C2- Public Review Draft EA/RIR
Adjust the Partial Coverage Observer Fee

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Presentation Outline

- Background
- Purpose and Need & Alternatives
- Environmental Assessment
- Regulatory Impact Review
- Summary of Conclusions

Why do we have an Observer Program?

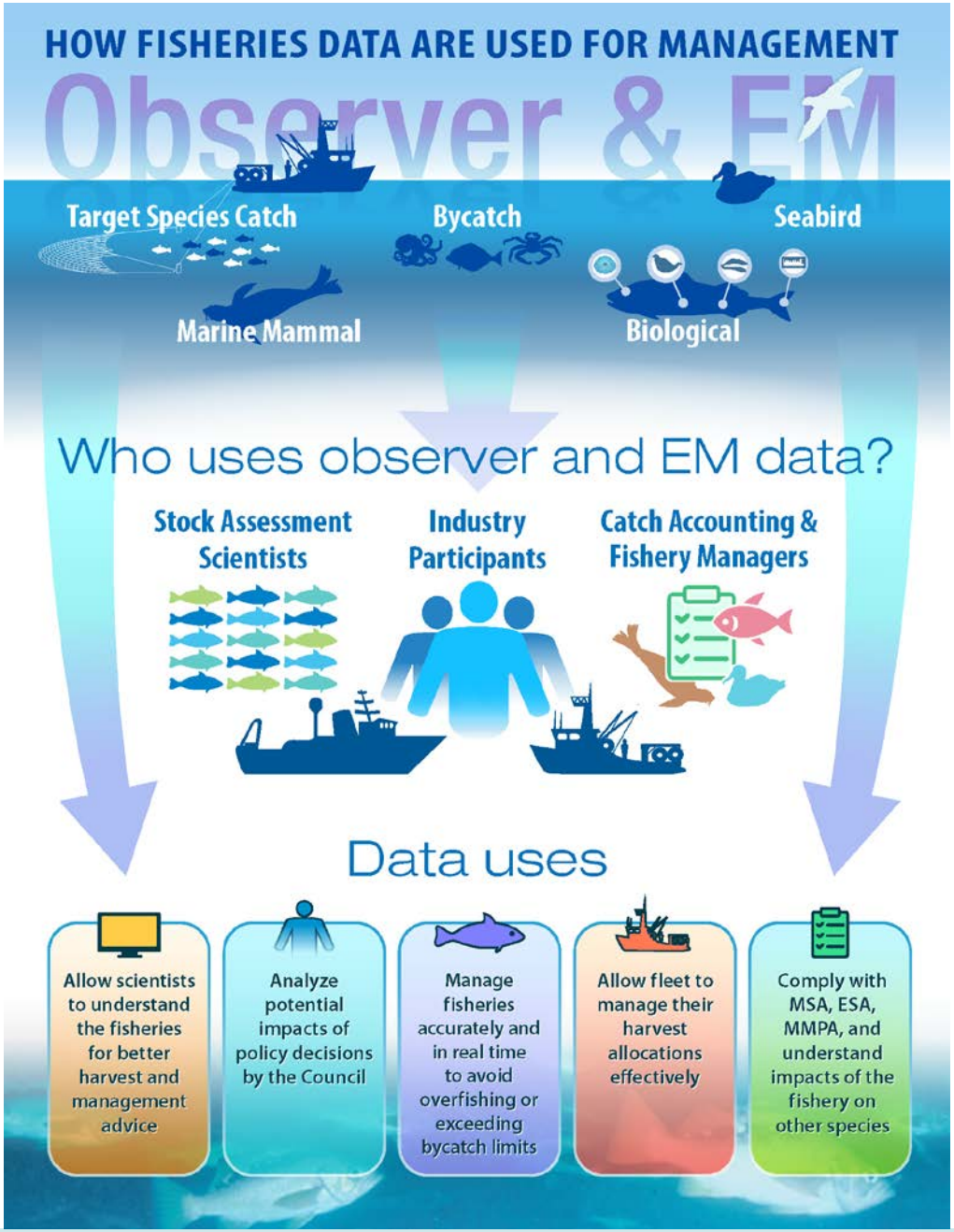
<u>Implementation Timeline:</u>

Pre-2013 – Pay as you go model for all
- Partial coverage vessels chose which trips were monitored, within given parameters

2013 – Restructured Observer Program
- Complies with MSA requirement for scientifically reliable monitoring

2014-2018 – Fixed gear EM alternative developed

2014-2016 – Increased Flexibility:
- Small vessels fishing CDQ
- Small non-trawl CPs
- BSAI Trawl CVs



(Figure ES – 1, page 5)

What changed as a result of restructuring the Observer Program in 2013?

Structural:

- Fee Collection equitably distributed
- Random Sampling Design - ODDS trip logging
- Annual Reports inform monitoring objectives; incorporated into following year's Annual Deployment Plan

Representativeness of data – **substantial improvement**

- Coverage on halibut vessels and <60 ft LOA
- Spread out monitoring for all in space and time

Council / NMFS Monitoring Objectives for the Observer Program

1. **Minimize the "monitoring effect"** so data from observed vessels are representative of unobserved vessels
2. **Improve discard estimates** by minimizing variability and reducing data gaps
3. **Monitoring PSC** is a priority
4. Collect fishery-dependent data sufficient for **stock assessment and ecosystem assessment/protected species needs**
5. Design the program with **flexibility to respond to evolving data and management needs** in individual fisheries
6. **Distribute the burden of monitoring fairly and equitably** among all fishery participants
7. **Minimize the impacts of monitoring on operational choices** of fishery participants
8. **Foster and maintain positive public perception** and stakeholder support

(Figure ES – 2, page 7)

Variety of Efforts Underway to Address Low Selection Rates

- Increase Revenue
  - Supplemental Federal funding (likely tapped out)
  - Raise fee percentage
- Contain Costs
  - Contract Changes (Implemented in 2019)
  - Integration of partial coverage monitoring tools
    - Size of fixed gear EM fleet
    - Trawl EM and dockside sampling
    - Shoreside sampling for fixed gear EM development
    - Evaluation of the baseline coverage rate (15%)
    - Potential changes to ODDS trip logging

Section 2.5

Variety of Efforts Underway to Address Low Selection Rates

- Increase Revenue
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  - Raise fee percentage
- Contain Costs
  - Contract Changes (Implemented in 2019)
  - Integration of partial coverage monitoring tools
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    - Potential changes to ODDS trip logging

Section 2.5

Fee analysis: Purpose and Need

Additional funding for monitoring in the partial coverage category may be necessary to continue to:

- improve the Observer Program,
- maintain and enhance the Council's ability to meet policy objectives through monitoring, and
- fund deployment of electronic monitoring systems.

Chapter 1

Chapter 2 - Alternatives

Alternative 1: Status quo. The observer fee is 1.25 percent.

Alternative 2: Increase the observer fee up to 2 percent.

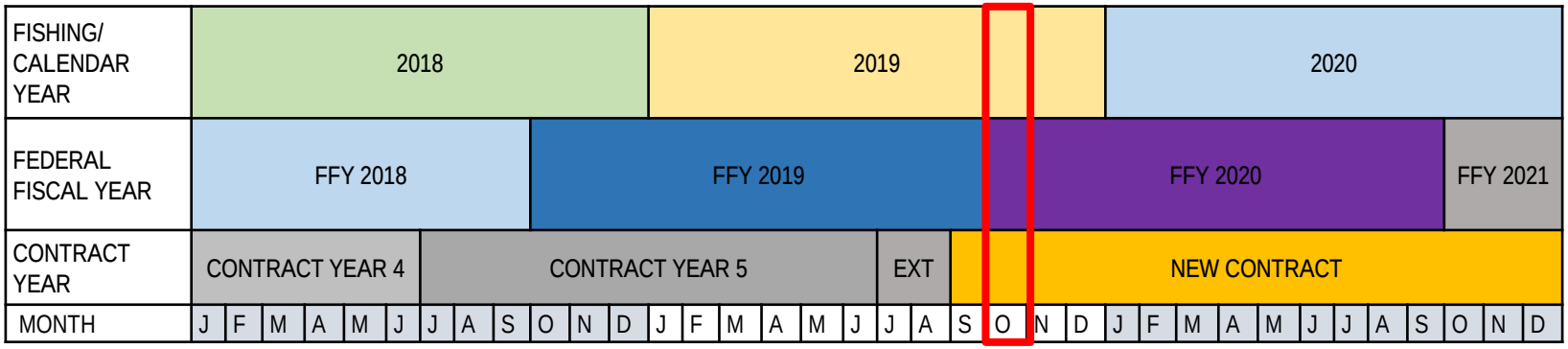
- Option 1, 2, and 3: 1.5%, 1.75%, 2%

Alternative 3: Increase the observer fee percentage by fishery sector (hook-and-line, pot, jig, and trawl) up to 2 percent.

- Option 1: H&L, Pot, jig at 1.5% and Trawl at 1.75%
- Option 2: H&L, Pot, jig at 1.5% and Trawl at 2%
- Option 3: H&L, Pot, jig at 1.75% and Trawl at 2%

Funding Since 2013 (Section 3.4)

- Annual ADP budget includes various funding sources
  - Carryover
  - Expected fee revenues
  - Supplemental Federal funds and EM Grant funds



(Figure 5, page 51)

Observer and EM deployment Costs

Calendar Year	Funding category	Funds sequestered (% of fees received)	Observer fees received	Observer fee collections received late	Prior year sequester funds received	Funds obligated to contract	Observer sea days at the start of the year	Observer sea days purchased during the year	Total observe sea day used duri the yea
2016	Fees	$231,200 (6.8%)	$3,897,938	$370,915	$350,400	$5,144,983	2,722	5,277	4,749[1]
	Federal Funds					$ 390,800			
2017	Fees	$273,930 (7.9%)	$3,592,750	$151,606	$231,200	$3,542,196	3,322	5,285	2,591
	Federal Funds					$1,398,531			
2018	Fees	$304,356 (7.9%)	$3,468,580		$273,930	$2,396,040[2]	5,858	2,350	3,207
	Federal Funds								
Total 2012-2019	Fees					$18,183,706			
	Federal Funds					$13,164,574			

Year	EM Pool size (ADP)	Number of EM vessels (V)	Number Sampled Vessels (v)	EM Sea Days	Funds Expended	Cost per day
2015	10	13	1	259	$286,454	$1,106
2016	58	42	24	357	$493,044	$1,381
2017	96	80	51	706	$622,550	$882
2018	141	120 H&L 18 Pot	81 H&L 13 Pot	1005	$1,535,130[1]	$1,527
2019	172	n/a	n/a	n/a	n/a	n/a

(Tables 4 and 7, pages 53 and 55)

Fee Revenue Analysis

Fee Revenue Analysis (Section 4.2.1)

- *Change:* examines 6 years post-restructure, including 2018

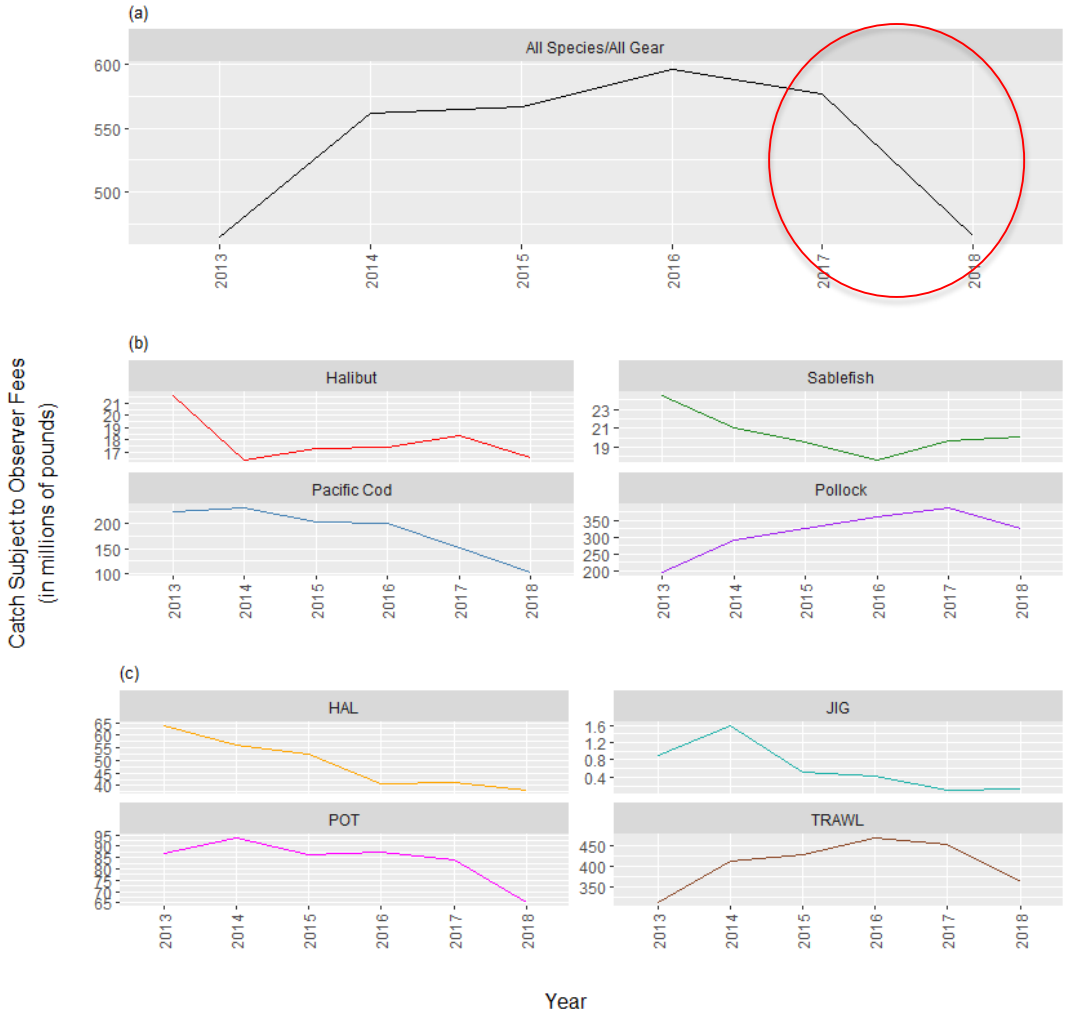
- Overall trend of low revenue continues with addition of 2018 data
- Figures and tables:
  - New figure illustrating observer fee increases for each alternative and option
  - Only slight changes to other figures and tables
  - Small changes to ex-vessel value and fee amounts because of updated inflation adjustment
- No longer need fee percentages to link to gap analysis; can use fee amounts and observer budgets to navigate between tables and figures

Fee Revenue Analysis (Section 4.2.1, pp 64-76)

- Economic components of Observer Fee Revenues
  - Landings
  - Standard ex-vessel prices
  - Ex-vessel value
  - Fee percentages
- Basis for comparing fee alternatives and their potential impacts on coverage and information gaps
- Fee revenue scenarios
- Risk analysis for various funding levels

Landings Subject to Observer Fees

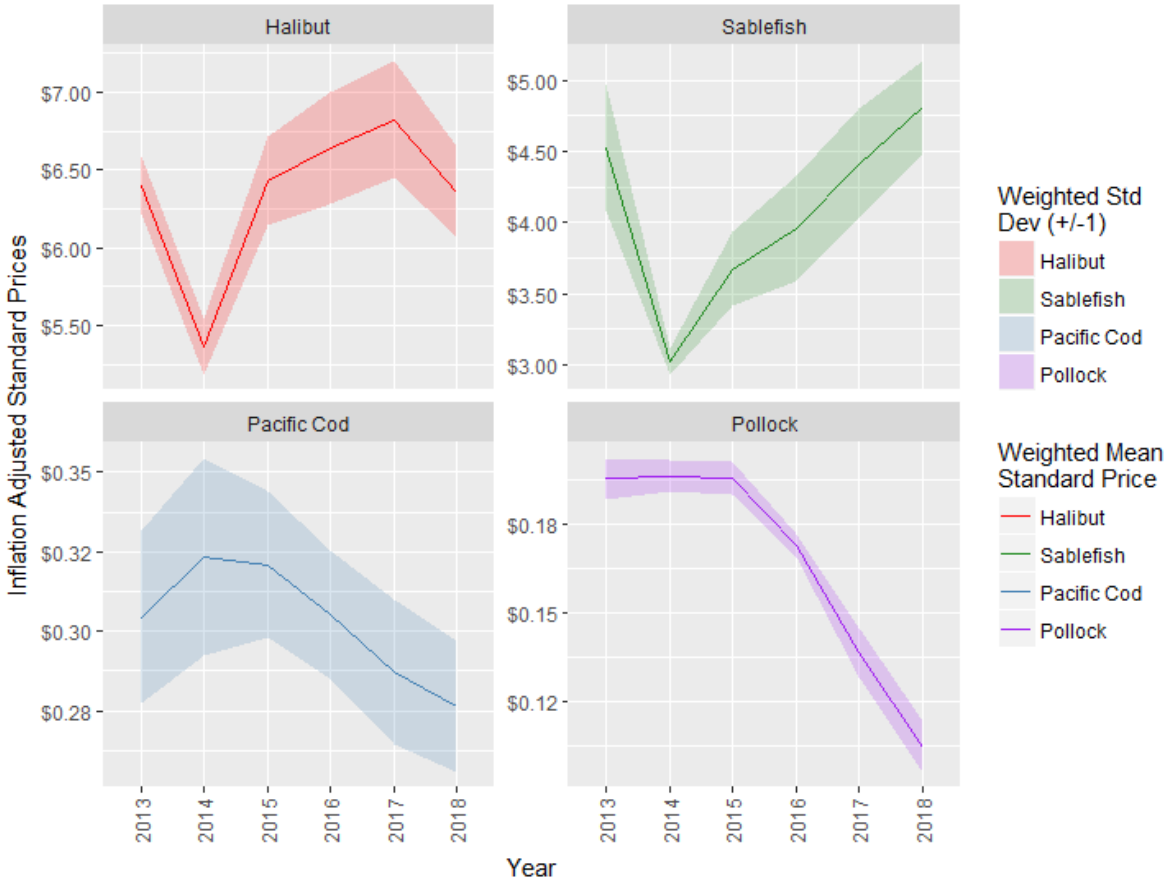
- *Change*: included overall trend and time-series by gear
- Landings greatest in 2016; large decrease in 2018
- Overall declines for all species but pollock
- Overall declines for all gear types but trawl - which had a drop in catch in 2018



(Figure 6, page 65)

Standardized Ex-Vessel Prices

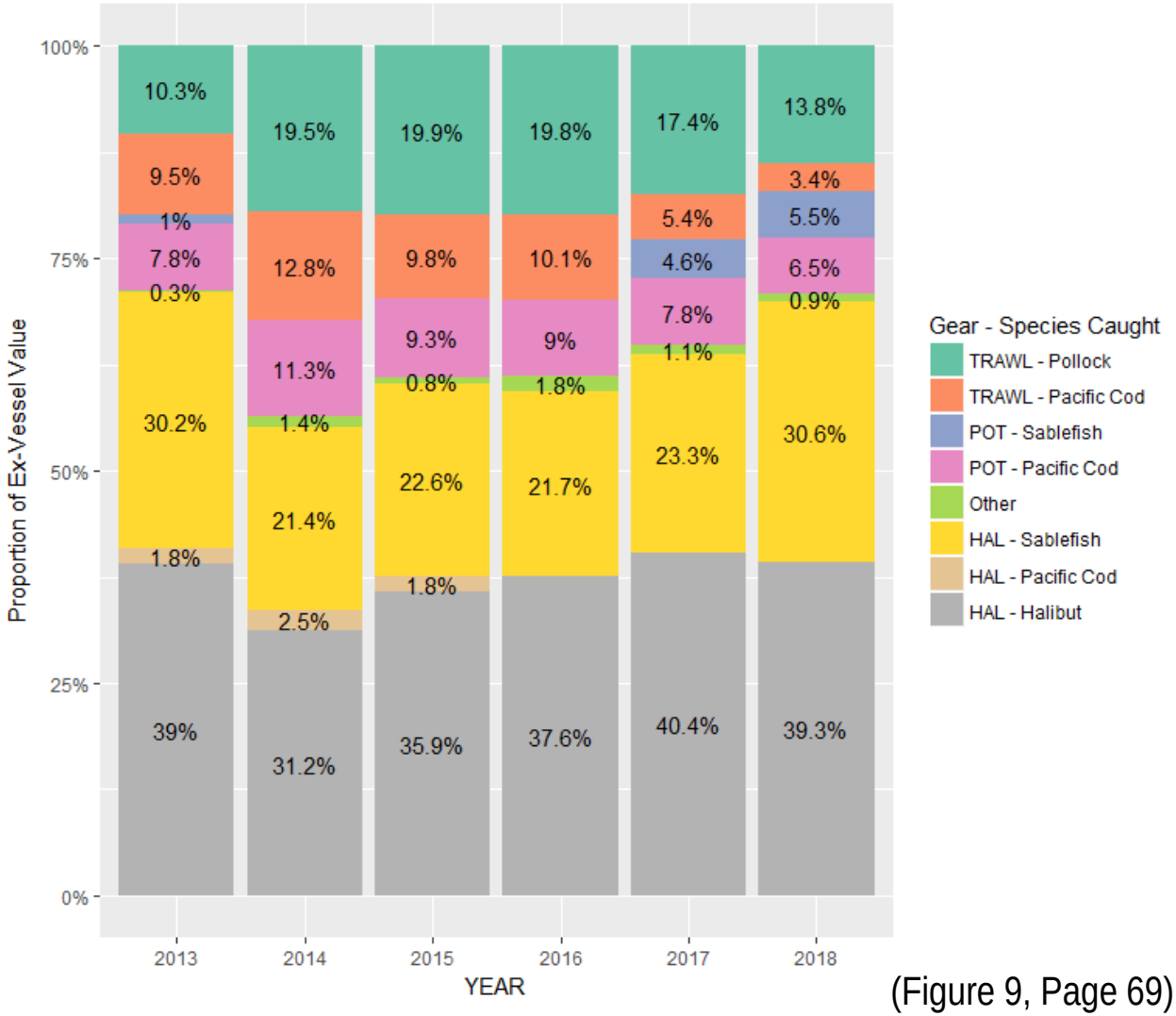
- *Change:* added 2018 to time-series
- Halibut dropped ~$0.50/lb from 2017
- All other species continued trend:
  - Sablefish ↑
  - Pacific cod ↓
  - Pollock ↓



(Figure 7, page 67)

Proportion of Ex-Vessel Value

- *Change:* added 2018 to time-series
- Proportion of ex-vessel value by gear and species similar in 2018



(Figure 9, Page 69)

Fee Revenue and Fee Percentage Scenarios

- *Change:* split into two tables
- Alternatives and Options identified
- The years with min and max ex-vessel values - and which serve as basis for fee estimates - have changed for jig, trawl, and all gears combined

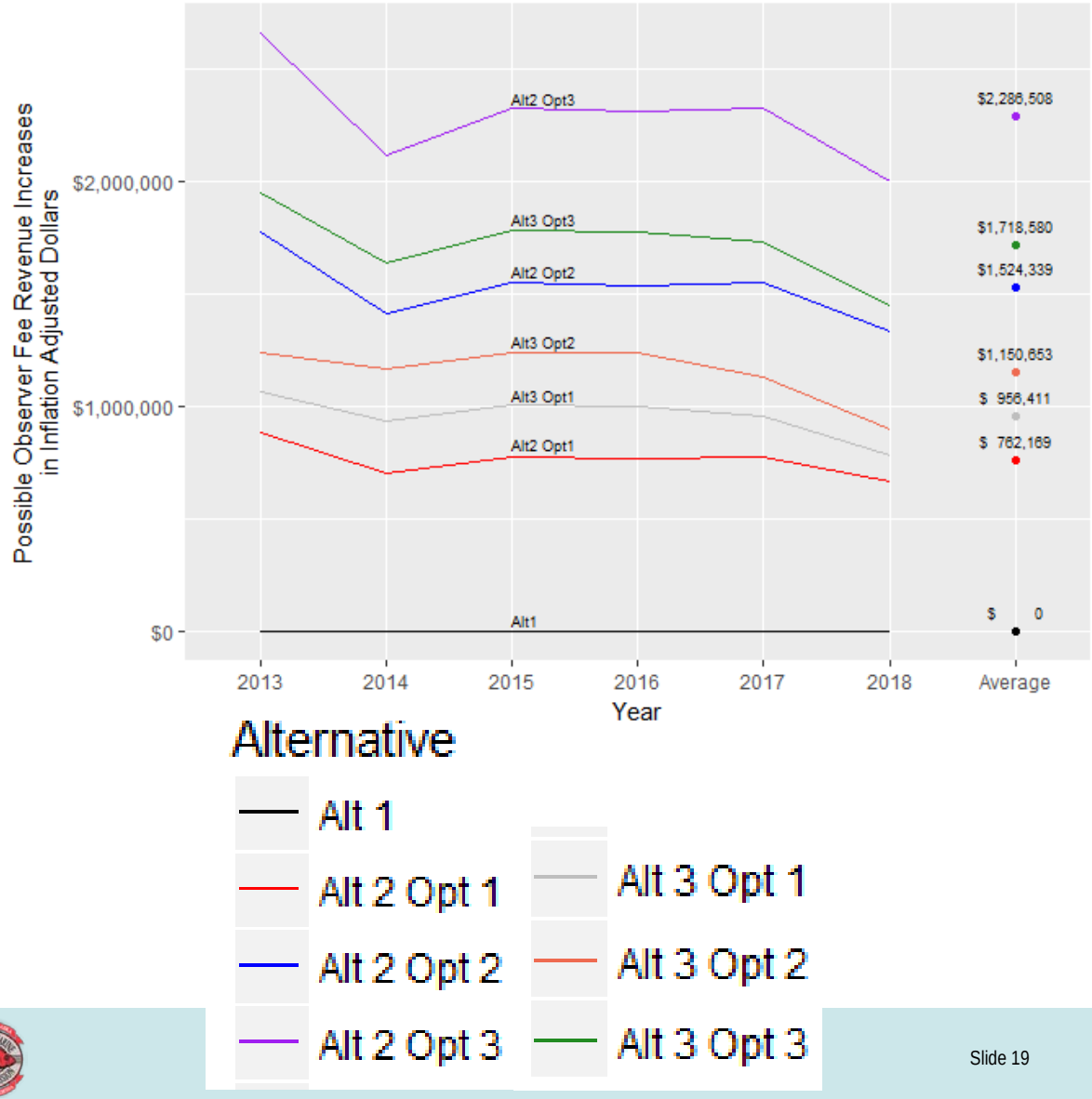
(Table 12, page 74)

		All Gears		
Fee %	Alternatives / Options	Min (2018)	Mean	Max (2013)
1.25	Alt. 1	$3,334,085	$3,810,846	$4,425,716
1.3		$3,467,448	$3,963,280	$4,602,745
1.35		$3,600,812	$4,115,714	$4,779,773
1.4		$3,734,175	$4,268,148	$4,956,802
1.45		$3,867,538	$4,420,582	$5,133,831
1.5	Alt. 2 Opt. 1	$4,000,902	$4,573,016	$5,310,859
1.55		$4,134,265	$4,725,449	$5,487,888
1.6		$4,267,629	$4,877,883	$5,664,917
1.65		$4,400,992	$5,030,317	$5,841,945
1.7		$4,534,355	$5,182,751	$6,018,974
1.75	Alt. 2 Opt. 2	$4,667,719	$5,335,185	$6,196,003
1.8		$4,801,082	$5,487,619	$6,373,031
1.85		$4,934,446	$5,640,053	$6,550,060
1.9		$5,067,809	$5,792,486	$6,727,089
1.95		$5,201,172	$5,944,920	$6,904,117
2	Alt. 2 Opt. 3	$5,334,536	$6,097,354	$7,081,146

Possible Observer Fee Increases

(Figure 10, Page 75)

- *Change:* new figure in EA fee analysis
- Illustrates possible fee increases from the status quo for 2013-2018
- Alt 2 Option 1 has most modest increase (~$0.76M)
- Alt 2 Option 3 has largest increase (~$2.3M)
- Alt 3 Options fall between Alt 2 Options

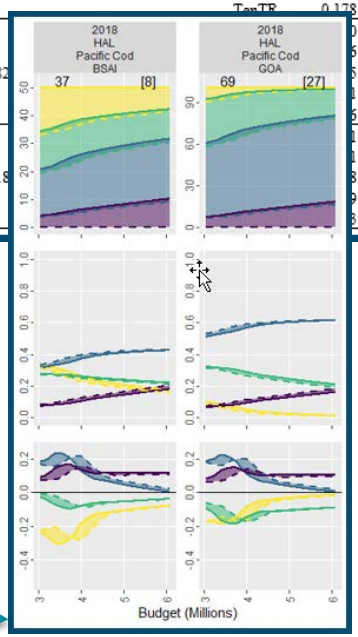


Possible EM Costs and Remaining Revenue

- Can also use remaining revenues in risk analysis and directly as observer budget scenarios in gap analysis

Observer Budget	Alt. 2 Fee %	Cost Per Day		Days		Deployment Strata	Selection Rate	
		Old	New	Old	New		Old	New
$3,048,677	1.00	$1,836.41	$1,648.12	1,660	1,850	HAL	0.090	0.100
						POT	0.090	0.100
						TRW	0.090	0.100
						TenP	0.090	0.100
						TenTR	0.090	0.100
$3,810,846	1.25	$1,770.27	$1,446.59	2,153	2,634	HAL	0.116	0.143
						POT	0.116	0.143
						TRW	0.116	0.143
						TenP	0.116	0.143
						TenTR	0.116	0.143
$4,573,015	1.50	$1,526.44	$1,279.57	2,996	3,574	HAL	0.158	0.180
						POT	0.151	0.155
						TRW	0.172	0.229
						TenP	0.152	0.158
						TenTR	0.178	0.252
$5,335,184	1.75	$1,389.71	$1,182					0.215
								0.160
								0.321
								0.167
								0.372
$6,097,354	2.00	$1,302.23	$1,118					0.250
								0.166
								0.413
								0.177
								0.492

(Table 13, page 83)



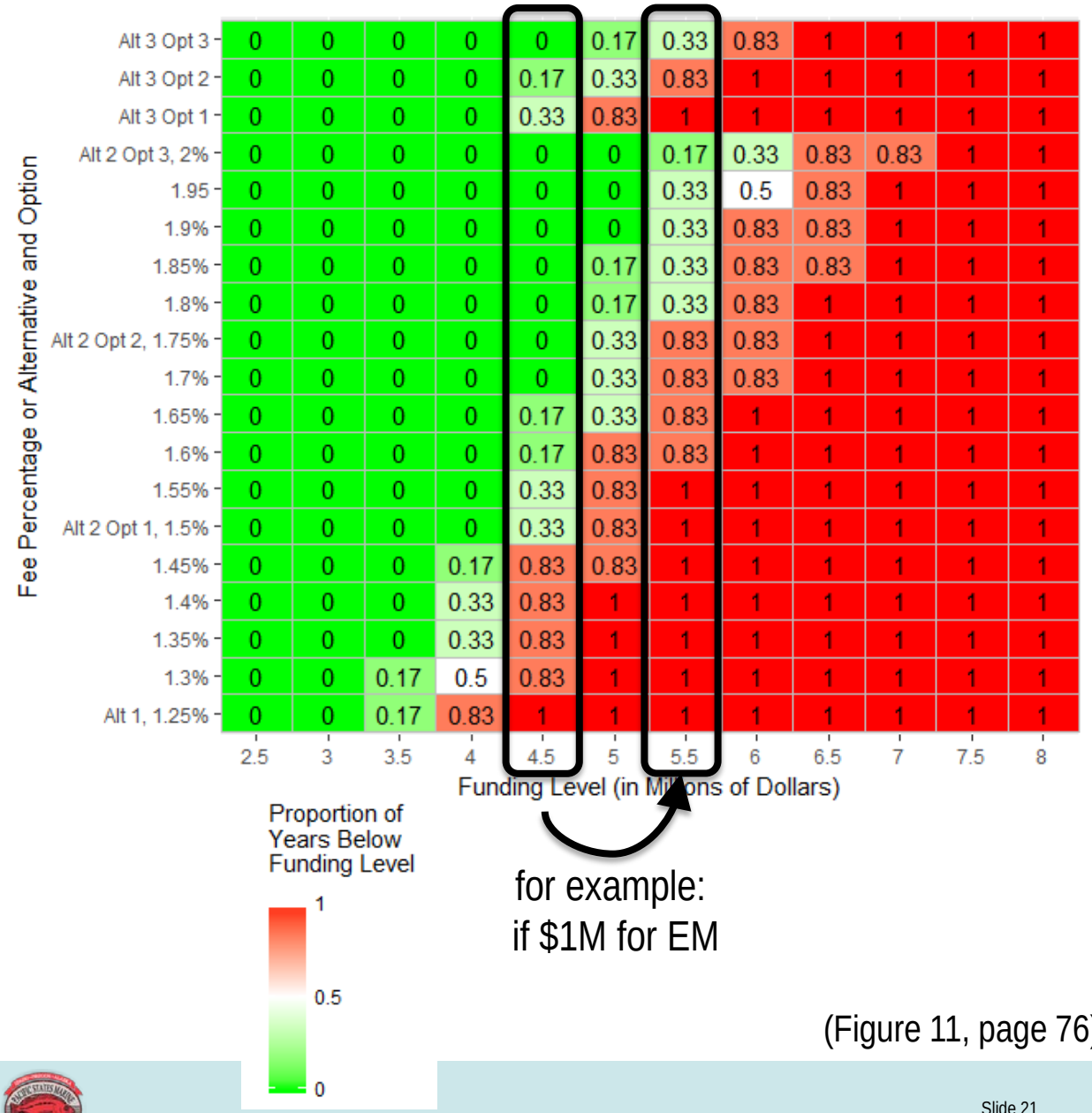
(e.g. Figure 13, page 85)

Fee %	Avg. Fee Revenue for All Gears	Alts and Options	Remaining Fee Revenue after a Range of Possible EM Costs					
			$250,000	$500,000	$1,000,000	$1,500,000	$2,000,000	$2,500,000
1.25	$3,810,846	Alt. 1	$3,560,846	$3,310,846	$2,810,846	$2,310,846	$1,810,846	$1,310,846
1.3	$3,963,280		$3,713,280	$3,463,280	$2,963,280	$2,463,280	$1,963,280	$1,463,280
1.35	$4,115,714		$3,865,714	$3,615,714	$3,115,714	$2,615,714	$2,115,714	$1,615,714
1.4	$4,268,148		$4,018,148	$3,768,148	$3,268,148	$2,768,148	$2,268,148	$1,768,148
1.45	$4,420,582		$4,170,582	$3,920,582	$3,420,582	$2,920,582	$2,420,582	$1,920,582
1.5	$4,573,016	Alt 2. Opt. 1	$4,323,016	$4,073,016	$3,573,016	$3,073,016	$2,573,016	$2,073,016
1.55	$4,725,449		$4,475,449	$4,225,449	$3,725,449	$3,225,449	$2,725,449	$2,225,449
1.6	$4,877,883		$4,627,883	$4,377,883	$3,877,883	$3,377,883	$2,877,883	$2,377,883
1.65	$5,030,317		$4,780,317	$4,530,317	$4,030,317	$3,530,317	$3,030,317	$2,530,317
1.7	$5,182,751		$4,932,751	$4,682,751	$4,182,751	$3,682,751	$3,182,751	$2,682,751
1.75	$5,335,185	Alt. 2 Opt. 2	$5,085,185	$4,835,185	$4,335,185	$3,835,185	$3,335,185	$2,835,185
1.8	$5,487,619		$5,237,619	$4,987,619	$4,487,619	$3,987,619	$3,487,619	$2,987,619
1.85	$5,640,053		$5,390,053	$5,140,053	$4,640,053	$4,140,053	$3,640,053	$3,140,053
1.9	$5,792,486		$5,542,486	$5,292,486	$4,792,486	$4,292,486	$3,792,486	$3,292,486
1.95	$5,944,920		$5,694,920	$5,444,920	$4,944,920	$4,444,920	$3,944,920	$3,444,920
2.0	$6,097,354	Alt. 2 Opt. 3	$5,847,354	$5,597,354	$5,097,354	$4,597,354	$4,097,354	$3,597,354

(Table 16, page 95)

Risk Analysis

- *Change:* proportions based on 6 year time-period
- *Change:* includes rows for Alternative 3 (fee % variable based on gear)
- With addition of 2018, a low ex-vessel value year, see some fee % failing to achieve funding level at lower $ amount
- Shift expectations if also considering EM costs



(Figure 11, page 76)

Data Gap Analysis

Data Gap Analysis – Section 4.2.2

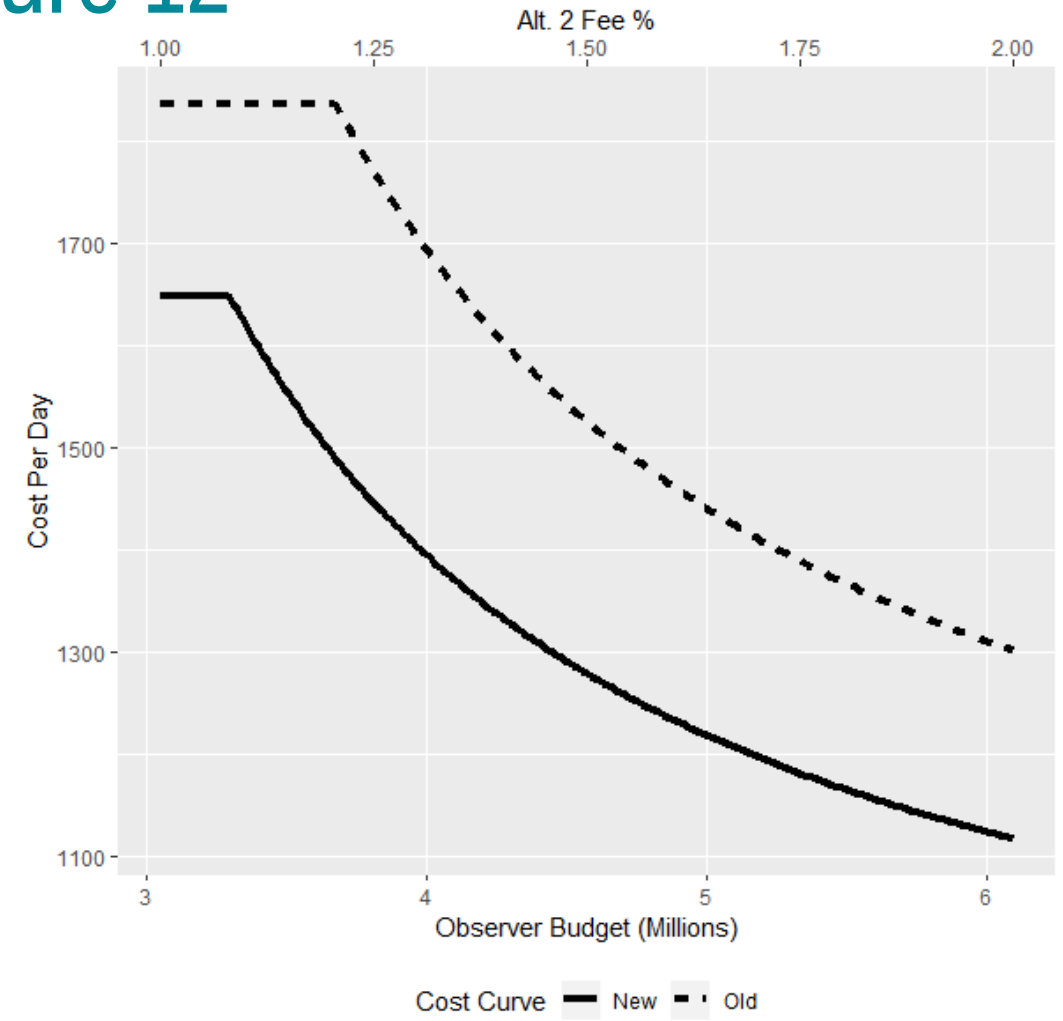
Summary of substantive changes since April

- 2018 partial coverage fishing effort (updated from 2017)
- 2020 partial coverage contract costs* (updated from 2019) and post-restructure revenue averages (updated from 2009-2018 average)
- Updated ‘cost curve’ relating the budget for observer coverage to number of observer days afforded and observer cost per day
- Changes in gaps presented as a range (results from old and new cost curves)
- Changes in gaps presented as a function of the budget for observer coverage (instead of fee rate percentage)

* optional/guaranteed day costs from previous observer contract

Cost curves – Figure 12

- ‘New’ cost curve based on updated travel cost data and refined assumptions regarding economy of scale.
- The gap analysis was performed with BOTH curves so that changes in gaps could be presented as a range:
  - old = conservative
  - new = optimistic



Page 84

Selection Rates - Table 13

- Cost per day, number of observer days afforded, and selection rates are summarized for both cost curves.
- To meet the 15% hurdle, the estimated required observer budget is:
  - ~$4.0 million (new)
  - ~$4.5 million (old)

Assumes all fees revenue for observer budget (not EM)

Observer Budget	Alt. 2 Fee %	Cost Per Day		Days		Deployment Strata	Selection Rate	
		Old	New	Old	New		Old	New
$3,048,677	1.00	$1,836.41	$1,648.12	1,660	1,850	HAL	0.088	0.098
						POT	0.088	0.098
						POT_TENDER	0.088	0.098
						TRW	0.088	0.098
						TRW_TENDER	0.088	0.098
$3,810,846	1.25	$1,770.27	$1,446.59	2,153	2,634	HAL	0.114	0.140
						POT	0.114	0.140
						POT_TENDER	0.114	0.140
						TRW	0.114	0.140
						TRW_TENDER	0.114	0.140
$4,573,015	1.50	$1,526.44	$1,279.57	2,996	3,574	HAL	0.156	0.174
						POT	0.151	0.154
						POT_TENDER	0.151	0.155
						TRW	0.168	0.229
						TRW_TENDER	0.172	0.248
						HAL	0.183	0.204
						POT	0.156	0.159

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Modified Table ES-2 (FMAC request)

Alt. 2 Fee % and total fee revenue (based on average of years 2013-2018)	Observer Budget	Cost Per Day[1]		Estimated Coverage Days	Assumed Deployment Strata	Estimated Selection Rates	
	EM Budget	Upper	Lower				
1.25% $3,810,846	$2,810,846	$1,836	$1,648	1,527 - 1,702	Hook and Line	9.1%	8.2%
					Pot	9.1%	8.2%
					Trawl	9.1%	8.2%
					Tender Pot	9.1%	8.2%
					Tender Trawl	9.1%	8.2%
	$1,000,000	~~$1527~~	~~$956~~	~~655 – 1,046~~	Fixed Gear EM	30%	30%
1.50% $4,573,015	$3,573,015	$1,836	$1,528	1,942 - 2,334	Hook and Line	12.5%	10.4%
					Pot	12.5%	10.4%
					Trawl	12.5%	10.4%
					Tender Pot	12.5%	10.4%
					Tender Trawl	12.5%	10.4%
	$1,000,000	~~$1527~~	~~$956~~	~~655 – 1,046~~	Fixed Gear EM	30%	30%
1.75% $5,335,184	$4,335,184	$1,588	$1,323	2,726 - 3,273	Hook and Line	16.6%	14.6%
					Pot	15.2%	14.6%
					Trawl	19.9%	14.6%
					Tender Pot	15.4%	14.6%
					Tender Trawl	21.3%	14.6%
	$1,000,000	~~$1527~~	~~$956~~	~~655 – 1,046~~	Fixed Gear EM	30%	30%
2.00% $6,097,354	$5,097,354	$1,426	$1,209	3,569 - 4,213	Hook and Line	19.8%	17.6%
					Pot	15.7%	15.4%
					Trawl	29.6%	23.0%
					Tender Pot	16.2%	15.7%
					Tender Trawl	33.5%	25.1%
	$1,000,000	~~$1527~~	~~$956~~	~~655 – 1,046~~	Fixed Gear EM	30%	30%

Modified Table ES-2 (FMAC request)

Alt. 2 Fee % and total fee revenue (based on average of years 2013-2018)	Observer Budget	Cost Per Day[1]		Estimated Coverage Days	Assumed Deployment Strata	Estimated Selection Rates	
	EM Budget	Upper	Lower				
1.75% $5,335,184	$4,335,184	$1,588	$1,323	2,726 - 3,273	Hook and Line	16.6%	14.6%
					Pot	15.2%	14.6%
					Trawl	19.9%	14.6%
					Tender Pot	15.4%	14.6%
					Tender Trawl	21.3%	14.6%
	$1,000,000	~~$1527~~	~~$956~~	~~655 - 1,046~~	Fixed Gear EM	30%	30%

2018 EM Costs are the best available estimates at this time, but are likely an overestimate of the fixed gear EM costs we might expect in future years because unreviewed trips were not included. This results in an underestimate of the EM deployment days and total costs used to calculate the 2018 cost per day estimates. (41 pot trips and 62 HAL trips)

62 HAL and 41 Pot trips were not reviewed in 2018. Using an average of 3.7 days per pot trip and 5.8 days per HAL trip, an estimated additional 528 days for a total of 1532 days instead of the 1005 days used to generate the 2018 estimates.

Without additional information about the cost of data review, the estimates provided are the best we have available at this time and are an overestimate of the cost per day that we expect in future years that factor into the $1 million estimate for a 168 boat fleet.

Assessing data gaps

- Roughly mimics CAS discard estimation routine for observer and no-selection pool trips using nearest-neighbor methods

- For each trip, calculate probability of being selected for observer coverage or acquiring discard estimates from the AREA, FMP, or YTD data level. Depends on:
  - Deployment rates afforded by the observer budget
  - Spatiotemporal arrangement of fishing effort within each domain (how many observer pool trips occurred within 15 or 45 day window)

COVER – Trip selected for observer coverage

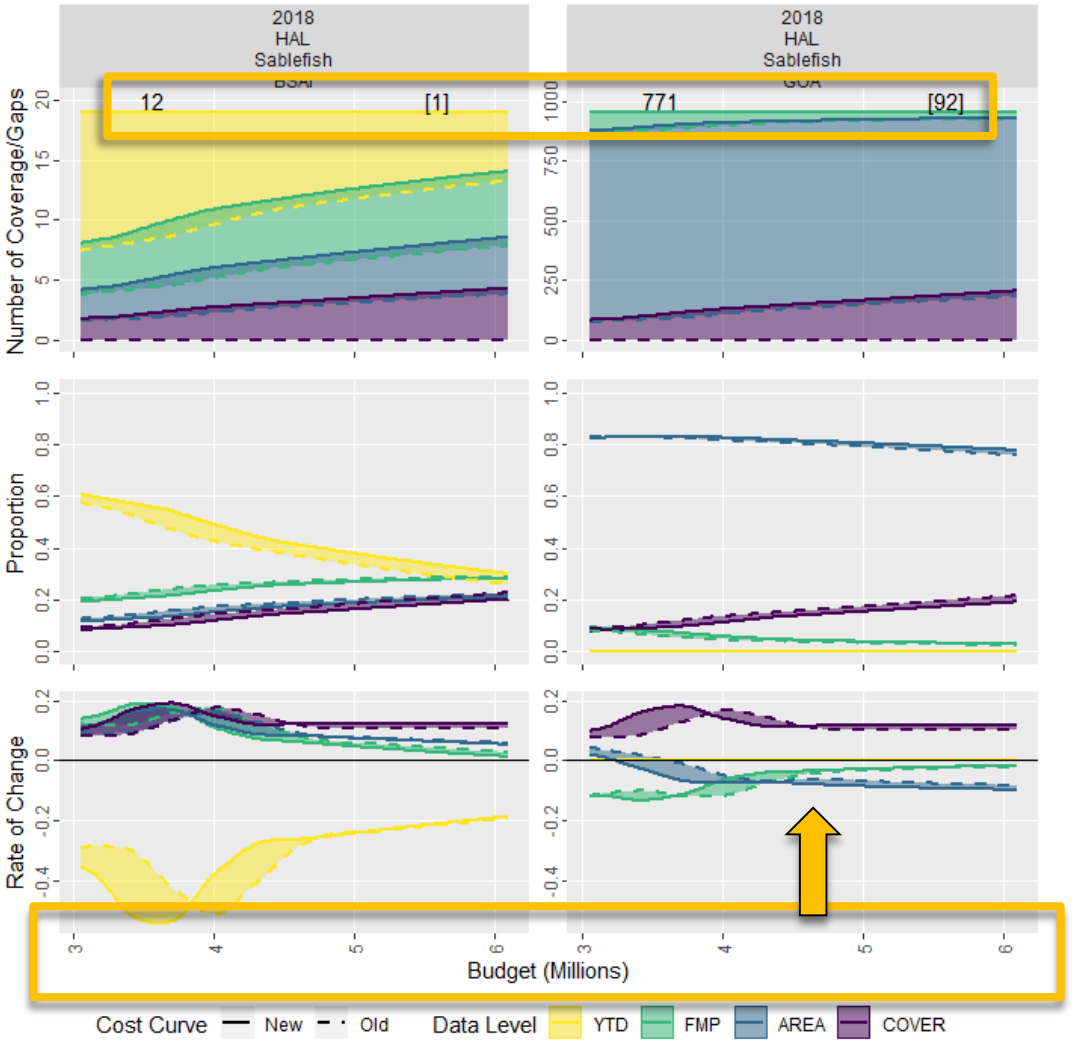
AREA – Unobserved trip within 15-days of observed trip in the same NMFS Area

FMP – Unobserved trip within 45-days of observed trip in the same FMP

YTD – Unobserved trip cannot be categorized in AREA or FMP (year-to-date)

Interpreting the data gap analysis

- Budget on x-axis (not fee rate %)
- Number of trips in observer pool (left) and no-selection pool (right, in brackets)
- Number and proportion of trips within each data level
- Rate of change of proportion: farther from zero = coverage gaps changing faster per $ = 'bang for buck'
- Gaps are considered minimized when FMP (green) and YTD (yellow) rate of change → 0, meaning additional money is no longer changing gaps



Catch Accounting and Inseason Management
(Section 4.3)

Inseason management branch activities

- Description of the complexity of trawl and hook and line harvest patterns (Section 4.3.3)
- Complexity linked to management structure of MRAs (e.g., top off), PSC (avoidance), quotas, and other behaviors.

Catch Accounting and Inseason Management (Sections 4.3.4 - 4.3.6)

- Overview of discard estimation (Sections 4.3.4 - 4.3.5)
- Discussion on data availability and inseason management decisions (real world examples -4.3.6)

Catch Accounting and Inseason Management

- Summary (Section 4.3.7)
  - Area specific information allows management based on the characteristics of a specific fishery.
  - Management generally based on area specific information (Figures 29-31, page 113 - 116).
  - When area-level data is unavailable or limited, management decisions are made with greater uncertainty, which can result in conservative management (Table 18, page 119).

Catch Accounting and Inseason Management

- Examples
  - 2016, one observed tender strata trip in area 610 influenced 16 management accounts for tendered trips in the WGOA and CGOA (pg 111).
  - 2019 – Chinook Example: One observed trip in area 620 with high salmon bycatch influenced rates in areas 610 and 630. Without fleet stand down to allow more observer data to come in, fishery would have been closed (pg 117).

Probable Environmental Impacts

Summary of substantive changes since April

- Section 4.5 to clarify probable environmental impacts.
- Section 4.5.3 to clarify expected cumulative impacts
- Added Section 4.6 NEPA Summary.

Regulatory Impact Review – Chapter 5

Regulatory Impact Review – Chapter 5

A few changes to the RIR since the Initial Review Draft

Background section (Section 5.5):

- Mirrors revisions to Chapter 4 Revenue Analysis and Gap Analysis

Analysis of impacts (Section 5.6):

- Clarifications to expected impacts on stakeholder groups
- Addresses benefits associated with different coverage levels
- Incremental impacts of the alts/ new options relative to no action
- Additional discussion of net benefits to the Nation (Section 5.9)

Description of Partial Observer Coverage Fisheries - Section 5.5

- References/tracks information in the revenue analysis of the EA (Section 4.2.1, pp 64-76)
  - Monitoring coverage
  - Fee revenues
  - Costs

- 2014-2019, 68% of program supported by observer fee

Year	Total ADP budget of at-sea observer days for deployment in partial coverage1	Observer fees contributing to budget[1] (from previous year's landings + delayed receipt of sequestered funds) in $ millions	Approximation of Industry/Federal breakout of at-sea deployment budget[2]		Coverage levels set in the ADP based on the estimated budget for observer days		
	$ millions		number of days purchased with fees	number of days purchased with Federal funding	Pot	Longline	Trawl
2013	$4.48	n/a	0	3,533	LOA 40-57.5': 11%; >57.5': 15%		15%
2014	$4.80	$4.25	4,049	524	LOA 40-57.5': 16%; >57.5': 15%		15%
2015	$5.50	$3.76	3,636	1,682	LOA 40-57.5': 12%; >57.5': 24%		24%
2016	$4.50	$4.25	4,417	260	15%	15%	28%
2017	$3.60	$3.82	3,127	0	Pot: 4% Tender pot: 4%	Longline: 11% Tender longline: 25%	Trawl: 18% Tender trawl: 14%
2018	$5.54	$3.74	3,375	1,900	Pot: 16% Tender pot: 17%	17%	Trawl: 20% Tender trawl: 17%
2019	$4.45	$3.20	2,236	873	Pot: 15% Tender pot: 16%	18%	Trawl: 24% Tender trawl: 27%

(Table 22, p 151)

Observer Fee Revenues

- Bulk of fee revenues generated by the hook and line sector, from halibut and sablefish

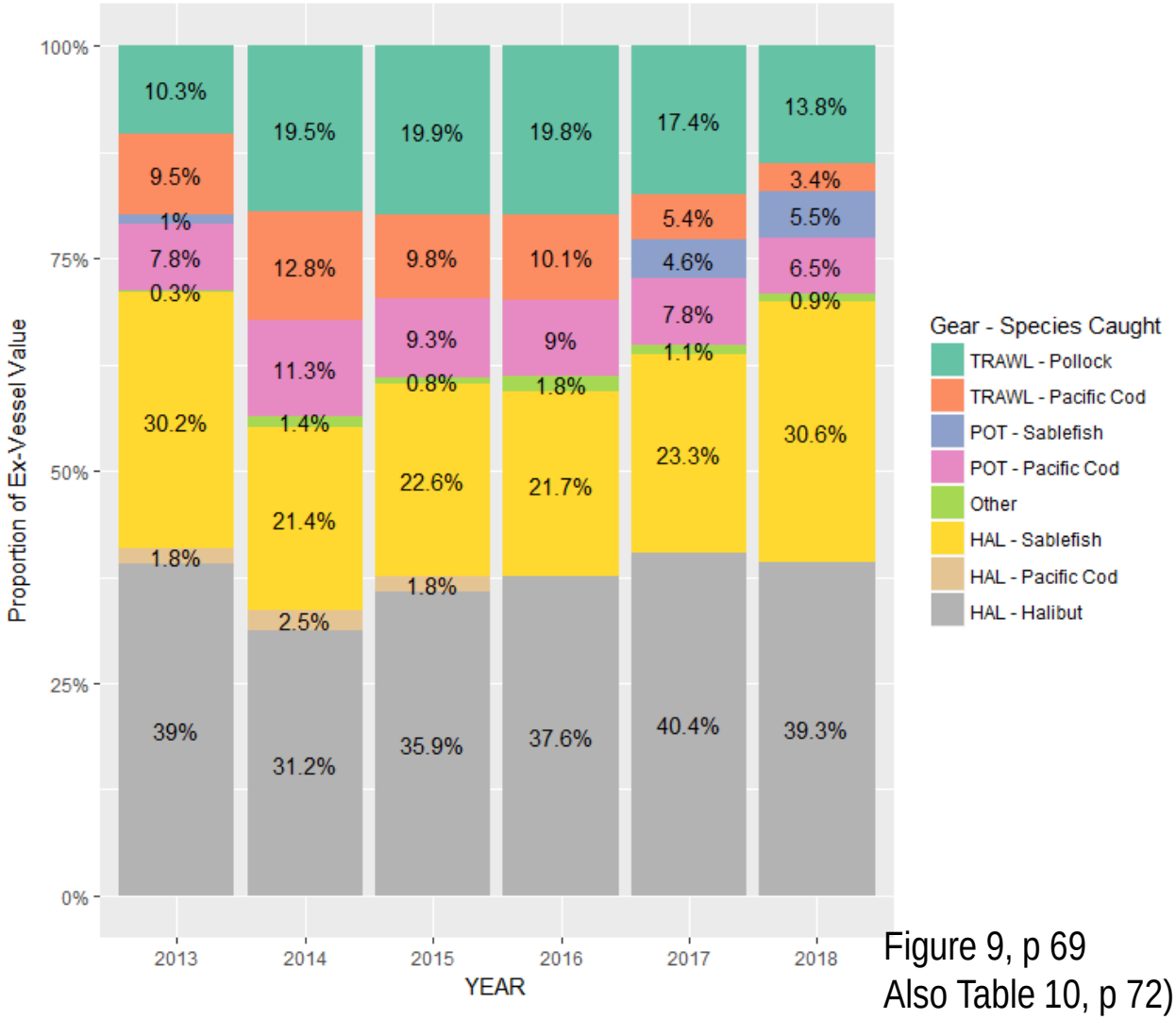


Figure 9, p 69
Also Table 10, p 72)

Observer Costs

- Per-day observer costs are blunt metric but best available
- Price per day decreases as more days are purchased
- Another major cost factor is travel costs
  - Short trips
  - Ports all over Alaska

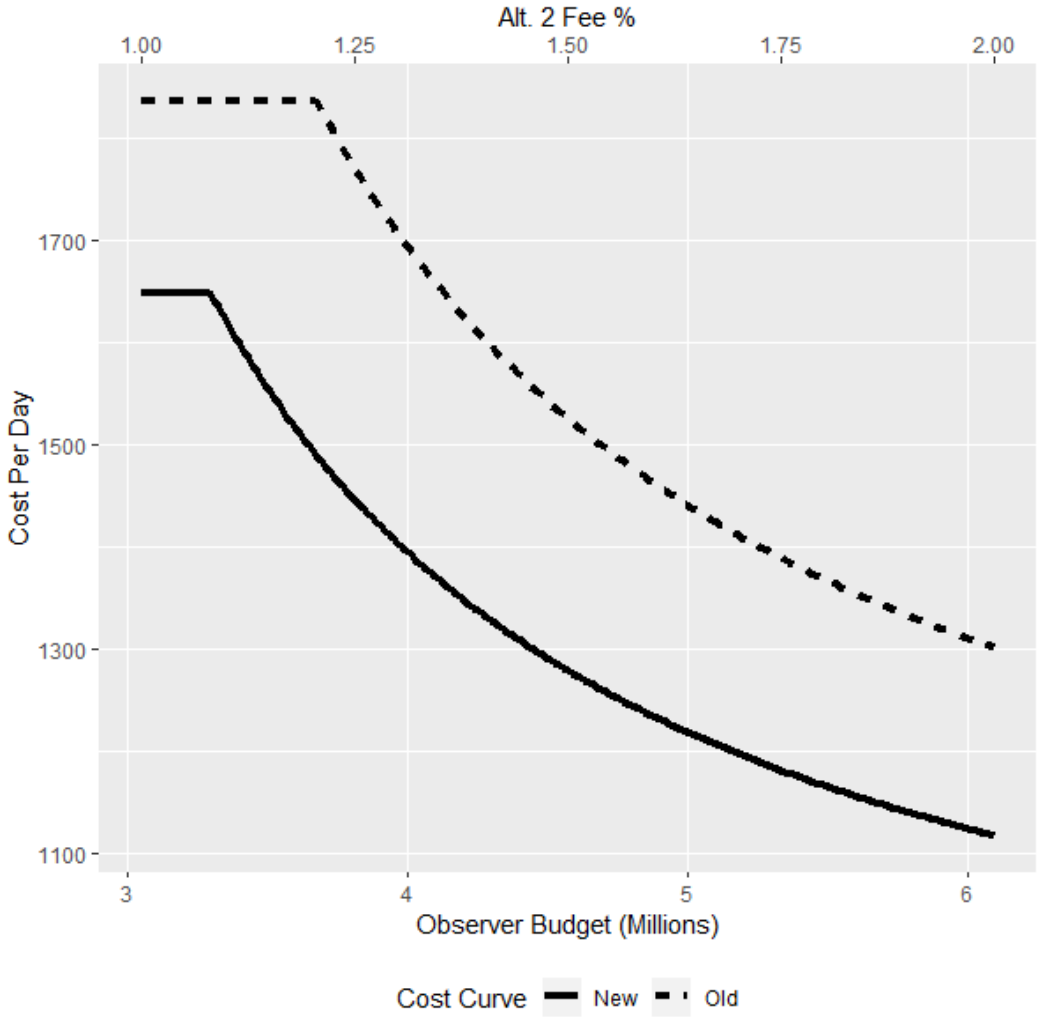


Figure 12, p 84

Other key step: Electronic Monitoring Costs

- Once EM costs fully transitioned to observer fee funding, will need to accommodate EM costs in the fee
  - Ongoing support/ maintenance, replacement of systems
  - Capital investment and installation for new vessels in program

Fee %	Avg. Fee Revenue for All Gears	Alts and Options	Remaining Fee Revenue after a Range of Possible EM Costs					
			$250,000	$500,000	$1,000,000	$1,500,000	$2,000,000	$2,500,000
1.25	$3,810,846	Alt. 1	$3,560,846	$3,310,846	$2,810,846	$2,310,846	$1,810,846	$1,310,846
1.3	$3,963,280		$3,713,280	$3,463,280	$2,963,280	$2,463,280	$1,963,280	$1,463,280
1.35	$4,115,714		$3,865,714	$3,615,714	$3,115,714	$2,615,714	$2,115,714	$1,615,714
1.4	$4,268,148		$4,018,148	$3,768,148	$3,268,148	$2,768,148	$2,268,148	$1,768,148
1.45	$4,420,582		$4,170,582	$3,920,582	$3,420,582	$2,920,582	$2,420,582	$1,920,582
1.5	$4,573,016	Alt 2. Opt. 1	$4,323,016	$4,073,016	$3,573,016	$3,073,016	$2,573,016	$2,073,016
1.55	$4,725,449		$4,475,449	$4,225,449	$3,725,449	$3,225,449	$2,725,449	$2,225,449
1.6	$4,877,883		$4,627,883	$4,377,883	$3,877,883	$3,377,883	$2,877,883	$2,377,883
1.65	$5,030,317		$4,780,317	$4,530,317	$4,030,317	$3,530,317	$3,030,317	$2,530,317
1.7	$5,182,751		$4,932,751	$4,682,751	$4,182,751	$3,682,751	$3,182,751	$2,682,751
1.75	$5,335,185	Alt. 2 Opt. 2	$5,085,185	$4,835,185	$4,335,185	$3,835,185	$3,335,185	$2,835,185
1.8	$5,487,619		$5,237,619	$4,987,619	$4,487,619	$3,987,619	$3,487,619	$2,987,619
1.85	$5,640,053		$5,390,053	$5,140,053	$4,640,053	$4,140,053	$3,640,053	$3,140,053
1.9	$5,792,486		$5,542,486	$5,292,486	$4,792,486	$4,292,486	$3,792,486	$3,292,486
1.95	$5,944,920		$5,694,920	$5,444,920	$4,944,920	$4,444,920	$3,944,920	$3,444,920
2.0	$6,097,354	Alt. 2 Opt. 3	$5,847,354	$5,597,354	$5,097,354	$4,597,354	$4,097,354	$3,597,354

(Table 16, page 95)

Description of Partial Coverage Fisheries (continued)

- Catch, value, and market trends
- Partial coverage harvesting and processing participation and associated communities
- Other taxes and fees in partial coverage fisheries, and
- Safety considerations

Analysis of Impacts – Section 5.6

Outline of topics covered:

- Impacts on stakeholder groups – Section 5.6.1
  - Distributional costs
  - Benefits
- Impacts relative to monitoring objectives – Section 5.6.2
- Comparison of alternatives and options, relative to no action – Sections 5.6.3, 5.6.4, 5.6.5
- Net benefits to the Nation – Section 5.6.9

Analysis of impacts – Section 5.6

Analyzes impacts relative to No Action

Status quo - what we get from the 1.25% fee now, or what we have averaged in 2013-2018

$\neq$

No Action - what we will get from the 1.25% fee into the future, taking into account all the uncertainties related to fee revenue, costs in the future, etc. – which also exist under Alts 2,3

Distributional costs

Harvesters and processors

- Increase in direct costs for harvesters and processors
- Most disruptive to operations closest to their profit margin, least disruptive to those that have the ability to internalize or pass on the cost

Crew

- If fees are deducted from revenue prior to establishing crew shares, crew wages would decline

Communities

- Limited indirect impacts
- Possible indirect effects from a slight reduction in income, spending from partial coverage participants

Impacts of Alt 2 vs Alt 3 very similar, with the difference being how the costs are distributed

Benefits to stakeholders

Relative to no action, incremental improvements in:

- Management certainty and reduction in management inefficiency
- Likelihood of achieving the Council's eight monitoring objectives (e.g., monitoring PSC)
- Information on seabirds and marine mammals that allow for more informed ecosystem assessments
- Increased assurance that the public receives unbiased information about the use of a public resource

Comparison of Alternatives and Options

Alt 1 – no action

- 1.25% fee
- Not likely to be status quo conditions
- Based on the Gap Analysis, a 1.25% fee is unlikely to generate enough revenue to meet a 15% baseline coverage level without additional funding
- Table 13 (page 83) shows a potential for 12% or 14% selection rate under the old and new cost curves
- This is prior to considering additional EM costs

Comparison of Alternatives and Options

Alt 2 – increase the fee up to 2%, evenly across sectors

Option 1: 1.5%, Option 2: 1.75%, Option 3: 2%

Will provide additional fee revenues and ability to achieve monitoring objectives relative to no action

- cost/revenue landscape evolving in both cases

What level of coverage would these options support?

- Holding other factors constant (including no fee funding for EM), the Gap Analysis suggests that meeting the 15% baseline may be achievable under all options of Alternative 2

Comparison of Alternatives and Options

Fee %	Alternatives / Options	All Gears Min (2018)	All Gears Mean	All Gears Max (2013)
1.25	Alt. 1	$3,334,085	$3,810,846	$4,425,716
1.3		$3,467,448	$3,963,280	$4,602,745
1.35		$3,600,812	$4,115,714	$4,779,773
1.4		$3,734,175	$4,268,148	$4,956,802
1.45		$3,867,538	$4,420,582	$5,133,831
1.5	Alt. 2 Opt. 1	$4,000,902	$4,573,016	$5,310,859
1.55		$4,134,265	$4,725,449	$5,487,888
1.6		$4,267,629	$4,877,883	$5,664,917
1.65		$4,400,992	$5,030,317	$5,841,945
1.7		$4,534,355	$5,182,751	$6,018,974
1.75	Alt. 2 Opt. 2	$4,667,719	$5,335,185	$6,196,003
1.8		$4,801,082	$5,487,619	$6,373,031
1.85		$4,934,446	$5,640,053	$6,550,060
1.9		$5,067,809	$5,792,486	$6,727,089
1.95		$5,201,172	$5,944,920	$6,904,117
2	Alt. 2 Opt. 3	$5,334,536	$6,097,354	$7,081,146

(Table 12, page 74)

Comparison of Alternatives and Options

Alt 3 – increase the fee variably among gear sectors

Option 1: 1.5% for the hook-and-line, pot, and jig fisheries
1.75% for the trawl fisheries

Option 2: 1.5% for the hook-and-line, pot, and jig fisheries
2.0% for the trawl fisheries

Option 3: 1.75% for the hook-and-line, pot, and jig fisheries
2.0% for trawl fisheries

- According to the Gap Analysis, holding other factors constant (including no fee funding for EM), 15% baseline potentially achievable

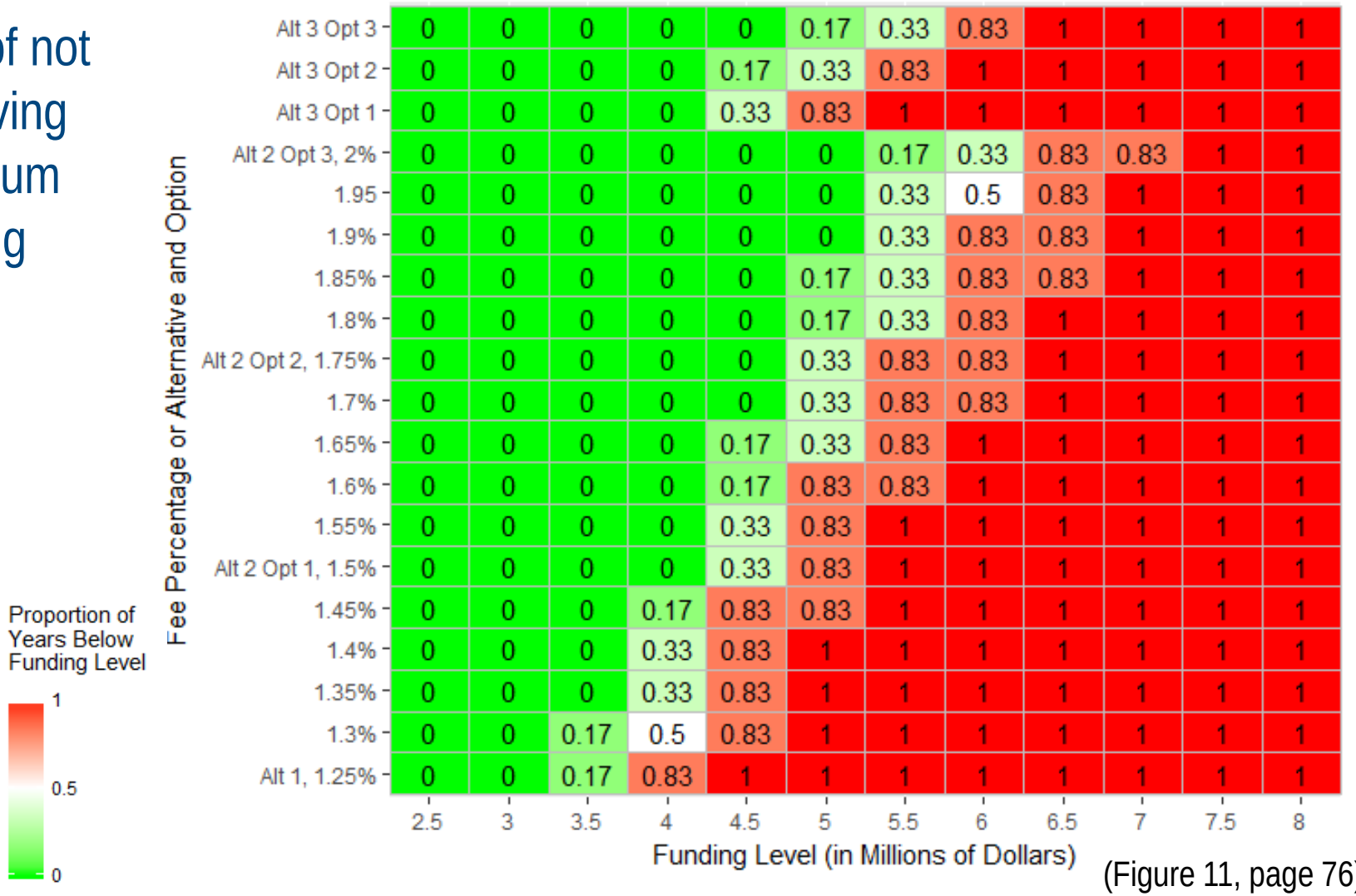
Comparison of Alternatives and Options

(Table 31, page 190)

Options under Alt 3	Fee %	Sector	Min	Mean	Max
Alt 3, Option 1	Fixed gear at 1.5%	HAL	$2,329,011	$2,912,608	$3,771,375
		Jig	$1,610	$5,136	$9,127
		Pot	$444,062	$489,822	$578,686
	Trawl at 1.75%	Trawl	$809,650	$1,359,692	$1,629,974
Total for all gear types under Alt 3, Opt 1			$3,584,333	$4,767,258	$5,989,162
Alt 3, Option 2	Fixed gear at 1.5%	HAL	$2,329,011	$2,912,608	$3,771,375
		Jig	$1,610	$5,136	$9,127
		Pot	$444,062	$489,822	$578,686
	Trawl at 2.0%	Trawl	$925,315	$1,553,933	$1,862,827
Total for all gear types for Alt 3, Opt 2			$3,699,998	$4,961,499	$6,222,015
Alt 3, Option 3	Fixed gear at 1.75%	HAL	$2,717,180	$3,398,042	$4,399,937
		Jig	$1,878	$5,992	$10,648
		Pot	$518,072	$571,458	$675,134
	Trawl at 2.0%	Trawl	$925,315	$1,553,933	$1,862,827
Total for all gear types under Alt 3, Opt 3			$4,162,445	$5,529,425	$6,948,546

Comparison of Alternatives and Options

Risk of not achieving minimum funding levels



(Figure 11, page 76)

Net benefits to the Nation

(incremental changes relative to no action)

- Higher fee percentage paid by harvesters and processors
- Possible impacts on crew wages and job opportunities
- Possible indirect and induced effect on associated communities

+ Increase management certainty and efficiency
+ Greater likelihood of achieving 8 monitoring objectives
+ Benefits to directed commercial users of PSC species (salmon, halibut, crab)
+ Benefits to those unrelated to commercial fishery (e.g. recreational stakeholders, subsistence marine mammal users, and interested public)
+ Overall benefits from unbiased information for the public on the use of a public resource

Summary of EA Conclusions

- There is no “hard line” or single minimum deployment rate that would result in the collection of unreliable information. (Sec 4.1.1)
- Flexibility of the ADP process is a strength allows strata definitions, risk thresholds, baseline levels, and optimization to be revisited as needed. (Sec 4.1.2)
- Considerable uncertainty in projecting observer fee revenue. (Sec 4.4)
- Monitoring does not affect how, when, or where fishing occurs. (Sec 4.5)
- Additional funding would reduce the risks of data gaps.

Reasonably foreseeable future actions

- Trawl EM EFP (Agenda D1)
- Future LAPP Development? (Agenda D2)
- Observer coverage for vessels delivering to tenders

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