

NOAA Fisheries Guidance for Stock Assessors and Recreational Fisheries Managers regarding the use of Marine Recreational Information Program Fishing Effort Survey Data

April 29, 2024

Updated July 30, 2024. Revised sections are highlighted in yellow and include clarification regarding BSIA determinations and regional considerations pertaining to data use.

Background

- NOAA Fisheries is conducting a [larger-scale Follow-up Study](#) for the Marine Recreational Information Program (MRIP) Fishing Effort Survey based on the results of previous Pilot Studies to gain a clearer understanding of the differences in effort estimates between the current survey design and a revised design that changes both the FES question order and increases the frequency of sampling (monthly instead of every two months) to improve response accuracy.
- The Follow-up Study is being conducted over the full course of 2024 with the revised design administered alongside the current design.
- Monthly sampling will produce more frequent estimates, which is a priority of our regional partners, and a shorter respondent recall period may also minimize reporting errors.
- The earliest a new survey design, if warranted, could be fully implemented is in 2026.
- The earliest a calibrated time series of catch and effort estimates (re-scaled to the revised design) could become available for incorporation into pending and future stock assessments is spring 2026, which is the normal release of final 2025 estimates.
- The timeline to implement a new survey design and publish calibrated estimates is contingent upon successful development, implementation, and review of the updated FES calibration model, as well as favorable results from the Follow-up Study. This work is on track to be completed by spring 2026.
- NOAA Fisheries will continue to work closely with its partners on this multi-year, rigorous, and transparent process to improve fisheries science and management.

Guidance

- In many cases, the FES and MRIP data represent the only comprehensive data available for assessment and management. FES data should continue to be used where they are currently to inform stock assessments and management until the Follow-up Study has been completed and the results calibrated and incorporated into relevant stock assessments.

- For a detailed description of the types of scientific information included in Best Scientific Information Available (BSIA) determinations, refer to the Code of Federal Regulations: [National Standard 2](#).
- Regional Considerations. In the Gulf of Mexico, NOAA Fisheries has been supporting the development and implementation of state data collection programs designed to produce more timely and precise recreational catch estimates for certain species managed through annual catch limits. NOAA Fisheries is working collaboratively with the states to effectively incorporate data from these programs into stock assessments. NOAA Fisheries is already using state data to monitor several species in the Gulf of Mexico.
- Data from the FES remains necessary where it is administered to compare and track relative year-to-year and long-term recreational fishing effort trends.
- It is important to note that the results of the Follow-up Study may differ from results of the current program as well as the Pilot Study. The Question Order Pilot Study was conducted over 6 months from Maine to Mississippi, but with smaller sample sizes than the full FES sample. Results varied considerably by state and fishing mode (shore vs. private boat). The 2024 Follow-up Study is being conducted over the course of 2024 with robust sample sizes to give us a better understanding of the differences between the current FES and the revised design.
- Communications planning
 - NOAA Fisheries has committed to providing updates on the progress of this study in 2024; tentatively at the midpoint and end-of-the year to inform managers and the recreational fishing constituency about how the Follow-up Study results are comparing with the previous Pilot Study, with the caveat that there are regional differences (e.g., we do not survey in January/February in the North and Mid-Atlantic).
- Recalibrating the historical time series
 - We plan to release a calibrated time series of catch and effort estimates concurrently with the normal release of final 2025 estimates in spring 2026. This would be contingent upon successful development, implementation, and review of the updated FES calibration model. The earliest a new FES design could be fully implemented would be 2026.
 - The FES Follow-up Study will run through 2024, with a potential extension of the timeline into 2025 should additional data collection be warranted.
 - The current FES methodology would be used to produce 2025 estimates, and the historical time series of estimates (2025 and all prior years) would be calibrated to the revised methodology.
 - Decisions for what design to move forward with for 2026 will be made in 2025, pending findings of the Follow-up Study and peer review outcomes. As we progress, we will develop more definitive timelines.
 - Benchmarking
 - As per [NOAA Fisheries Procedural Directive 04-114-01](#), new or revised survey designs "should be conducted side-by-side with the legacy survey,

when feasible, to allow measurement and evaluation of consistent differences in the statistical estimates produced.”

- The NOAA Fisheries Office of Science and Technology currently has funding for one year of side-by-side benchmarking (throughout 2024). This is a shorter period than the benchmarking for previous transitions to updated surveys (e.g., Coastal Household Telephone Survey (CHTS) to FES). However:
 - The changes being evaluated are to the FES question order and frequency of administration (from bimonthly to monthly). We do not expect these design changes to lead to significant changes in fishing effort trend information that would necessitate monitoring over multiple years to detect. Additional monitoring was necessary during the CHTS-FES transition, where changes in landline telephone use over time resulted in changes to trends in the CHTS effort estimates (i.e., differences in the magnitude of the CHTS effort estimates relative to the FES effort estimates over time).
 - Based on the results of the Follow-up Study, if the decision is made to switch to a revised survey design, the calibration model used for reconciling differences in the scaling of effort estimates produced from the current and revised FES will leverage the same model framework previously peer reviewed. The peer review panel was composed of representatives from the Center for Independent Experts and Council Scientific and Statistical Committees for the transition from CHTS to FES. The model is being updated with additional parameters to account for the shift to increased one-month sampling and the change in question order.
- Re-assessing current [allocation methods](#)
 - NOAA Fisheries encourages fishery managers to reevaluate their current allocation methodologies, considering additional data sources beyond historic catch estimates or more dynamic processes to re-evaluate or revise allocations if and when recreational estimates change.
 - For many stocks, current allocation methods rely on a proportional distribution of total catch between commercial and recreational sectors. This assumes the relationship between recreational and commercial data collection methods is consistent throughout the time series and that methods used to generate estimates or tally catch are comparable.
 - Surveys are not static in terms of their efficacy and bias, and the relationship between commercial and recreational catch estimates can change. Factors such as changing angling demographics, regulations, etc., can impact who does and does not respond to the surveys. Methodological changes can also result in changes to the estimates.
 - Tracking response characteristics and accounting for survey improvements is critical to identifying true fishery-related trends in catch.

- Considerations for continued use of the Coastal Household Telephone Survey (CHTS)-like estimates in informing management when stocks have yet to be assessed with FES
 - Background: The CHTS was discontinued in 2018 following the [transition](#) to the FES. However, there are numerous species with catch advice set at the CHTS scale, rather than the FES scale. These regulations leverage “CHTS-like” estimates that MRIP produces using our [FES-CHTS calibration model](#) to approximate what the CHTS estimates would be like if the survey was still being conducted.
 - The CHTS estimates in their final years were, on average, approximately 200-300 percent lower than estimates produced from the current FES design, with evidence that bias leading to underestimation was increasing over time. Based on the results from the initial Pilot Study, the change in the scaling of estimates that we’re expecting with a revised FES design is not likely to be as large.
 - NOAA Fisheries does not recommend reverting to CHTS data to inform management while the FES Follow-up Study is being conducted.
- Assessment schedules and considerations
 - Before calibrated data are finalized (tentatively in spring 2026), any preliminary advice on how data might behave to inform assessment sensitivity analyses would be speculative and would not reflect data used for the final calibration model. In addition, monitoring programs need to be comparable to the final calibrated data, and this will not happen until the assessments incorporate the revised data.
 - Once the FES methodology is amended to reflect findings of the FES Follow-up Study, if warranted, stocks with the largest recreational catch component should be assessed first, followed by other identified stocks based on their ranking, and addressing as many stocks as possible (per the 2018 Transition Plan). The science centers will also consider pulling a list of species predominantly caught from shore and/or private boat, with the caveat that future scheduling would be affected and could cause additional impacts to timing.