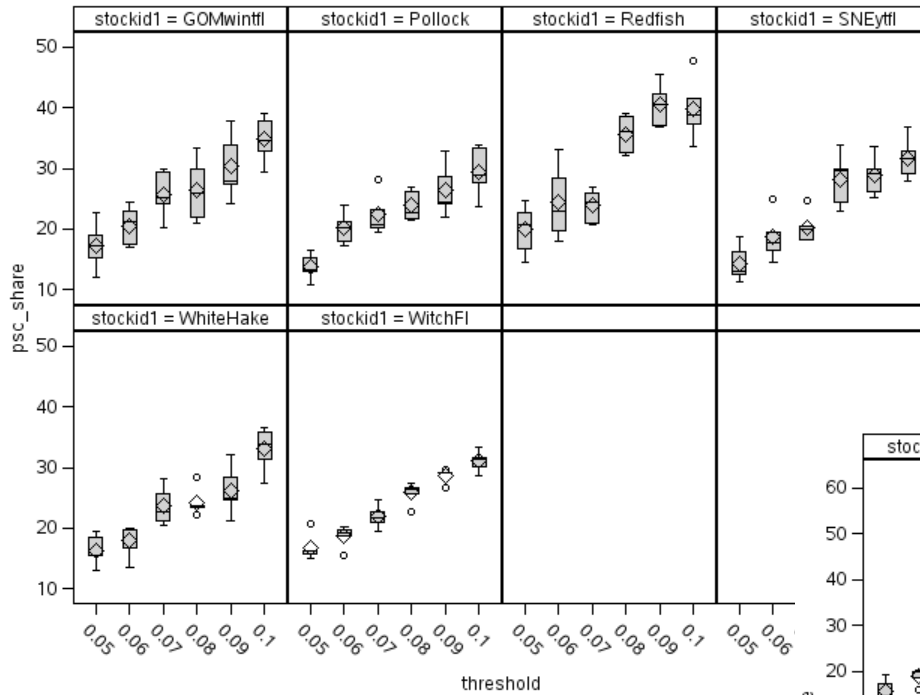
	<i>Total MRIs</i>	1232	1232	1232	1232	1232	1232
	<i>MRI cap</i>	62	74	86	99	111	123
	<b>THRESHOLD</b>	<b>5%</b>	<b>6%</b>	<b>7%</b>	<b>8%</b>	<b>9%</b>	<b>10%</b>
<b>Max percent of PSC potentially acquirable</b>	American Plaice	49%	55%	60%	63%	67%	70%
	<u>CCGOM yellowtail</u>	46%	52%	58%	63%	67%	71%
	GB cod	49%	55%	60%	65%	69%	72%
	GB haddock	62%	67%	72%	76%	79%	82%
	GB winter flounder	83%	87%	90%	92%	94%	95%
	<u>GB yellowtail</u>	68%	74%	80%	84%	88%	91%
	GOM cod	37%	42%	47%	50%	54%	57%
	GOM haddock	61%	66%	70%	74%	77%	79%
	GOM winter fl	60%	65%	70%	74%	78%	81%
	Pollock	57%	63%	68%	72%	75%	78%
	<u>Redfish</u>	73%	78%	82%	85%	87%	89%
	<u>SNE yellowtail</u>	61%	67%	73%	77%	81%	84%
	White hake	62%	68%	73%	76%	80%	83%
Witch flounder	45%	50%	55%	60%	64%	68%	



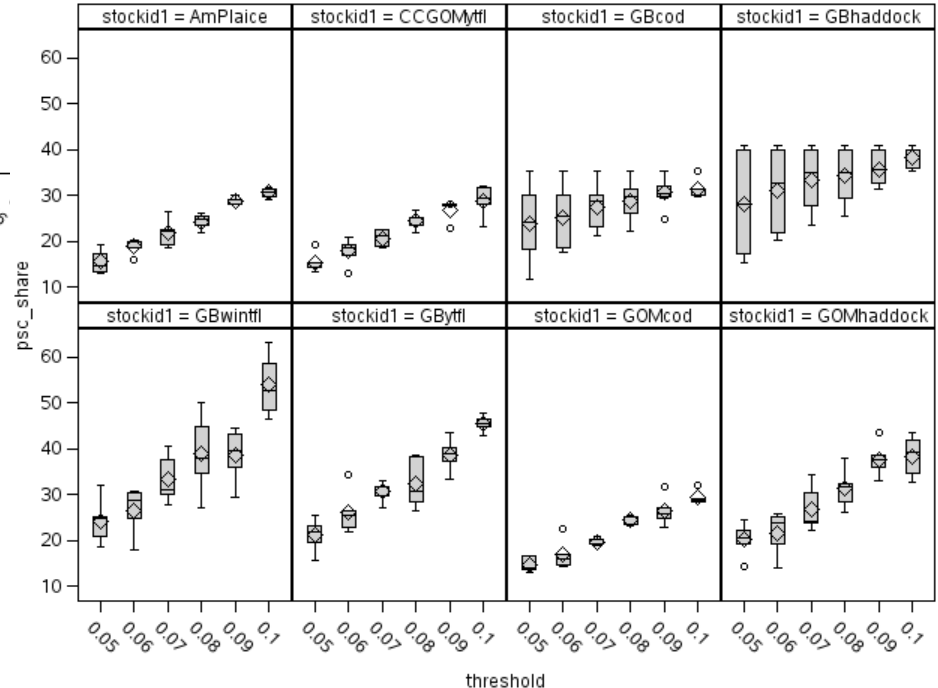
**PSC CAP:** *Minimum number of permits acquirable to attain target cap threshold (2013 data with CPH)*

	THRESHOLD	30%	35%	40%	45%	50%	55%	60%
<b>Min number of MRIs potentially acquirable</b>	American Plaice	29	37	44	53	62	74	87
	CCGOM <u>yellowtail</u>	33	40	49	58	68	78	90
	GB cod	30	37	45	53	62	72	85
	GB haddock	14	18	24	30	37	46	56
	GB winter flounder	9	11	14	17	20	24	28
	GB <u>yellowtail</u>	16	20	24	29	35	41	48
	GOM cod	44	55	67	81	96	114	134
	GOM haddock	15	19	25	31	38	47	57
	GOM winter fl	16	21	27	34	41	50	60
	Pollock	22	27	33	40	48	56	66
	<u>Redfish</u>	12	15	19	23	27	32	38
	SNE <u>yellowtail</u>	21	26	32	37	44	51	59
	White hake	19	24	29	35	41	48	57
	Witch flounder	34	42	52	61	72	84	98





**PERMIT CAP:** *Likely consolidation outcomes drawing from actual distribution of MRIs (1,000 simulations drawn from the top 95-75<sup>th</sup> percentiles using 2013 data with CPH)*



*A cap at 5% of permits, if reached, would likely result in ownership of btwn 10-30% of PSC depending on stock*



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- Broad conclusions from June still hold:
  - Consolidation occurred between 2007-2010 and has been relatively stable since
  - CPH data unlikely to affect this
- Current max individual shares range from 5-12% of PSC, 40-50 permits
- Even low permit and/or PSC caps would be unlikely to induce divestiture
  - 5% permit cap = ~60 MRIs
  - 30% PSC cap = ~30-80 MRIs

*Noting that these data are difficult to work with and final analysis may change results and/or conclusions*