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Tab F, No. 5(a)

# Cost Comparison of Economic Data Collection Alternatives for Action 4

Christopher Liese  
Social Science Research Group  
SE Fisheries Science Center  
NOAA Fisheries

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## Action 4: Establish Reporting of Economic Data for For-hire Vessels

- **Alternative 1:** No Action. There is currently no requirement for the reporting of economic data for federally permitted reef fish or Gulf CMP species charter/headboat vessels. Currently, a dually-permitted charter/headboat vessel issued a federal commercial reef fish permit is required to submit an economic data survey to the commercial program for one year if selected.
- **Alternative 2:** Require that the owner or operator of a charter vessel or headboat issued a valid federal charter vessel/headboat permit for reef fish or Gulf CMP species submit economic data as part of the logbook when the vessel is engaging in any type of chartered fishing or chartered activity.
- **Alternative 3:** Require that the owner or operator of a charter vessel or headboat issued a valid federal charter vessel/headboat permit for reef fish or Gulf CMP species **submit economic data** as part of the logbook when the vessel is engaging in any type of chartered fishing or chartered activity, **if selected. Annually, a stratified random sampling design** of permitted vessels will be used for selecting vessels that are required to report economic data. The Southeast Fisheries Science Center will **determine the strata (based on previous years' data and minimum sample sizes by strata)** sufficient for providing scientific and management advice.

# What the Alternatives mean for the Center's Economic Data Collection

- **Alternative 1:** No Action. [...]
  - ➔ Ad hoc, self-standing, voluntary econ sample surveys every 5+ years to collect necessary data
- **Alternative 2:** Require that [...] a charter vessel [...] submit economic data as part of the logbook [...]
  - ➔ Fully integrated with logbook, no separate 'econ collection.'
- **Alternative 3:** Require that [...] a charter vessel [...] submit economic data as part of the logbook [...], **if selected. Annually, a stratified random sampling design** of permitted vessels will be used for selecting vessels that are required to report economic data. The Southeast Fisheries Science Center will **determine the strata (based on previous years' data and minimum sample sizes by strata)** sufficient for providing scientific and management advice.
  - ➔ Implemented through logbook, but separate data collection design

# Alternative 2: On e-logbook – Census (econ questions are standard questions)

- Science Center Staff Hours and Cost

<b>Activity</b>	<b>Staff Hours</b>	<b>Cost to Gov</b>
<u>Set-up</u>		
Integration of econ questions into app/process/protocols/etc	0	
<u>Annually</u>		
Continued coordination with SEFHIER	8	\$892
Data extraction and processing	8	\$892
Basic analysis and reporting (Gulf for-hire econ tech memo)	0*	
Totals	16	\$1,785

\* Not counting research and reporting cost (only add additional costs to other Alternatives)

# Alternative 3: On e-logbook – Sample (only selected respondents, up to 20%)

## • Science Center Staff Hours and Cost

<b>Activity</b>	<b>Staff Hours</b>	<b>Cost to Gov</b>
<u>Annually</u>		
Continued coordination with SEFHIER	16	\$1,785
Data extraction and processing	8	\$892
Develop/update sampling frame	12	\$1,338
Select sample and tracking strata	8	\$892
Selection letter mailing	4	\$446
Mailing materials	-	\$250
Integration of sample into App	?	
Tracking compliance/enforcement	?	
<u>For (one) analysis</u>		
Additional complexity of analysis	24	\$2,677
Totals	72	\$8,281

# Alternative 1: Not on logbook - (ad hoc data collection necessary)

- Science Center Staff Hours and Cost

<b>Activity</b>	<b>Staff Hours</b>	<b>Cost to Gov</b>
<u>Set-up</u>		
Find/raise funds (write proposal)	8	\$892
Develop new survey method, questionnaire, and materials	24	\$2,677
Using logbook data, develop sampling frame and design	16	\$1,785
OMB PRA approval (FRN, SSA, SSB, renewals)	24	\$2,677
Hire contractor for survey implementation	16	\$1,785
Contract: Survey Implementation	-	\$100,000
Update sampling frame and sample	8	\$892
Supervise contractor - Survey implementation	24	\$2,677
<u>For analysis</u>		
Additional complexity of analysis	8	\$892
Totals	128	\$114,277

- Only once every 5 years; hence annualized \$22,855 per year

# Reminder: Pros and Cons of Data Collections

<b>Action 4, Alternatives</b>	<b>Sample Size</b>	<b>Statistical Estimates</b>	<b>Annual Updates</b>	<b>Species Resolution</b>	<b>Temporal Resolution</b>	<b>Spatial Resolution</b>	<b>Data/Result Quality</b>
Alternative 2: On-e-logbook - Census	Huge (Census)	No	Yes	Yes	Yes	Yes	Very Good
Alternative 3: On e-logbook - Sample	Large	Yes, smaller C.I.s	Yes	Yes	Yes	Yes	Good
Alternative 1: Ad hoc data collection	Small	Yes, large C.I.s	No	No	No	No	Minimal

# Comparison of Costs

Action 4, Alternatives	Economic Data and Results	Estimated Annual Cost	Annual Number of Observations	Cost per Observation
Alternative 2: On-elogbook - Census	Very Good	\$1,785	44,000	5 cents
Alternative 3: On e-logbook - Sample	Good	\$8,031	4,000 to 8,000	\$1 to \$2
Alternative 1: Ad hoc data collection	Minimal	\$22,855	50	\$450+

- Uncertainty in time and cost estimates, but comfortable about relationship between Alternatives:
  - Alt. 3 (Sample) vs. Alt. 2 (Census) requires five times the effort; but is still reasonable as it generates good data.
  - Alt. 1 (Status Quo) vs. Alt. 2 (Census) requires 10 times the effort (in labor and funds); and is unreasonable given the limited data and results produced, especially IF the agency conducts a logbook data collection

Questions?



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# Most “recent” econ data collection – 2017

- Voluntary, ‘pilot study’ survey
- 2 page mail survey
- Conducted over one year, in 6 waves (for seasonality)
- Sampled half the eligible population
- Response rate by wave from [37% to 53%]; overall 45%
- Page 1: 8 questions for eligibility and characterize business
- Page 2: 15 questions about last trip

