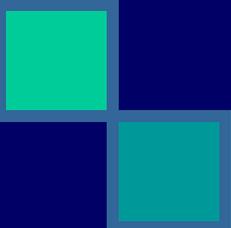




**FISHERY MANAGEMENT COUNCIL
MEMBER TRAINING**

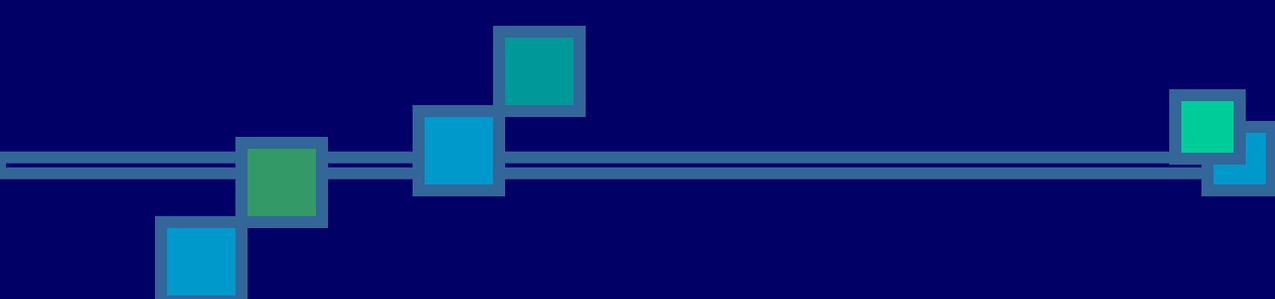


**October 24, 2007
Silver Spring, MD.**

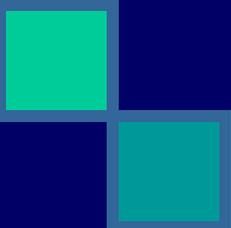
ECONOMIC IMPACT ANALYSIS



**José Montañez, PhD
Fishery Management Specialist
MAFMC**



LEGAL MANDATES AND ECONOMIC IMPACT ANALYSES



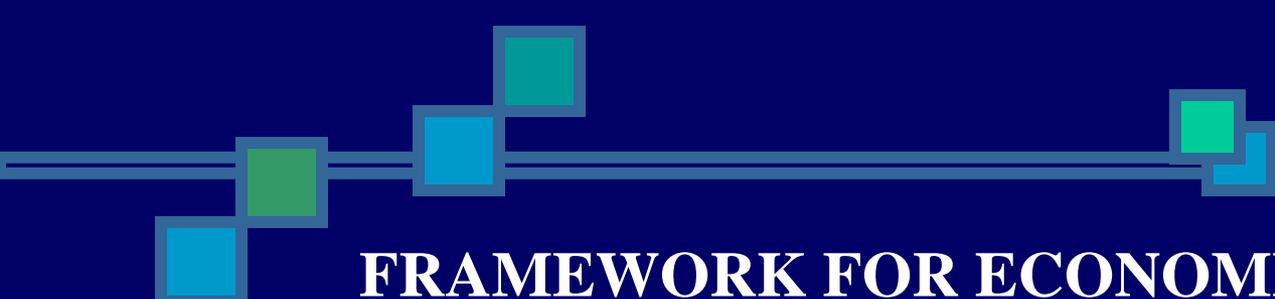
The following statutes and Executive Orders currently mandate that Federal agencies conduct cost-benefit and other economic analyses as an essential part of rule making and regulatory process. These mandates are increasingly being used to challenge environmental regulations on economic grounds.



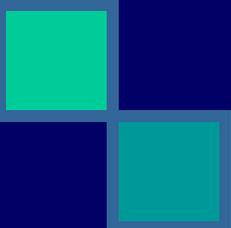


LEGAL MANDATES - CONTD.

- **MSFCMA Section 303 (a)(9): Fishery Impact Statement.**
- **E.O. 12866 (October 4, 1993): Regulatory Impact Review (RIR).**
- **E.O. 13272 (August 13, 2002): Proper Consideration of Small Entities in Agency Rulemaking.**
- **Regulatory Flexibility Act (FRA), 1980.**
- **Small Business Regulatory Enforcement Fairness Act, 1996.**

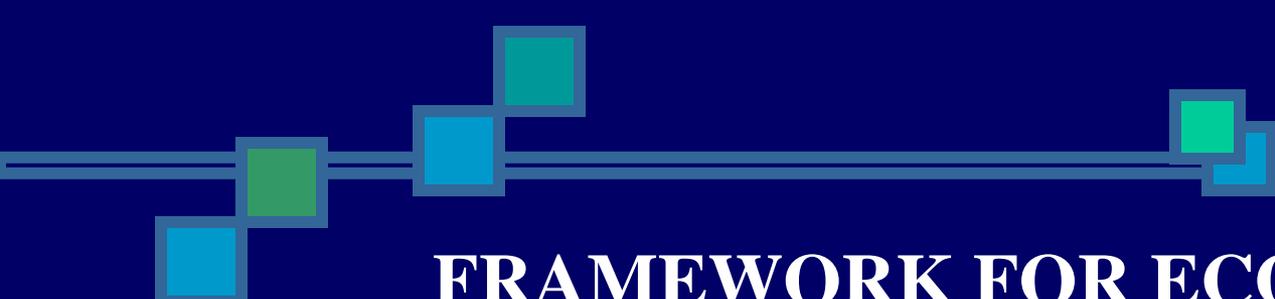


FRAMEWORK FOR ECONOMIC ANALYSIS OF REGULATORY ACTIONS

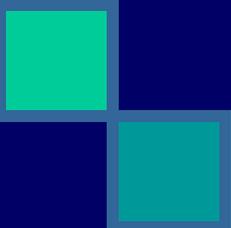


The “Guidelines for Economic Reviews of National Marine Fisheries Service Regulatory Actions” provides the basis for doing the analyses required for the Fishery Impact Statement, E.O. 12866, E.O. 13272, the Regulatory Flexibility Act, the Small Business Regulatory Enforcement Fairness Act, and other statutes requiring economic analyses. The guidelines recommend a holistic approach in doing the analyses so that the information/results from the analyses can be used to address various statutory requirements.





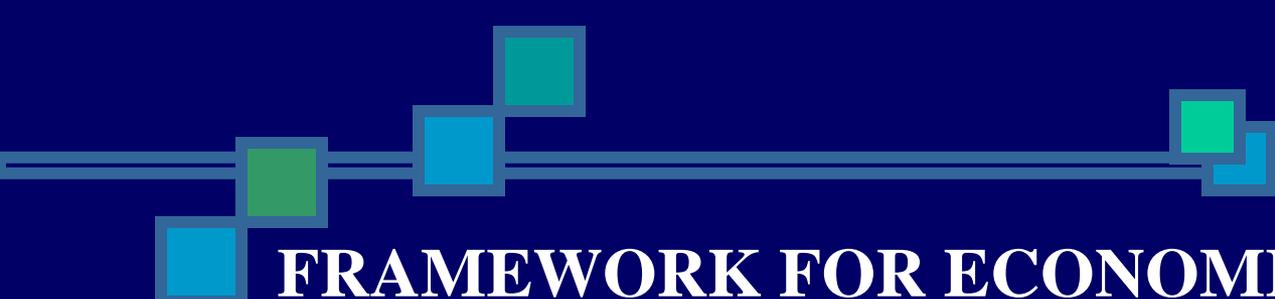
FRAMEWORK FOR ECONOMIC ANALYSIS OF REGULATORY ACTIONS - CONTD.



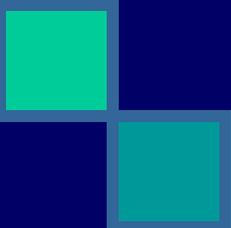
A preliminary analysis of the economic impacts of the alternatives in the regulatory document is recommended at an early stage in the development of the regulatory document.



This should provide information to policy makers and the public early in the process, and during public hearings so that informed decisions can be made.



FRAMEWORK FOR ECONOMIC ANALYSIS OF REGULATORY ACTIONS - CONTD.



Following the preliminary economic evaluation, a formal Regulatory Impact Review (RIR) is prepared. This includes an analysis of the economic effects of the preferred action and all other alternative actions included in the regulatory document.



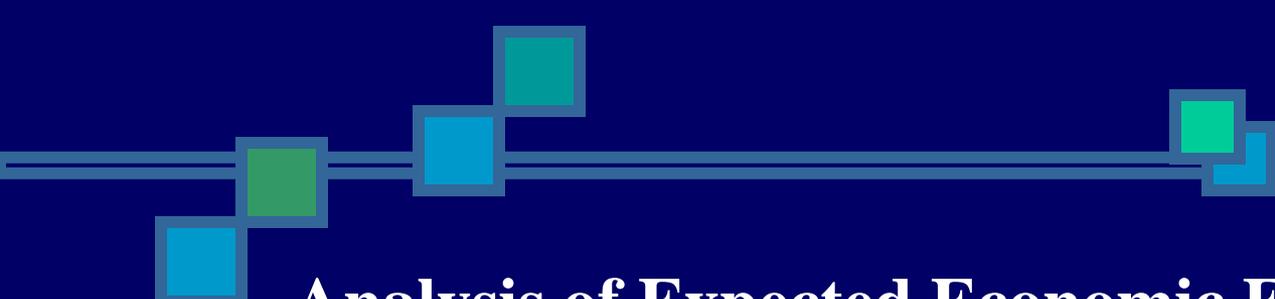
If done right, information from the RIR can be used to prepare the Fishery Impact Statement, E.O. 12866, E.O. 13272, RFA and other statutory requirements.



FRAMEWORK FOR ECONOMIC ANALYSES OF REGULATORY ACTIONS - CONTD.

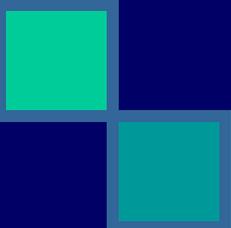
Regulatory Impact Review Includes:

- Description of the management objectives.
 - Description of the fishery.
 - Statement of the problem.
 - Description of each selected alternative, including the “no action” alternative.
 - Economic analysis of the expected effects of each selected alternative relative to the baseline.
- 



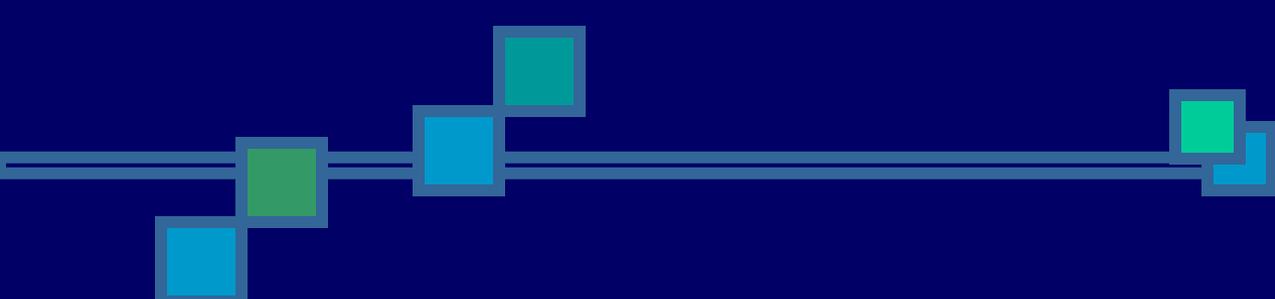
Analysis of Expected Economic Effects:

Identification of Expected Effects

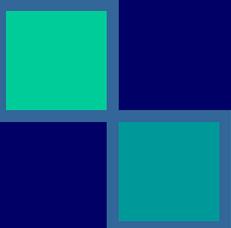


The types of effects to consider include:

- Changes in net benefits within the benefit-cost framework.
 - Changes in benefits and costs of groups or individuals, businesses of differing sizes, and other entities.
 - Changes in income and employment in fishing communities.
 - Cumulative impacts of regulations.
 - Changes in other social concerns.
- 



Analysis of Expected Economic Effects:

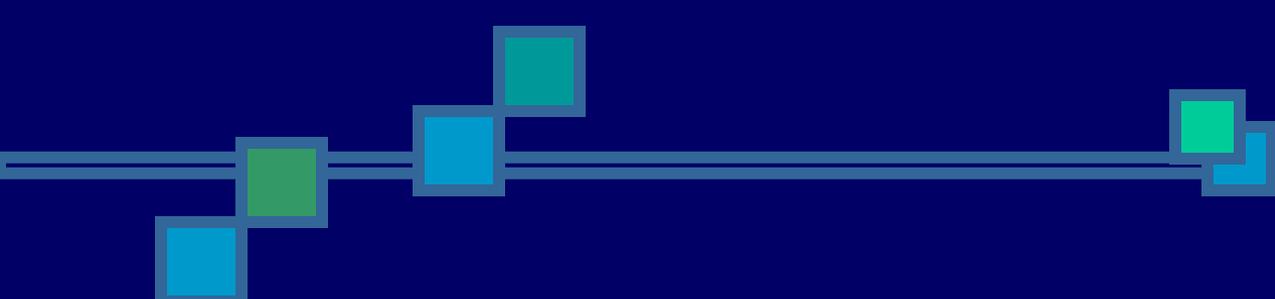


Qualitative Analysis of Expected Economic Effects

At a minimum, a qualitative analysis of the expected economic effects of each selected alternative to the status quo is required.



It is useful to start with the status quo (baseline) which is the “*no action*” alternative.



Analysis of Expected Economic Effects:

Quantitative Analysis of Expected Economic Effects

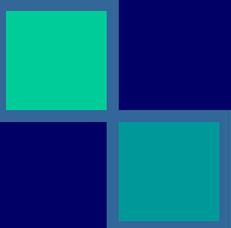
If adequate data and models are available to provide useful estimates of quantifiable measures of the expected economic effects, a quantitative analysis should be substituted for the qualitative analysis.



The quantitative analysis should use accepted methods to provide an understanding of the economic consequences of the selected alternatives.



PROCESS REQUIREMENTS FOR FISHERY IMPACT STATEMENT

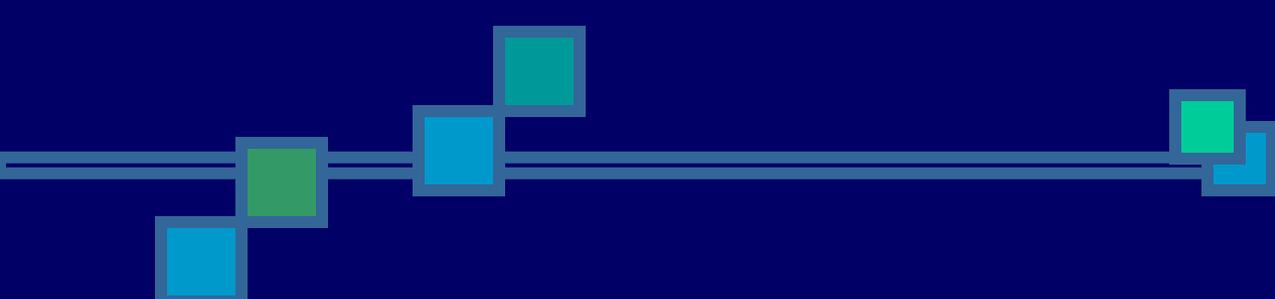


Information from the RIR is used to describe the likely effects of the preferred alternative on the fisheries and fishing communities.

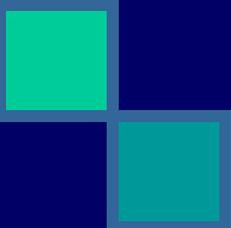
The same information is used to describe the likely effects on participants in fisheries conducted in adjacent areas.



Usually, most of the information is referenced in this section.

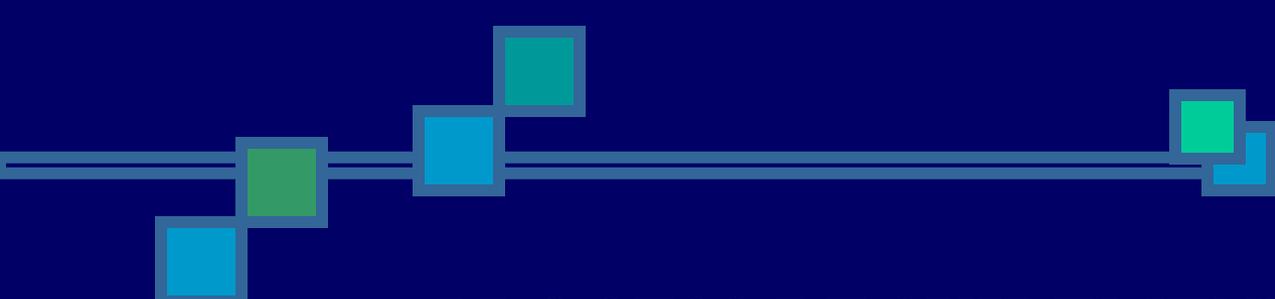


PROCESS REQUIREMENTS FOR EXECUTIVE ORDER 12866

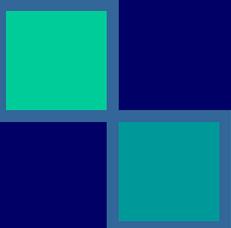


The key elements of the Regulatory Impact Review are designed to address most of the process requirements of E.O. 12866. Usually, the relevant sections are referenced. Based on the results of the economic analysis, a determination is made as to whether the preferred action would result in a significant rule under E.O. 12866.

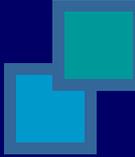


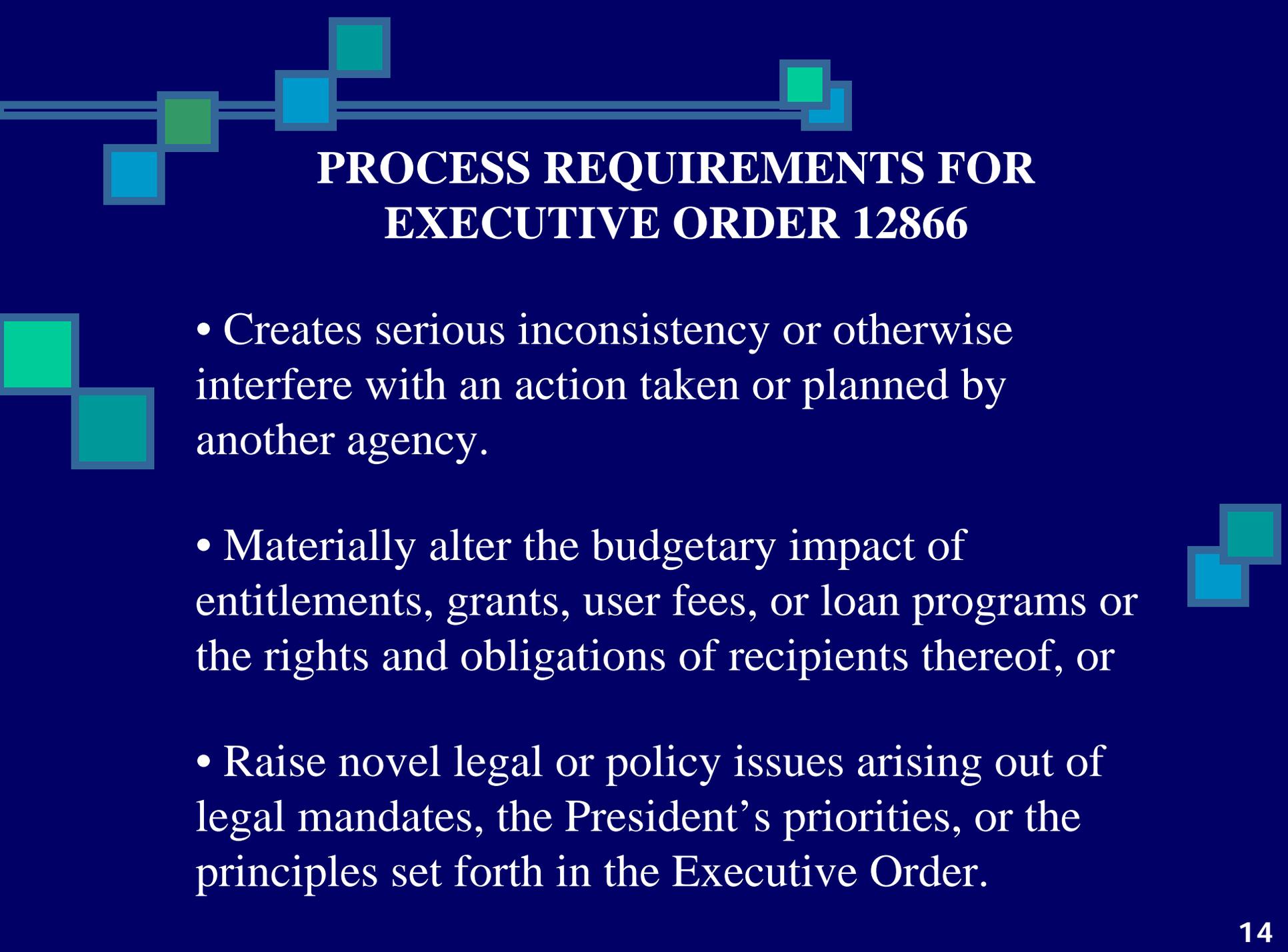


PROCESS REQUIREMENTS FOR EXECUTIVE ORDER 12866



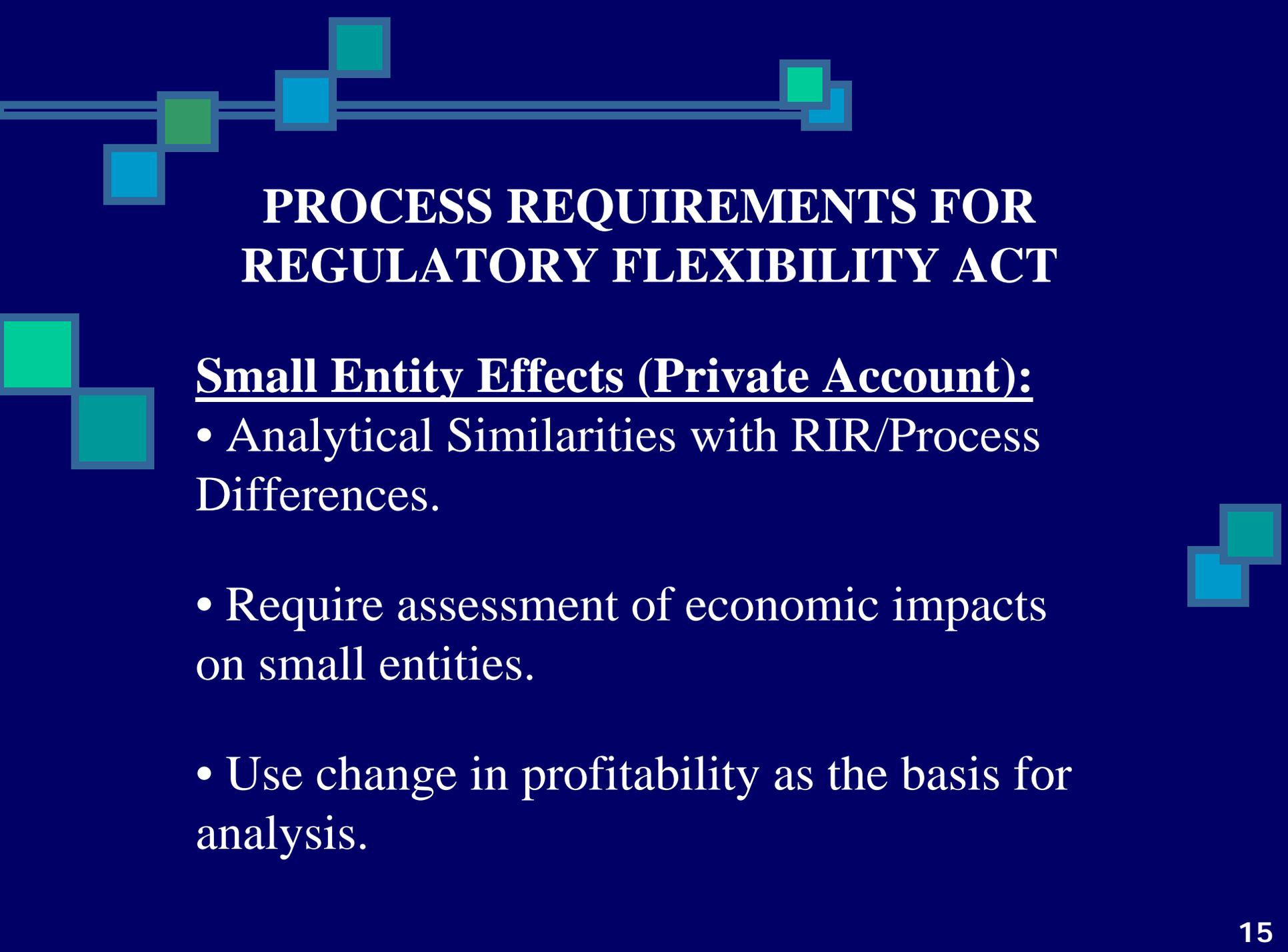
A significant rule or significant regulatory action under E.O 12866 is one that may:

- Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities.
- 



PROCESS REQUIREMENTS FOR EXECUTIVE ORDER 12866

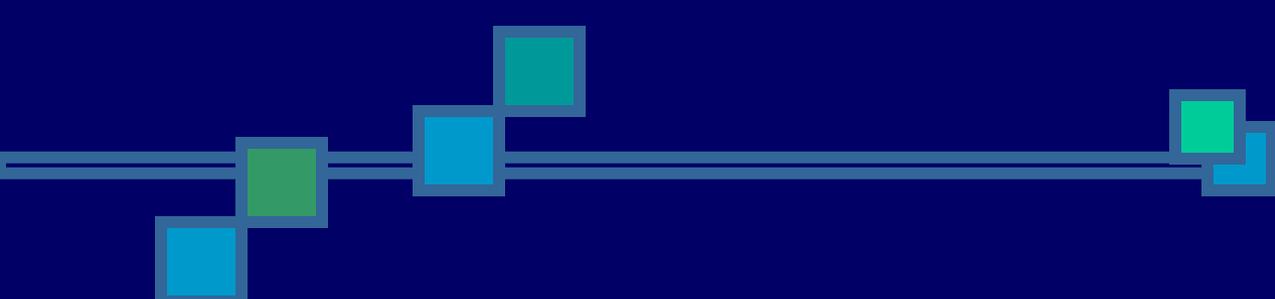
- Creates serious inconsistency or otherwise interfere with an action taken or planned by another agency.
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof, or
- Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.



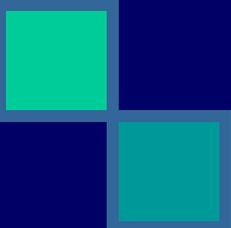
PROCESS REQUIREMENTS FOR REGULATORY FLEXIBILITY ACT

Small Entity Effects (Private Account):

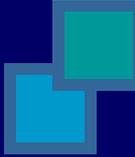
- Analytical Similarities with RIR/Process Differences.
- Require assessment of economic impacts on small entities.
- Use change in profitability as the basis for analysis.



RFAA PROCESS REQUIREMENTS - CONTD.



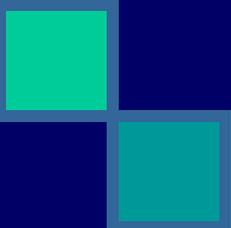
Certification Process:

- Basis and purpose of the rule.
 - Identification of regulated entities.
 - Estimate of economic impacts.
 - Criteria used for “significant economic impact” and “substantial number.”
 - Description of, and basis for assumptions used.
- 

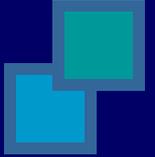
OR



RFAA PROCESS REQUIREMENTS - CONTD.



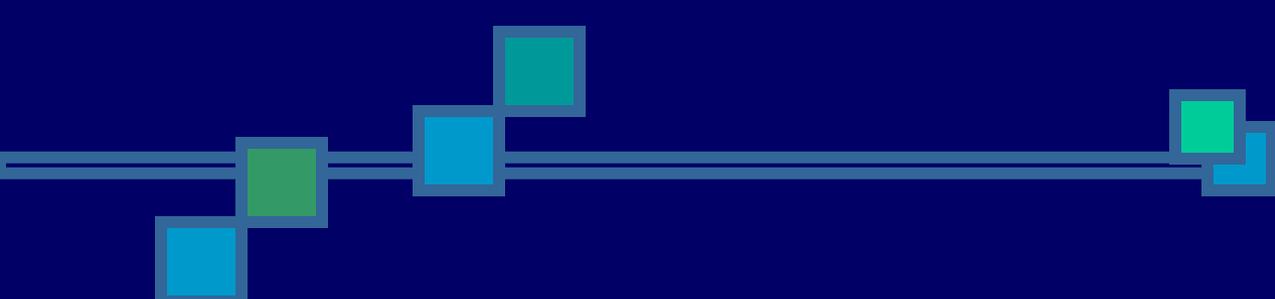
Prepare Initial Regulatory Flexibility Analysis:

- Reasons why action is being considered.
 - Statement of objectives of, and legal basis for proposal.
 - Description of regulated entities.
 - Description or reporting, record-keeping requirements.
 - Identification of Federal rules which may duplicate, overlap, or conflict with the proposed rule.
- 

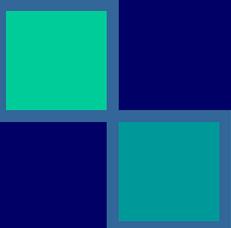


RFAA PROCESS REQUIREMENTS - CONTD.

- Comparison of the economic impacts of the preferred action with the economic impacts of each rejected alternative.
- Any consideration for minimizing economic impacts on small entities.
- Rationale for any unavoidable adverse effects on small entities.

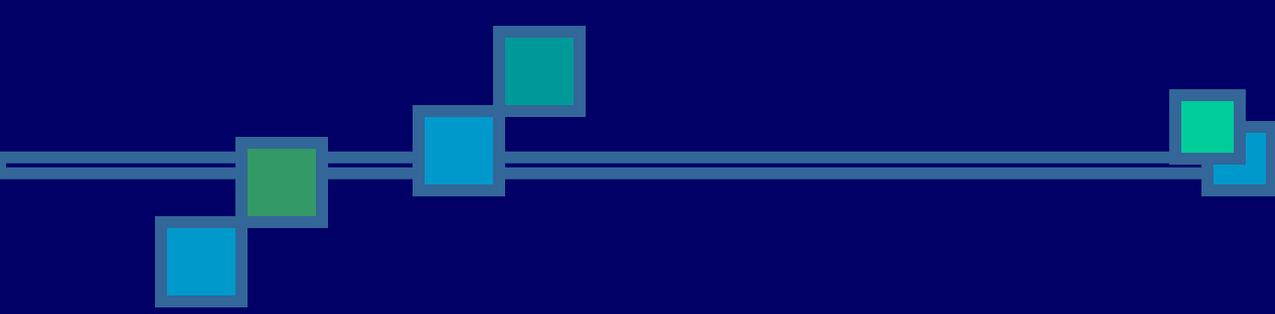


RFAA PROCESS REQUIREMENTS - CONTD.

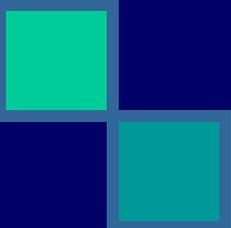


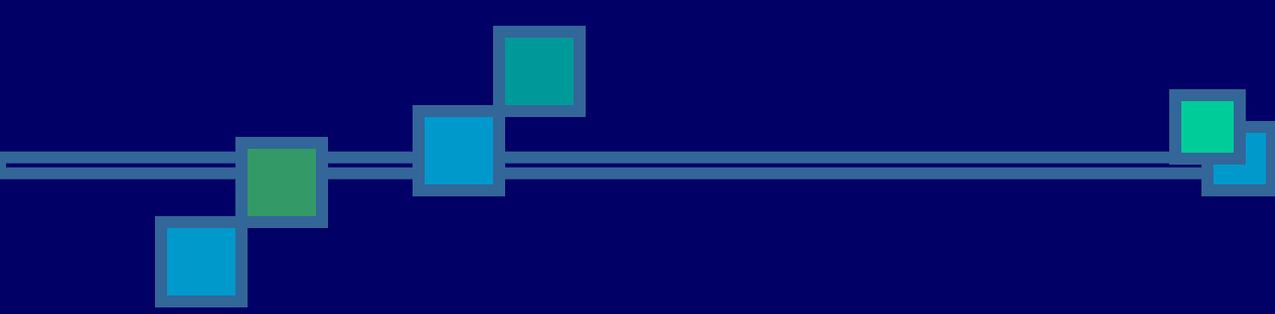
Final Regulatory Flexibility Analysis:

- Incorporates the IRFA, plus
 - Agency responses to the public comments.
 - Any changes made to the rule as a result of public comments or information obtained since proposed rule was published.
- 



OTHER ISSUES

- 
- **Small Entities compliance Guide.**
 - **Waiving or delaying preparation of an FRFA.**
 - **Periodic review of significant rules.**
 - **Relationship of the RFA with other Applicable Law.**
 - **Involvement of small entities in the rulemaking.**
- 



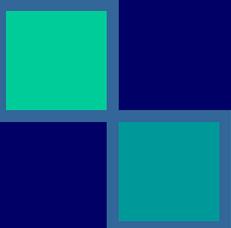
MANAGEMENT ACTIONS AND ANALYTICAL REQUIREMENTS

A. New FMPs and FMP Amendments:

- Require preparation of RIR.
 - Require preparation of IRFA/FRFA unless you can certify.
 - Need to have analysis of the economic impacts of alternatives in the Public Hearing Document.
- 



MANAGEMENT ACTIONS AND ANALYTICAL REQUIREMENTS - CONTD.

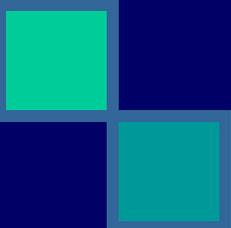


B. Framework Adjustments:

- Framework adjustments are intended to describe future management actions, which would be implemented within a range as defined and analyzed in the FMP and associated analyses.
 - Only Final Rule is published for most framework actions after an opportunity for public comment. E.O. 12866 is not exempted, but RFA is, although in some cases it is desirable to do an RFAA.
- 

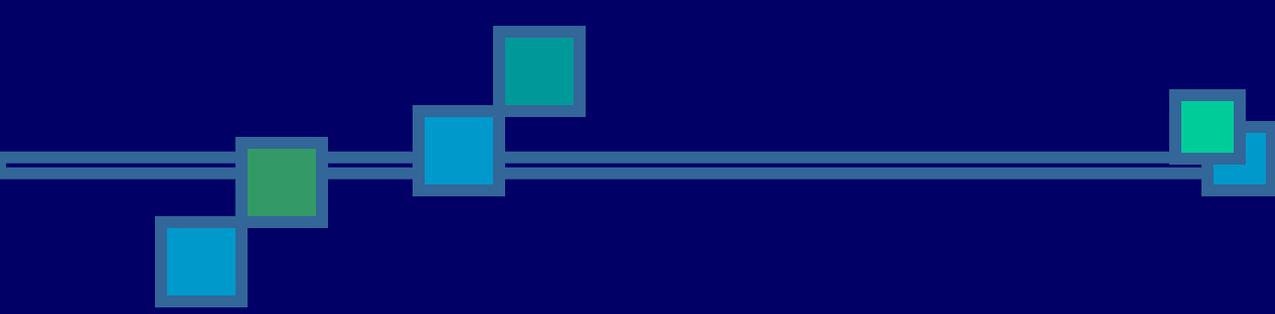


MANAGEMENT ACTIONS AND ANALYTICAL REQUIREMENTS - CONTD.

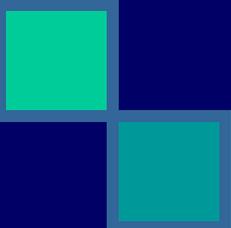


C. Annual Adjustments:

- Annual Adjustments are intended to change certain measures on an annual basis as defined in the FMP. For example, changing TAC, TAL, etc.
 - Both Proposed and Final Rules are published for Annual Adjustments.
 - An RIR must be prepared.
 - An RFAA must be prepared.
- 

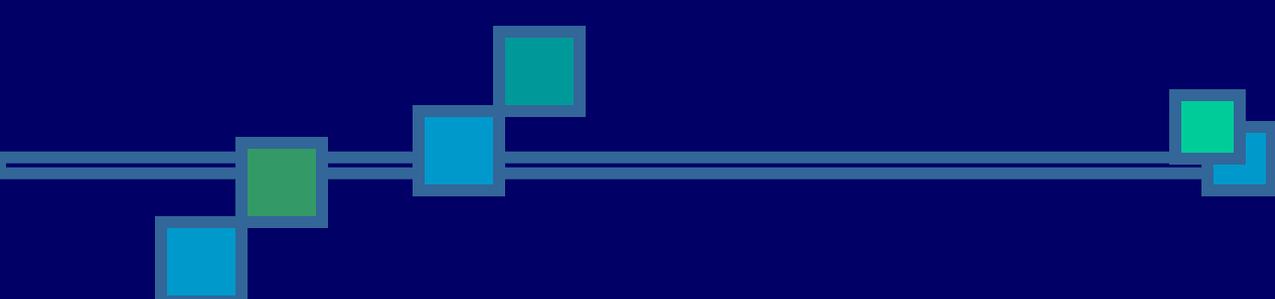


MANAGEMENT ACTIONS AND ANALYTICAL REQUIREMENTS - CONTD.

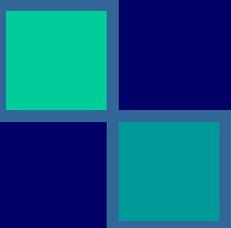


D. Regulatory Amendments:

- Regulatory Amendments amend regulations, not an FMP.
 - It is used to clarify a Council's intent or to interpret broad terms contained in approved FMPs.
 - It may be used to implement a portion of an approved FMP/amendment that was reserved and the Council now desires NMFS to implement.
- 



MANAGEMENT ACTIONS AND ANALYTICAL REQUIREMENTS - CONTD.



D. Regulatory Amendments - CONTD:

- Regulatory Amendments must go through the normal rulemaking procedure except comment period is usually compressed.
 - An RIR must be prepared.
 - An RFAA must be prepared.
- 



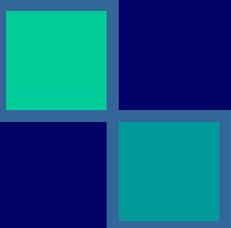
MANAGEMENT ACTIONS AND ANALYTICAL REQUIREMENTS - CONTD.

E. Technical Amendments:

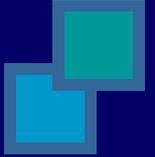
- Technical Amendments are published as final rule without the requirement for notice and opportunity for public comment.
 - Examples include simple housekeeping changes to existing rules or laws that are no longer clearly or accurately presented in fishery regulations. Clarification or correction of implemented rules that did not appropriately express the intent of the FMP or amendment.
 - Do not require preparation of RIR or RFAA.
- 

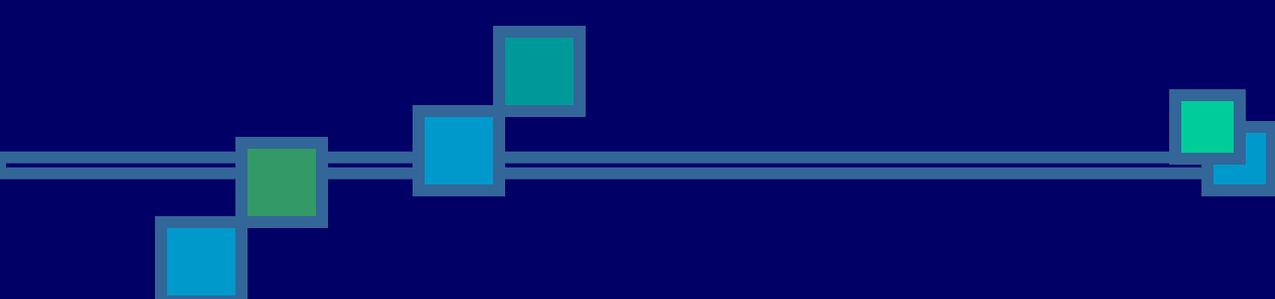


MANAGEMENT ACTIONS AND ANALYTICAL REQUIREMENTS - CONTD.

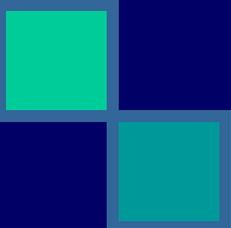


F. Emergency Rules:

- Emergency rules are implemented to address unanticipated events or problems that require immediate attention.
 - An emergency rule is effective for no more than 180 days from the date of publication, with one extension for up to an additional 180 days, provided that the affected Council agrees, the public has an opportunity to comment.
- 



MANAGEMENT ACTIONS AND ANALYTICAL REQUIREMENTS - CONTD.



F. Emergency Rules - CONTD:

- Emergency rules are subject to the requirements of E.O. 12866.
 - Emergency rules are exempt from the requirements of the RFA because it is issued without opportunity for prior public comment.
 - However, if an extension for an additional 180 is requested, an RFAA (FRFA) must be prepared and submitted with the request.
- 

SUMMARY OF MANAGEMENT ACTIONS AND ANALYTICAL REQUIREMENTS

	RIR	IFRA/FRFA	Proposed/Final Rules are Published
New FMPs & Amendments	Required	Required, unless you can certify	Yes
	Analysis of impacts needs to be included in the PHD		
Framework Adjustments	Required	Exempted. Although in some cases it is desirable to do an RFAA	Only Final Rule for most FW actions after public comments
Annual Adjustments	Required	Required	Yes
Regulatory Amendments	Required	Required	Yes - Normal rule making procedure except comment period is usually compressed
Technical Amendments	Not required	Not required	Published as FR without notice/opportunity for public comment
Emergency Rules	Required	<180 days - not required / 1 extension for an additional 180 days - required	FR/comments collected

An Approach to Present Economic Findings

Bluefish Example – 2006 Annual Specifications

Table 25. Threshold analysis of revenues for participating vessels under quota alternative 2 (most restrictive alternative), based on dealer data.

Quota Alternative 2 (Most Restrictive)		No Change in Revenue (number)	Number of Impacted Vessels by Reduction Percentile (%)						
Total Vessels	Number of Vessels Impacted by ≥ 5% Reduction		<5	5-9	10-19	20-29	30-39	40-49	≥50
748	80	62	606	24	15	11	11	12	7

Table 26. Review of revenue impacts under quota alternative 2 (most restrictive alternative), by home port state.

State	Participating Vessels	Number of Vessels Impacted $\geq 5\%$	No Change in Revenue (number)	Number of Impacted Vessels by Reduction Percentile (percent)						
				<5	5-9	10-19	20-29	30-39	40-49	≥ 50
CT	11	0	8	3	0	0	0	0	0	0
DE	5	0	5	0	0	0	0	0	0	0
MA	246	13	4	229	5	1	1	6	0	0
MD	16	0	15	1	0	0	0	0	0	0
ME	13	2	3	8	0	0	0	2	0	0
NC	95	15	4	76	4	4	5	0	2	0
NH	30	1	0	29	0	0	1	0	0	0
NJ	88	21	2	65	7	4	3	1	6	0
NY	105	20	2	83	6	6	0	2	2	4
RI	93	3	1	89	0	0	0	0	0	3
VA	32	3	17	12	2	0	1	0	0	0
OTHER ^a	2	1	0	1	0	0	0	0	1	0
NOT KNOWN ^b	12	1	1	10	0	0	0	0	1	0
Total	748	80	62	606	24	15	11	11	12	7

Table 27. Federal permits held by the 80 commercial vessels (holding any Federal fishing permit in 2004) projected to have revenue reductions of more than 5% under the most restrictive alternative (alternative 2).

	Northeast Region Permit Status		Number of Vessels	Percent of Permitted Vessels
Commercial	Multispecies	Limited Access	13	16
	Multispecies	Open Access	23	29
	Atl. Sea Scallop	Open Access	34	43
	Surfclam	Open Access	14	18
	Ocean Quahogs	Open Access	11	14
	Herring, VMS	Open Access	40	50
	Lobster, Non-trap	Limited Access	4	5
	Lobster, Trap	Limited Access	3	4
	Tilefish (Full-time/Tier 2)	Limited Access	39	49
	Summer Flounder	Limited Access	8	10
	Scup	Limited Access	12	15
	<i>Loligo/Illex</i> /Mackerel/ Butterfish	Open Access	48	60
	<i>Loligo/Illex</i> /Butterfish	Limited Access	1	<1
	Black Sea Bass	Limited Access	19	24
	Dogfish	Open Access	50	63
	Monkfish	Limited Access	14	18
	Monkfish	Open Access	30	38
	Skate	Open Access	39	49
Atl. Deep-Sea Red Crab	Open Access	13	16	
Recreational (Party/Charter)	Multispecies	Open Access	17	21
	Summer Flounder	Open Access	22	28
	Scup	Open Access	14	18
	Squid/Mackerel/ Butterfish	Open Access	19	24
	Black Sea Bass	Open Access	19	24

Table 28. Descriptive information for the 80 commercial vessels (holding any Federal fishing permit in 2004) projected to have revenue reductions of more than 5% under the most restrictive alternative (alternative 2). Based on 2004 descriptive data from NMFS permit files - No vessel characteristics data are reported for states with fewer than 3 permits.

	MA	NC	NJ	NY	RI	VA	Other
# Permits by Home Port State	13	15	21	20	3	3	4
# Permits by Principal Port State	12	17	24	18	4	1	3
# Permits by Mailing Address State	12	16	23	19	4	2	3
Avg. Length in Feet by Principal Port	31	39	47	35	37	35	-
Avg. GRT by Principal Port	12	16	30	17	19	15	-
% of Vessels where Home Port State = Principal Port State	100	94	87	100	75	50	-

Table 29. Distribution of the 80 commercial vessels (holding any Federal fishing permit in 2004) projected to have a revenue reductions of more than 5% under the most restrictive alternative (alternative 2). Distribution by state, county, and home port, from 2004 NMFS permit files - home ports with fewer than 3 vessels are not reported - only county-level data supplied; counties with fewer than 3 vessels are not reported.

State	County	Home Port	Number of Vessels
Massachusetts	Barnstable	Chatham	4
		Other	4
	Essex	Gloucester	3
		Other	1
North Carolina	Dare	Manteo	3
		Wanchese	8
		Other	4
New Jersey	Ocean	Barnegat Light	6
		Point Pleasant	8
		Other	2
New York	Nassau	Other	3
	New York	New York	6
	Suffolk	Other	11
Rhode Island	Washington	Other	3

Table 33. Counties identified as having ≥ 4 commercial vessels showing revenue reductions of 5% or more as a consequence of the most restrictive alternative (alternative 2) evaluated in this document (section 3.1 the RIR/IRFA).

ST	County ^a	Population ^b	Employment ^c	Total Personal Income ^d (million of \$'s)	Commercial Fishing Employment	Percent of Personal Income Derived From Comm. Fishing	Fresh and Frozen Seafood Processing Employment	Percent of Personal Income derived From Seafood Processing
MA	Barnstable	226,809	132,491	8,159.31	793	.08%	0	.0008%
MA	Essex	714,909	380,238	22,930.09	1,294	.23%	848	.25%
NJ	Ocean	527,207	187,627	15,742.25	166	.04%	0	0%
NY	Nassau	1,334,648	761,530	63,524.34	198	.0039%	84	.0029%
NY	New York	1,541,150	2,768,774	144,033.30	0	0%	23	.0013%
NY	Suffolk	1,438,973	752,834	52,116.44	1,111	.01%	0	0%
NC	Dare	31,168	25,453	830.10	77	.08%	17	.01%
RI	Washington	125,991	62,870	4,212.16	793	.46%	96	.11%

* = < 10 observations.

a = Data obtained from the Minnesota IMPLAN Group, Inc., IMPLAN System (data and software), 1725 Tower Drive West, Suite 140, Stillwater, MN 55082, www.implan.com, 2001 (note: For Essex county 1999 data were used).

b = Year-round population.

c = Includes both full-time and part-time workers.

d = Includes employee compensation (wage and salary payments and benefits paid by employers) and proprietary income (payments received by self-employed individuals as income).

Source: Scott Steinback (NEFSC).



A Few Available Resources for Analysts.

- Guidelines for Economic Review of National Marine Fisheries Service Regulatory Actions.
 - HQ/Regional Office/Science Center Staff.
 - Academia.
 - NOAA Fisheries – Office of Science and Technology.
 - Journals & Professional Organizations.
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