



SEFHIER

Supporting information for the
improvement of the program



Presentation Outline

- MSA Confidentiality refresher
- How the declaration hybrid works
- Usefulness, function, and submission of Landing Locations
- Compliance component overview
- Validation and estimation discussion
 - Gulf survey example
- Agency's movement towards comprehensive reporting
 - Current Challenges
 - Current projects funded and in progress
 - Upcoming project: IRA Atlantic Coast data system



Refresher on MSA Confidentiality

Any information submitted to the Secretary, a State fishery management agency, or a marine fisheries commission by any person in compliance with the requirements of this Act shall be **confidential and shall not be disclosed except—**

- (A) to Federal employees and Council employees who are responsible for fishery management plan development, monitoring, or enforcement;
- (B) to State or Marine Fisheries Commission employees as necessary to further the Department’s mission, subject to a confidentiality agreement that prohibits public disclosure of the identity of business of any person;
- (C) to State employees who are responsible for fishery management plan enforcement, if the States employing those employees have entered into a fishery enforcement agreement with the Secretary and the agreement is in effect;
- (D) when required by court order;
- (E) when such information is used by State, Council, or Marine Fisheries Commission employees to verify catch under a limited access program, but only to the extent that such use is consistent with subparagraph (B);
- (F) when the Secretary has obtained written authorization from the person submitting such information to release such information to persons for reasons not otherwise provided for in this subsection, and such release does not violate other requirements of this Act;
- (G) when such information is required to be submitted to the Secretary for any determination under a limited access program; or
- (H) in support of homeland and national security activities, including the Coast Guard’s homeland security missions as defined in section 888(a)(2) of the Homeland Security Act of 2002 (6 U.S.C. 468(a)(2)).

MSA Confidentiality – Plain language

- The data submitted by fishermen in the SEFHIER program can not be disclosed without the requestor falling under the exception clauses
- Data can be shared with our JEA partners for enforcement purposes
- “Rule of Three” - at least three submissions or entities is necessary to achieve a form of information that can be disclosed
 - Under MSA 402(b)(3), NMFS may release confidential information in a non-confidential aggregate form that does not directly or indirectly disclose the identity or business of any person.
 - NMFS aggregates information to address a person’s identity or a person’s business information. NMFS does not simply strip identifiers off information that it releases as that could result in competitive disadvantages.



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Declaration Hybrid

Operation and Submission protocols

Declaration/Pre-landing Notice Hybrid

- Declarations are submitted prior to leaving for a trip
 - Required submission prior to trip departure, declares the type of fishing for trip, and may include information about gear used, species targeted, trip type, etc.
 - Fisheries submission requirements range from 1 hour prior to departure, any time prior to departure, or anytime on the day of the trip
- Pre-landing notifications are submitted prior to arrival back from a trip
 - Required submission prior to landing containing information about when and where they are landings, and may include information on landings
 - GOM commercial fishery requires notice 3-24 hours prior to arrival
- Both notices assist in monitoring program requirements.
- When used with real-time e-mail distribution, allows for law enforcement to maximize vessel encounters at sea (declarations) and at the dock (pre-landing notifications).
- Assists port samplers in obtaining biological samplers. Assists managers in improving data quality, trip accounting, and compliance audits.

Declaration/Pre-landing Notice Hybrid

- The declaration hybrid form combines attributes of both of these notices into one form.
- Hybrid form suggested after the Gulf Headboat Collaborative pilot study by fishermen, port agents, and enforcement officers
- A hybrid was selected due to:
 - For-hire trips can be short durations (e.g., half day trips)
 - For-hire captains know where the return port at time of sail
 - Limited ability for this fishery to report the pre-landing notice at sea
 - The hybrid form still meets the needs of enforcement, port agents, and managers.

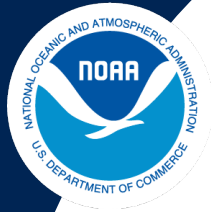
Declaration/Pre-landing Notice Hybrid

- Information contained in a hybrid notice:
 - Vessel information (pre-populated)
 - Trip activity: commercial, charter, Headboat, private angler
 - Trip type: intended fishing or intended non-fishing trip
 - Returning landing location*
 - Trip start date and time (with time zone)
 - Expected trip end date and time (with time zone)
- Separate form from the logbook
 - In the Gulf, some apps pre-filled some information from the declaration to the logbook
- Available within any approved application for SEFHIER
- SEFHIER system distributes submitted notices to officers, managers, and port agents

* Requires landing locations to be truly effective

Declaration/Pre-landing Notice Hybrid

- Submission Timing Requirements
 - Submission must occur prior to leaving on a trip
 - Submission timing is critical to limit declarations that do not result in a trip (e.g., bad weather cancelled the trip), matching declarations to logbooks when multiple trips occur per day, and increased automation of trip declaration/logbook audits.
- Non-compliance with declaration submission
 - Late or no submission:
 - Still provides information on landing location used for estimation surveys (late submissions only)
 - Limits enforcement options
 - May result in a fine
 - Does not impact permit renewal












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Landing Locations



Landing Locations

- What are landing locations
 - Actual street address location where fish are expected to be offloaded
 - Can be more refined, such as a dock slip in a large marina
 - Locations can be at private residences or public locations
 - Why are landing locations needed?
 - Enforcement – Supplies law enforcement with an exact location, listed in the declaration hybrid notice, of where a for-hire trip will be to offload fish and passengers
 - Validation/Estimation Survey – Provides information to feed into a sampling design and adjusts the weights of sites by frequency of use within each month.
 - For-hire landing location criteria are less rigid than commercial
 - For-hire permits are selling trips not fish
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For-hire Landing Locations Approval Process

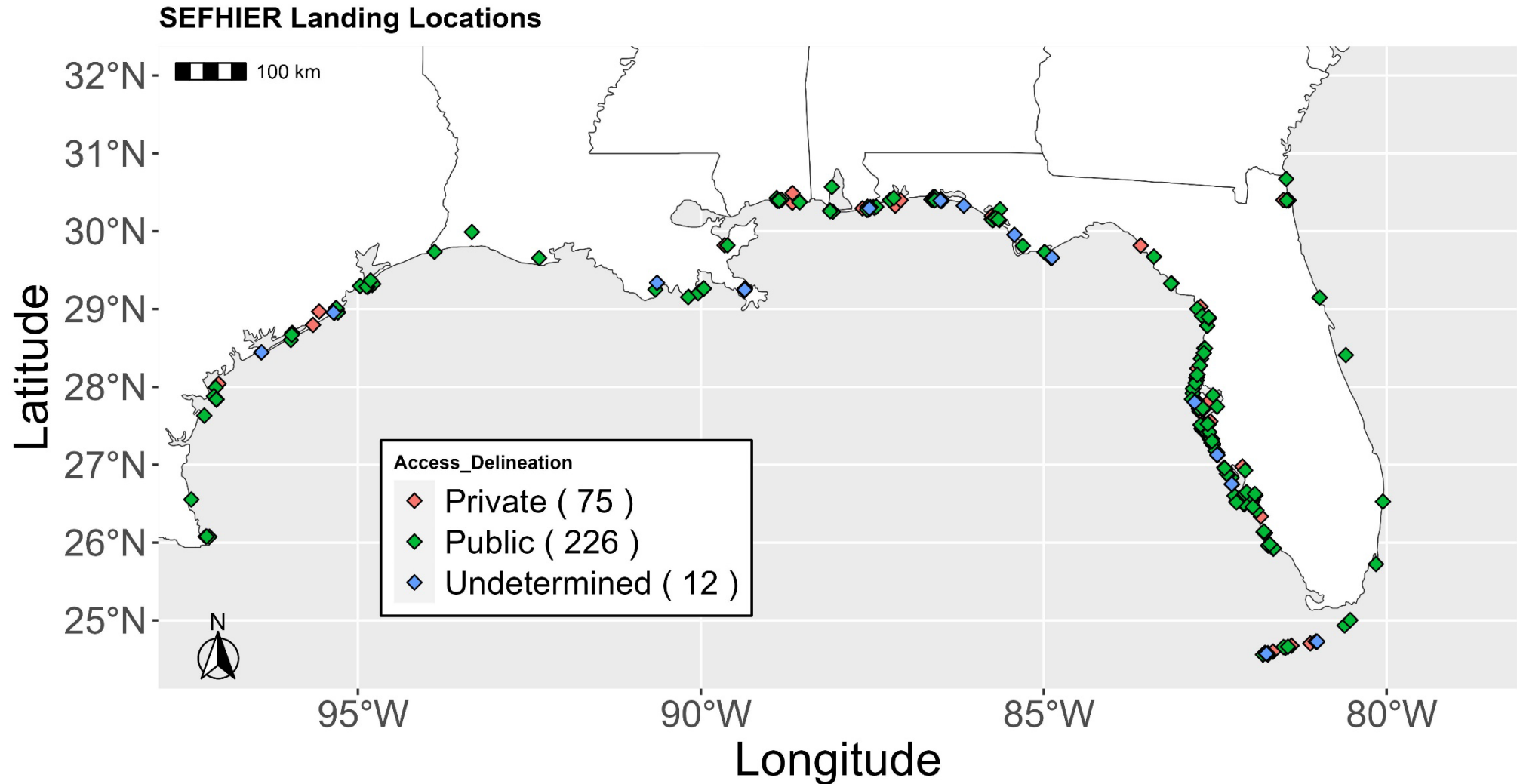
- Participants submits landing location via website
 - Must enter a name not in use
 - Contact information – who is submitting (name, phone, email)
 - Address (street, county, city, state, zip)
 - Type – Private or Public
- SEFHIER staff verifies the address exists and is on the water before approval.
 - If approval is unclear, SEFHIER staff calls submitter for clarifying information
- Approved locations are assigned a landing location code and enforcement zone
 - Landing location code is used to route declaration hybrid forms to the right law enforcement zone
- Submissions often approved within 1 business day



Landing Locations Discussion items

- Landing locations only need to be submitted for locations where you will offload passengers and fish.
- Landing locations would not include:
 - Vessel storage location (e.g., high and dry, home)
 - Fuel docks (unless passengers unload there)
 - Bait/ice shops (unless passengers unload there)
- Landing locations outside the Southeast present no additional concerns outside of ensuring we have the correct enforcement zone

Landing Locations





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Compliance

Did you submit something?

Was the submission on time?

Was the submission accurate?

The Broad Concept of Compliance

- Specificity when talking “Compliance” – there is compliance for different requirements of the program. For example:
 - Submission compliance
 - Timeliness compliance
 - Accuracy compliance
- The time period analyzed for compliance is critical
 - For example, when viewing annual reporting compliance, late reporting is not in the statistic
- The metric being analyzed is important:
 - Vessel
 - Permit holder
 - Trip



Submission Compliance

- “Were submissions made for each week of the year?”
- Evaluates the proportion of owner/operators submitting a report (logbook or DNF report) for a given time period
- Easiest compliance metric to track because of the DNF report requirement
 - Metric can be by vessel or trip
 - Submission compliance can be reviewed weekly, monthly, or annually.
- Submission compliance does NOT take into account whether the submission was accurate or late.
 - Late submissions will falsely appear to increase submission compliance
 - DNF submissions in bulk may indicate accuracy concern



Timeliness Compliance

- “Were the reports submitted on time?”
- Easy metric to track due to automated submission date fields
 - Does require comparison of report dates to submission dates
- Late Submission Impacts
 - Decreases anticipated benefit of more timely data
 - Creates uncertainty for in-season catch accounting and monitoring
 - Extremely late submission (e.g., month or greater late) create uncertainty in accuracy of the catch and effort
 - Increases difficult of automated trip audits
- Late submissions may increase perception of overall submission compliance



Accuracy Compliance

- “Was the submission accurate?”
 - Was a DNF submitted in place of a logbook to renew a permit?
 - Was the catch and effort reported accurate?
- Hardest metric to validate
 - Validate a proportion using an intercept survey
 - Boots on the ground and comes with a high cost to cover broad areas
 - An appropriately designed intercept survey can be used to estimate landings and effort, as it considers both the reporting non-compliance and the accuracy compliance



Compliance 2023

- 17% of vessels did not submit anything in 2023
 - False view of 83% submission compliance by vessels
 - Can not accurately calculate number of trips not submitted from either reporting or non-reporting vessels
- Monthly, 18-50% of vessels were submission non-compliant
 - Submitting late reports improves overall submission compliance
- 63% of DNF reports and 47% of logbooks were submitted late
 - Were some of these false reports submitted to renew a permit?
 - Lengthier delays in submission may indicate error in accuracy compliance
 - 21% submitted logbooks more than 30 days late

The question of what level of compliance is needed to use the data does not have a clear answer. The tools to increase overall compliance will vary based on the type of non-compliance and reason for the non-compliance.

Comparison to Gulf Compliance

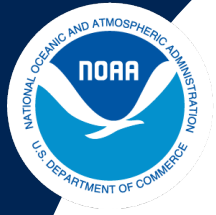
- The Gulf program had higher rates of compliance. This is attributed to the following:
 - Limited access permit - Loss of a limited access permit (termination) is an incentive to report timely and accurately.
 - Declaration hybrid – Allowed for directed outreach when logbook was missing, assisting in overall compliance.
 - VMS requirement (when in place) – Tracked vessels and provided an indication of when a federal fishing trip took place; allowed for directed outreach.
 - Reporting prior to offload – Limited late reporting. Sooner awareness and ability to do outreach for non-reporting.
 - Validation/estimation survey - Provided information about accuracy of submission and awareness of a trip occurring.
- Note that the Gulf program did not have DNF reports, so vessels that never report could have been latent or just not reporting.

Minimum Compliance Value Challenges

- Clear understanding of the population reporting
 - Open access permits have more dynamic population changes in number of permits – universe does not remain stable
 - Were non-compliant permit holders fishing or not fishing (permit latency)?
- Are the reporting vessels representative of non-reporting vessels?
 - Do they fish in the same way? (e.g., areas, target species, catch rate)
- An Estimation survey is an appropriate method to account for low compliance and pathway to use the data
 - Greater compliance can reduce intercepts needed to obtain final estimation of landings and effort
 - Survey estimates non-reporting and misreporting
 - Challenges: survey intercepts representative vessels

Comparison to MRIP Challenges

- SEFHIER only captures data from federal vessels while MRIP estimates from state and federal vessels.
- SEFHIER data is raw reported data. To date, it has not been expanded for non-reporting or misreporting given the low compliance.
- SEFHIER collect number of fish and does currently not have a dockside sampling program to capture lengths and weights.
- Calibration is needed - SEFHIER data is in a different survey 'unit'
 - Calibration evaluates the differences between the new design (SEFHIER) and the legacy design
 - SEFHIER will need an estimation process before calibration
 - Historical re-estimation required for management use occurs after calibration has been independently reviewed and approved
- SEFHIER can be used to validate the minimum estimates of for-hire effort generated by MRIP



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Validation and Estimation Survey

Review of the survey used in the Gulf of Mexico

Validation & Estimation Survey – Gulf Example

- Funding provided by Congress, but has decreased since the start of the program
- Cooperative agreement with GulfFIN to coordinate the surveys
 - GulfFIN housed the data system and coordinated with states for administration of program (“boots on the ground”)
 - Cooperative members of the survey included: GulfFIN, state partners, Office of Science and Technology, and SERO
 - Sampling must be consistent methodology across states
- “Mark and Recapture Estimation” model was used
- Separate survey and not part of MRIP or other state surveys
 - Allowed for side-by-side runs for comparisons and calibrations

Site Selection

- Created a site register database for the sampling frame
 - Minimum number of sites needed by strata for estimation calculated by OST members
 - Originally used MRIP sites, but updated over time with sites and weighting based on the declarations and landing locations
- Site register include site name, descriptor, location, and for-hire fishing activity information
- Site selection drawn using stratified weighted random selection with logistical constraints
 - Draw site selections monthly, in advance of the month
 - Site assignments specify county, site cluster of 1 or 2 sites, date, and specific time interval












Survey

- Conducted at public marina fishing access points
- Survey interviews captains and asks about entire trip
 - MRIP interviews some anglers per trip to estimate
 - The captains were chosen for the entire trip to help validated catch and effort in the logbook
 - Samplers use an electronic tablet
- Collection includes:
 - Species landed, length and weight (when possible), and trip specific information
- Survey management and staffing are by state staff
- Estimation survey priority:
 - Interview federally permitted charter captains and observe & record their catch.
 - Opportunistic: Collect biological data (length and weight data)



Survey Caveats

- Estimation survey began Oct 2021 and ran through Feb 2023
 - Survey cost ~ \$1.5M annually
 - First year start up costs included purchase of equipment
 - Program was funded through Congress
 - Funding decreased each year impacting sampling
 - Survey ended after the Court decision
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Reporting across the agency

Movement towards comprehensive data reporting applications, systems, and requirements

Cross Region Reporting

- There are 5 Financial Management Centers (FMC) that conduct data collection from fishermen along the Atlantic seaboard
 - GARFO, NEFSC, HMS, SERO, and SEFSC
- Strategic plans from DOC, NOAA, and NMFS support reducing duplicative systems and streamlining data collection
 - NMFS goals are to reduce fishermen burden of duplicative reporting
- Vessels can have permits across regions and across sectors (commercial, for-hire, and recreational)
 - The Atlantic seaboard has 3 permitting systems
 - SERO Permitting Information System, GARFO permit system, and HMS uses the National Permit System
 - Permitting systems in general collect similar information with different structure, data fields (types of data required) and different transferability rules



Agency Reporting Projects

- Vessel-permit registry project
 - Project goal: obtain and combine relevant information about vessels and permits from each system into one accessible database for use by federal FMCs and our partners
 - Needed as base layer to consolidate which permits from any region are held by a single vessel and future work with dynamic reporting applications
- RADFISH project
 - A mobile application template for agency data collection
 - Accelerates application creation and reduces development overhead while promoting best practices
 - Proof of concept: SEFHIER application



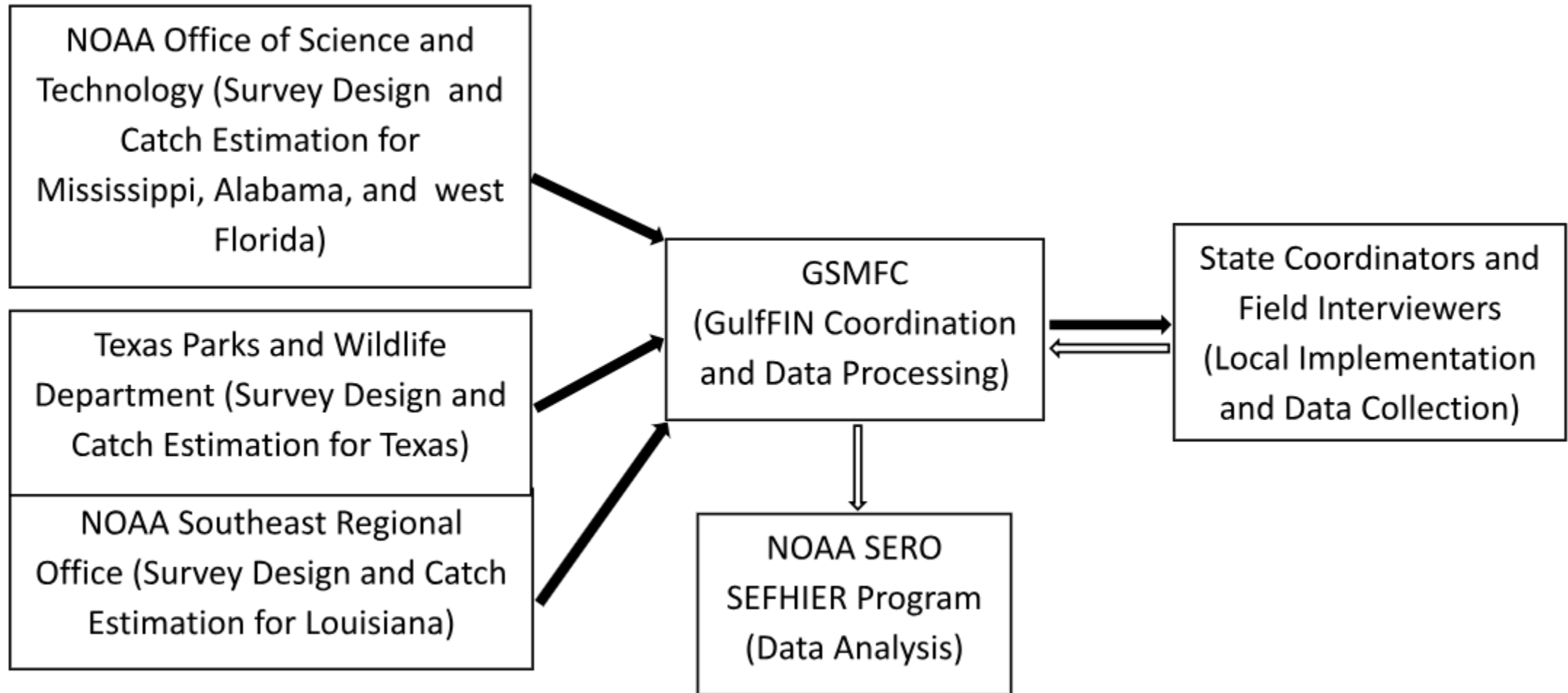
Agency Reporting Projects

- Atlantic Seaboard Data System
 - Project goal: one Cloud data system to collect and distribute all federal Atlantic coast logbooks
 - Expected Benefits:
 - Reduce cost to agency to support duplicative system
 - Improves data distribution, quality, and transparency
 - Aligns data collection metrics across regions
 - Improves agency ability to track vessels and landings across fisheries and regions to account for shifting effort and species due to climate change
 - Supports elimination of duplicative reporting by fishermen
- Comprehensive electronic reporting projects address current data collection challenges while reducing costs, increasing efficiency, and providing information for cross region areas of concern (e.g., wind, climate, shifting effort)



Supplemental Slides

Validation & Estimation Survey – Gulf Example



Common questions asked during interview

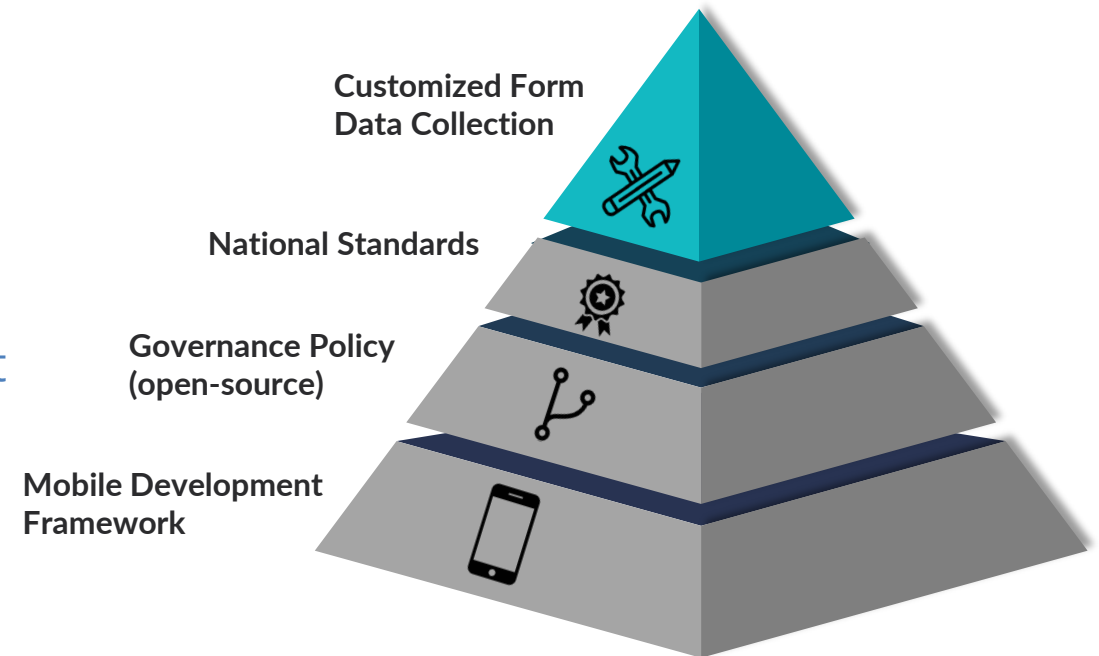
- Samplers were given documents to distribute during the survey and trained to answer common questions.
- Who is conducting the survey?
- What is the study about?
- Do I have to answer your questions?
- How or why was I selected to answer these questions?
- Why should I answer your questions?
- How do I know this remains confidential?
- How long will it take?
- How do I get more information about this survey?

Current Efforts to Streamline Data Collection

- ACCSP role in streamlining data collections
 - Collects data from state and federal partners
 - Standardize fisheries data collection – defining how data could be collected and reported to ensure consistency across fisheries datasets. Seeks collaborative data solutions.
 - Provide free applications for confidential trip and dealer reporting.
 - Provide a data warehouse for Atlantic coast fishery-dependent data, including commercial and recreational data.
 - Works within NMFS and state confidential data rules.

RADFISH project

- RADFISH – React Application Development framework for Fisheries
 - React is a development language used for mobile applications
 - Progressive Web Application (PWA) – web application that can be installed on any device; work and store data offline
- Provides:
 - Standardized, ready-made modular components for authentication, security standards, accessibility standards, NMFS branding, and US Web Design requirements.
 - Accelerates project initiation and reduces development overhead while promoting best practices
- Proof of Concept: SEFHIER application
 - All design information is open tech specs so other vendors can utilize these standards to fast-track being an approved application





Atlantic Seaboard Project Overview

- Projected supported by senior leadership for each office
- Contracting and funding through FY 25
- Adapt and modify GARFO's Electronic Document Data Interface (EDDI) model to support multiple regions and logbooks
 - EDDI system validates data in near-real time and supplies description of data error to the fishermen
- Build new data system in the Cloud under FISMA compliance standards
 - One authoritative source for all Atlantic federal data logbooks
 - Increased analyst throughput as analysts concentrate on holistic data vs time spent merging incongruent data sets
- Support agency reporting applications (RADFISH)

Atlantic Seaboard Project Overview

- Build authentication and authorization protocols to meet new government security standards
- Incorporate outputs from the Vessel-Permit registry into the data model
- Migrate existing data collections (e.g., GARFO VTRs, SEFHIER, SRHS, SE and HMS commercial logbooks) to the system
- Run systems in parallel before switching solely to the new system
- New data collection programs must be incorporated into this system