

Recommendations from the National Academies of Sciences (NAS) report on The Use of Limited Access Privilege Programs in Mixed-Use Fisheries¹

A study mandated by the Modernizing Recreational Fisheries Management Act of 2018

This document provides the recommendations from the 2021 report on “The Use of Limited Access Privilege Programs (LAPP) in Mixed-Use Fisheries.” Many recommendations are policy oriented and are more appropriately directed to the Council, while others concern data collection and research. The report’s Summary chapter provides context for the report’s 5 main recommendations, identified below with an asterisk. These five recommendations are repeated alongside additional recommendations in Chapter 8: Addressing the Impacts of LAPPs in Mixed-Use Fisheries, also included below.

Recommendations for Existing and Future LAPPs

Impacts to Recreational Stakeholders

* The Councils, or their state partners in the case of state-based management, should conduct reviews of their management of both private recreational and for-hire fisheries for species shared under LAPPs in mixed-use fisheries (or proposed LAPPs in mixed-use fisheries) and propose and implement reforms (including, but not limited to, IFQs or cooperatives for for-hire vessels and harvest tags or day passes for private anglers) that foster accountability while enhancing fishing experiences and opportunities to heterogeneous groups of anglers. To foster comparison between sectors, review guidelines like those that exist for the commercial sector should be established for each sector (e.g., including goals, objectives, and measurable outcomes).

Note: The Council has considered IFQs, cooperatives, regional fishery associations, and harvest tags for the for-hire component of the recreational sector in Reef Fish Amendments 41 and 42.

Additional Recommendations

The Councils should review the policies regarding entry into the for-hire sector for potential loopholes that would allow expanded capacity in the for-hire sector and revise the policies accordingly. This should be done for fisheries directly linked through a LAPP in a mixed-use fishery as well as those in other fisheries that may provide a viable source of alternative employment for displaced commercial fishers and their vessels.

The Councils should closely monitor the evidence for the establishment and growth of “catch share experience” and similar quasi-recreational trips occurring under the structure of commercial LAPPs. In cases where these trips are already well established (e.g., the Gulf of Mexico reef fish fishery), the Councils should develop regularized reporting programs for monitoring the extent and characteristics of these trips.

The NMFS, in partnership with the relevant Councils, should conduct research into innovative institutional structures, such as AMOs, to partially devolve management of marine recreational

¹ <https://www.nationalacademies.org/our-work/the-use-of-limited-access-privilege-programs-in-mixed-use-fisheries>

fisheries to anglers and the associated fishing communities, improve accountability of anglers for their harvest, and facilitate mutually agreeable reallocation between the recreational and commercial sectors. Given the significant knowledge gaps and lack of real-world analogs, this research should be broad in focus, consisting both of internal NMFS research leading to the production of technical memoranda as well as external research funded through channels such as the Marine Fisheries Initiative Program or Saltonstall-Kennedy awards with the goal of bringing government and academic scientists together with the angling community for the joint production of actionable knowledge. The Councils, together with NOAA outreach programs, could then begin to communicate to anglers the potential benefits of the new system and any required data collection systems.

Note: AMOs are discussed in reference to: Sutinen, Jon G. and Robert J. Johnston. 2003. "Angling Management Organizations: integrating the recreational sector into fishery management," *Marine Policy* 27:471-487.

Impacts to Commercial Participants

* The Councils and the NMFS, in planning new LAPPs in mixed-use fisheries, should develop a broad range of options for the initial allocation of quota, including but going beyond the practice of limiting eligibility to existing vessel owners or permit holders with historic records (especially if [reducing] overcapitalization is not a goal and shares are to be given for free). Where available, data on the contributions of hired captains and crew to the historic performance of vessels should be collected and used to assess the potential of awarding shares to them as well as vessel owners. If such data are not available, the Councils should consider delaying the creation of a LAPP for a limited time to conduct a rapid assessment of crew contributions that would inform initial allocations.

Additional Recommendations

The NMFS and the Councils should develop ways to expand captain and crew data collection such that it can comprehensively track people participating in federal fisheries. Such a system could facilitate ways to address concerns about fairness in quota share distributions as well as contribute to a richer understanding of social, economic, and community impacts of LAPPs and other sectors of mixed-use fisheries. It could also potentially discourage hiring crew off the books and enhance fairness for fishers who do not engage in that practice, especially if tied to the ability to vest into quota.

The NMFS and the Councils should encourage full transparency of LAPP ownership, transfers, and leasing, making these data publicly accessible and part of the policy process. This effort, which is well under way in most current LAPPs, should include developing the capacity to provide real-time information on trades in order to foster well-functioning markets for quota shares and leasing. This can help achieve social objectives of equity by ensuring fishers are not disadvantaged in the transfer markets. In addition, inefficiencies and inequities caused by incomplete or inaccurate transfer data and uncentralized markets should be examined.

The NMFS and the Councils should make quota share and allocation data more transparent, comprehensive, and widely available, and encourage data presentation and analysis on these

dimensions so they can inform the policy formation processes. Such activities would also serve to show that accurate and complete data reporting is critical as it can also help potential buyers and sellers make transaction decisions.

The Councils should set aside a portion of the total quota shares for new entrants or assess a fee (on the transfer or lease of shares or allocation, 2-5%, for example) that could be reallocated.

The Councils should consider intergenerational equity at the outset of program consideration and design. Any new LAPP should explicitly address in its design any mechanisms to address objectives related to facilitating entry of second-generation fishers and the potentially undesirable effects of wealth primarily accruing only to the first generation.

Because of perceptions that “investors” or “armchair captains” should not control quota shares, the Councils that consider new LAPPs in mixed-use fisheries, as well as others, should address this question up front, in initial scoping and draft amendment processes, and research whether and how such shareholding would affect the market for quota and its availability to active fishers. To assist the Councils in addressing this question, the NMFS should sponsor a study of the direct and indirect consequences of moving from LAPPs that require holding active fishing permits or other measures of active participation in fishing, to the “public” scope of eligibility to own quota shares. Such a study, likely focused on the experience of the two Gulf of Mexico LAPPs but informed by other programs, should offer a stronger basis for decision making about eligibility.

Impacts to Fishing Communities

* The NMFS and the Councils should develop explicit measures to associate LAPP fishing activity, as well as fishing activities of the for-hire and recreational sectors, with fishing communities represented in the NOAA Social Indicators data, both in the baseline (pre-LAPP) period and in subsequent periods. These measures should capture multiple community connections (e.g., residency, vessel homeport, landings, and support services for recreational and commercial fisheries).

Additional Recommendations

In situations where fishing communities are significantly involved with and major components of a fishery where LAPPs are being considered, the provisions in the MSA (16 U.S.C. § 1853a(c)(3)(A)) that allow for assignment of quota shares to fishing communities, as well as regional fishery associations, should be included as among alternatives being considered by the Councils.

The NMFS and the Councils should conduct more thorough analysis of the NOAA Social Indicators for Coastal Communities (SICC) data to explore whether they can provide information about causal effects of LAPPs on communities. The committee recommends three specific steps: (1) refine the geographical definitions of treated and control units to more carefully match communities affected by LAPPs with ones that are similar but unaffected, (2) conduct more analyses to explore other indicators and other ways of exploiting natural policy experiments in the SICC, and (3) test the efficacy of quasi-experimental analysis of the SICC data by examining

effects of hurricanes or other shocks with well-known geographic specificity for consistency with well-understood effects of social and economic disruption. If not, they should expand the data collected to allow for such analysis.

Recommendations for Data Collection and Future Research

* For fisheries where LAPPs may be contemplated, the Councils and the NMFS should establish longitudinal data collection protocols for additional economic and social information, including pre-implementation baselines. These protocols should collect ongoing and, where possible, retrospective data prior to LAPP implementation and continue thereafter, with minimal disruptions to the survey protocols. At a minimum these data collection efforts should focus on social and economic data at the vessel level (e.g., revenues, input use, costs, ownership, community affiliation), including detailed demographic and economic data on crew, captains, vessel owners, and shareholders. Possible models are the Bering Sea and Aleutian Islands crab rationalization program and the data collection efforts of the Northwest Region for groundfish rationalization. These data collection efforts would ideally branch out beyond surveying only capital owners, but also regularly survey other immediate fishery stakeholders such as captains and crew (acknowledging difficulties here). These efforts would be complementary to plans to broaden the base of initial allocations. Additionally, all datasets should cross reference each other to facilitate linking by including the appropriate identifiers.

Additional Recommendations

The NMFS and the Councils should develop prioritized, targeted human dimensions recreational data as well as commercial and for-hire data collection programs for species or species complexes of particular interest either due to ongoing or anticipated allocation tensions between sectors in existing LAPPs in mixed-use fisheries or in anticipation of new LAPPs in mixed-use fisheries.

The concept of “serial conservation” in mixed-use fisheries should be explored in more detail through partnerships of federal, academic, and state agency scientists, supported through funding initiatives at the federal or regional level. Under what conditions and through what mechanisms might LAPPs create leverage for improvements in rates of bycatch and discards and keeping within fishing mortality rate targets for complexes of stocks? To the extent that LAPPs result in elimination of overfishing and stocks are no longer overfished, will there be more resiliency in the overall ecological system that benefits all sectors?

The NMFS and the Councils should create a process for determining what constitutes small-scale fishing in the context of different regions and fisheries and whether they see enough presence in federal fisheries to warrant its inclusion as such in data collection, decision making, and reviews. Scale can be a consideration for recreational as well as commercial fisheries; for example, do the policies and practices in the mixed-use fishery favor those with larger or more costly vessels and gear, whether recreational or commercial? Are small-scale fishers who lose out in LAPP allocations likely to move into for-hire or recreational fishing?

The Councils should collectively institute a baseline level of longitudinal economic and social data reporting for *all* major fisheries in order to facilitate the comparative and causal analysis of policy changes or natural shocks in one fishery.

Recommendations for Interdisciplinary Impact Assessment

Central to the committee's work has been the challenge of integrating qualitative and quantitative economic and social data that are based on distinct, discipline-driven methodologies and theories. Important examples are combining interview-based data with datasets like NOAA's Social Indicators for Coastal Communities project, and finding ways to meaningfully relate stakeholder perceptions of the fisheries system to what economic and biological data and models reveal about the system.

Conclusion: Fisheries policy issues with major economic, social, and ecological dimensions require interdisciplinary conceptualizations and methods for research. Finding ways to integrate divergent disciplinary perspectives and qualitative and quantitative data more effectively could lead to new insights, fruitful hypotheses, and more informed and improved decision making.

*** The NMFS and the Councils should encourage interdisciplinarity and better integrate qualitative and quantitative data to generate hypotheses and discern and test policy impacts. These activities and discussions can happen within the multidisciplinary Scientific and Statistical Committees of the regional councils as well as within the regional science centers of the NMFS.**

This recommendation includes ways to assess the use of qualitative data on perceptions and values in social and economic impact analysis. Ideally, these assessments can be conducted in tandem with quantitative approaches like randomized sampling or taking a census of the population. To this end, the Councils and NOAA can expand the social and cultural methodologies used, including cultural models and cultural consensus analysis and network analysis among other adjuncts to in-depth interviews, participant observation, social surveys, and social indicators work that are well-known but not routinely applied to social and economic impact assessments within NOAA Fisheries.

Overall Conclusions

The use of LAPPs in the mixed-use cases reviewed has little discernible impact on recreational and for-hire stakeholders. However, fishers who are participants in the LAPP are held to higher monitoring, data collection, and enforcement standards relative to non-LAPP fishery counterparts and business-as-usual scenarios. To the extent that this eliminates overfishing and stocks are no longer overfished, it is possible that there will be more resiliency in the overall ecological system that benefits all fishery sectors. Moreover, the improved monitoring of the commercial sector with LAPPs may lead to pressure on other sectors to be more responsible, with the goal of staying within fishing mortality rate targets and reducing bycatch and discards. Thus, LAPPs may improve accountability, and hence conservation, in a mixed-use fishery in ways that deserve further scrutiny.

The committee's appraisal of the influence of LAPPs in mixed-use fisheries is constrained by the scarcity of data and studies that would enable a clearer picture of how the commercial, for-hire, and recreational fisheries for particular species or species complexes interact. The existence of LAPPs in the mixed-use fisheries of the Gulf and the Atlantic coasts is fairly new. Their creation often is accompanied by other measures, such as quota reduction and stronger monitoring that may account for variable outcomes. Moreover, beyond LAPPs, research on mixed-use fisheries as such appears to be limited to analyses done for purposes of allocating allowable catches among the sectors, with little attention to other possible relationships. Recognizing how potentially transformative LAPPs can be and the challenges of managing mixed-use fisheries, our conclusions and recommendations are aimed at improving a management system that in many respects appears to be working well.

Additional Recommendations

Next IFQ Programs 5-Year Review (Council and Southeast Regional Office Staff)

The NMFS and the Councils should reexamine the guidelines for LAPP review (including minimum data requirements for analysis) and expand their scope in light of the efforts of this committee to use them as sources of information about the social, economic, and biological effects of LAPPs in general and in mixed-use fisheries. Future reviews of LAPPs in mixed-use fisheries should examine their relationships to other sectors of the fisheries, and their goals and objectives, and be informed by the efforts of this committee to hypothesize and in some instances substantiate interactions and side effects.

NMFS Prioritization

The NMFS should make implementing the human dimensions section of the NOAA Fisheries research strategy for 2021-2025 (NOAA Fisheries, 2021) a high priority.

Note: NOAA Fisheries, U.S. Department of Commerce. 2021. *Human integrated ecosystem based fishery management, research strategy 2021-2025: Executive summary*.

<https://www.fisheries.noaa.gov/human-integrated-ecosystem-based-fishery-management-research-strategy-2021-2025-executive-summary> (accessed July 19, 2021).

<https://www.fisheries.noaa.gov/human-integrated-ecosystem-based-fishery-management-research-strategy-2021-2025-executive-summary#human-dimensions>

Congressional Funding

Congress and the administration should fully fund data collection and analysis programs consistent with the priorities identified above.