Importance of Calibrated Catch for Fisheries Management

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Why Care?

- Recreational species create a valuable experience*
  - 30.9 million Atlantic angler trips in 2017
  - 16.2 million Gulf angler trips in 2017
- Recreational catch can impact a stock*
  - 8.2 million summer flounder caught in 2017
  - 13.5 million Atl. croaker…
  - 6.1 million red drum…

*(*all prelim 2017 MRIP data, numbers increasing 2-4 times soon…)* 2

Expenditures = Jobs

Table 6: Economic Contributions by State (in thousands of dollars)

State	Total Expenditures	Employment	Output	Labor Income	Value Added
Alabama	$1,283,277	12,110	$897,830	$478,168	$730,927
Alaska	$114,690	1,086	$95,981	$44,243	$69,956
California	$1,544,093	16,945	$1,873,684	$828,227	$1,302,240
Connecticut	$235,225	2,542	$243,148	$117,080	$185,258
Delaware	$124,379	1,065	$96,342	$45,797	$72,734
Florida	$8,957,419	98,198	$10,506,381	$4,495,830	$6,910,312
Georgia	$147,820	1,596	$137,435	$68,224	$104,342
Louisiana	$1,556,378	13,470	$1,412,576	$587,414	$908,047
Maine	$51,584	669	$51,358	$23,253	$36,204
Maryland	$622,183	5,883	$551,018	$266,327	$404,739
Massachusetts	$1,156,240	11,148	$1,047,395	$532,525	$772,732
Mississippi	$472,632	3,740	$333,954	$144,408	$225,397
New Hampshire	$30,274	290	$25,293	$12,637	$18,331
New Jersey	$1,435,651	16,779	$1,658,436	$798,708	$1,221,087
New York	$718,758	7,417	$743,185	$360,732	$566,683
North Carolina	$1,159,471	10,206	$975,505	$435,231	$662,238
Oregon	$223,884	2,473	$215,723	$109,932	$154,361
Rhode Island	$370,518	4,046	$381,388	$181,672	$276,195
South Carolina	$337,719	3,328	$292,657	$127,494	$195,899
Texas	$1,319,707	10,920	$1,198,249	$537,214	$839,763
Virginia	$333,850	3,919	$349,576	$164,208	$257,769
Washington	$494,871	4,811	$497,984	$219,552	$360,641
United States	**$27,969,109**	**357,978**	**$49,568,667**	**$18,224,441**	**$29,235,874**

Sabrina J. Lovell, James Hilger, Scott Steinback, and Clifford Hutt. 2016. The Economic Contribution of Marine Angler Expenditures on Durable Goods in the United States, 2014. U.S. Dep. Commerce, NOAA Tech. Memo. NMFS-F/SPO-165, 72 p.

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Uses?

- Good data → good information → more informed decisions.
- Assessments
  - How much should we catch?
- Management & Allocations
  - Who and how should we catch it?
- Monitoring
  - What happened?
  - Accountability measures

Uses?

- Economic data…

- Overall Economic Impacts
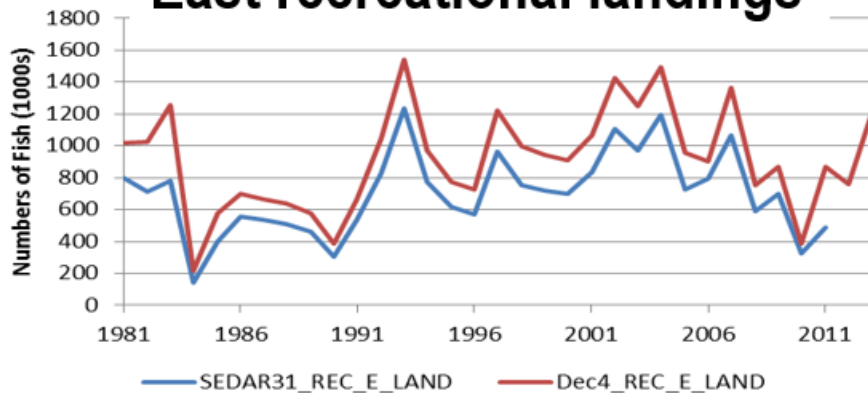- Effects of Regulations
- Bio-economic models

Calibration = Continuity

- Most analyses are looking at a time series
  - Assessments
  - Allocations
  - Management measures
- If the time series changes, starts with assessments but other changes too.
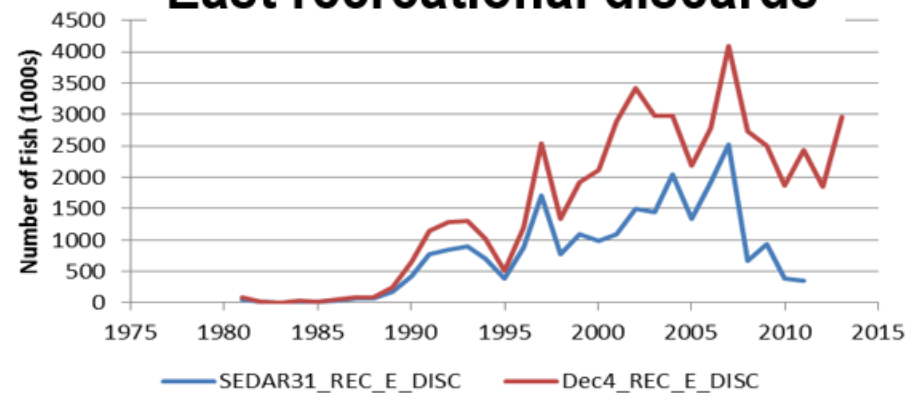- Need apples to apples comparisons.

Examples
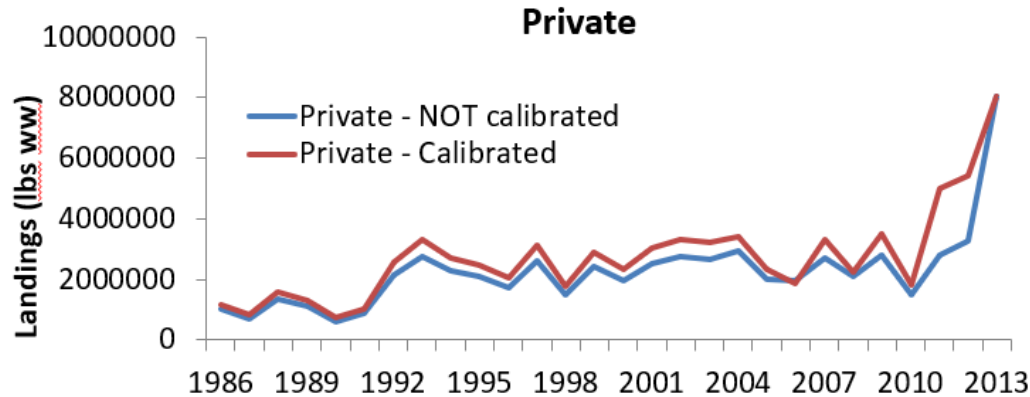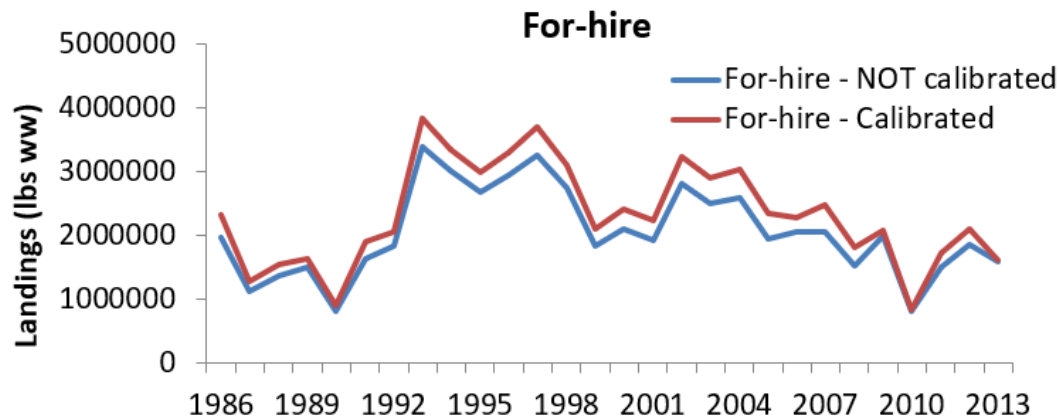

Red snapper MRFSS-MRIP APAIS Calibration example

Examples

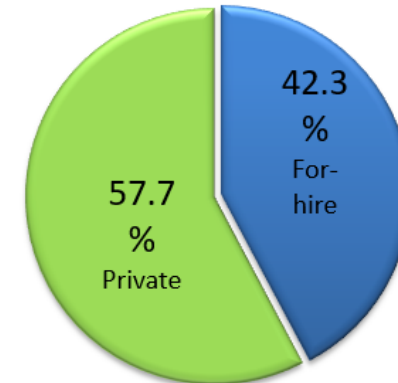- Allows for allocations to be adjusted based on historical time series

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Imagine No Calibration

- Time series become unusable – apples and oranges (or apples and 747s).

- Have to start new every time a survey changes...

With Calibration…

- New estimates: apples
- Old time series and current catch limits: oranges
- Convert old time series into apples
  - Get assessments (with catch limits) and catch estimates in apples (apples to apples)
- But since current catch limits are in oranges, have to convert new apples into old oranges for a while… (oranges to oranges)

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