

FAIR SHARES?

*An Analysis of
Catch Share Programs
in the U.S.*



Center for Agriculture
& Food Systems

VERMONT LAW & GRADUATE SCHOOL



AUTHORS AND ACKNOWLEDGMENTS

Authors

This report was produced by the Center for Agriculture and Food Systems at Vermont Law and Graduate School. The lead authors of this report are **Emily Spiegel**, Director of Research and Senior Research Fellow; **Lindsey Connolly**, Program Manager and Research Fellow; **Wendy Chen**, former Staff Attorney; with Summer Honors Intern **Johanna Silva** and Food and Agriculture Clinician **Andrew Hockenberry**.

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KEY TERMS

ANNUAL CATCH LIMIT (ACL)/ TOTAL ALLOWABLE CATCH (TAC)	The maximum amount of fish that can be sustainably caught each year. Annual catch limit and total allowable catch are used interchangeably. This amount is then divided into quota shares (see below) that are allocated to quota holders.
BIOMASS	The total mass of target fish species within an ecosystem, typically measured in kilograms per hectare (kg/ha) to indicate fishery health.
BYCATCH	The incidental capture or mortality of non-target species during commercial fishing.
CAGE TAGS	A physical representation of a quota share allocation in the Mid-Atlantic Surfclam and Ocean Quahog Fishery. Each tag authorizes the landing of a specific amount of surfclams or ocean quahogs.
CATCH SHARE PROGRAM	A fishery management program that allocates a portion (called a quota) of a fishery's total allowable catch to an individual entity, giving them an exclusive right to fish that portion.
EXCESSIVE SHARE CAP	A limit on how much quota share any single entity may hold.
FISHERY MANAGEMENT PLAN (FMP)	A plan, and its amendments, that contains measures for conserving and managing specific fisheries and fish stocks. Some FMPs establish catch share programs.
INDIVIDUAL FISHING QUOTA (IFQ) AND INDIVIDUAL TRANSFERABLE QUOTA (ITQ)	A federal permit under a limited access privilege program (see below) to harvest a quantity of fish, expressed by a unit or units representing a percentage of the total allowable catch of a fishery that may be received or held for exclusive use by a person. This term does not include community development quotas. In an ITQ program, privileges can be transferred after initial allocations. ¹ There are only two catch share programs that use "ITQ." Otherwise, the terms IFQ and ITQ are generally used interchangeably.
LANDING/LAND	The act of bringing caught fish from the vessel to the shore.

KEY TERMS CONTINUED

LIMITED ACCESS PRIVILEGE (LAP)	A general term used in the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (see below) to describe a federal permit issued to an individual or entity as part of a limited access privilege program to harvest a quantity of fish that may be received or held for exclusive use by a person. This term includes an individual fishing quota but does not include community development quotas.
MAGNUSON-STEVEN'S FISHERY CONSERVATION AND MANAGEMENT ACT (MSA)	Among its provisions for fisheries conservation and management, this Act authorizes the National Oceanic and Atmospheric Administration (NOAA) and the Regional Fishery Management Councils (see below) to evaluate and implement catch share programs for federal fisheries.
PUBLIC TRUST DOCTRINE (PTD)	A legal principle establishing that certain natural resources, such as navigable waters, wildlife, or land, are held in trust by the government and preserved for public use.
QUOTA SHARE (QS)	The percentage of each year's annual catch limit or total allowable catch that a quota holder is permitted to catch. Quota share is the basis for the annual calculation of a holder's quota pounds, or the weight of fish that a holder is permitted to catch.
REGIONAL FISHERY MANAGEMENT COUNCIL (RFMC)	Eight U.S. Regional Fishery Management Councils were established under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) to manage fishery resources in federal waters of the United States. Each council is responsible for developing fishery management plans for the fisheries in their region that require conservation and management.

I INTRODUCTION

Marine fisheries in the United States span 4.4 million square miles, surpassing the nation's entire land mass.² This vast area is managed by the federal government and affects the health of our oceans, the livelihoods of coastal communities, the integrity of our food system, and the future of a public resource that should be managed for the benefit of the public.

Catch share programs are a fishery management approach implemented in many U.S. fisheries. The Magnuson-Stevens Fishery Conservation and Management Act (MSA), passed in 1976, is the principal law governing marine fisheries in the United States. The Act established eight regional fishery management councils, set forth ten national standards for fishery management, and authorized the Secretary of Commerce to review and implement fishery management plans.³ Since the early 1990s, the Regional Fishery Management Councils have created 17 catch share programs in commercial fisheries.

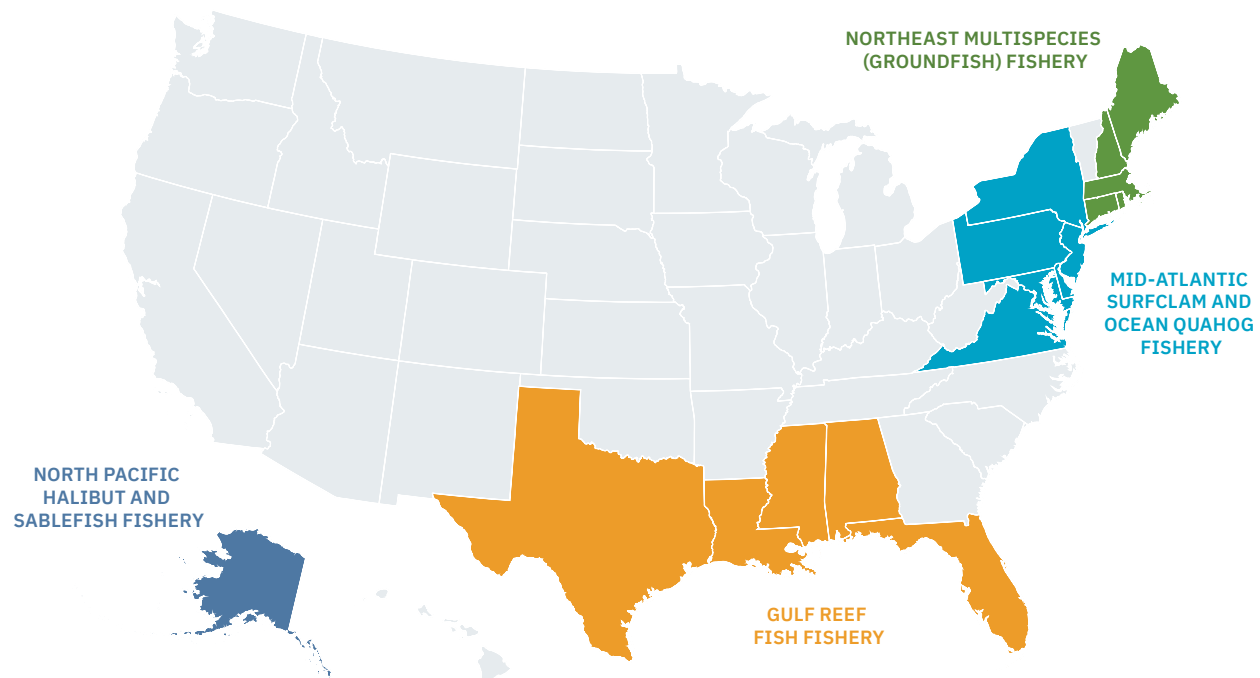
Catch share programs allocate portions (called quotas) of a fishery's total allowable catch (TAC) to individual entities, giving them exclusive rights to their allocation. Essentially, these programs divide a public resource into shares that can often be bought, sold, and leased. Proponents of catch shares view this privatization of fisheries as a market-based solution that can prevent the depletion of a shared resource that might result from competing individual interests. By privatizing public resources, proponents claim, shareholders will be incentivized to protect them. Many social and political scientists have challenged this concept, noting that communities have successfully stewarded shared natural resources.⁴

Catch share programs were initially touted as successful among conservation and environmental groups. However, evidence of significant ecological benefits remains limited. One study indicates that catch share implementation has reduced bycatch discards (catch of non-target species that are thrown away) by an average of 31 percent within the first five years and up to 66 percent over ten years.⁵ Yet, other ecological indicators such as population biomass have shown little change.⁶ Additionally, some argue that catch share programs have driven consolidation in fisheries, pushing out communities that have depended on these fisheries for generations.

This report addresses key challenges associated with catch share programs as currently implemented in the U.S.; namely, these programs:

- Often fail to meet one or more of the national standards for fisheries established in the MSA;
- Reduce social and economic benefits for fishing communities and small-scale fishermen* due to initial allocations and consolidation of shares over time;
- Are often treated as creating private property rights despite the MSA explicitly precluding this interpretation; and
- Do not operate transparently, which undermines congressional oversight.

To illustrate these challenges, this report includes profiles of catch share programs from four fisheries: Mid-Atlantic Surfclam and Ocean Quahog,⁷ Gulf of Mexico Reef Fish,⁸ Northeast Multispecies (Groundfish),⁹ and North Pacific Halibut and Sablefish.¹⁰



Each fishery has distinctive catch share design features, yet they face similar challenges. The Northeast Groundfish program operates through sectors, which are self-governing groups of permit holders.¹¹ While many fisheries have experienced consolidation, the Mid-Atlantic Surfclam and Ocean Quahog program stands out for its significant decrease in participating fishermen over time. The Gulf of Mexico Reef Fish program has a reported history of intimidation of fishermen who publicly criticize the catch share program. Among the four fisheries discussed in this report, the North Pacific Halibut and Sablefish program best supports the sustained participation of fishing communities but offers opportunities to better meet national fishery standards.

* We use the term “fishermen” throughout this report to refer to people who harvest fish, regardless of gender, in keeping with common practice in the industry. For further discussion, see <https://montereybayfisheriustrust.org/stories/2019/5/6/why-fisherman>

Governance of U.S. Fisheries

Created in 1871, the National Oceanic and Atmospheric Administration (NOAA) is responsible for the stewardship of United States ocean resources and habitat.¹² Within NOAA, the National Marine Fisheries Service (NMFS, pronounced “nymphs”) oversees fisheries by authority of the Magnuson-Stevens Fishery Conservation and Management Act (referred to in this report as the Magnuson-Stevens Act, or MSA).¹³ Under the MSA, the federal government manages marine fisheries to:

- Prevent overfishing;
- Rebuild overfished fish stocks;
- Increase long-term economic and social benefits;
- Ensure a safe and sustainable supply of seafood; and
- Protect habitat that fish need to spawn, breed, feed, and grow to maturity.¹⁴

Additionally, the Magnuson-Stevens Act establishes eight Regional Fishery Management Councils (Councils) composed of voting and non-voting members who are meant to reflect the expertise and interests of the states and stakeholders in each ocean area.¹⁵ Each Council is responsible for creating a fishery management plan for every fishery under its authority.¹⁶ There are approximately 50 fishery management plans established across all the Councils.¹⁷

When creating fishery management plans, Councils must conduct public hearings, review and revise the optimum yield, set annual catch limits—in some fisheries this figure is called total allowable catch (TAC)—for each managed fishery, and develop research priorities necessary for ongoing management.¹⁸ Some Councils use catch share programs to meet their management objectives. Further, the fishery management plans must align with the ten National Standards for fishery conservation and management established by the MSA. National Standards 1, 2, 4, and 8 are particularly relevant to this report.

Ten National Standards for Fishery Conservation and Management Established by the Magnuson-Stevens Act

1

Optimum Yield

Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.

2

Scientific Information

Conservation and management measures shall be based upon the best scientific information available.

3

Management Units

To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

4

Allocations

Conservation and management measures shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

5

Efficiency

Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.

6

Variations and Contingencies

Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

7

Costs and Benefits

Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

8

Communities

Conservation and management measures shall . . . take into account the importance of fishery resources to fishing communities by utilizing economic and social data . . . in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

9

Bycatch

Conservation and management measures shall, to the extent practicable, (a) minimize bycatch and (b) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

10

Safety of Life at Sea

Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.¹⁹

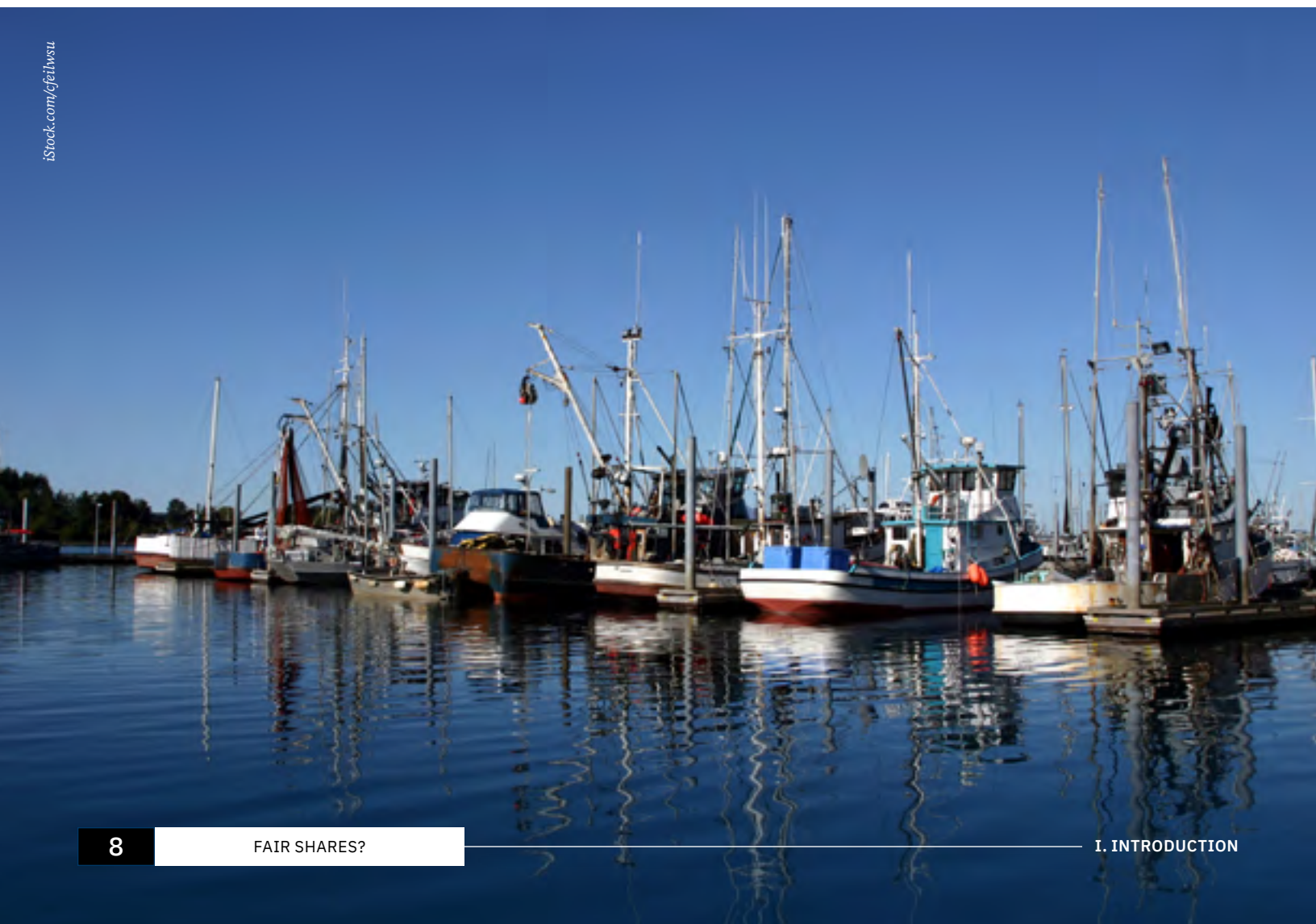
Courts reviewing fishery management decisions have identified “tension among these ten standards,”²⁰ which sometimes requires NMFS to balance competing objectives.²¹ To date, Congress has not established any national standard specific to catch share programs that would guide NMFS on how to address competing priorities in these programs.

Understanding Catch Shares

Fisheries are renewable natural resources, much like forests, that can replenish themselves through natural reproduction. If people harvest part of the resource, the resource can recover if enough of it is left to regenerate. At a basic level, Regional Fishery Management Councils manage fisheries by determining an acceptable amount of catch per year (the annual catch limit or total allowable catch) and keeping fishermen from exceeding that limit.

Catch share programs are a relatively new development in the long history of United States ocean management. The first allocated privilege program was the Mid-Atlantic Surfclam and Ocean Quahog Fishery's individual transferable quota (ITQ) permit system implemented in 1990.²² In 1995, Alaska introduced the first individual fishing quota (IFQ) permits after 14 years of deliberation.²³ ITQs and IFQs function similarly, and the terms are sometimes used interchangeably. Essentially, both ITQs and IFQs are Council-issued permits that give the permit holder an exclusive share of the annual catch limit.²⁴ Since these early catch share programs, Councils have developed other privilege systems, like the Northeast Groundfish Fishery's sector program, which divides the annual catch limit among groups rather than individuals.

Catch share programs are one approach to maintaining a fishery's total commercial catch within the annual limit set by the Council. These programs allocate a specific portion—a privilege—of a fishery's annual catch limit (ACL) to individual fishermen or groups.²⁵ In a simplified version, a fishery with an



ACL of 10,000 pounds and ten fishermen might allocate each fisherman ten percent of the catch, or 1,000 pounds. The next year, the fishermen would maintain their percentage allocation (their quota share), but the ACL might change according to the health of the fishery. If the ACL went down to 5,000 pounds, each fisherman would be entitled to catch 500 pounds of fish that year. In practice, fishing privileges are not so evenly distributed.

Initial allocations are typically based on fishermen's historical catch within that fishery, meaning some fishermen will receive higher allocations than others. Once privileges are allocated, they can usually be transferred among fishermen. Catch share programs may allow the quota share itself (the percentage of the ACL) to be transferable.²⁶ They may instead limit transferability to a particular year's privilege, or catch amount (the 1,000 or 500 pounds).²⁷ In either case, fishermen may be buying, selling, or leasing the privilege to fish before their boat leaves the dock. Transferability of fishing privileges is a key design feature of catch share programs. Holders of either IFQs or ITQs can transfer their fishing privileges.²⁸ Other catch share programs that do not issue ITQs or IFQs, like the sector program in New England, allow some degree of transferability through sale or lease.²⁹ Thus, privilege holders can treat their privileges as an asset, deciding to keep or transfer their privileges after considering their desired vessel activity and capacity.

Catch Shares: An Approach with Many Names

The array of terms used to describe catch share management regimes can sometimes lead to confusion. Neither Congress nor NMFS has defined the term "catch share," but it is widely used colloquially. The earliest catch share programs used *individual transferable quota* (ITQ); then came *individual fishing quotas* (IFQs). Both use the term *quota share* (QS). The Northeast Multispecies (Groundfish) Fishery describes its sector program as a catch share program. More recently, Congress adopted another term, *limited access privilege programs* (LAPPs), which includes ITQs and IFQs but does not include sector programs; however, sector programs are still considered catch shares.³⁰

The U.S. Commission on Ocean Policy suggests using the term *dedicated access privilege* (DAP) instead of individual transferable quota (ITQ) or individual fishing quota (IFQ) to reinforce "the fact that fishing is a privilege, not a right;" to more accurately reflect that communities, groups, and businesses, not just individuals, can hold quotas; and to clarify that the privilege granted "is access to the fish, rather than the fish themselves."³¹

While NMFS does not require Councils to adopt catch share programs to manage fisheries, they are popular. Currently there are 17 catch share programs across the United States,³² with more under consideration. As with any fishery management plan, establishing a catch share program requires Councils to determine annual catch limits, such that the removal of fish at that level will not lead to population decline.³³

Upon approval by NMFS, Councils are authorized to implement a type of catch share program called a limited access privilege program (LAPP).³⁴ LAPPs distribute exclusive percentages of the annual catch limits to privilege holders.³⁵ LAPPs were not included in the Magnuson-Stevens Act until the 2007 MSA

Reauthorization Act,³⁶ well after the first catch shares were established.³⁷ Congress created LAPPs as a broader term to describe this type of fishery management plan and included ITQs and IFQs in its definition.³⁸

While there are no national standards regarding catch shares specifically, the MSA does provide requirements for how Councils should develop LAPPs:

303A(c)(5)(A) - Council[s] . . . shall establish procedures to ensure fair and equitable initial allocations, including consideration of -

- (i) Current and historical harvests;
- (ii) Employment in the harvesting and processing sectors;
- (iii) Investments in, and dependence upon, the fishery; and
- (iv) The current and historical participation of fishing communities;³⁹

303A(c)(5)(B) - Council[s] . . . shall also consider the basic cultural and social framework of the fishery, especially through -

- (i) The development of policies to promote the sustained participation of small owner-operated fishing vessels and fishing communities that depend on the fisheries; and
- (ii) Procedures to address concerns over excessive geographic or other consolidation in the harvesting or processing sectors of the fishery;⁴⁰

303A(c)(5)(C) - Council[s] shall include measures to assist, when necessary and appropriate, entry-level and small vessel owner-operators, captains, crew, and fishing communities through set-asides of harvesting allocations, including providing privileges, which may include set-asides or allocations of harvesting privileges, or economic assistance in the purchase of limited access privileges.⁴¹

Councils developing limited access programs must take into account:

- (A) present participation in the fishery;
- (B) historical fishing practices in, and dependence on the fishery;
- (C) the economics of the fishery;
- (D) the capability of fishing vessels used in the fishery to engage in other fisheries;
- (E) the cultural and social framework relevant to the fishery and any affected fishing communities;
- (F) the fair and equitable distribution of access privileges in the fishery; and
- (G) any other relevant considerations[.]⁴²



CAUGHT AT
SEWARD ALASKA

II

CATCH SHARE PROGRAMS AND THE MSA NATIONAL STANDARDS

The Magnuson-Stevens Act requires fishery management plans to be consistent with ten National Standards established in the law.⁴³ Each Council has the authority and flexibility to determine appropriate management measures for each fishery it manages consistent with the National Standards. All ten standards must be considered, but Councils generally have discretion to determine how to balance them.⁴⁴ Across all regions, fishery management plans include clear objectives to rebuild stocks and prevent overharvest to preserve the long-term viability of the fishery resource. However, many Councils have treated standards relating to social and economic sustainability and the participation of fishing-dependent communities as less crucial.⁴⁵ One fisherman interviewed for this report described catch share programs as “squeezing a balloon”—addressing one problem in the fishery while creating new ones, including undermining working waterfronts and making entry challenging for new generations of fishermen.⁴⁶

Two of the Magnuson-Stevens Act’s ten National Standards are particularly relevant to mitigating the negative effects of catch share programs on fishing communities and local economies: National Standard 4 on allocations of fishing privileges and National Standard 8 on fishing communities.

Magnuson-Stevens Act Requirements: National Standard Four

National 4 Standard

Allocations

Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privilege.⁴⁷

Under National Standard 4, when allocating fishing privileges, Councils are required to consider fairness, conservation, and competition concerns. In catch share programs, the conservation concern is addressed when the Council sets the annual catch limit—how shares are distributed within that limit has less effect on conservation than the limit itself. The main challenges in catch share programs come from parts (a) and (c) of National Standard 4—ensuring that allocations are “fair and equitable” and that no one “acquires an excessive share.” The MSA does not define “fair and equitable” or “excessive share.” Historically, courts deferred to NMFS’s interpretation of these terms so long as the agency’s interpretation was “reasonable.”⁴⁸

“Fair and Equitable” in Case Law

In 2021, the State of New York challenged NMFS’s approval of the Mid-Atlantic Fishery Management Council’s 2020 summer flounder allocation.⁴⁹ New York argued that the allocation violated National Standard 4 because NMFS used historical landings data from the 1980s to allocate each state a proportion of the summer flounder quota despite the summer flounder geographically shifting toward the waters off Long Island, New York.⁵⁰ The State claimed that the allocation was not “fair and equitable” to all fishermen because North Carolina and Virginia received larger proportions of quota even though more flounder were now located off the coast of New York.⁵¹

The court acknowledged the negative impact to New York but ultimately found that NMFS had balanced the “need to minimize the adverse economic impact on more southern states with the need to provide more equity to northern states in years of abundance.”⁵² The court reasoned that the tension between some of the National Standards coupled with the requirement to consider all ten standards meant “NMFS has broad discretion to strike an appropriate balance among all ten of the national standards.”

“Excessive Share” in Case Law

In 2020, the Ninth Circuit Court of Appeals upheld the NMFS 2.7 percent excessive share cap on quota shares in the Pacific non-whiting groundfish fishery.⁵⁴ Pacific Choice Seafood Company argued it was improper for NMFS to set a lower cap after considering multiple factors, including per-vessel profitability, when it would have been higher if the agency solely considered market power.⁵⁵ The court deferred to NMFS’s reasonable interpretation that the MSA enabled it to consider other factors, including the “sustained participation of small owner-operated fishing vessels and fishing communities that depend on the fisheries.”⁵⁶

Two aspects of catch share programs contribute to the challenges identified above: (1) the initial share allocation process; and (2) fishery consolidation during catch share implementation.

Initial Allocations

Establishing a catch share program requires setting catch limits, determining eligibility criteria for who may hold shares, and allocating portions of the catch among those who qualify. Initial allocations may be distributed based on allocation formulas or may be sold through auctions if the auctions do not violate the MSA’s “fair and equitable” requirement.⁵⁷

Each fishery has its own allocation method. A review of several programs (discussed below in Section III) demonstrates how the initial allocation can fall short of the goals included in National Standard 4:

- The initial allocation process can create the potential for individuals with advanced knowledge of upcoming fishery management changes to influence the process;
- Use of vessel history to determine initial allocations insufficiently captures contributions of all individuals in the fishery, including crew members; and
- Catch share programs often entrench a status quo in which some actors dominate the fishery and others struggle to participate because of differences in economic standing.

Consolidation

To prevent any individual from acquiring an “excessive share” of fishing privileges, many catch share programs limit the number of permits or proportion of quota shares an individual or entity can own or use. However, many quota share limits were introduced after initial allocation. As a result, significant consolidation had occurred before safeguards were put into place to prevent it. Degrees of consolidation vary considerably among fisheries.

Consolidation has significantly impacted communities as large fishing entities and corporate investors replace small fishing communities and independent fishermen.⁵⁸ This has caused substantial job loss, especially for hired captains, and make it harder for new entry into the fishery.⁵⁹ It also makes it difficult for existing participants to continue fishing when their allocation is too small to support their livelihood or maintain their vessel.

Magnuson-Stevens Act Requirements: National Standard Eight



Communities

Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that meet the requirement of [National Standard 2: using the best scientific information available], in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.⁶⁰*

A key challenge associated with catch share programs is their negative impact on fishing communities. Specifically, fishermen experience economic losses, which also impact working waterfronts and onshore businesses dependent on the fisheries, and diminished opportunities for fishery participation for existing crew and potential new entrants. While fisheries provide significant economic benefits to their communities, they also provide additional benefits, including “identity, belonging, sense of place and place attachment, pride in work, continuation of subsistence practices, food sharing, status and social capital, and maintenance of social networks, among others.”⁶² When a community loses these benefits, they can be difficult to regain.

NOAA acknowledges that the transition to a limited access privilege program “is a very difficult social and economic process”⁶³ that affects not only individual fishermen but also ports, fleets, processors, other fisheries-related industries, and the structure of fishing communities.⁶⁴ As external evaluators have found, it is often difficult—especially in mixed use fisheries—to “establish[] causation when evaluating the impacts of catch share programs.”⁶⁵ Moreover, catch shares are rarely the sole catalyst for changes in fishery conservation or fishing community wellbeing.⁶⁶ Ultimately, the impacts of catch shares programs depend on several factors, including setting an appropriate total allowable catch, monitoring, enforcement, and external events.⁶⁷

Catch share programs are often associated with their environmental benefits, which can overshadow the negative effects on communities.⁶⁸ However, it is difficult to ascribe discrete environmental outcomes to catch share programs.⁶⁹ Even where environmental benefits are demonstrated, NMFS is required to avoid or mitigate the negative effects of catch share programs on fishing communities.⁷⁰ The MSA does not elevate environmental benefits over other concerns. .

* *The Magnuson-Stevens Act defines a fishing community as “a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community.”⁶¹*



MSA Reauthorization: Strengthening Fishing Community Participation

When Congress reauthorized the MSA in 2007, it contemplated the social and economic interests of fishery-dependent communities. The reauthorized MSA allows fishing communities to acquire harvesting privileges in a limited access privilege program (LAPP) if they meet certain criteria. Fishing communities must “consist of residents who conduct commercial or recreational fishing, processing, or fishery-dependent support businesses within the Council’s management area” and “submit a community sustainability plan” that “address[es] the social and economic development needs of coastal communities, including those that have not historically had the resources to participate in the fishery.” Councils may establish additional criteria for fishing communities to participate in a LAPP.⁷¹



III

PROFILES OF FOUR CATCH SHARE PROGRAMS

Experiences from U.S. catch share programs can demonstrate the challenges these programs raise. Some challenges are common to different catch share programs; others vary depending on the design and implementation of individual programs. This report focuses on four catch share programs covering a range of regions and program designs.

The following four fishery profiles demonstrate the variety of catch share programs within the U.S., each with distinctive design features but similar challenges. However, in some cases, program design elements help mitigate the negative impacts to local fishing communities. This section describes each fishery and its catch share program before discussing common challenges across the four fisheries. The section then discusses individual challenges for each fishery.

- The Mid-Atlantic Surfclam and Ocean Quahog program has experienced a significant decrease in participating fishermen over time.
- The Gulf of Mexico Reef Fish program is highly polarized with a history of coercive practices.
- The Northeast Multispecies (Groundfish) program operates through sectors, which are self-governing groups of permit holders unique to this fishery.
- The North Pacific Halibut and Sablefish program supports fishing community participation through design elements that reflect the goals of the MSA.

The Mid-Atlantic Surfclam and Ocean Quahog Fishery



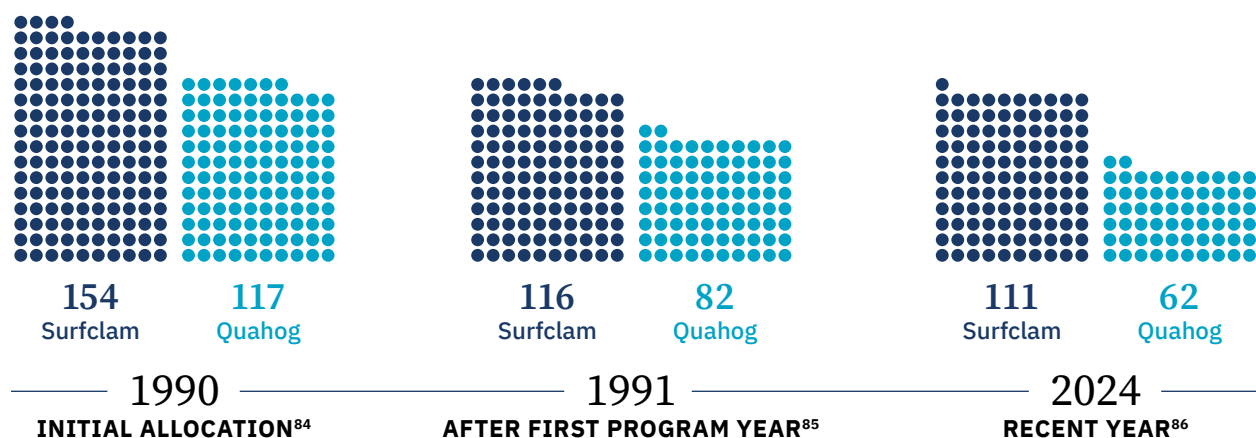
Before 1978, surfclams and ocean quahog were open access fisheries, which meant that anyone with a commercial fishing license could participate.⁷² In 1978, a moratorium on new vessels in the surfclam fishery restricted access⁷³ while the ocean quahog fishery remained open access through the 1980s.⁷⁴ Market demand for ocean quahogs remained lower than for surfclams and the harvest of ocean quahogs never reached the total allowable catch (TAC).⁷⁵ Before the individual transferable quota (ITQ) program went into effect in 1990 a few vertically integrated firms dominated both surfclam harvesting and processing (there was little ocean quahog industry at the time), while many small owner-operator vessels were financially dependent on those firms.⁷⁶

The initial ITQ allocation was based primarily on a vessel’s average historical catch between 1979 and 1988 to account for historical fishing practices and dependence on the surfclam fishery.⁷⁷ For surfclam, 80 percent of the allocation was based on the vessel’s average annual catch over the ten-year period, with the two lowest years excluded and the four best years counted twice. Emphasizing the good years and deemphasizing the worst years was meant to account for vessel breakdowns, loss of markets, and recent entry into the fishery. The remaining 20 percent was based on the vessel’s capacity, measured by the size of the vessel (length x width x depth).⁷⁸ The capacity served as a proxy for investment and addressed the concerns of newer participants who invested in larger vessels but lacked strong historical landings.⁷⁹

When the surfclam and ocean quahog ITQ program started,⁸⁰ it allowed allocations to be freely transferred with no limits on the amount of quota share any one entity could hold.⁸¹ Transfers could occur between fishermen, financial institutions holding ITQ shares as collateral, and within or between companies owned by the same entity.⁸²

A 2009 NMFS study found that while quota shares in the surfclam fishery were mildly concentrated and quota shares in the ocean quahog fishery were relatively unconcentrated, the actual use of quota share in both fisheries was highly concentrated due to larger entities leasing shares and fishing more than their quota shares allowed.⁸⁶

FIGURE 1.
NUMBER OF ENTITIES RECEIVING QUOTA SHARE BY FISHERY AND YEAR



The Gulf of Mexico Reef Fish Fishery



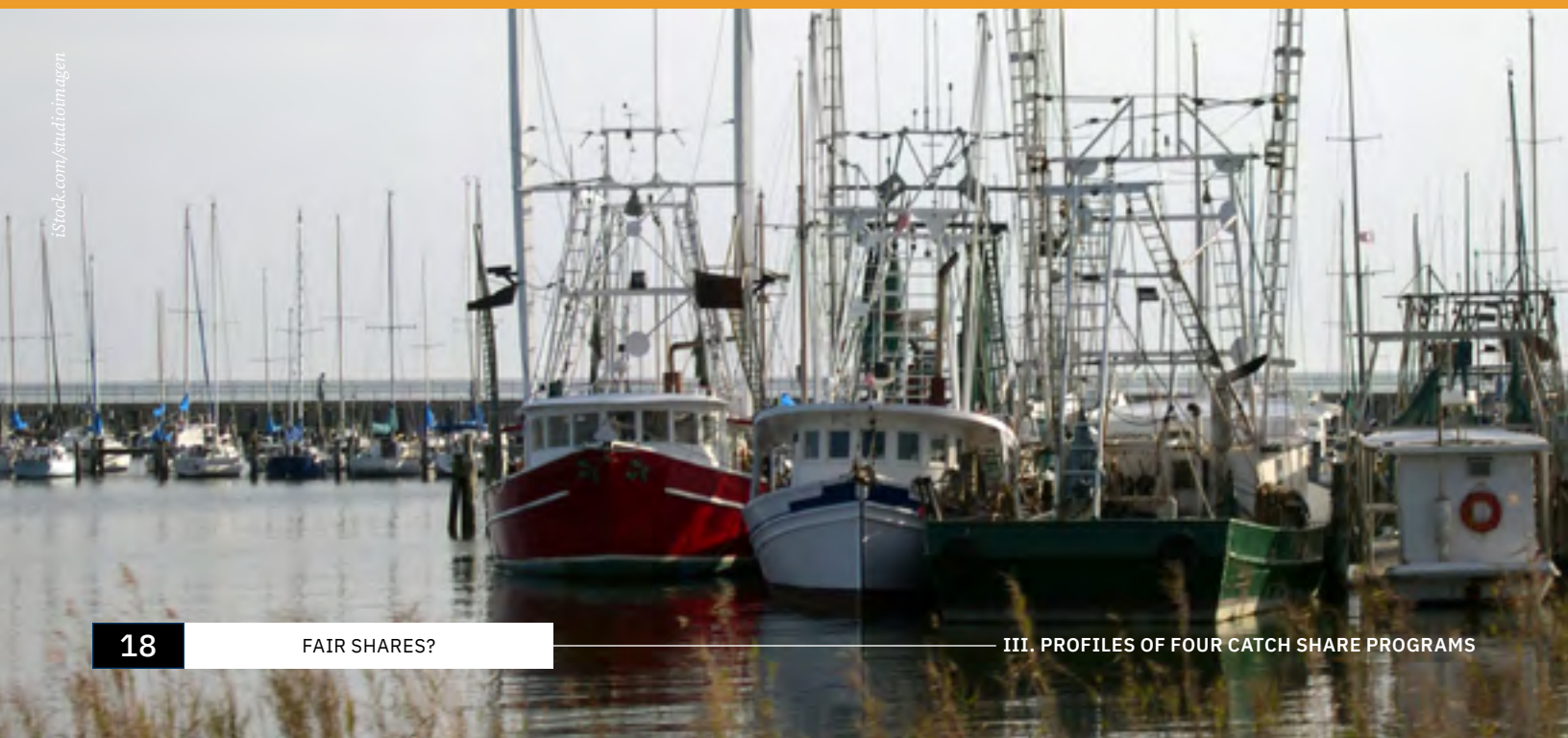
For the first five years of the red snapper and grouper-tilefish programs (2007-2011), anyone who possessed a valid Gulf federal dealer permit or Gulf commercial federal reef fish permit could participate in the fishery.⁸⁷

For the grouper-tilefish program, the Council issued shares based on landings reported during the 1994 through 2004 fishing years, excluding the lowest year.⁸⁸ The Council initially distributed red snapper shares to permit holders based on historical landings reported under each license during the qualifying period.⁸⁹

Shares are transferrable within both individual fishing quota (IFQ) programs.⁹⁰ Any red snapper or grouper-tilefish account may transfer shares or allocation regardless of whether the account has a reef fish permit, and there is no fee for transfers.⁹¹ Transferring an allocation is a one-step process that is complete once the transferor finalizes their side of the transaction.⁹² The transferee need not take any action.⁹³ Allocation transfers are only valid for the remainder of the year in which the transfer occurs.⁹⁴

The Gulf Council established an excessive share cap based on the maximum red snapper and grouper-tilefish shares issued to a single entity at initial apportionment.⁹⁵ The grouper-tilefish program also has an overall allocation cap, which corresponds to the sum of all the maximum allocations (in gutted pounds) of the share caps within five subcategories of grouper and tilefish.⁹⁶

Several measures indicate concentration within the fisheries since the IFQ programs were implemented. Approximately 15 percent of shareholding entities own nearly 37 percent of the vessels with permits to harvest IFQ species.⁹⁷ Overall fleet size has declined, with one fisherman estimating that the size of the Louisiana commercial fishing fleet had dropped from about 80 boats to six.⁹⁸ Additionally, share distribution is “highly unequal in every share category;” a few accounts have high percentages of shares, while others have very low percentages of shares.⁹⁹ The accounts with the highest share percentages for red grouper, blue tilefish, and deep-water grouper are at or near the share caps for those categories.¹⁰⁰



The Northeast Multispecies (Groundfish) Fishery



The groundfish fleet in the Northeast has been declining since the mid-1990s due to stricter fishing regulations. A 1994 amendment to the fishery management plan established a days-at-sea limit, enacted additional fishing gear requirements, and imposed a moratorium on new entrants.¹⁰¹ This amendment was implemented due to pressure from environmental groups to address overfishing and restore the groundfish stock biomass which had reached record lows.¹⁰² Under the days-at-sea system, the number of days each permitted vessel could fish in a year was limited¹⁰³ and days were allocated and repeatedly reduced based on landing history. Days-at-sea became transferrable by permit lease or sale and could be consolidated onto a single vessel.¹⁰⁴

In 2010, the Northeast Multispecies Sector Program was introduced to further address overfishing and support the rebuilding of fish stock.¹⁰⁵ This program allowed all owners of permitted vessels to opt out of the days-at-sea system by voluntarily joining a “sector.”¹⁰⁶ Sector fishermen benefit from exemptions to regulations that apply to common pool fishermen (those outside the sector system).¹⁰⁷ All permit holders with a limited access Northeast multispecies permit that was valid on May 1, 2008, are eligible for sector participation, regardless of whether they currently own a fishing vessel.¹⁰⁸

Fifteen of the twenty stocks managed under the Northeast Multispecies (Groundfish) Fishery Management Plan are allocated to sectors.¹⁰⁹ Each permitted vessel that joined a sector was allocated a potential sector contribution (PSC), determined by that vessel’s percentage of the total landings for each stock from 1996 through 2006.¹¹⁰

The catch privileges attached to vessel permits may be permanently transferred from one fisherman to another through the sale of a vessel.¹¹¹ Annual catch entitlement (ACE) is temporarily transferable between sectors with formal approval from NMFS.¹¹² Quota may also be temporarily transferred within a sector through informal lease agreements.¹¹³

KEY TERMS

ANNUAL CATCH ENTITLEMENT (ACE)	A portion of the total allowable catch (TAC) that is allocated to an individual sector for a given year.
POTENTIAL SECTOR CONTRIBUTION (PSC)	An individual vessel’s share of the TAC that is derived from that vessel’s fishing history and determined for the purposes of participating in a sector and contributing to that sector’s annual catch entitlement.
SECTOR	A group of three or more distinct persons holding limited access vessel permits, who have voluntarily entered into a contract and agreed to certain fishing restrictions for a specified period of time, and which has been granted a quota in order to achieve objectives consistent with the applicable fishery management plan goals and objectives.



In the initial allocation of the sector program, the majority of PSC for nine stocks was concentrated among the top 25 quota holders.¹¹⁴ The most concentrated stock was Georges Bank winter flounder, where 36 percent of the total PSC was controlled by just three entities.¹¹⁵

Consolidation in the fishery predates the catch share program but has intensified since the program's implementation.¹¹⁶ There was a 14 percent decrease in the number of vessels taking trips in the three years prior to implementation of the sector program, with a 22 percent decrease from 2009-2010 when the management program was transitioning.¹¹⁷ During the first five years of the sector program's implementation, there was a 37 percent decrease in the number of vessels taking trips.¹¹⁸

Decreases in the number of vessels taking fishing trips were inconsistent across vessel size, with smaller vessels between 30 and 50 feet experiencing the greatest reduction.¹¹⁹ These vessels take shorter trips and operate closer to shore. Additionally, the smallest vessels were the most likely to stop fishing and lease out their ACE. The largest vessels were the most likely to be able to afford to lease additional ACE,¹²⁰ further consolidating fishing effort within the larger vessel categories.

The Northeast Multispecies Sector Program includes excessive share restrictions. No entity may hold more than five percent of all limited access Northeast Multispecies permits issued year to year, and the program caps the total potential sector contribution at 15.5 percent.¹²¹ The program does not include any limits on an entity's share of permits or PSC for any individual stock. The 15.5 percent cap was based on the recommendation of Compass Lexicon, an economic consulting firm that the Council hired to analyze whether excessive shares and market power existed in the fishery and recommend an ownership cap limit.¹²² The Compass Lexicon report found that there was no evidence that market share was being

exercised.¹²³ However, an external independent peer review conducted by the Center for Independent Experts in 2014 found that Compass Lexicon’s research methods “do not meet standards of economic research” and advised against relying on them because of the MSA’s National Standard 2 requirement that “[c]onservation and management measures shall be based upon the best scientific information available.”¹²⁴

Landings and revenues of Northeast multispecies stock have generally been declining since the 1980s, and the downward trend continued during the first six years of the catch share program.¹²⁵ One fisherman interviewed for this report estimated that consolidation under the catch share program has eliminated 95 percent of boats actively fishing in the Northeast groundfish fleet.¹²⁶

Blue Harvest: Effects of Private Investment and Consolidation

A striking story of consolidation in the Northeast Multispecies fishery is that of Blue Harvest, a subsidiary of Dutch private investment firm Bregal Partners. In 2020, Blue Harvest acquired 12 vessels and 27 multispecies permits for \$25 million.¹²⁷ In 2022, Blue Harvest owned 12 percent of the total permitted catch for the entire Northeast Multispecies catch limit.¹²⁸ It is unknown how many shares Blue Harvest leased on top of the shares it owned. Blue Harvest filed for Chapter 7 bankruptcy in 2023, listing more than 2,200 parties as creditors, including fishermen, employees, municipalities, seafood companies, and hundreds of small to medium size businesses like supply stores, shipyards, and mechanics.¹²⁹ Blue Harvest sold off most of its assets before filing for bankruptcy and sent out a notice to creditors that “[n]o property appears to be available to pay creditors” and “[c]reditors cannot demand repayment.”¹³⁰

Permit Banks as a Mitigation Tool

States and nonprofit organizations have received grant funding from NMFS to establish permit banks to mitigate harms to small independent fishermen in the implementation of the catch share program. Typically, these permit banks offer annual catch entitlement associated with permits below market rate to fishermen who intend to actively fish and meet the eligibility requirements established by the permit bank.¹³¹

Only Maine and New Hampshire have developed state permit banks.¹³² Massachusetts and Rhode Island have developed loan funds to offer capital to commercial groundfish fishermen for vessel improvements and leasing annual catch entitlement.¹³³ While some permit banks can help small fisherman acquire quota or provide pathways for new entrants to access the fishery, their impact is often limited by the amount of quota they control.¹³⁴ Moreover, it remains unclear whether permit banks can truly prevent the negative social and economic impacts of consolidation from catch share programs or if they merely serve to mitigate those harms.

The North Pacific Halibut and Sablefish Fishery



The North Pacific Fishery Management Council recommended the Halibut and Sablefish IFQ program in 1991. The Council initially allocated catch shares to “qualified persons”—U.S. citizen individuals and entities that had made fixed gear landings of halibut or sablefish between 1988 and 1990 from any of the IFQ regulatory areas.¹³⁵ To receive an initial allocation, qualified persons were required to apply in 1994.¹³⁶ Initial allocations were determined by each qualified person’s landings for each species: for halibut, the best five of seven years from 1984 to 1990; and for sablefish, the best five of six years, from 1985 to 1990.¹³⁷ Allocations also depended on the regulatory areas where harvesting (and, optionally, processing) occurred, and on vessel size.¹³⁸ Quota shares were ultimately allocated to qualified persons based on participant type (individual or entity); vessel categories, primarily based on the size of the vessel and whether it could process the harvest on board; and regulatory areas.¹³⁹

The Council was determined to maintain an individual-owned and owner-operated fleet when developing the IFQ program.¹⁴⁰ Accordingly, the only quota share that may be leased is for vessels that process fish on board—vessels that were largely corporate-owned before the catch share program’s implementation and did not have the same community ties as other vessel classes.¹⁴¹ To preserve the connection between fishermen and coastal communities, generally, other quota share vessel classes may not be leased.¹⁴² There are a few exceptions to the prohibitions, including surviving spouses or beneficiaries of deceased quota shareholders and medical and military leases.¹⁴³

The Council also allows the use of a hired master to land halibut or sablefish.¹⁴⁴ A hired master does not hold a quota share but may legally fish under the authority of the shareholder’s permit.¹⁴⁵ There is a lengthy application process to become a hired master.¹⁴⁶ While not technically a leasing program, the hired master exception functions similarly to one.¹⁴⁷ This exception to the boots-on-deck rule aims to accommodate quota shareholders who had used hired masters prior to the IFQ program and allow them to continue their existing business practices.¹⁴⁸

KEY TERMS

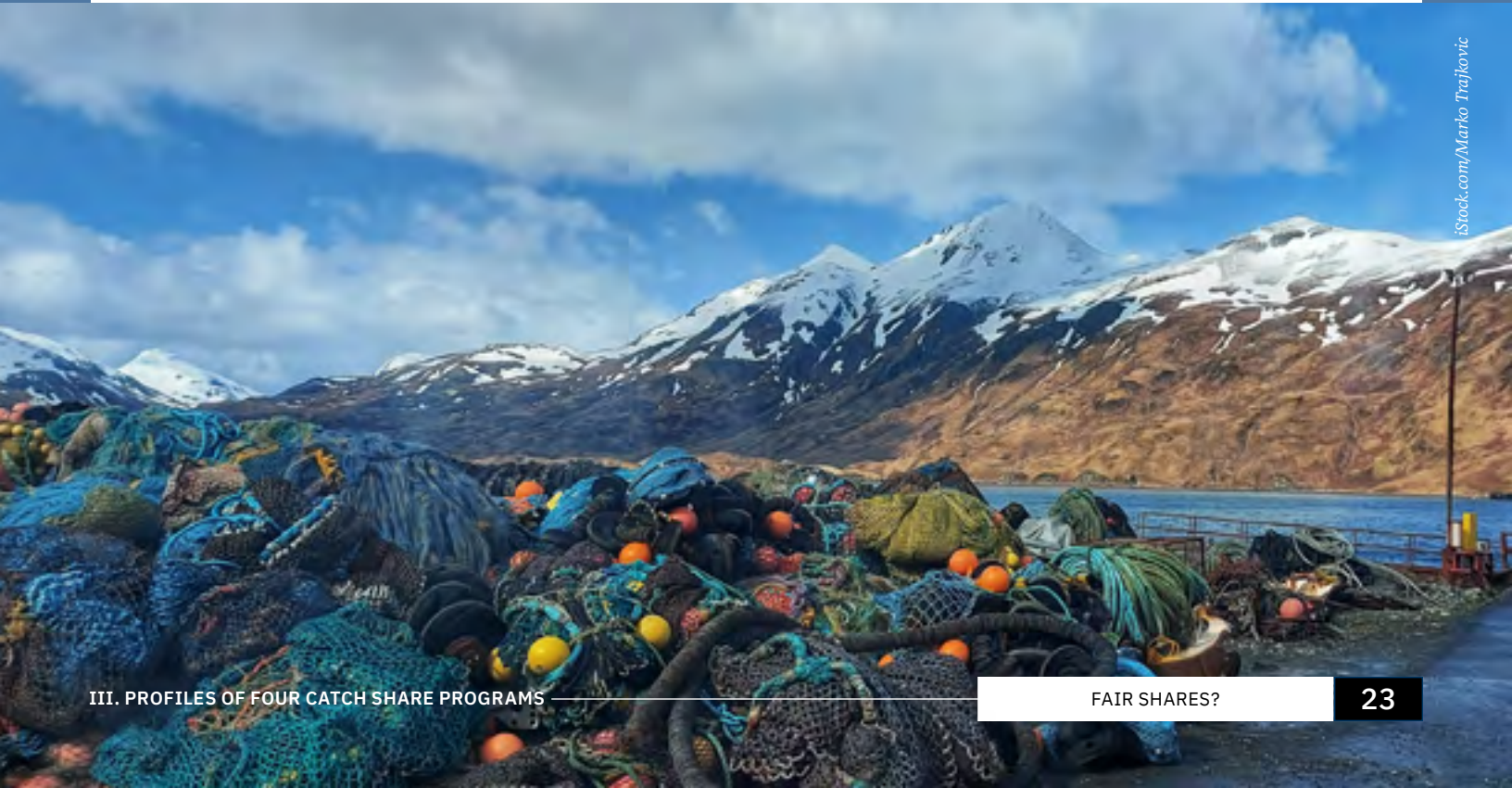
<p>COMMUNITY DEVELOPMENT QUOTA (CDQ)</p>	<p>A portion of the total allowable catch in certain halibut and sablefish regulatory areas allocated to an eligible community.</p>
<p>COMMUNITY QUOTA ENTITY (CQE)</p>	<p>A nonprofit entity formed by an eligible community in order to request permits or purchase commercial quota.</p>

Protecting Coastal Communities in the North Pacific Halibut and Sablefish Fishery

Two programs in Alaska aim to ensure that coastal communities can continue to access and derive benefits from catch share fisheries: the Community Development Quota (CDQ) program and the Community Quota Entity (CQE) program.

The Western Alaska Community Development Quota program was developed to allow the small, predominantly Alaska Native coastal communities closest to the productive fishing grounds of the Bering Sea and Aleutian Islands (BSAI) to benefit from the immense fishing activity occurring right off their shores. Six CDQ organizations representing different coastal regions were allocated portions of the total allowable catch of various species harvested in the BSAI, with a mandate to reinvest the profits from these allocations into community development efforts. To ensure continued participation for CDQ communities in the halibut and sablefish fishery, percentages of total IFQ allocation amounts are similarly set aside for CDQ communities. These set-asides range from 20 percent of the total IFQ to 100 percent in some management areas.¹⁴⁹

The Community Quota Entity program in Alaska was approved by the North Pacific Fishery Management Council in 2004 as Amendment 66 to the Gulf of Alaska (GOA) groundfish FMP.¹⁵⁰ Amendment 66 authorized the creation of CQEs in eligible communities along the coast of the Gulf of Alaska.¹⁵¹ Unlike the CDQ program, no initial allocation of fishing privileges was set aside for use by CQEs, so they are responsible for acquiring quota on their own. The CQE program can make quota share available in communities where fishermen may not be financially able to acquire quota share individually.



Common Issues Among Catch Share Programs

Despite differences in the history and geography across catch share programs, some common issues emerge in the implementation of catch share programs, which can undermine the programs' effectiveness at meeting MSA National Standards. These issues include ineffective share caps, challenges for smaller fishery participants to maintain their place in the fishery, high barriers to entry in the catch share program, and negative effects on crew members.

Current share caps fail to restrict consolidation in the fishery.

MID-ATLANTIC SURFCLAM AND OCEAN QUAHOG FISHERY

Excessive share caps entrench the status quo rather than limiting share concentration. In 2015—25 years after the initial allocation—NMFS found that the ITQ program was out of compliance with National Standard 4 because it lacked an excessive share cap. In response, the FMP was amended in 2022 to include an excessive share cap of 35 percent for surfclam and 40 percent for ocean quahog at the point of initial allocation.¹⁵² Quota shares remain freely transferable, but the amendment also introduced a cap on the total cage tags any entity can hold in a given fishing year at 65 percent for surfclam and 70 percent for ocean quahog.¹⁵³ No entity had ever exceeded the cap at the time the share cap was implemented.¹⁵⁴

GULF REEF FISH FISHERY

The share caps are ineffective at reining in consolidation. A five-year review of the Gulf IFQ programs found that “the existing [grouper-tilefish]-IFQ allocation cap does not effectively control concentration in a manner that is meaningful” and concluded that the current share and annual allocation caps “are not constraining landings.”¹⁵⁵ Essentially, lax regulatory constraints on transferring allocation during the year leads to landings far exceeding the share cap.¹⁵⁶ The review found that:

*With respect to shares, the largest producers (i.e., the largest groups of affiliated individuals and businesses) in every species group had landings that were almost always higher than the volume associated with the cap on shares. This means that they were able to obtain sufficient allocation through market transactions such that their landings were not only above their initial shares/annual allocation but also above the share cap for each species group.*¹⁵⁷

Furthermore, a single entity's ability to control multiple IFQ accounts makes it possible for concentration to exceed the share caps.¹⁵⁸ The Council monitors share caps at the lowest known entity level. Thus, “it is possible for one or more businesses to own or control share in excess of the cap in each category.”¹⁵⁹ Further, the lack of information gathered regarding vertical integration in the industry creates a potential for vastly underestimated concentration.¹⁶⁰

Smaller fishery participants are less able to maintain their participation in the fishery.

MID-ATLANTIC SURFCLAM AND OCEAN QUAHOG FISHERY

Small scale owner-operators may have limited their catch during the ten-year reference period used to determine initial allocations due to difficulty accessing markets. Competition from vertically integrated processors and large firms was a challenge before the catch share program began, which may have driven down historical landings for smaller operators.¹⁶¹

Additionally, leasing out quota in the fishery has historically been lucrative. From the beginning of the ITQ program, many small independent firms realized that “they could receive more money from leasing their ITQ quota share than from running their boats.”¹⁶² However, due to declining demand in the late 2000s, many of these firms have struggled to find lessees.¹⁶³

NORTHEAST MULTISPECIES (GROUND FISH) FISHERY

Fishermen have reported having to sell their shares because they could not make a living from small allocations and subsequent reductions in the TAC.¹⁶⁴

High costs are barriers to entry for new fishermen.

MID-ATLANTIC SURFCLAM AND OCEAN QUAHOG FISHERY

The high cost of acquiring ITQ quota after the initial allocation significantly limited opportunities for new participants to enter the fishery.¹⁶⁵

GULF REEF FISH FISHERY

One fisherman from the Gulf explained in an interview, “we see new fishermen get in and leave very quickly. Anyone who does the math will see it’s not feasible.”¹⁶⁶ He estimated that a fisherman would need to catch 50,000 pounds of fish per year to make an annual salary of \$150,000. To buy the quota shares needed for that amount of catch, the fisherman would have to pay \$40 per pound, which would come to a total of \$2 million dollars to enter the fishery. Another fisherman summed it up: “You’ve got to have at least a couple hundred thousand dollars to buy fish before you go fishing.”¹⁶⁷ He asserts that red snapper quota costs equal 80 percent of his red snapper revenue, and that the lower quota costs of grouper and tilefish are “the only reason we survive.”¹⁶⁸

“You’ve got to have at least a couple hundred thousand dollars to buy fish before you go fishing.”

NORTHEAST MULTISPECIES (GROUND FISH) FISHERY

Entry requires individuals to purchase a vessel with an eligible limited access northeast multispecies permit.¹⁶⁹

Northeast multispecies sector permits sell for over \$400,000.¹⁷⁰ The high costs of vessels and permits remain significant barriers.

Crew members are affected through lower earnings and inability to count their contributions to landings toward quota allocations.

MID-ATLANTIC SURFCLAM AND OCEAN QUAHOG FISHERY

The initial allocation system excluded non-vessel owners, despite the industry relying heavily on hired captains. During the 1980s, many owner-operator vessels were sold into larger fleets¹⁷¹ and were no longer captained by the vessel owners. When the catch share program was implemented, non-vessel owners received no quota share, despite their contribution to the historical landings of the vessels they captained.

Additionally, consolidation has reduced employment opportunities and earnings for hired captains and crew. Many hired captains lost their jobs when the ITQ program was implemented because they were ineligible for initial allocation, and vessel consolidation was a direct result of the ITQ

program.¹⁷² Within the first seven years of the ITQ program, the number of crew positions in the Surfclam and Ocean Quahog Fishery decreased from around 600 to around 250.¹⁷³ Most remaining active vessels leased more quota shares than their owners held, and the lease prices became part of the operating expenses, often coming out of the crew's share of revenue, reducing their overall earnings.¹⁷⁴

NORTHEAST MULTISPECIES (GROUND FISH) FISHERY

Crews face reduced earning opportunities. There has been an estimated 29 percent reduction in crew positions in the limited access multispecies fleet from 2007 to 2015.¹⁷⁵ This drop is consistent across all vessel sizes and all states except for Connecticut.¹⁷⁶ Estimating the impact of the sector program on employment is difficult due to limited data availability, as discussed in Section V.¹⁷⁷ There are no registries or permitting requirements for commercial fishing crews, and where data is available, it tends to be based on estimates rather than actual counts. Further, the cost of leasing additional permits to consolidate quota share is often passed on as an operating expense to the vessel crew.¹⁷⁸

Issues Specific to Individual Catch Share Programs

In addition to the common issues identified above, each fishery implementing a catch share program faces challenges specific to its own program design and implementation.

Mid-Atlantic Surfclam and Ocean Quahog Fishery

Some vessel owners' initial allocations included illegal harvests in their historical landing records. Reportedly, some fishermen who were caught and fined for illegal fishing still received credit for those landings in the initial allocation.¹⁷⁹

Using vessel catch histories rather than individual catch histories ignored high rates of vessel turnover. Basing ITQ calculations for initial allocations on vessel catch history excluded individuals with significant catch histories who had recently sold their vessels.¹⁸⁰ Ocean quahog vessel owners filed suit in 1990 arguing that this aspect of the initial allocation process violated National Standard 4 by unfairly treating similarly situated fishermen differently.¹⁸¹ Their suit was unsuccessful.¹⁸²

Gulf Reef Fish Fishery

Non-fishing shareholders can profit from the fishery without participating in it. Shareholders do not need to own a commercial reef fish permit.¹⁸³ These shareholders are called "public participants."¹⁸⁴ Public participants cannot fish, but they can buy, sell, and trade shares and allocation. Some refer to public participants as "armchair fishermen" because they can profit from the catch share program without leaving their homes.

Program implementation favored stakeholders with more influence or insider knowledge. A Gulf fisherman interviewee described a situation in which people who knew about the upcoming catch share program bought endorsements from other fishermen before the program started and were then entitled to those fishermen's catch histories when allocations were made.¹⁸⁵ Although catch share programs allow for public participation and debate, not all stakeholders had equal influence in this process.

Northeast Multispecies (Groundfish) Fishery

Ports experience the effects of fishery consolidation. All states and home ports in the fishery experienced declines in the number of vessels operating out of them.¹⁸⁶ The fishery also saw consolidation in crew home ports. In 2012, 76 percent of crew were working out of six ports: Gloucester, Massachusetts (36 percent); New Bedford, Massachusetts (11 percent); Portland, Maine (8 percent); Boston, Massachusetts (8 percent); Portsmouth, New Hampshire (7 percent); and Montauk, New York (6 percent). In 2018, 84 percent of crew were working out of just three ports: Gloucester, Massachusetts (33 percent); Boston, Massachusetts (27 percent); and Portland, Maine (24 percent).¹⁸⁷

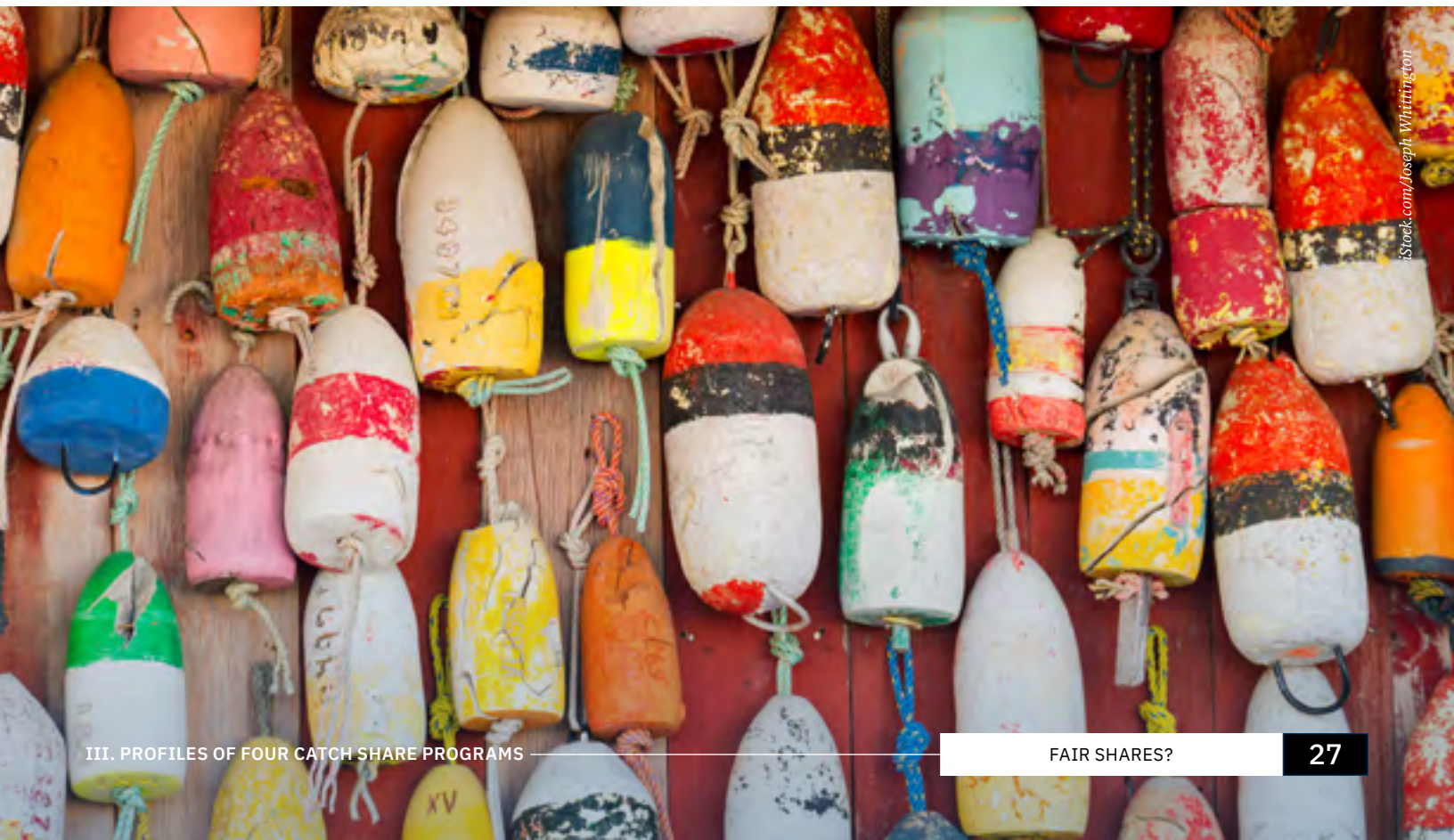
North Pacific Halibut and Sablefish Fishery

The North Pacific Halibut and Sablefish Fishery's catch share program avoids some of the pitfalls of other catch share programs through its intentional approach to maintaining community participation in the fishery. However, these approaches also present challenges:

The boots-on-deck requirement is a partial solution to the problem of absentee shareholders.

The IFQ's requirement that quota shareholders be present on the vessel for fishing trips¹⁸⁸ represents an effort to keep profits from fishing flowing to those who are actively engaged in the fishery; however, people find workarounds, such as shareholders riding in luxury cabins onboard while not fishing themselves.¹⁸⁹

Benefits to communities are not uniformly realized. A 2024 review of the IFQ program found that larger port communities with significant fishing history benefit from the program, "but many small, rural communities continue to have limited access to the IFQ fisheries due to lack of [quota share] by residents."¹⁹⁰



IV

SHAREHOLDERS CONFLATE CATCH SHARE PRIVILEGES AND PROPERTY RIGHTS

Historically, fisheries were treated as a public resource meant to be managed for the benefit of everyone. This allowed any fisherman with a permit to participate in fishing. While catch shares changed this approach through the allocation of shares that can be purchased, sold, leased, and traded, Congress preserved the treatment of fish as a public resource by defining catch shares as “privileges’ rather than property.”¹⁹¹ Under the Magnuson-Stevens Act, catch shares are “considered a permit” that provide “a grant of permission” from the government that can be “revoked, modified, or limited at any time” without compensation.¹⁹² Congress made clear that catch shares do not create any “right, title, or interest” to fish prior to harvest.¹⁹³ Consequently, catch shareholders possess only a limited interest in their shares even though they can be transferred.

Catch share programs create secure, long-term fishing privileges for quota holders. Some contend that the security of these privileges promotes resource stewardship, creates economic efficiency, and eliminates the “race to fish” culture of derby fishing.¹⁹⁴ Others suggest that catch shares create an opportunity for resource exploitation because they can negatively impact fishing communities, inequitably distribute shares, and are subject to limited oversight from the federal government. Despite the explicit language of the MSA, the portrayal of fishing privileges as long-term and secure has led some fishermen and policymakers to view them as a form of private property, which would entitle shareholders to rights that exceed those provided for under the MSA. This misconception undermines the MSA’s intent for fisheries to be managed as a shared resource for the benefit of the public.¹⁹⁵

Understanding Private Property Rights in U.S. Law

Property rights are often described as a “bundle of sticks”—a collection of rights defining what the owner may do with the property. This bundle includes the rights to use, exclude others, transfer, and keep others from taking or damaging the property without their consent.¹⁹⁶ A property right is a power or privilege that an entity (typically the property owner) holds with respect to a specific property. It governs the legal relationships between the owner and others regarding that property.

In U.S. law, property interests are constitutionally protected from government action by both the Takings Clause (Fifth Amendment) and the Due Process Clause (Fifth and Fourteenth Amendments). The Takings Clause requires the government to provide just compensation if it takes private property or severely restricts its use for public purposes.¹⁹⁷ For example, if the government decides it needs to construct power lines across private property to provide electricity to the public, it can condemn a portion of private property but must provide the owner with just compensation.

The Due Process Clause prohibits the government from depriving any person of a protected property right without due process of law.¹⁹⁸ If a property right has been created that requires due process, the government can cease the contract or cancel an entitlement but must allow the property holder the ability to challenge the determination through some process. The level of process due can vary widely depending on the type of property interest at stake.

The scope of property interests protected by the Due Process Clause is broader than that protected by the Takings Clause.²⁰⁰ Courts have determined that catch shares are protected under the due process clause but are not compensable property interests under the Takings Clause. This reinforces Congress's clear intent in the MSA that the government can revoke, limit, or modify the share privilege at any time without compensation so long as it provides due process.

How are Catch Share Allocations Similar to Property?

The hallmarks of a property interest are *exclusivity*, *transferability*, and *irrevocability* (sometimes called *security of interest*).²⁰¹ Some have raised concern that catch share programs have been treated as though they create a private property right out of a public resource.²⁰² Although quota shares are not private property, they resemble private property in ways that create the illusion of ownership. For example, they:

- Grant the shareholder exclusive access to the portion of catch allotted to them;
- Grant the shareholder the right to transfer shares by buying, selling, or leasing;
- Are renewable year after year (unless the shares are revoked, limited, or modified by the fishery management plan);
- May be purchased through auctions or royalty programs;
- Are available to buy through federal financing programs.²⁰³

When Councils issue permits under a limited access privilege program (LAPP), they grant an *exclusive* harvesting privilege to the permit holder.²⁰⁴ In other words, that share entitles the shareholder to a definite fixed percentage of the annual catch limit.²⁰⁵ No other fisherman may harvest the portion of the total allowable catch set aside for the shareholder.

Catch shares are *transferable* through sale or lease.²⁰⁶ “Transferability allows any right-holder to allocate his time and attention to the fishery in accordance with the other uses of his time and capital.”²⁰⁷ Catch share programs allow shareholders to transfer ownership of their quota share and/or the use of their annual harvest privilege for a given year. In other words, “[t]ransferability can apply to both the enduring privilege and the annual catch privilege.”²⁰⁸

Many fisheries, like the Gulf of Mexico Reef Fish Fishery, have few restrictions on the transferability of shares beyond having a share cap.²⁰⁹ For example, in the Gulf, transfers are restricted if they would result in one entity holding more than 6.0203 percent of the total shares.²¹⁰ Transfer recipients need only meet minimum requirements to participate in the fishery as shareholders, such as having valid vessel permits and being U.S. citizens.²¹¹ By contrast, the Alaska Halibut and Sablefish IFQ program applies more restrictive rules for transferring shares based on the class of quota share held.²¹²

Security of interest (also called *irrevocability*) is the third hallmark of property rights. It refers to how confident an interest holder can be that their interest (in this case, their quota share) will not be taken away by the government. Factors that affect the security of an interest include the duration of the interest and how easily it can be revoked. The MSA specifies that limited access privileges granted after January 12, 2007, may be granted for up to ten years and are indefinitely renewable unless revoked, modified, or limited by statutory authority.²¹³ This structure sets up a reasonable expectation on the part of shareholders that they will maintain their quota shares for a long period.

While the plain language of the MSA provides that a quota share issued under a LAPP is revocable,²¹⁴ the security of interest in quota share is strengthened due to the limitations on revoking it. The limited access privilege may be revoked only for reasons specified in the MSA and only after an opportunity for notice and hearing.²¹⁵ In practice, Councils rarely revoke quota shares despite their explicit authority to do so. As one example, under the Halibut and Sablefish IFQ program, the Council revoked quota shares due to erroneous allocations and failure to pay fines.²¹⁶ Additionally, the North Pacific Fishery Management Council revoked about 2,000 pounds of shares in 2012 from “inactive” quota shareholders who had neither fished nor transferred their shares.²¹⁷

Legal Precedent Regarding Catch Share Property Rights

As mentioned above, despite their property-like characteristics, catch shares are not compensable private property because the government may revoke, limit, or modify them. Congress established this important distinction in the plain language of the MSA, which courts have recognized in the context of a takings claim. However, in dissolution and due process claims, courts have treated catch shares like property, likely contributing to confusion on this topic.

The MSA is unambiguous. A limited access privilege “shall not create, or be construed to create, any right, title, or interest in or to any fish before the fish is harvested by the holder.”²¹⁸ Catch shares are permits, free to be revoked, limited, or modified at any time and confer no right to compensation in such an event.²¹⁹ Nevertheless, the perception of property has led to litigation under the Takings Clause of the Fifth Amendment. Under this argument, the Takings Clause would not preclude the government from revoking quota share or making significant changes to management plans, but it would require the government to compensate affected shareholders. As the case law makes clear, the language of the MSA forecloses this claim, even as courts recognize due process protections for quota shareholders.

Catch shares are permits, free to be revoked, limited, or modified at any time and confer no right to compensation in such an event.

CASE LAW ANSWERS THE QUESTION: ARE CATCH SHARES PRIVATE PROPERTY?

A string of cases examining the status of catch shares and fishing permits demonstrates the distinction courts have drawn between recognizing due process rights in catch shares and rejecting the claim that catch shares give rise to compensable rights under the Takings Clause.

1996

Ferguson v. Ferguson

In a marital dissolution case in Alaska, the court treated interest in an IFQ as marital property.²²⁰ It distinguished between the fish themselves, which do not become property until they are captured, and the IFQ, which “has value independent of any fish that may or may not be caught.”²²¹ The court noted that the question of whether IFQ could be considered marital property is distinct from whether it can be considered property for Fifth Amendment takings analysis.²²²

1998

Foss v. National Marine Fisheries Service

In *Foss*, the court recognized a property interest in quota shares for the purposes of due process.²²³ It held that the plaintiff met the objective qualifications for holding an IFQ permit, so his entitlement to the permit was not subject to agency discretion.²²⁴ Therefore, he had a protectible property interest for procedural due process purposes, even though “the language of the Magnuson Act does not confer any claim of entitlement or property rights.”²²⁵

2004

American Pelagic v. United States

The plaintiff invested in a vessel and planned to enter the mackerel fishing industry.²²⁶ Due to concerns about the size of the vessel and its impact on the Atlantic mackerel and herring fisheries, the Council permanently revoked the plaintiff’s vessel permits.²²⁷ The plaintiff filed suit asserting a property right and claiming that the government revoking the fishing permit constituted a taking.²²⁸ The court held that the language in the MSA does not confer a property right when granting fishing privileges.²²⁹ Further, the court noted that the federal restrictions were part of the existing context in which the plaintiff decided to invest in the vessel.²³⁰ *American Pelagic* considered fishing permits, not quota share specifically.

2018

Pacific Choice Seafood Company v. Ross

NMFS notified a fishing company that it held quota share in excess of the limit set in the relevant fishery management plan and required the company to divest some of its shares or risk them being revoked.²³¹ The plaintiff company brought claims against NMFS on several bases, including that the agency’s definitions of “ownership” and “control” violate common law principles of corporate property ownership, relying on *Foss* to show that quota shares are property.²³² The court in *Pacific Choice* clarified that *Foss* does not prohibit NMFS from limiting, modifying, or revoking catch shares so long as the agency provides adequate due process to the shareholder when it does so.²³³

2023

Fishermen’s Finest, Inc. v. United States

The plaintiffs held LAPP permits in the Bering Strait and Aleutian Islands management region.²³⁴ They filed a claim for compensable taking after their potential catch was restricted due to regulatory reasons.²³⁵ Plaintiffs argued that, unlike the fishing permits at issue in *American Pelagic*, the permits from a catch share program are property because they are transferable and exclusive, hallmarks of a compensable property interest.²³⁶ In holding for the government, the court found that Congress’s express language in the MSA overrode the argument that a property right exists simply because the privilege is imbued with the characteristics of private property.²³⁷ Moreover, “the Supreme Court has also found that express statutory language can prevent the formation of a protectable property interest.”²³⁸

Challenges Presented by Perceptions of Catch Shares as Property

Fishing businesses rely on the property-like nature of catch shares and their long-term value. For example, entities can secure federal funding to purchase shares and use those shares as the primary collateral for those loans.²³⁹ The holder has a financial interest in something that is expected to retain its value. The commodification of fishing privileges and inability of holders to recover a lost investment in the case of program modification or revocation creates a barrier to amending fishery management plans that include catch shares.

As discussed above, the law does not confer a compensable property right to a quota shareholder, so Councils can legally amend fishery management plans without having to compensate affected permit holders. However, the common misperception of a compensable property right can make it challenging to amend these plans.

The process to amend a plan is a collaborative one where the Council gathers input from stakeholders, consults advisory committees and scientific councils, and conducts public hearings to solicit comments and alternatives.²⁴⁰ Catch shareholders who stand to lose from program changes are likely to oppose any changes in this participatory process, which makes reforms challenging. The Gulf of Mexico Reef Fish IFQ program initially excluded the public from participation. When the Council allowed public participation five years after the program's implementation, the market for catch shares had already attracted substantial investment, which inflated quota prices, and created steep financial barriers for traditional fishermen.²⁴¹

Under the Gulf program, participants were initially required to hold both a commercial fish permit and a quota share to legally harvest fish.²⁴² This structure burdens small-scale, independent fishermen who often cannot afford to purchase quota shares. As a result, they often lease these fishing rights from large shareholders who reportedly hold 75 percent of the total quota.²⁴³ These lease agreements sometimes require the fishermen to then sell their catch back to these same quota holders at deflated prices, which can land them in a cycle of financial dependency.²⁴⁴ Reforms in this area have been slow despite several proposed amendments to the Gulf program.²⁴⁵ Fishermen who have expressed concerns at council meetings have experienced retaliation.²⁴⁶

The Public Trust Doctrine

Fisheries are generally considered a public resource, a concept based on the public trust doctrine. Under the public trust doctrine (PTD), the government acts as a trustee of natural resources, responsible for managing them as long-term stewards for the benefit of both present and future generations.²⁴⁷ These resources are considered inalienable and non-transferable.²⁴⁸ The PTD serves as a defense against takings claims involving public resources, since those resources are not privately owned.²⁴⁹

The MSA incorporates public trust duties into its national standards, which apply to all management decisions. Through the MSA's delegation of management authority to the states, each state develops its own standard for interpreting and applying the public trust doctrine.²⁵⁰ Some states, such as Pennsylvania, North Carolina, California, Wisconsin, Montana, and Hawaii, explicitly incorporate public trust doctrine principles in their constitutions.²⁵¹ Many other states recognize public trust principles through legislation or court decisions.²⁵²

V

TRANSPARENCY AND DATA COLLECTION

Fishing communities, advocates, and policymakers have expressed concerns about the potential negative effects of catch share programs. However, public access to data that could help assess those effects is limited. Each Regional Fisheries Management Council is authorized to design and implement its own catch share program, resulting in inconsistency across the regions regarding what data is collected, how it is collected, and how it is compiled. Additionally, transparency remains a barrier to implementing measures to achieve objectives embodied in the Magnuson-Stevens Act's National Standards. The inconsistency among Councils and lack of transparency limits the public's ability to review the potential negative effects stemming from initial allocations and subsequent consolidation of fishing rights within catch share programs.

Excessive share limits cannot be enforced without collecting detailed shareholder information. Under the MSA, Councils have an obligation to establish protocols for monitoring quota ownership, sales, and leases to ensure that shareholders do not exceed the established share caps.²⁵³ To fulfill this obligation, Councils should require shareholders and prospective shareholders to report key information, such as the names of "all owners of vessels which use privileges, all owners of each unit of privilege, all subsidiaries and parent corporations of any participating corporate vessel or corporate owned privilege, and all employers of individuals owning participating vessels and privileges."²⁵⁴

As demonstrated by the example of Blue Harvest's amassing of catch shares in New England (see page 21), without such reporting, corporations can use complex webs of subsidiary relationships to obfuscate and circumvent share caps. Similarly, this information must be collected to account for the fact that a vessel may have multiple owners, and that an owner may have multiple vessels in the same fishery.²⁵⁵

What Information is Publicly Available?

Data collection for commercial fishery landings is a joint effort among federal, state, and interstate agencies and public access to this data is often limited.²⁵⁶ State fishery agencies are the primary collectors of data, and each state surveys and collects data differently. The information that is collected and broadly accessible by the public across all Councils with catch share programs includes:

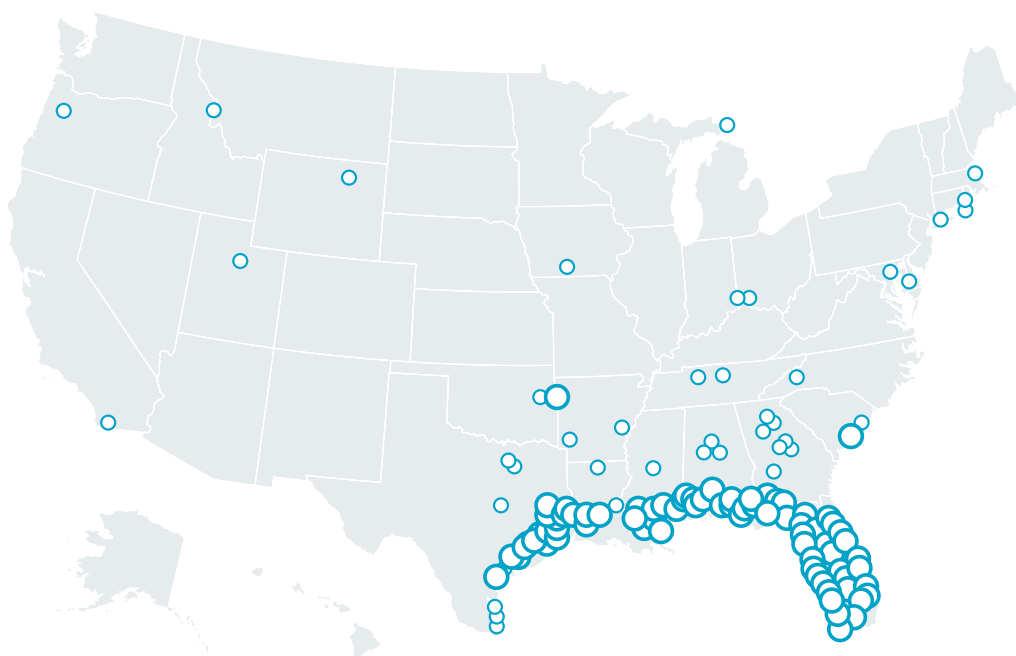
- Current annual catch limits and species specifications.²⁵⁷
- Permitted entities, including individual owners, vessels, dealers, and operators for the current year. This information is often used by other fishermen interested in transferring allocations and includes permit number, vessel name, owner name, address, telephone number, and the fisheries in which the vessel will operate.²⁵⁸
- Non-confidential landings statistics for each stock for the current year, which may include percentage of quota landed, percentage of quota remaining, and weight and dollar value of landings.²⁵⁹
- Fishery management contact information.²⁶⁰

What Information Is Not Available?

Currently, the lack of uniform data collection creates a significant transparency gap that limits meaningful stakeholder engagement. Critical information about quota concentration, transfer prices, shareholder demographics, and corporate ownership structures remains difficult to access due to inconsistent records and data released only in aggregate form. This opacity limits public participation in fisheries management and may allow entities to exploit loopholes to accumulate excessive shares.

Geographic data. Currently, NMFS does not publish comprehensive data on the geographic locations of permit and quota holders, beyond mailing addresses (which are often PO boxes).²⁶¹ Figure 1 shows the locations of shareholder mailing addresses for Gulf Reef Fish. Most are clustered near the Gulf Coast, but many are located in distant states. From this information alone, it is difficult to determine what shareholders' ties are to Gulf fishing communities or how much of the quota share value is held in the Gulf region. Without further data, the agency is unable to effectively assess the level of participation by local fishing communities or to identify potential barriers to entry for emerging participants.

FIGURE 2.
DISTRIBUTION OF GULF REEF FISH SHAREHOLDERS BY MAILING ADDRESS²⁶²



Detailed ownership. The identities of individuals behind corporate or LLC entities are not fully disclosed, making it difficult to track whether these individuals are exceeding share caps. For example:

- The list of IFQ Gulf Reef Fish Accounts includes the primary contact associated with each permit but does not include any additional individuals or businesses associated with the account.²⁶³
- The Southeast Regional Office manages its IFQ program through shareholder accounts, which may consist of individuals, partnerships, or multiple businesses. No two accounts can consist of the same combination of people or businesses, yet individuals and entities may be shareholders in multiple accounts.²⁶⁴ While the Southeast Regional Office collects owner information for each business, including parent company information and the percentage of shares held by each party, this information is not made readily available to the public.²⁶⁵ This lack of transparency makes it difficult for the public to identify related accounts and complicates efforts to assess the distribution of permits or quota.

Detailed data on transfers of IFQs. For each IFQ transfer across all catch share programs, NMFS generally records the identifying information of both the transferor and transferee, as well as the allotment amount (in pounds), the price, and supplemental information such as the relationship between the parties.²⁶⁶ However, misreporting or underreporting prices has historically been a problem in some fisheries, making it difficult to accurately determine the value of the annual harvesting privileges.²⁶⁷

- The Mid-Atlantic Surfclam and Ocean Quahog fishery does not provide detailed information on cage tag usage or transfers that have been processed during the fishing year. The data available to the public reflects only the initial ocean quahog allocation for the fishing year.²⁶⁸
- The Northeast Multispecies Sector Program records and makes available to the public the transfer of annual catch entitlement between sectors, but not temporary transfers of personal sector contributions between individuals within a sector, which are not reviewed by NMFS.²⁶⁹

Detailed information about the captain and crew. Collecting information on the captain and crew conducting the harvest and landing would create a record of their participation in the fishery, which could potentially be used as a basis for gaining access to quota share for allocations or reallocations that consider historical participation.

The MSA mandates that “[t]he Secretary shall, by regulation, prescribe such procedures as may be necessary to preserve the confidentiality of information submitted in compliance with any requirement or regulation under this Act.”²⁷⁰ At the same time, a stated policy goal of the MSA is to “enable the States, the fishing industry, consumer and environmental organizations, and other interested persons to participate in and advise on, the establishment and administration of [fishery management] plans.”²⁷¹ NMFS is generally authorized to release only aggregate or summary data that does not “directly or indirectly disclose the identity or business of any person who submits such statistics.”²⁷² However, a 2024 amendment to the confidentiality regulations provides an exception.²⁷³ It allows the disclosure of data that was “required to be submitted to the Secretary for any determination under a limited access privilege program (LAPP).”²⁷⁴ While transferred or leased catch shares are recorded with each Council, the extent to which this information is made available to the public may vary depending on their use in the LAPP determinations. In practice, such information is still often released in aggregated formats, such as the annual transfer summary catch entitlements in the Northeast Multispecies Sector Program.

The reliance on aggregated data makes it challenging to determine the impacts of catch share programs on fishing communities necessary to determine consistency with the National Standards. Access to finer-grain data is essential for meaningfully engaging stakeholders in the fishery management process and for enabling communities to see how they are being impacted by management measures.²⁷⁵

Barriers to Data Transparency

Deficits in the collection and standardization of data within NMFS impede the type of data transparency that would enable meaningful public engagement with catch share program policies.

These barriers include:

Lack of investment in the non-economic social sciences within NMFS. Some important effects of catch share programs, such as quality of life, community stability, and preservation of cultural values and traditions, can be challenging to address because of the difficulty in translating the impact into a reliably measurable value.²⁷⁶ In addition, NMFS needs to invest in staffing social scientists to assess and integrate socio-economic data.²⁷⁷

Deficits in data acquisition. As noted above, confidentiality provisions in the MSA²⁷⁸ limit the public's access to information that would help stakeholders scrutinize and provide feedback on regulatory decisions. (A ProPublica investigative report on consolidation within one catch share program illustrates the significant time and resources required to determine quota ownership from currently available data—and the reporters were ultimately unable to discern quantities of leased shares at all.²⁷⁹)

Although NMFS allows some commercial fisheries data to be downloaded, the lack of standardized formatting of these datasets limits the ability of third parties to conduct comprehensive analyses.²⁸⁰

Any additional data collection efforts by NOAA, particularly those involving demographic data, are subject to the Paperwork Reduction Act, which manages what information federal agencies can collect from the public.²⁸¹

Voluntarily submitted data creates challenges for assessment due to concerns about how representative it is of the participant population as a whole.²⁸¹

Barriers to Data Comparability Across Fisheries

There is substantial variation across the eight regional management areas in terms of how permits and quotas are defined and used, how data is collected, and what data is made available.²⁸³ This makes it difficult to compare the impacts of catch share management plans across regions and to assess these impacts on a national level to help inform future policy decisions. These barriers include:

Numerous data streams. The National Academy of Sciences has reported that NMFS uses 565 different forms and surveys to gather information relevant to assessing the distribution of benefits derived from permits and quota.²⁸⁴ Approximately 200 of these forms are permit applications, each collecting varying types of information.²⁸⁵

Inconsistencies in decision making transparency. In the Northeast Multispecies Sector Program, NOAA is removed from direct management of each sector. As a result, sector decisions can be less transparent than what would be required of a federal agency.²⁸⁶

Inconsistencies in providing historical data. Some datasets are available only for the current year,²⁸⁷ complicating long-term analysis.

Inconsistencies in available information on quota transfers. The Northeast Multispecies Sector Program publicly discloses the transfer of catch entitlements between sectors, but not intra-sector

transfers.²⁸⁸ The other fisheries profiled in this report lack public records on quota transfers, making it difficult for stakeholders to track changes in catch allocations, understand market dynamics, or assess how these transfers affect fishing communities.

Regulations that limit public access to government fisheries data make it difficult for third parties to collect and publish data that would help stakeholders understand the impacts of catch share programs in their communities.²⁸⁹ This lack of transparency not only presents difficulties for industry stakeholders but also affects federal oversight. Congress relies on comprehensive, reliable data to provide meaningful supervision over the management of public resources. Comprehensive data across all Regional Fishery Management Councils is necessary to adequately assess the unintentional adverse effects of catch share programming and to enable cross-program comparisons that could inform the future of catch shares policy.



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VI

OPPORTUNITIES FOR UNIFORMITY AND ACCOUNTABILITY

Through the Magnuson-Stevens Act (MSA), Congress delegated significant authority to NMFS and the eight Regional Fishery Management Councils (RFMCs) to design and implement catch share programs. This broad latitude allows each Council flexibility to account for regional differences and to experiment with different approaches to best meet the MSA's National Standards within that fishery. After several decades of this experimentation since the first federal catch share program introduced in 1990 and the reauthorization of the MSA in 2007, evidence suggests that certain parameters of catch share programming could benefit from clarification and standardization at the national level. Much like the National Standards that already apply to fisheries broadly, national parameters for catch share programs could help ensure greater uniformity and accountability across RFMCs.

Areas to Improve Consistency Across Catch Share Programs

While flexibility is a key component of the MSA, the lack of federal guidelines for designing and implementing LAPPs makes it difficult for Congress to effectively oversee whether Councils are meeting their obligations under the National Standards. NOAA provides regulatory guidelines on implementing the National Standards for fishery management plans generally,²⁹⁰ which could include additional guidelines specific to identified issues in catch share programs.

Data Collection

The MSA requires the RFMCs to specify pertinent data that will be submitted to the Secretary, which may include—but is not limited to—information about the gear used, amount of catch by species, the area and time of fishing, number of hauls, and economic data necessary to meet the requirements of the MSA.²⁹¹ However, the MSA also defers to the Councils in establishing LAPPs, recommending that they consider both present and historical participation in the fishery as well as its economic characteristics.²⁹² Much of the language in the MSA regarding data collection is ambiguous and offers little guidance as to what should be collected, instead referring those decisions to the RFMCs. The MSA does not specify a format in which the data should be presented and currently has no centralized location for accessing uniform catch share data across all RFMCs. Nevertheless, National Standard 2 clearly states that “conservation and management measures shall be based upon the best scientific information available.”²⁹³

RFMCs are required to conduct a detailed review of a fishery management plan (FMP) five years after implementation, and at least every seven years thereafter.²⁹⁴ However, the lack of standardized guidelines for data collection, especially regarding socio-economic data, and differing requirements across programs limit these reviews, making it difficult to compare catch share programs. Transparency and

consistent information are essential for independent review of catch share programming, meaningful public participation, and implementing effective reforms.

Clarifying Vague and Undefined Terms

National Standard 4 calls for management measures that prevent any entity from acquiring an “excessive share,” but the term remains undefined in the MSA.²⁹⁵ This has led to inconsistent caps on excessive share across FMPs where shareholdings range from 2 to 40 percent depending on the fishery, and some programs allow leased shares up to 65 to 70 percent. Furthermore, some programs do not cap leased shares, while others prohibit leasing shares entirely.

TABLE 1.
**EXCESSIVE SHARE CAPS BY FISHERY
(AS A PERCENTAGE OF TOTAL ALLOWABLE CATCH)**

FISHERY	EXCESSIVE SHARE CAP (OWNERSHIP ONLY)	EXCESSIVE SHARE CAP (INCLUDING LEASED SHARES)
MID-ATLANTIC SURFCLAM	35%	65%
MID-ATLANTIC OCEAN QUAHOG	40%	70%
NORTHEAST MULTISPECIES (GROUND FISH)	5% ownership by person, poundage limit by vessel	No limits on intra-sector leasing; inter-sector leasing must be approved by NOAA Fisheries
GULF REEF FISH	Varies by species category, from about 2% to about 15%	No cap on accumulating Red Snapper allocation throughout the year. 6% aggregated cap of total Grouper Tilefish allocation on an annual basis. ²⁹⁶
NORTH PACIFIC HALIBUT AND SABLEFISH	Quota shares are organized into “blocks,” with a 3 block limit for halibut and a 2 block limit for sablefish	No leasing for most type of shares (with some exceptions); leasing permitted for vessels that process the catch onboard

In the Gulf Reef Fish program, shareholders can circumvent the cap by purchasing additional allocation during the fishing year, as the excessive share cap in this program is an *ownership* cap but not a cap on leasing or landings. For many years, there was no excessive-share cap in the Northeast Multispecies program, which allowed fishermen like Carlos Rafael (known as the “Codfather”) to control around 20 to 25 percent of the entire fishery.²⁹⁷ In May 2017, an amendment to the program set an excessive-share cap at 15.5 percent of the average Potential Sector Contribution (PSC) across all allocated groundfish stocks.²⁹⁸



The Mid-Atlantic Surfclam and Ocean Quahog ITQ program has already been found non-compliant with National Standard 4 because its FMP did not designate any excessive-share cap.²⁹⁹

RFMCs are also obligated to assign fishing privileges in a “fair and equitable” way.³⁰⁰ Although fairness and equity are undefined in the MSA, RFMCs are directed to consider current and historical harvest, participation in the fishery, employment, and dependence on the fishery.³⁰¹ The MSA states that allocations must be made in a way that “deter[s] any person or other entity from acquiring an excessive share of fishing privileges” or gaining “inordinate control, by buyers or sellers, that would not otherwise exist.”³⁰² To limit confusion, NMFS could define these terms with criteria to ensure the goals of the MSA are achieved.

Dispelling the Perception of a Property Interest

All catch share programs have property-like characteristics in that shares grant an individual or entity exclusive access to fish a quota amount, shares are transferable by sale or lease, and they are rarely revoked. As discussed in Section IV of this report, the MSA precludes the creation of a property interest that would legally require compensation if taken by the government. However, many entities make significant investments to acquire catch shares.³⁰³ Policymakers could consider federal guidelines to help fishery managers manage expectations during transitions into different management regimes or when amending FMPs. Specifically, policymakers could direct RFMCs to:

- Reduce the exclusivity, transferability, and irrevocability of catch shares—the characteristics most resembling private property;
- Consider placing more limits on share transfers; such as reserving a portion of shares for owner-operators;
- Consider implementing rules for revoking shares, such as for non-use or by default after a set number of years; and
- Enhance the public trust aspect of catch share programs by, for example, incorporating provisions that facilitate new entrants into a fishery.

Changes to a catch share program could be perceived as interfering with investment-backed expectations, particularly for individuals who take on a loan to acquire shares and expect that those catch shares remain intact throughout the loan period. Gradual transitions to shorter share terms and more robust revocation rules could help moderate expectations.³⁰⁴

Consolidation of Shares

Catch share programs have resulted in consolidation in various fisheries. However, the full extent of consolidation is unknown due to a lack of transparency around shareholder ownership and lease-based share transfers. The effects can be significant especially where shares are increasingly concentrated under corporate control, often excluding small fishermen and rural communities from holding shares and from meaningful participation in RFMC hearings and public comment processes.

Under National Standard 8, FMPs must “provide for the sustained participation of such communities, and to the extent practicable, minimize adverse economic impacts on such communities.”³⁰⁵ Congress could consider implementing federal guidelines requiring RFMCs to prioritize allocating shares to fishing communities and consider “place-based fishing livelihoods and human-environment connections as fundamental to the sustainability of healthy social-ecological systems.”³⁰⁶ The Alaska Halibut and Sablefish Fishery IFQ, while not immune to consolidation, incorporated early safeguards to protect owner-operated vessels and fishing communities, and may serve as a useful model.

Clarifying the Interest

The following strategies implemented by the North Pacific Management Council are intended to restrict consolidation and support new entry into the fishery, reflecting the council’s intent in designing the FMP. However, the program still faces challenges, as the high cost for IFQ still presents a prohibitive barrier to new entrants, particularly for rural, small-scale, and Indigenous fishers.³⁰⁷

- **Owner-on-board mandate.** The Council requires owners to be on board to prevent outflow of fishery benefits, with two exemptions: 1) Class A shares (already corporate-owned prior to the IFQ program), and 2) initial recipients (who used hired masters prior to the ITQ program.)³⁰⁸ After testimony revealed a nominal ownership interest among some shareholders using hired masters, the Council implemented a 20 percent minimum ownership in 1999.³⁰⁹ In 2007, the Council strengthened the documentation requirements for proving 20 percent ownership³¹⁰ and added a 12-month vessel ownership requirement in 2014.³¹¹ After February 12, 2010, initial quota recipients were prohibited from using hired masters to harvest transferred IFQ³¹² because quota consolidation and the use of hired masters was delaying the transition to a primarily owner-operated fishery.³¹³
- **Transfer restrictions.** While Class A quota share is freely transferrable, transfers of class B, C, and D quota were limited to IFQ crewmembers, initial recipients, or non-individual entities that received initial quota.³¹⁴ Additionally, in the Halibut 2C and Southeast Outside ocean areas, transfers were restricted to IFQ crewmembers, individuals with 150-plus days of U.S. commercial fishing experience, or initial allocation recipients.³¹⁵ This was in an effort to protect traditionally small vessels and owner-operated fleets from competition with non-individual entities.³¹⁶ In 2014, the Council restricted transfers to only IFQ crewmembers in all regulatory areas.³¹⁷
- **The Block Program.** The Council created the “Block Program” to prevent consolidation, safeguard fishing communities, and ensure quota availability for small operators and new entrants.³¹⁸ Initial allocation under 20,000 pounds were placed into permanent, un-severable blocks, that can be transferred only as a whole, and have limits on how much an individual may hold.³¹⁹ The program also allows for “sweep-ups” of small blocks combining them into larger, economically viable blocks.³²⁰ Later amendments allowed halibut IFQ holders to hold three blocks (instead of two), divide blocks between areas, and increase sweep-up limits.
- **CDQ Program.** Community Development Quotas were developed to address concerns that coastal communities would not benefit from the growth of fisheries off the coast of Alaska,³²¹ and might be excluded from participating under the LAPP framework.³²² Incorporated into the MSA in 1996, the CDQ program allocates a portion of the TAC in certain halibut and sablefish regulatory areas to eligible communities.³²³ The resident fleet is impacted by internal decisions made within each CDQ group and how they choose to promote economic development in their community, such as by subsidizing small vessel operations.³²⁴
- **CQE Program.** The Community Quota Entity (CQE) program was created in 2004, after quota share holdings migrated out of local communities.³²⁵ The program allows eligible communities to form non-profit entities in order to request no-cost permits or purchase commercial quota.³²⁶ The program has expanded to allow CQEs to purchase access to other fisheries beyond the halibut and sablefish IFQ and are generally exempt from leasing restrictions.³²⁷

Future reforms to address consolidation can be difficult to implement as ownership interests become entrenched. Thoughtful planning during the program design is essential to address distributional fairness and requires better data, increased participation from fishermen and fishing communities, and greater consideration of the perception of property rights.³²⁸ Attempts to reverse consolidation in existing catch share programs should avoid using public funds to buy back high-priced quota, which could create a second windfall for shareholders who already benefitted from initial allocations.



VII

CONCLUSION

Catch share programs were originally designed to prevent overfishing and to safeguard marine resources. However, analysis of current programs suggests that catch share programs often constrict opportunity for small fishing communities and concentrate fishing privileges. To ensure these programs better align with MSA standards and more effectively achieve their conservation and community goals, policymakers could consider reaffirming fisheries as a public resource, curbing consolidation, improving transparency, and strengthening congressional oversight. Effective fisheries management should ensure ocean health and the livelihoods of the people who depend on it.

ENDNOTES

- 1 *Glossary: Catch Shares*, NOAA: FISHERIES, <https://perma.cc/55NY-9APF> (defining individual transferable quota).
- 2 *Understanding Fisheries Management in the United States*, NOAA: FISHERIES, [<https://perma.cc/4C4T-JAN8>] (last visited July 2, 2025).
- 3 Magnuson-Stevens Fishery Conservation and Management Act, Pub. L. No. 94–265, 90 Stat. 331, 16 U.S.C. §§ 1801–1891 (1976) (originally named Fishery Conservation and Management Act of 1976) (amended 1996, 2007).
- 4 See, e.g., Michelle Nijhuis, *The Miracle of the Commons*, AEON (May 4, 2021), <https://perma.cc/2Z-KH-U6CW> (identifying examples critical of the tragedy of the commons narrative).
- 5 Dietmar Grimm et al., *Assessing Catch Shares’ Effects Evidence from Federal United States and Associated British Columbian Fisheries*, 36 MARINE POL’Y 644, 648 (2012) <https://perma.cc/9XCG-3MBK>.
- 6 See Timothy E. Essington et al., *Catch Shares, Fisheries, and Ecological Stewardship: A Comparative Analysis of Resource Responses to a Rights-Based Policy Instrument*, 5 CONSERVATION LETTERS 186, 193 (Feb. 20, 2012) [<https://perma.cc/9TRW-7PCD>].
- 7 50 C.F.R. §§ 648.70–648.79 (2016).
- 8 50 C.F.R. §§ 622.21–622.22 (2021). A note on terms: NOAA now uses the term “Gulf of America” to refer to this fishery; however, the fishery management plan and other source documents drafted before this policy change use the term “Gulf of Mexico.” This report refers to it by its name at the time of the actions discussed.
- 9 50 C.F.R. §§ 648.1–648.18 (2020), 648.80–648.97 (2005).
- 10 50 C.F.R. §§ 679.1–679.9, 679.30–679.33, 679.40–679.45 (2018).
- 11 See Northeast Seafood Coalition, *Sectors/NESSN* [<https://perma.cc/P26J-59WP>] (last visited July 2, 2025).
- 12 *About Us: Our History*, NOAA: FISHERIES [<https://perma.cc/34ST-WSE2>] (last accessed July 2, 2025) (noting that in 1871 President Grant established the predecessor to NOAA).
- 13 See *Id.*
- 14 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 2(a)(6), Pub. L. No. 109-479, 120 Stat. 3575, 3577 (2007), *codified at* 16 U.S.C. § 1801(a)(6) (2018); *Laws & Policies: Magnuson-Stevens Act*, NOAA: FISHERIES, <https://perma.cc/B9YF-WT2F> (last accessed July 2, 2025).
- 15 See Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 302, Pub. L. No. 109-479, 120 Stat. 3575, 3579 (2007), *codified at* 16 U.S.C. § 1852 (2022).
- 16 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 302, Pub. L. No. 109-479, 120 Stat. 3575, 3581 (2007), *codified at* 16 U.S.C. § 1852(h)(1)(A) (2022).
- 17 See *Fishery Management Councils*, U.S. REG’L FISHERY MGMT. COUNCILS, www.fisherycouncils.org (last visited Feb. 1, 2026) (listing fishery management plans under each Council’s purview).
- 18 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 302(h)(3), (5), (6), (7), Pub. L. No. 109-479, 120 Stat. 3575, 3581 (2007), *codified at* 16 U.S.C. §§ 1852(h)(3), (5), (6), (7) (2022).
- 19 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 301(a)(8), Pub. L. No. 109-479, 120 Stat. 3575, 3579 (2007), *codified at* 16 U.S.C. § 1851(a)(8) (2007). Note that the headings for each standard are used by NOAA but not part of the text of the MSA.
- 20 *New York v. Raimondo*, 594 F. Supp. 3d 588, 599 (S.D.N.Y. 2022) (citing *Against IFQs v. Brown*, 84 F.3d 343, 350 (9th Cir. 1996); *Conservation L. Found. v. Ross*, 374 F. Supp. 3d 77, 91 (D.D.C. 2019); *Oceana, Inc. v. Pritzker*, 24 F. Supp. 3d 49, 68 (D.D.C. 2014)).
- 21 See *Raimondo*, 594 F. Supp. 3d at 599 (S.D.N.Y. 2022) (citing 16 U.S.C. §§ 1851(a)(1), (5), (7), (8); *Conservation L. Found.*, 374 F. Supp. 3d at 91 (D.D.C. 2019)).
- 22 *Atlantic Surfclam and Ocean Quahog*, MID-ATLANTIC FISHERY MGMT. COUNCIL [<https://perma.cc/Y84M-9UF8>] (last accessed July 8, 2025).
- 23 NORTH PACIFIC FISHERY MGMT. COUNCIL, DEVELOPMENT OF INDIVIDUAL FISHING QUOTA (IFQ) PROGRAM FOR SABLEFISH AND HALIBUT LONGLINE FISHERIES OFF ALASKA 1 (Oct. 8, 1997) [<https://perma.cc/M6JJ-FA4Q>]. Alaska’s program development arose from the rapid replacement of domestic operations with foreign fisheries in the 1980s, resulting in overcapitalization of all fisheries in the North Pacific Council’s jurisdiction. NORTH PACIFIC FISHERY MGMT. COUNCIL, DEVELOPMENT OF INDIVIDUAL FISHING QUOTA (IFQ) PROGRAM FOR SABLEFISH AND HALIBUT LONGLINE FISHERIES OFF ALASKA 1 (Oct. 8, 1997) [<https://perma.cc/M6JJ-FA4Q>].
- 24 See 16 U.S.C. § 1802(26).
- 25 *Catch Shares*, NOAA: FISHERIES [<https://perma.cc/KQ78-2F9C>] (last accessed July 8, 2025).
- 26 See LEE G. ANDERSON & MARK C. HOLLIDAY, THE DESIGN AND USE OF LIMITED ACCESS PRIVILEGE PROGRAMS 47, https://www.fisheries.noaa.gov/s3/dam-migration/tech_memo_holiday_and_anderson.pdf (describing transferability options for catch share program design).

- 27 *Id.*
- 28 Cf. NOAA, NMFS POLICY 01-121, CATCH SHARE POLICY 25 (Jan. 4, 2017) [<https://perma.cc/M5YU-Z3WL>] (defining ITQ as an IFQ program where privileges can be transferred).
- 29 *Id.*
- 30 16 U.S.C. § 1802(26) (2022). See also LEE G. ANDERSON, INT'L INST. OF FISHERIES ECON. & TRADE, LIMITED ACCESS PRIVILEGE PROGRAMS: A NEW TRIST IN US FISHERIES MANAGEMENT 2 (Ports-mouth Proceedings 2006) [<https://perma.cc/ARM6-5JEX>]; NAT'L ACADS. SCIS., ENG'G, & MED., THE USE OF LIMITED ACCESS PRIVILEGE PROGRAMS IN MIXED-USE FISHERIES 39 (Nat'l Acads. Press, 2021) [<https://perma.cc/36D4-MYXT>].
- 31 LEE G. ANDERSON & MARK C. HOLLIDAY, NOAA TECHNICAL MEMORANDUM: NMFS-F/SPO-86, THE DESIGN AND USE OF LIMITED ACCESS PRIVILEGE PROGRAMS 5 (Nov. 2007) [<https://perma.cc/D7UJ-ZUJX>] (citing the U.S. Commission on OCEAN POLICY, AN OCEAN BLUEPRINT FOR THE 21ST CENTURY: FINAL REPORT 287 (2004) [<https://perma.cc/83WN-LRJJ>]).
- 32 *Catch Shares*, NOAA: FISHERIES [<https://perma.cc/KQ78-2F9C>] (last accessed July 8, 2025).
- 33 CATCH SHARE POLICY, *supra* note 28, at 7.
- 34 See Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 303A, Pub. L. No. 109-479, 120 Stat. 3575, 3613 (2007), *codified at* 16 U.S.C. § 1853a.
- 35 CATCH SHARE POLICY, *supra* note 28, at 7.
- 36 ANDERSON, *supra* note 30.
- 37 See *Overview of U.S. Catch Share Programs*, NOAA: FISHERIES, <https://perma.cc/3PEH-N7TV>.
- 38 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 3(26), Pub. L. No. 109-479, 120 Stat. 3575, 3577 (2007), *codified at* 16 U.S.C. § 1802(26) (2022).
- 39 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 303a(c)(5)(A), Pub. L. No. 109-479, 120 Stat. 3575, 3589 (2007), *codified at* 16 U.S.C. § 1853a(c)(5)(A).
- 40 *Id.*
- 41 *Id.*
- 42 16 U.S.C. § 1853(b)(6) (2007).
- 43 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 301(a), Pub. L. No. 109-479, 120 Stat. 3575, 3579 (2007), *codified at* 16 U.S.C. § 1851(a) (2007).
- 44 New York v. Raimondo, 594 F. Supp. 3d 588, 603 (S.D.N.Y. 2022).
- 45 See ALEXANDER KOTLAROV, DEP'T OF COM., NOAA TECH. MEMO. NFMS-F/AKR-23, A REVIEW OF COMMUNITY SUPPORT MEASURES INCLUDED IN ALASKAN FISHERIES AND A ROADMAP FOR THEIR USE IN SUSTAINING AND REBUILDING SMALL FISHING COMMUNITIES 82, (2019) (referencing FMPs in the North Pacific Fishery Management Council specifically); see also ANDERSON & HOLLIDAY, *supra* note 31, at 43 (opining that economic development has been considered as a management objective only in Community Development Quota fisheries).
- 46 Interview with AM, Commercial Fisherman, in North Pacific, Alaska (Oct. 30, 2024) (on file with authors.)
- 47 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 301(a)(4), Pub. L. No. 109-479, 120 Stat. 3575, 3588 (2007), *codified at* 16 U.S.C. § 1851(a)(4) (2007).
- 48 Loper Bright Enters. v. Raimondo, 609 U.S. 369, 383 (2024) (citing lower court opinion).
- 49 New York v. Raimondo, 594 F. Supp. 3d 588 (S.D.N.Y. 2022).
- 50 *Id.* at 598–99.
- 51 *Id.* at 602–03.
- 52 *Id.* at 603.
- 53 *Id.*
- 54 Pacific Choice Seafood Co. v. Ross, 976 F.3d. 932, 935 (9th Cir. 2020).
- 55 *Id.* at 939.
- 56 Pacific *Id.* at 941 (citing 16 U.S.C. § 1853a(c)).
- 57 See Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 301(a)(4)(A), Pub. L. No. 109-479, 120 Stat. 3575, 3579 (2007), *codified at* 16 U.S.C. § 1851(a)(4)(A) (2007); ANDERSON & HOLLIDAY, *supra* note 31, at 61.
- 58 See Mark Fina & Tyson Kade, *Legal and Policy Implications of the Perception of Property Rights in Catch Shares*, 2 WASH. J. ENV'T L. & POL'Y 283, 300 (2012) [<https://perma.cc/9SWP-722Q>].
- 59 See discussion *infra* Section III.
- 60 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 301(a)(8), Pub. L. No. 109-479, 120 Stat. 3575, 3588 (2007), *codified at* 16 U.S.C. § 1851(a)(8) (2007).
- 61 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 3(17), Pub. L. No. 109-479, 120 Stat. 3575, 3577 (2007), *codified at* 16 U.S.C. § 1802(17) (2022).
- 62 NAT'L ACADS. SCIS., ENG'G, & MED., ASSESSING EQUITY IN THE DISTRIBUTION OF FISHERIES MANAGEMENT BENEFITS: DATA AND INFORMATION AVAILABILITY 51 (Nat'l Acads. Press, 2024), <https://perma.cc/3ZDY-N9FS>, (citing additional sources).
- 63 ANDERSON & HOLLIDAY, *supra* note 31, at 8.
- 64 *Id.*

65 ASSESSING EQUITY IN THE DISTRIBUTION OF FISHERIES MANAGEMENT BENEFITS, *supra* note 62, at 5.

66 *Id.* at 8.

67 *Id.*

68 See Young et al., *Moving Beyond Panaceas in Fisheries Governance*, 115 PNAS 9065, 9068 (2018) [<https://doi.org/10.1073/pnas.1716545115>] (describing proponents of ITQs rationalizing negative socioeconomic effects by “emphasizing efficiency and expected improvements in the health of fish stocks that will ‘lift all boats’” despite evidence that catch share programs can “destroy cultural values and exacerbate economic inequalities.”).

69 Dietmar Grimm et al., *Assessing Catch Shares’ Effects Evidence from Federal United States and Associated British Columbian Fisheries*, 36 Marine Pol’y 644, 648 (2012) [<https://perma.cc/9XCG-3MBK>];

Throughout the development of this report, the committee was alerted to the difficulty of establishing causation when evaluating the impacts of LAPPs in mixed-use fisheries. They recognize the scarcity of seminal 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 implementation of LAPPs in mixed-use fisheries has often coincided with stricter controls on overfishing, stock rebuilding programs, intensified monitoring, and other fishery management measures. In addition, conditions before and after implementation can be affected by other significant events, such as a major oil spill or natural disaster, trends in seafood markets, or general economic conditions. Accordingly, to assess the impacts of a LAPP on a particular fishery (stock or stock assemblage), it is not sufficient simply to point to changes in fisheries before and after the LAPP went into effect as instructed in the LAPP review guidelines. Instead, these changes can be compared to one or more plausible scenarios for what would have likely happened in the absence of the LAPP.

THE USE OF LIMITED ACCESS PRIVILEGE PROGRAMS IN MIXED-USE FISHERIES, *supra* note 30, at 5, 8 (“LAPPs constitute just one component of larger fishery management programs. Their effectiveness and impacts are significantly dependent on other elements, including biologically appropriate total allowable catch limits and improvements in monitoring and enforcement within the management system, as well as external conditions and events.”).

70 16 U.S.C. § 1851(a)(8) (2007).

71 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 303a(c)(3)(A)(i)(II), Pub. L. No. 109-479, 120 Stat. 3575, 3587 (2007), *codified at* 16 U.S.C. § 1853a(c)(3)(A)(i)(II). The reauthorized MSA also provides for regional fishery associations (RFAs) to participate in a LAPP *after initial allocation* if they meet certain criteria. Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 303a(c)(4)(A), Pub. L. No. 109-479, 120 Stat. 3575, 3588 (2007), *codified at* 16 U.S.C. § 1853a(c)(4)(A). An RFA is “an association formed for the mutual benefit of members” who “engag[e] in the harvest or processing of fishery resources in that specific region or subregion or who otherwise own or operate businesses substantially dependent upon a fishery” for purposes of “meet[ing] social and economic needs in a region or subregion.” 16 U.S.C. § 1802(14)(A)–(B).

72 See B.J. McCay, *Initial Allocation of Individual Transferable Quotas in the US Surf Clam and Ocean Quahog Fishery*, in FAO TECHNICAL PAPER 411: CASE STUDIES ON THE ALLOCATION OF TRANSFERABLE QUOTA RIGHTS IN FISHERIES 86, 86, 144 (Ross Shotton ed., 2007), <https://perma.cc/DA8T-VP9V>.

73 *Id.* at 86.

74 *Id.*

75 *Id.*

76 *Id.* at 87.

77 NORTHERN ECONOMICS, INC., REVIEW OF THE ATLANTIC SURFCLAM AND OCEAN QUAHOG INDIVIDUAL TRANSFERABLE QUOTA PROGRAM, prepared for Mid-Atlantic Fishery Management Council, 79, 99 (May 2019), <https://perma.cc/3XJX-N4P6>.

78 *Id.* at 14.

79 *Id.* at 100.

80 NMFS determined the program was out of compliance with MSA National Standard 4 in 2015, and the Council amended the program to include excessive share and cage tag caps in 2022. See *Excessive Share Amendment*, Amendment 20 to the Atlantic Surfclam and Ocean Quahog Fishery Management Plan, 87 Fed. Reg. 71528 (*codified at* 50 C.F.R. § 648); see also 50 C.F.R. § 648.74(a)(2).

81 NORTHERN ECONOMICS, INC., *supra* note 77, at 141.

82 *Id.* at 95.

83 NORTHERN ECONOMICS, INC., *supra* note 77, at 64.

84 *Excessive Share Amendment*, Amendment 20 to the Atlantic Surfclam and Ocean Quahog Fishery Management Plan, 87 Fed. Reg. 71528, 103, *codified at* 50 C.F.R. § 648.

85 *Id.*

86 2024 *Initial Atlantic Surfclam ITQ Allocations*, NOAA: FISHERIES (June 20, 2024), <https://perma.cc/PZ7A-XDA4>; 2024 *Initial Ocean Quahog ITQ Allocations*, NOAA: FISHERIES (June 20, 2024), <https://perma.cc/QPF3-LKNL>.

- 87 GULF OF MEXICO FISHERY MGMT. COUNCIL & NOAA: FISHERIES, RED SNAPPER AND GROUPER-TILEFISH INDIVIDUAL FISHING QUOTA PROGRAMS REVIEW 17 (Sept. 2021) [<https://perma.cc/9SQ4-YQ7K>].
- 88 NFMS: SOUTHEAST REGIONAL OFFICE, GULF OF MEXICO GROUPER-TILEFISH INDIVIDUAL FISHING QUOTA REPORT 64 (Aug. 3, 2023) [<https://perma.cc/9SQ4-YQ7K>].
- 89 *Id.* at 46, 222; “For Class 1 license holders, RS-IFQ shares were based on the best ten consecutive years from 1990-2004. For Class 1 historical captain license holders, RS-IFQ shares were based on seven years of landings from 1998-2004. For Class 2 license holders, RS-IFQ shares were based on the best five years of landings from 1998-2004.” *Id.* at 46.
- 90 GULF OF MEXICO FISHERY MGMT. COUNCIL & NOAA, *supra* note 87, at 126.
- 91 NFMS: SOUTHEAST REGIONAL OFFICE, *supra* note 88, at 9.
- 92 GULF OF MEXICO FISHERY MGMT. COUNCIL & NOAA, *supra* note 87, at 21.
- 93 *Id.* at 126.
- 94 50 C.F.R. § 622.21(b)(6)(iii).
- 95 GULF OF MEXICO FISHERY MGMT. COUNCIL & NOAA, *supra* note 87, at 20.
- 96 NFMS: SOUTHEAST REGIONAL OFFICE, *supra* note 88, at 11.
- 97 GULF OF MEXICO FISHERY MGMT. COUNCIL & NOAA, *supra* note 87, at 49.
- 98 Interview with RC, Commercial Fisherman, in Gulf Coast (Mar. 12, 2025) (on file with authors.)
- 99 GULF OF MEXICO FISHERY MGMT. COUNCIL & NOAA, *supra* note 87, at 51.
- 100 *Id.* at 17.
- 101 *See Have Opportunities or Barriers to Entering the Fishery Changed?*, MEASURING THE EFFECTS OF CATCH SHARES, <https://perma.cc/ADN2-EWFY> (last updated April 2018).
- 102 *Id.*; Amendment 5 to the Northeast Multispecies FMP.
- 103 *See* JILL H. SWASEY ET AL., NEW ENGLAND FISHERY MGMT. COUNCIL, NORTHEAST MULTISPECIES (GROUND FISH) CATCH SHARE REVIEW i–ii (May 2021) [<https://perma.cc/PU2J-S2HM>].
- 104 Jennifer F. Brewer, *Paper Fish and Policy Conflict: Catch Shares and Ecosystem-Based Management in Maine’s Groundfishery*, 16 *ECOLOGY & SOC’Y* 10 (2011) [<https://perma.cc/3BKJ-47F9>].
- 105 Northeast (NE) Multispecies Fishery; Amendment 16, 75 Fed. Reg. 18262 (Apr. 9, 2010) (to be codified at 15 C.F.R. pt. 902; 50 C.F.R. pt. 648).
- 106 *Northeast Multispecies (Groundfish): Management*, NOAA: FISHERIES (last updated July 14, 2025), <https://www.fisheries.noaa.gov/species/northeast-multispecies-groundfish/management>.
- 107 50 C.F.R. § 648.87(c).
- 108 SWASEY ET AL., *supra* note 103, at iv.
- 109 *Id.* at 18.
- 110 *Id.* at 19.
- 111 *Id.* at 30.
- 112 *Catch Share Program Review*, MEASURING THE EFFECTS OF CATCH SHARES, <https://perma.cc/8WCK-LN9C>, (last visited July 10, 2025).
- 113 *Id.*
- 114 *Northeast Groundfish: Economic Indicators 2, Measuring the Effects of Catch Shares* (2015).
- 115 *Northeast Groundfish: Economic Indicators 3, Measuring the Effects of Catch Shares* (2015).
- 116 SWASEY ET AL., *supra* note 103, at 55.
- 117 *Id.* at v.
- 118 *Id.*
- 119 *Id.* at 47.
- 120 *See* MEASURING THE EFFECTS OF CATCH SHARES, *supra* note 101.
- 121 50 C.F.R. § 648 (2017).
- 122 SWASEY ET AL., *supra* note 103, at 152.
- 123 *Id.* at 153 (quoting Peterson & Mitchell, Recommendation for Excessive-Share Limits in the Northeast Multispecies Fishery, COMPASS LEXECON (2013)).
- 124 QUINN WENINGER, CENTER FOR INDEPENDENT EXPERTS (CIE) PEER REVIEW OF THE COMPASS LEXECON REPORT ON RECOMMENDATIONS FOR EXCESSIVE SHARE LIMITS IN THE NORTHEAST MULTISPECIES FISHERY 13 (2014), <https://perma.cc/HK6T-A8KY>, (quoting MSA National Standard 2, codified at 50 C.F.R. § 600.315(a)).
- 125 SWASEY ET AL., *supra* note 103, at 89.
- 126 Interview with TB, commercial fisherman, in New England, December 4, 2024 (on file with authors.)
- 127 *See* Will Sennott, *How Foreign Private Equity Hooked New England’s Fishing Industry*, PROPUBLICA (July 6, 2022, 5:00 A.M.), <https://perma.cc/2DPD-EJGH>.
- 128 *Id.*
- 129 Cliff White, CREDITORS, INVESTORS LIKELY TO BE WIPED OUT BY BLUE HARVEST’S BANKRUPTCY, SEAFOODSOURCE (Oct. 2, 2023), <https://perma.cc/C6H3-XRSR>.
- 130 *Id.*
- 131 *See e.g., Have Opportunities or Barriers to Entering the Fishery Changed?: Indicators: Access and Exclusion*, MRAG Americas (Apr. 2018) <https://catchshareindicators.org/northeast/economic-indicators/access-and-exclusion/>.
- 132 *Northeast Multispecies (Groundfish) Fishing Year 2024 Catch Limits, Allocations to Sectors*, NOAA: FISHERIES (May 1, 2024, 8:45 A.M.), <https://perma.cc/EYZ5-4WRH>.
- 133 SWASEY ET AL., *supra* note 103, at 44.

- 134 *Indicators: Access and Exclusion*, *supra* note 131; Rob Snyder, *Thinking Like a Banker and a Fisherman: Treating Fish Stocks Like Private Property Has Changed Management World*, ISLAND INST.: WORKING WATERFRONT (June 15, 2015), <https://www.islandinstitute.org/working-waterfront/thinking-like-a-banker-and-a-fisherman>.
- 135 NORTH PACIFIC FISHERY MGMT. COUNCIL & NMFS, TWENTY-YEAR REVIEW OF THE HALIBUT AND SABLEFISH INDIVIDUAL FISHING QUOTA MANAGEMENT PROGRAM 23 (Dec. 2016), <https://perma.cc/HMB4-9LD3>.
- 136 *Id.*
- 137 *Id.*
- 138 50 C.F.R. § 679.40(a)(5).
- 139 *Id.*
- 140 TWENTY-YEAR REVIEW OF THE HALIBUT AND SABLEFISH INDIVIDUAL FISHING QUOTA MANAGEMENT PROGRAM *supra* note 135, at 31.
- 141 *Id.*
- 142 *Id.*
- 143 *Id.*
- 144 50 C.F.R. § 679.4(d)(2).
- 145 Lease fees have been growing over the IFQ program, generally split 50/50 or 60/40, with the shareholder receiving the larger pot.
- 146 Application for FQ/CDQ Hired Master Permit, NOAA: Fisheries (May 19, 2018) [<https://perma.cc/P56A-V3DP>].
- 147 TWENTY-YEAR REVIEW OF THE HALIBUT AND SABLEFISH INDIVIDUAL FISHING QUOTA MANAGEMENT PROGRAM *supra* note 135, at 27.
- 148 Caleb Taylor et al., *Sablefish and Halibut Individual Fishing Quota Program Review*, N. PACIFIC FISHERY MGMT. COUNCIL (July 2025), https://files.npfmc.org/halibut/IFQProgramReview_082225.pdf.
- 149 CDQs reserve 20% of the total IFQ allocation for fixed gear sablefish in the Bering Sea and Aleutian Islands subarea. 50 C.F.R. § 679.20(b)(1)(ii) (2023). *See also* 50 C.F.R. §§ 679.20(a)(4)(iii)(A), (a)(4)(iv)(A) (2023). CDQs reserve 20% of the total IFQ allocation for Pacific halibut in Area 4B; 50% in Area 4C; 30% in area 4D; and 100% in Area 4E. 50 C.F.R. § 679.30(a)(2) (2023).
- 150 Fisheries of the Exclusive Economic Zone Off Alaska; Individual Fishing Quota Program; Community Purchase, 69 Fed. Reg. 23681 (Apr. 30, 2004) (to be codified at 50 C.F.R. pt. 679), <https://www.govinfo.gov/content/pkg/FR-2004-04-30/pdf/04-9855.pdf>.
- 151 *Id.*
- 152 *Excessive Share Amendment*, Amendment 20 to the Atlantic Surfclam and Ocean Quahog Fishery Management Plan, 87 Fed. Reg. 71528, *codified at* 50 C.F.R. § 648.
- 153 50 CFR § 648.74(a)(2)(ii).
- 154 *Excessive Share Amendment*, *supra* note 152, at 103.
- 155 GULF OF MEXICO FISHERY MGMT. COUNCIL & NOAA, *supra* note 87, at 128, 208.
- 156 *Id.* at 128.
- 157 *Id.*
- 158 *Id.* at 141.
- 159 *Id.* at 40.
- 160 *Id.* at 142.
- 161 McCay, *supra* note 72, at 86, 89.
- 162 NORTHERN ECONOMICS, INC., *supra* note 77, at 87.
- 163 *Id.* at 88.
- 164 *See* Sennott, *supra* note 127.
- 165 NORTHERN ECONOMICS, INC., *supra* note 77, at 96–97.
- 166 Interview with RB, Commercial Fisherman, in Gulf Coast, Miss. (Oct. 30, 2024) (on file with authors.)
- 167 Interview with RC, Commercial Fisherman, in Gulf Coast (Mar. 12, 2025) (on file with authors.)
- 168 *Id.*
- 169 SWASEY ET AL., *supra* note 103, at 23.
- 170 *See* Sennott, *supra* note 127.
- 171 McCay, *supra* note 72, at 86, 89.
- 172 NORTHERN ECONOMICS, INC., *supra* note 77, at 92.
- 173 *Id.* at 91.
- 174 *Id.* at 92.
- 175 SWASEY ET AL., *supra* note 103, at 60. Crew trips, providing a measure of the earning opportunities for crew, declined 36% from 2007 to 2015. Crew days, providing a measure of the amount of time spent on earning opportunities, declined 23.5% over the same time period. *Id.* at 61.
- 176 SWASEY ET AL., *supra* note 103, at 60.
- 177 *Id.*
- 178 *See* Sennott, *supra* note 127.
- 179 McCay, *supra* note 72, at 86, 89.
- 180 *Sea Watch Int'l v. Mosbacher*, 762 F. Supp. 370, 377 (D.D.C. 1991).
- 181 *Id.*
- 182 *Id.*
- 183 GULF OF MEXICO FISHERY MGMT. COUNCIL & NOAA, *supra* note 87, at 187.
- 184 *Id.*
- 185 Interview with RC, Commercial Fisherman, in Gulf Coast (Mar. 12, 2025) (on file with authors.)
- 186 SWASEY ET AL., *supra* note 103, at 48.
- 187 *Id.* at 64.

- 188 50 C.F.R. § 679.42(c).
- 189 See, e.g., LEE VAN DER VOO, *THE FISH MARKET: INSIDE THE BIG-MONEY BATTLE FOR THE OCEAN AND YOUR DINNER PLATE* 59-60 (2016).
- 190 SABLEFISH AND HALIBUT INDIVIDUAL FISHING QUOTA PROGRAM REVIEW, prepared for North Pacific Fishery Mgmt. Council, 203 (Nov. 15, 2024) [<https://perma.cc/GSG2-T6YW>].
- 191 THE USE OF LIMITED ACCESS PRIVILEGE PROGRAMS IN MIXED-USE FISHERIES, *supra* note 30, at 24 (“They were specifically titled as such to emphasize the conditional nature of the program in general and, by extension, any “rights” granted as a component of the program.”).
- 192 16 U.S.C. §§ 1853a (b)(1)-(5).
- 193 *Id.* § 1853a (b)(4).
- 194 Adam L. Ayers & Hing Ling Chan, *Rights-Based Management, Competition, and Distributional Equity in Hawai’i’s Largest Commercial Fishery*, 14 INT’L J. COM-MONS 262, 262 (May 14, 2020), <https://perma.cc/4DC6-ASW7>.
- 195 16 U.S.C. § 1801(c)(7).
- 196 Singer, *Property Law: Rules, Policies, and Practices* xliii (5th ed.).
- 197 U.S. Const. amend. V.
- 198 U.S. Const. amends. V, XIV.
- 199 Michael Pappas, *A Right to be Regulated?*, 24 GEO. MASON L. REV. 99, 105 (2016) (citing Blumenthal).
- 200 E.g., *Fishermen’s Finest Inc. v. United States*, 59 F.4th 1269, 1275–76 (Fed. Cir. 2023) (citing *Conti v. United States*, 291 F.3d 1334, 1341 (Fed. Cir. 2002)).
- 201 See *Fina & Kade*, *supra* note 58, at 285.
- 202 *Id.* at 286.
- 203 16 U.S.C. § 1802(26) (2022).
- 204 A. Scott, *Introducing Property in Fishery Management*, in *FAO TECHNICAL PAPER 404/1: USE OF PROPERTY RIGHTS IN FISHERIES MANAGEMENT 7* (Ross Shotton, ed. 2000) [<https://perma.cc/7GL6-BPWK>].
- 205 16 U.S.C. § 1853a(c)(7) (2007).
- 206 Scott, *supra* note 204.
- 207 ANDERSON & HOLLIDAY, *supra* note 31, at 47.
- 208 See 50 C.F.R. § 622.21(b)(8) (2021).
- 209 *Id.*
- 210 *Id.* § 622.21(b)(6) (2021). NOAA does not allow transfers by anyone subject to any sanctions under the wide range of statutes it enforces. See 15 C.F.R. § 904.1(c) (2022).
- 211 See NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, *NMFS, TWENTY-YEAR REVIEW OF THE PACIFIC HALIBUT AND SABLEFISH INDIVIDUAL FISHING QUOTA MANAGEMENT PROGRAM* 30 (Dec. 2016), <https://perma.cc/TE79-754Q>.
- 212 16 U.S.C. § 1853a(f) (2007).
- 213 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 303A(b)(2), Pub. L. No. 109-479, 120 Stat. 3575, 3586 (2007), *codified at* 16 U.S.C. § 1853a(b)(2) (2007).
- 214 16 U.S.C. § 1853a(f)(2)–(3) (2007).
- 215 NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, *supra* note 211, at 89.
- 216 The Review breaks this number down further stating that the majority of the revoked shares came from Class D Halibut shares. If the Council revoked 2,000 pounds of Halibut IFQ shares that would mean revoking 0.008% of the shares. NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, *supra* note 211, at 89–90.
- 217 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 303A(b)(4), Pub. L. No. 109-479, 120 Stat. 3575, 3586 (2007), *codified at* 16 U.S.C. § 1853a(b)(4) (2007).
- 218 16 U.S.C. § 1853a(b)(2)–(3) (2007); Fishery Management plans also describe quota shares as “a harvest privilege, and good indefinitely. However, they constitute a use privilege which may be modified or revoked by the Council and the Secretary at any time without compensation.” FISHERY MANAGEMENT PLAN, NORTH PACIFIC FISHERY MANAGEMENT COUNCIL 56 (Nov. 2020).
- 219 *Ferguson v. Ferguson*, 928 P.2d 597, 599 (Alaska 1996).
- 220 *Id.*
- 221 *Id.*
- 222 *Foss v. Nat’l Marine Fisheries Serv.*, 161 F.3d 584, 588 (9th Cir. 1998).
- 223 *Id.*
- 224 *Id.*
- 225 *Am. Pelagic Fishing Co., L.P. v. United States*, 379 F.3d 1363, 1368 (Fed. Cir. 2004).
- 226 *Id.*
- 227 *Id.* at 1369.
- 228 *Id.* at 1379.
- 229 *Id.*
- 230 *Pacific Choice Seafood Co. v. Ross*, 309 F. Supp. 3d 787, 791 (N.D. Cal. 2018), *aff’d*, 976 F.3d 932 (9th Cir. 2020).
- 231 *Id.* at 792–793.
- 232 *Id.* at 793.
- 233 *Fishermen’s Finest, Inc. v. United States*, 59 F.4th 1269, 1273 (4th Cir. 2023) (citing 16 U.S.C. § 1853a(b)(4)).
- 234 *Id.* at 1274 (citing 16 U.S.C. § 1853a(b)(4)).
- 235 *Id.* at 1275–76 (citing 16 U.S.C. § 1853a(b)(4)).
- 236 *Id.* at 1278.

- 237 *Members of Peanut Quota Holders Ass'n, Inc. v. United States*, 421 F.3d 1323, 1330 (Fed. Cir. 2005) (citing *United States v. Fuller*, 409 U.S. 488, 494 (1973)).
- 238 See *Fina & Kade*, *supra* note 58, at 317–318.
- 239 See *Fishery Management Plan Amendment Process*, GULF OF MEXICO FISHERY MGMT. COUNCIL, <https://perma.cc/525X-VDEH>, (last visited July 8, 2025) (original website deleted, accessing through wayback machine).
- 240 GULF OF MEXICO FISHERY MGMT. COUNCIL, RED SNAPPER INDIVIDUAL FISHING QUOTA PROGRAM 5-YEAR REVIEW 40, 59 (Apr. 2013), <https://perma.cc/2CSH-NGPS>.
- 241 See *Reminders Regarding Individual Fishing Quota Programs in the Gulf of Mexico*, NOAA: FISHERIES, <https://perma.cc/P255-GEUV>; Red Snapper Individual Fishing Quota Program 5-year Review *supra* note 240.
- 242 Ben Raines, *Kingpins of the Gulf Make Millions off Federal Fishing Quotas*, AL.COM. (Jan. 24, 2016, 11:00 A.M.), <https://perma.cc/674A-F8WH>; *Gulf of Mexico Red Snapper Management*, CONG. SPORTSMEN'S FOUND., <https://perma.cc/C4S4-529T> (last visited July 8, 2025).
- 243 Interview with RB, Commercial Fisherman, in *Gulf Coast*, Miss. (Oct. 30, 2024) (on file with author).
- 244 See *Amendments Under Development*, Gulf Council (Feb. 2025), <https://gulfcouncil.org/fishery-management/amendments-under-development/> (last visited July 22, 2025); Amendment 59 proposes “Requirements for Participation in Individual Fishing Quota Programs” (<https://perma.cc/86TD-GRBH>) and Amendment 60 proposes “Individual Fishing Quota Programmatic Distributional Issues.” (<https://perma.cc/A3NS-RSD9>).
- 245 See Ryan Bradley, *Op-ed: Catch Shares Enable Wealth Landlords to Gobble Up Local Fisheries*, CIVIL EATS (Aug. 31, 2022), <https://perma.cc/U79Q-N5VJ>; Interview with RB, Commercial Fisherman, in *Gulf Coast*, Miss. (Oct. 30, 2024) (on file with author).
- 246 MICHAEL C. BLUMM & MARY CHRISTINA WOOD, *The Public Trust Doctrine in Environmental and Natural Resource Law* (3rd ed. 2021).
- 247 *Fina & Kade*, *supra* note 58, at 288–289.
- 248 BLUMM & WOOD *supra* note 246.
- 249 Joshua B. Fortenbury, *The Public Trust Doctrine Adrift in Federal Waters: Fishery Management in the Exclusive Economic Zone off Alaska*, 5 SEATTLE J. ENV'T L. 227, 232 (2015), <https://perma.cc/SD73-P7Y9>; 16 U.S.C. § 1851.
- 250 *Constitutional and Statutory Provisions*, in 1 STATE ENVIRONMENTAL LAW § 4:13 (2024); Haw. Const. art. XI, § 1; Pa. Const. art. I, § 27; N.C. Const. art. I, § 38 and art. XIV, § 5; Cal. Const. art. I, § 25 and art. X, § 3; Mont. Const. art. IX, § 3(3) and art. IX, § 7; Wis. Const. art. IX, § 1.
- 251 E.g., Washington Administrative Code (WAC) § 33230106(56), *Orion Corp. v. State* (1987), *Bott v. Natural Resources Commission* (1982), and *Matthews v. Bay Head Improvement Association* (1984).
- 252 See *Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007* § 303a(c)(5)(D), Pub. L. No. 109-479, 120 Stat. 3575, 3589 (2007), *codified at* 16 U.S.C. § 1853a(c)(5)(D), (c)(7).
- 253 ANDERSON & HOLLIDAY, *supra* note 31, at 59–60 (“The efficacy of any excessive share limit depends upon the ability to monitor ownership. Therefore a necessary part of establishing a share limit is the design of an effective recordkeeping system. This will require a protocol to identify who owns quota and how much, and to maintain detailed records of ownership transfers that clearly identify who is buying and who is selling.”).
- 254 ANDERSON & HOLLIDAY, *supra* note 31, at 59.
- 255 *Commercial Fisheries Landings*, NOAA: FISHERIES, <https://perma.cc/J4MZ-DPV5>, (last updated May, 29, 2024); Donald M. Schug et al., *Using Online Data Visualization and Analysis to Facilitate Public Involvement in Management of Catch Share Programs*, 122 MARINE POL'Y 104272, 4 (2020).
- 256 OCEAN QUAHOG: COMMERCIAL FISHING, NOAA: FISHERIES, <https://perma.cc/D4VN-EQUZ>, (last updated Mar. 20, 2025) (the Mid-Atlantic Surfclam and Ocean Quahog fishery has set an annual catch limit for Ocean Quahog between January 1, 2024–December 31, 2024 at 44,020 metric tons (mt)).
- 257 For example, in the Atlantic Surfclam and Ocean Quahog program, Tristate Capital Bank is listed as having been allocated 12,160 Ocean Quahog tags for 2025 or 389,120 bushels, which is roughly 7% of the total annual catch limit. *Ocean Quahog ITQ Allocations*, NOAA: FISHERIES, <https://perma.cc/RK4P-D3GL> (last updated Mar. 19, 2025). In the Northeast Multispecies Sector program, the yearly Maine Coast Community Sector’s Operations Plan includes a sector roster of all federal and state permits held by people participating in the sector, vessel names, vessel owners, and the number of active vessels in the sector. MAINE COAST COMMUNITY SECTOR FISHING YEAR 2023 AND FY 2024 (May 1, 2023–April 30, 2024) OPERATIONS PLAN AND AGREEMENT 41–47, <https://perma.cc/ZB4G-HJ58>. The Northeast Multispecies fishery records initial allowable catch entitlements of each stock species for each sector and any trades between sectors. In 2024, the Maine Coast Community Sector is granted a Redfish Annual Catch Entitlement of 1,680,879.6531 pounds and transferred out 100,531 live pounds to the Sustainable Harvest Sector 1 on June 4, 2024. *Sector ACE Transfer Summary*, NOAA, <https://perma.cc/D65N-USGP>, (last visited July 11, 2025).

- 258 For example, in 2021, the commercial sector of the Atlantic Surfclam and Ocean Quahog fishery recorded 11,493,430 pounds of Ocean Quahog landings valued at \$12,868,001. *Landings*, NOAA: FISHERIES, <https://www.fisheries.noaa.gov/fos-s/f?p=215:200:1194608450422>, (last accessed December 2, 2024). The Northeast Multispecies Sector program requires weekly reporting. From May 1, 2024-May 28, 2024, the cumulative catch of Redfish was 681.3 mt with a cumulative discard of 4.0 mt. 8.3% of the annual catch entitlement was caught. *Commercial Summary Table (Sector and Common Pool) Catch Monitoring May 1, 2024 to April 30, 2025*, NOAA: FISHERIES, <https://perma.cc/QX8N-W9MJ>, (last accessed July 11, 2025); see also *NOAA Fisheries Northeast Multispecies (Groundfish) Monitoring Reports*, NOAA: FISHERIES, <https://perma.cc/FM6L-ZJ39> (last accessed July 11, 2025) (compiling all commercial monitoring reports since 2010).
- 259 For example, the Atlantic Surfclam and Ocean Quahog fishery lists staff contacts on their Mid-Atlantic Fishery Management Council page. *Atlantic Surfclam and Ocean Quahog*, MID-ATLANTIC FISHERY MGMT. COUNCIL, <https://perma.cc/Y84M-9UF8> (last accessed July 8, 2025). Additionally, NOAA lists the sector manager contact information for each sector in the Northeast Multispecies Catch Share Program on the NOAA website. All additional staff, other than the manager, contracted by the sector remain confidential. *Sector Manager Contact Information*, NOAA: FISHERIES, (May 28, 2024), <https://perma.cc/VLA9-7ZJX>.
- 260 ASSESSING EQUITY IN THE DISTRIBUTION OF FISHERIES MANAGEMENT BENEFITS, *supra* note 62, at 5.
- 261 FOIA IFQ Shareholders, NOAA FISHERIES, <https://se-catchshares.fisheries.noaa.gov/foiaInformation> (last visited Feb. 1, 2026).
- 262 IFQ Gulf Reef Fish Accounts, NMFS, <https://perma.cc/2HEA-FR4S> (last updated July 11, 2025).
- 263 GULF OF MEXICO FISHERY MGMT. COUNCIL & NOAA, *supra* note 87, at 89.
- 264 *Id.*
- 265 See *Application for Transfer of QS*, NOAA, <https://perma.cc/T5QM-QZQK> (last updated Aug. 12, 2021) (expired in 2024).
- 266 DANIEL HOLLAND ET AL., U.S. DEP'T OF COM., U.S. CATCH SHARE MARKETS: A REVIEW OF CHARACTERISTICS AND DATA AVAILABILITY 37, <https://perma.cc/N9NX-HQY6>.
- 267 *Ocean Quahog ITQ Allocations*, NOAA: FISHERIES, <https://perma.cc/RK4P-D3GL> (last updated Mar. 19, 2025).
- 268 *Catch Share Program Review*, MEASURING THE EFFECTS OF CATCH SHARES, <https://perma.cc/8WCK-LN9C>, (last visited July 10, 2025).
- 269 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2007 § 401a(b)(3), Pub. L. No. 109-479, 120 Stat. 3575, 3613 (2007), *codified at* 16 U.S.C. § 1881a(b)(3).
- 270 6 U.S.C. § 2(b)(5).
- 271 16 U.S.C. § 402(b)(3).
- 272 50 C.F.R. § 600.420.
- 273 *Id.* § 600.420(c)
- 274 See Schug et al., *supra* note 255, at 4.
- 275 *Id.* at 3.
- 276 ASSESSING EQUITY IN THE DISTRIBUTION OF FISHERIES MANAGEMENT BENEFITS, *supra* note 62, at 6.
- 277 16 U.S.C. § 1881a(b)(3).
- 278 Sennott, *supra* note 127.
- 279 Schug et al., *supra* note 255, at 3.
- 280 *Summary of Paperwork Reduction Act*, NOAA, <https://perma.cc/854G-5Q5K>, (last updated Sept. 10, 2024).
- 281 ASSESSING EQUITY IN THE DISTRIBUTION OF FISHERIES MANAGEMENT BENEFITS, *supra* note 62, at 6.
- 282 *Id.* at 31.
- 283 *Id.* at 36.
- 284 *Id.*
- 285 Jennifer F. Brewer, *Paper Fish and Policy Conflict: Catch Shares and Ecosystem-Based Management in Maine's Groundfishery*, 16 *ECOLOGY & Soc'y* 10, 11 (2011), <https://perma.cc/3BKJ-47F9>.
- 286 E.g. Initial Ocean Quahog and Atlantic Surfclam allocations. See *2024 Initial Atlantic Surfclam ITQ Allocations*, NOAA: FISHERIES (June 20, 2024), <https://perma.cc/PZ7A-XDA4>; *Ocean Quahog ITQ Allocations*, NOAA: FISHERIES, <https://perma.cc/YC4P-8TN4>, (last accessed, June 27, 2025).
- 287 See *Sector ACE Transfer Summary*, NOAA, <https://perma.cc/D65N-USGP>, (last visited July 11, 2025).
- 288 Schug et al., *supra* note 255, at 6.
- 289 50 C.F.R. § 600.305 et seq., (also available at National Standard Guidelines, NOAA FISHERIES, <https://www.fisheries.noaa.gov/national/laws-policies/national-standard-guidelines>. (last visited Feb. 1, 2026)).
- 290 16 U.S.C. § 1853(a)(5).
- 291 *Id.* § 1853a(c)(5)(A)(i)–(iii).
- 292 *Id.* § 1851(a)(2).
- 293 *Id.* § 1853a(c)(1)(G).
- 294 *Id.* §1851(a)(4).
- 295 GULF OF MEXICO FISHERY MGMT. COUNCIL & NOAA: FISHERIES, GROUPER-TILEFISH INDIVIDUAL FISHING QUOTA PROGRAM 5-YEAR REVIEW 88 (Apr. 2018), <https://perma.cc/V4B9-CY7C>.

- 296 Cliff White, *Fight Brewing Over Distribution of Codfather's Fishing Permits*, SEAFOOD SOURCE (June 30, 2017), <https://www.seafoodsource.com/news/supply-trade/fight-brewing-over-distribution-of-codfathers-fishing-permits>; Will Sennott, *The Codfather's 2nd Act: 'I'm the bank now'*, THE NEW BEDFORD LITE (July 10, 2024), <https://newbedfordlight.org/carlos-rafael-real-estate-codfather-new-bedford/>.
- 297 50 C.F.R. pt. 648, <https://www.federalregister.gov/documents/2017/04/21/2017-08035/magnuson-stevens-fishery-conservation-and-management-act-provisions-fisheries-of-the-northeastern>.
- 298 NORTHERN ECONOMICS, INC., *supra* note 77, at 18; National Standard 4 requires that allocating or assigning fishing privileges among U.S. fisherman must be “fair and equitable to all such fishermen,” “reasonably calculated to promote conservation,” and “carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.” 50 C.F.R. § 600.325(a).
- 299 16 U.S.C. § 1851(a)(4)(A); 16 U.S.C. § 1853(b)(6)(F).
- 300 *Id.* § 1851a(c)(5).
- 301 50 C.F.R. § 600.325(c)(3)(iii), <https://www.ecfr.gov/current/title-50/chapter-VI/part-600/subpart-D/section-600.325>.
- 302 Fina & Kade, *supra* note 58, at 328.
- 303 *Id.* at 325.
- 304 16 U.S.C. § 1851(a).
- 305 Rachel Donkersloot & Courtney Carothers, *Beyond Privatization: Rethinking Fisheries Stewardship and Conservation in the North Pacific*, in CONSERVATION FOR THE ANTHROPOCENE OCEAN 253, 255 (Phillip S. Levin & Mellisa R. Poe, eds., 2017).
- 306 Claire Kelloway, *Catch Share Programs Consolidating Alaskan Fisheries—Cutting Out Small, Rural, and Young Fishermen*, OPEN MKTS (May 29, 2019), <https://perma.cc/U95R-GGX5>.
- 307 NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, *supra* note 211, at 26.
- 308 *Id.* at 27.
- 309 *Id.*
- 310 *Id.*
- 311 *Id.*
- 312 *Id.*
- 313 *Id.* at 30.
- 314 *Id.*
- 315 *Id.*
- 316 *Id.*
- 317 North Pacific Fishery Management Council, *CQE Small Block Restriction – Discussion Paper (Revised)*, Nov. 2012, https://www.npfmc.org/wp-content/PDFdocuments/catch_shares/CQEsmallblock1112.pdf.
- 318 NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, *supra* note 211, at 32.
- 319 *Id.*
- 320 *Id.* at 34.
- 321 *Id.* at 32.
- 322 *Id.* at 21.
- 323 NFMS & NOAA, REGULATORY IMPACT REVIEW FOR REGULATORY AMENDMENT HALIBUT IFQ LEASING BY CDQ GROUPS 26 (Apr. 2018), <https://perma.cc/VDB6-P859>.
- 324 NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, *supra* note 211, at 37.
- 325 Community Quota and License Programs for Community Quota Entities, NOAA: FISHERIES, <https://perma.cc/PBB9-3VJH> (last updated Sept. 27, 2022).
- 327 NORTH PACIFIC FISHERY MANAGEMENT COUNCIL, *supra* note 211, at 31.
- 328 Adam L. Ayers & Hing Ling Chan, *Rights-Based Management, Competition, and Distributional Equity in Hawai'i's Largest Commercial Fishery*, 14 INT'L J. COMMONS 262, 263 (May 14, 2020), <https://perma.cc/4DC6-ASW7>.