

A Review of Observer and Monitoring Programs in the Northeast, the West Coast, and Alaska

Presentation to

New England Fishery Management Council

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Document Overview

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- **Section 3: Review of Observer and Catch Monitor program on the West Coast**
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Introduction and Project Goals

- **Project sponsored by EDF with coordination from GMRI and members of the monitoring working group**
- **Evaluate goals and objectives and performance of the At-sea and Dock-side Monitoring Programs in the NE Multispecies Fishery (NEMSF)**
- **Compare to programs in the West Coast & Alaska**
- **Understand why and how cost differences arise**
- **Explore ways that costs in the NEMSF might be mitigated**

Importance of Fisheries Monitoring

- **One of the cornerstones of the groundfish fishery's improvement -- and of its long term success -- is the accountability measures that have been put into place through the monitoring program.**
- **Improvements in the collection, accuracy and timeliness of catch data will...**
 - help fishermen meet MSRA requirements
 - avoid harvest overages
 - enable fishery managers to monitor ACLs with a greater degree of precision and accuracy

Importance of Fisheries Monitoring

■ Better catch data contribute to

- more robust stock assessments,
- which can increase the accuracy of stock size estimates
- and potentially decreasing the size of harvest buffers
- which may lead to greater allowable catch for fishermen

Frequently Used Acronyms

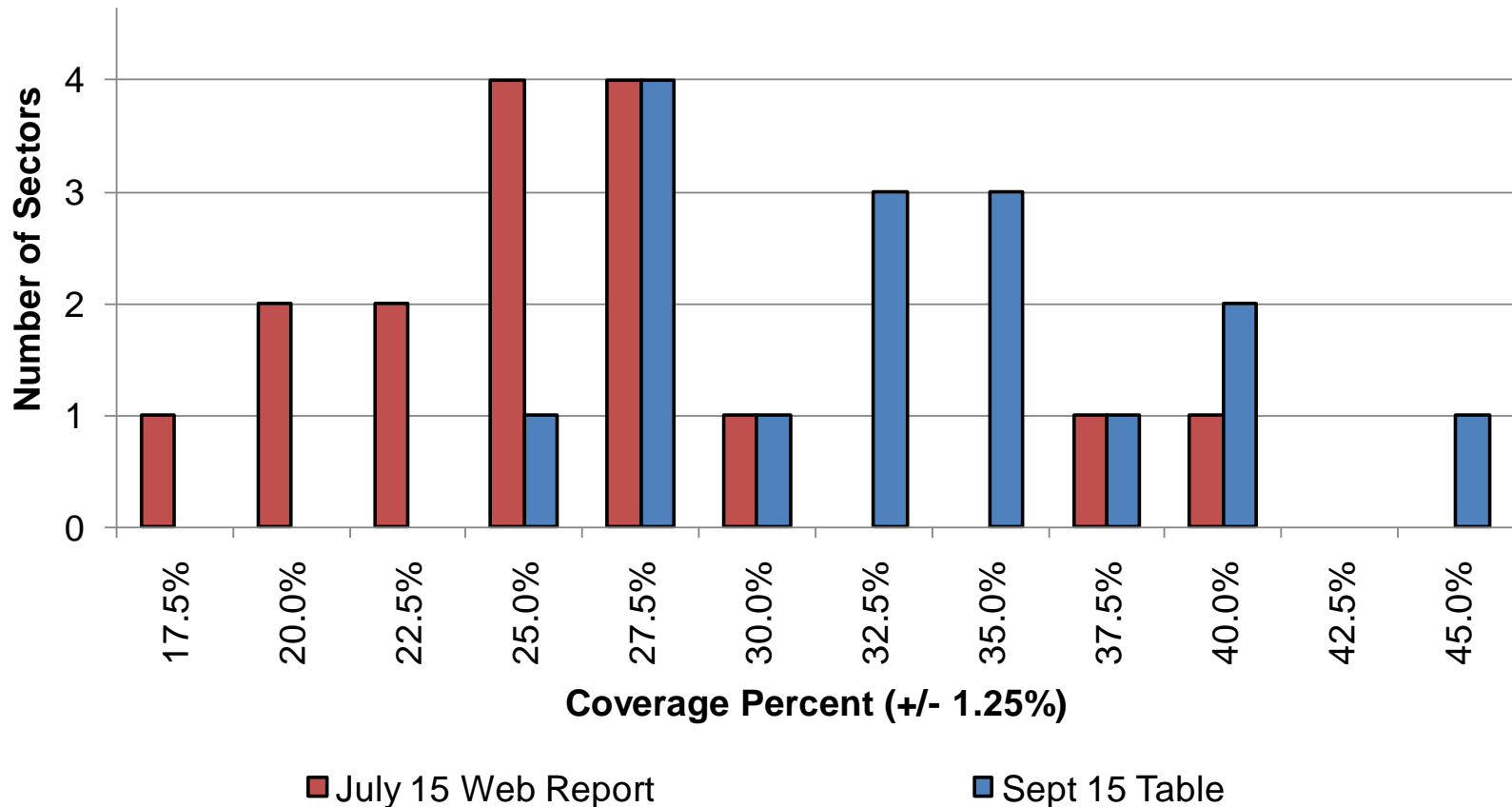
- **ASM = At-Sea Monitor**
- **DSM = Dockside Monitor**
- **NEFOP = NE Fishery Observer Program**
- **NEFO = Observer from NEFOP**
- **NEMSF = Northeast Multispecies Fishery**
- **PTNS = Pre-trip Notification System**
- **SBRM = Standard Bycatch Reporting Methodology**

Trip Coverage Levels in 2010; September Data

Sector	Total Trips	NEFO & ASM Trips	Percent
Fixed Gear Sector	1,871	664	35.5%
NCCS	38	15	39.5%
NEFS 02	1,501	514	34.2%
NEFS 03	2,305	674	29.2%
NEFS 05	591	237	40.1%
NEFS 06	110	31	28.2%
NEFS 07	295	79	26.8%
NEFS 08	152	41	27.0%
NEFS 09	305	86	28.2%
NEFS 10	717	273	38.1%
NEFS 11	1,382	438	31.7%
NEFS 12	60	27	45.0%
NEFS 13	259	83	32.0%
Port Clyde Sector	488	162	33.2%
Sustainable Harvest	1,031	350	33.9%
Tri-State Sector	108	28	25.9%
Total for Sectors	11,213	3,702	33.0%

Source: Van Atten (2011d)

Corrections to Coverage Levels: July – September



Developed by NEI based on data in an NEFSC-FSB Web Report (2011g) and data in a table provide by Van Atten (2011d) on September 15, 2011.

Sea-day Coverage Levels Across Sectors

	Total FY 2010 Sea-days	Coverage Days	Percent of Sector Sea Days		
			Average %	Low %	High %
NEFO Coverage	25,167	1,988	7.9%	1.1%	36.9%
ASM Coverage	25,167	6,148	24.4%	2.5%	39.1%
NEFO + ASM Coverage	25,167	8,136	32.3%	25.9%	45.0%

Results of Chi-Square Tests

Tested Distribution	P-values	Interpretation
χ^2 Results for Observed Trips	1.85×10^{-4}	There are 185 chances per million that the sample was random from a normal distribution around 33 percent.
χ^2 Results for Overall Observed Days	4.09×10^{-14}	There are 4.09 chances out of one hundred trillion that the sample was random from a normal distribution around 32.3 percent.

Equal Coverage and SBRM Requirements

- NEFO + ASM coverage across sectors were unequal in FY 2010 from a statistical perspective
- But, NEFSC-FSB goals in setting coverage levels were based on meeting SBRM “coefficient of variation” requirements for specific gear/area stratum
- SBRM requirements are likely to be at odds with a goal to have fair and equitable coverage levels across sectors
- In 2012 NMFS-NERO is proposing 17 % of sector trips have ASM coverage, total of 25% with NEFO coverage.

ASM Providers and Costs

- **Three ASM providers in 2010: A.I.S. Inc., East-West Technical Services, and MRAG Americas**
- **Current ASM use federal contracts that follow provisions of the Fair Labor Standards Act (FLSA) & the Service Contract Act (SCA)**
- **Minimum wages for ASMs = Minimum wage for NEFOs, but requirements for college degree may be waived.**
- **Sea-day costs for ASM ranged from \$585 - \$650, with the average equal to \$630/sea-day.**
- **ASM providers are reimbursed for travel costs incurred in deploying ASMs. (Avg. = \$32.28/sea-day)**
- **ASM training provided at no cost. Providers are reimbursed for wages & per diem costs for trainees. (Avg. = \$37.40/sea-day)**

Average ASM & NEFO Cost /Sea-day; 2010

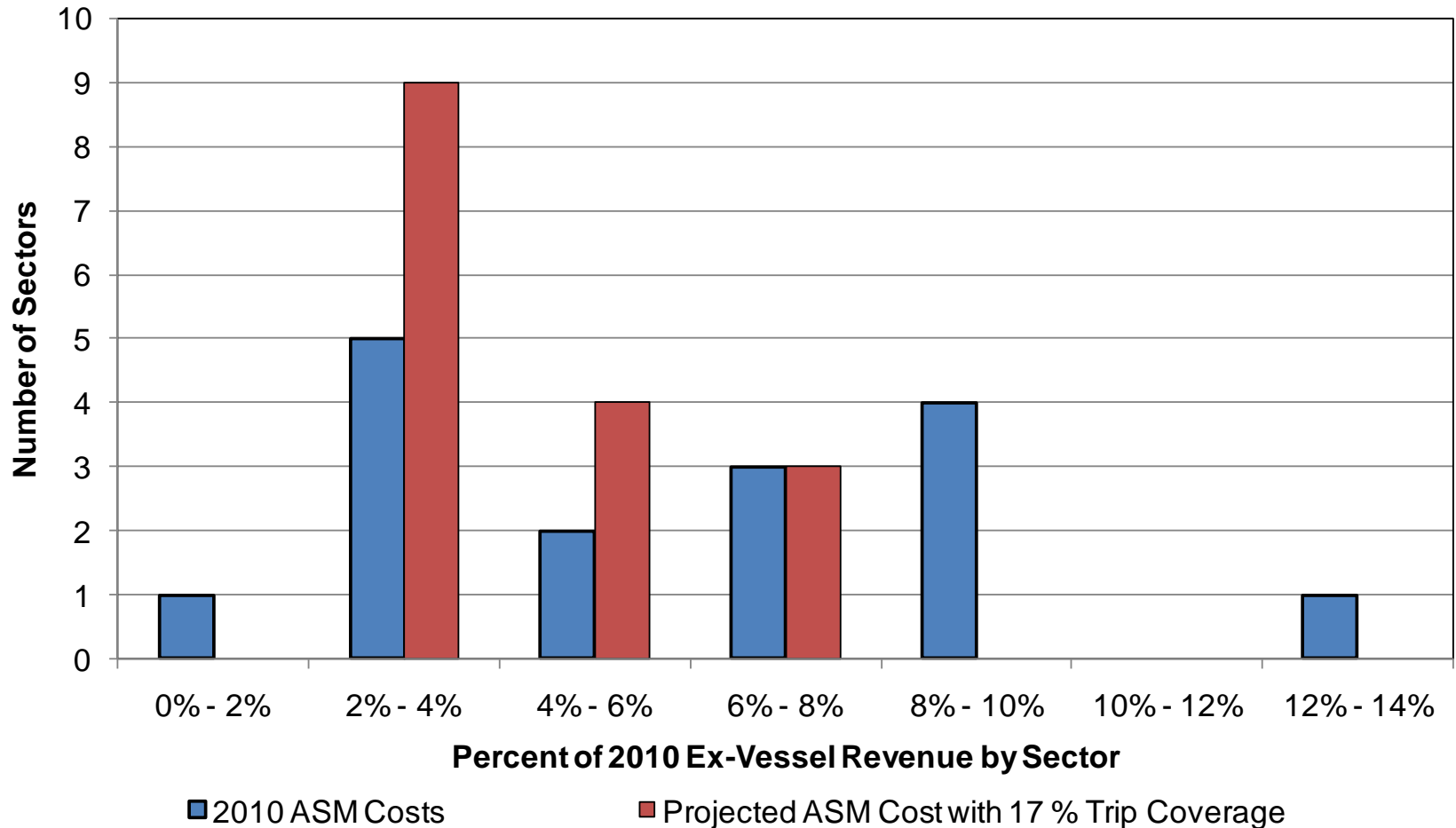
COSTS	ASM Cost / Sea-day	NEFO Cost / Sea-day
Sea-day (average)	\$630.44	\$741.88
Travel (average.)	\$32.28	\$59.38
Training (average)	\$37.46	\$39.70
Other Reimbursable Costs	None	\$55.18
Total Reimbursed Costs (average)	\$700.19	\$896.14
NEFOP Infrastructure & Overhead Costs	\$217.76	\$393.57
NEFSC Overhead Cost	N/A	\$197.51
Fully Loaded Costs / Sea-day	\$917.95	\$1,487.22

Source: Sea-day Costs for Monitors and Observers in FY 2010 (Van Atten, 2011a).

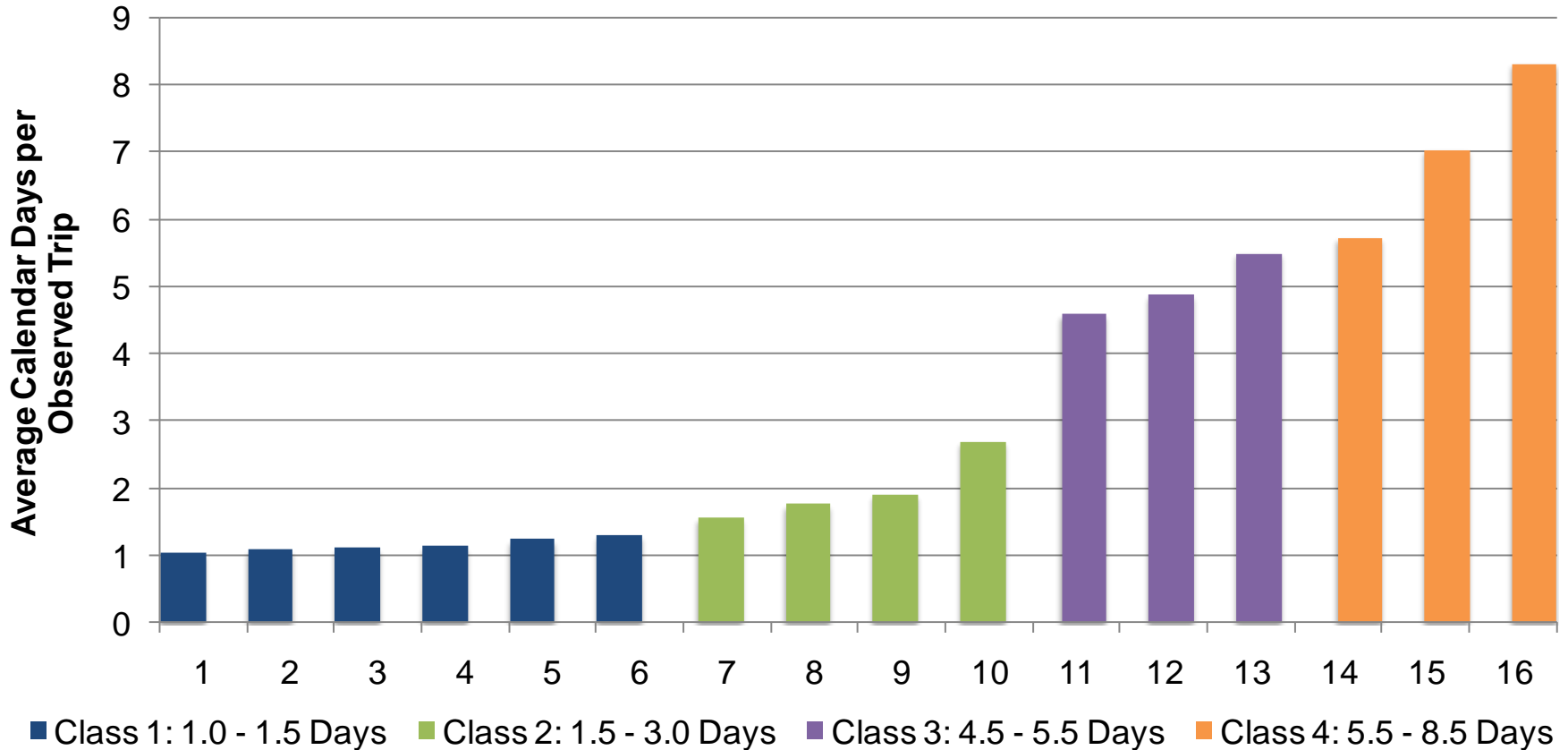
ASM Costs Compared to Revenue

- NEI estimated ex-vessel revenue for each sector based on ACEs & Transfers, and combined with fishery wide estimates of ...
 - Exploitation Rates
 - Discard Rates
 - Ex-Vessel Value
- Overall it is estimated that cost of ASM coverage was \$4.3 million in FY 2010.
- Total ex-vessel revenue to Sectors from NEMFSF was estimated at \$80.5 million
- ASM costs were 5.3 % of ex-vessel revenue.

2010 ASM Cost & Projected ASM Cost with 17% Trip Coverage Relative to 2010 Revenue



Classification of Sectors by Trip Length



Comparison of ASM Costs to Revenues

Trip Length Classes	Sectors in Class	Days in Class	ASM Days in Class	Total ASM Costs in Class (\$)	Ex-Vessel Revenue in Class (\$)	ASM Costs as a Percent of Revenue
Class1 : 1.0 – 1.5	6	7,533	1,976	1,383,575	14,030,802	9.9%
Class 2: 1.5 – 3.0	4	4,933	1,324	927,052	17,948,402	5.2%
Class 3: 4.5 – 5.5	3	3,210	692	484,531	11,753,147	4.1%
Class 4: 5.5 – 8.5	3	9,491	2,156	1,509,610	36,737,649	4.1%
All Classes	16	25,167	6,148	4,304,768	80,470,000	5.3%

Source: Developed by NEI using data from NMFS-NERO and NEFSC-FSB.

North Pacific Groundfish Observer Program

■ Current Program

- 82 % of the 39,338 deployed days on catcher processors, or on catcher vessels and processors in the lucrative and well organized Bering Sea pollock fishery
- Remaining 18 % on vessels between 60' – 125'
- Current average cost estimated at \$323 / sea-day + \$43 for reimbursable travel (\$366 total / sea-day)
- The majority of observer deployments are measured in weeks and not in days.
- Vessel owners contract directly with observer providers.
- NMFS provides training free of charge, but does not reimburse for wages and per diem paid to trainees

North Pacific Groundfish Observer Program

■ Restructured Program

- Vessels and processors with 100 % + coverage are unaffected.
 - ◆ They will continue to pay daily fees.
- All catcher vessels < 125 feet in groundfish or halibut that do not have 100% coverage are part of restructured program, as are all plants not in BS pollock fishery.
- Observer providers will work under a federal contract.
- NPGOP will deploy observers to vessels as they see fit, but will be limited by available funding.
- All participants (vessels + plants) pay 0.625 % of ex-vessel revenue—total is 1.25 % of ex-vessel revenue.

North Pacific Groundfish Observer Program

■ Restructured Program (continued)

- Fees as percent of revenue ensure that costs are spread equitably across all participating vessels regardless of coverage.
- NPGOP will seek to maximize benefits from coverage by selective deployments.
- Initial estimated costs are \$467 / sea-day with travel in restructured program.
 - ◆ The \$101 increase is due to higher wage and benefits required under federal contracts.
 - ◆ Estimate does not take into account the increased numbers of “land days” or other factors that are likely to increase overhead costs.
- NEI estimates costs will exceed \$525 / sea-day

West Coast Catch Share Observer Program

- Implemented IFQs for shore-based groundfish trawl fishery in 2011.
- 100% coverage on all IFQ trips.
- Previously coverage was approximately 20%.
- NMFS reimburses observer costs on a sliding scale through 2013
 - 90 % of \$365 in 2011 or \$328.5
 - 50 % of \$365 in 2012 or \$182.50
 - 25 % of \$365 in 2013 or \$91.25
- Catch Monitors at plants are similar to DSMs

West Coast Catch Share Observer Program

- **\$365 reimbursement was based on Alaska rates**
- **Previously rates had been at \$450 / sea-day**
- **Vessel owners contracts directly with providers**
- **The change-over to IFQs has created significant changes in fishing patterns.**
- **Some providers are indicating that changes in fishing patterns make it difficult to break-even at reimbursable rates**
- **Peak-load issues and too many land days are citing as a primary factor in higher costs**

Federal Contract Cost Impacts

- **FLSA and SCA are estimated to add \$100/sea-day to observer costs in Alaska under restructured program.**
- **Under a non-federal ASM contract, it is likely that wages and benefits paid to ASMs would be reduced.**
- **However, this implies that there may need to be a significant turnover of ASMs.**
- **Which implies higher numbers of ASMs in training.**
- **NEFOP has not in the past reimbursed providers for training costs under non-federal contracts.**

ASM Costs Relative to Discards

- A major goal of ASM program is to estimate discards
- Most stocks have minimum size limits
- 2010 discards estimated at 1.95 million lbs
- At \$.4.3 million, ASMs cost \$2.2/lb of discards
- If there are fewer discards then the uncertainty with respect to discards is reduced
- Because discards count against ACEs there are incentives to land all fish.
- If there is no biological imperative for discards, it may be prudent to examine discard reg's.

Ways that Sectors can reduce ASM costs

- **In order to keep employee's, ASM providers have to pay wages even ASMs are not deployed.**
 - “Land day” costs are a large part of provider overhead.
- **Sectors can reduce costs by increasing coordination**
 - If the number of boats leaving port each day is stable then the provider can employ fewer ASMs and will have fewer land days.
 - ◆ This can also reduce travel costs—ASMs could be stationed at each port.
 - If the number of boats leaving port varies widely the provider has to employ more ASMs and will have higher #s of land days.
- **Take longer trips: This reduces land days relative to deployed days**

Other Recommendations

- **Allow private contracts between sectors and providers—this will likely reduce overall wages and benefit costs**
- **Consider changes to minimum size regulations if there are no biological imperatives for discards.**
- **Enhance fairness and equity by charging sectors a fixed percentage fee of ex-vessel revenues.**
 - Under this option, NEFOP would continue to control ASM deployments, and federal contract rules would need to remain.

Questions

- If you have additional questions please feel free to contact Marcus Hartley at Northern Economics
- 907.274.5600

Known Errata in the Document

■ Section 2.14.2 Assessment of Dockside Monitoring

- First sentence should be deleted: “Data regarding the numbers of trips monitored by DSMs and associated costs were not available for this report.”
- Replace with Data showing the numbers of trips monitored by DSM and associated costs were provided by GMRI.

■ Section 5.4 At-Sea and Dockside Monitors in the NE Multispecies Fishery

- Indicates that in ASM costs will be paid by sectors starting in 2014.
- Should be changed to 2012.