

Rethinking Fisheries Policy in Alaska: Options for the Future

Daniel W. Bromley

University of Wisconsin-Madison

and

Seth Macinko

University of Rhode Island

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Preface

This report is written at the request of the Alaska Department of Fish and Game. Our intent is to stimulate a conversation about innovative fisheries policies for the Gulf of Alaska. This report is not a “policy document” of the ADF&G and it should not be read as if it were. Our aim is to initiate serious thought and discussion about new policy possibilities. Our focus is specifically on policies governing the fisheries in the Exclusive Economic Zone (EEZ) off Alaska. Policies in the EEZ are the purview of the North Pacific Fishery Management Council (the Council) and thus much of what we discuss here concerns the Council and policies that have fallen under the umbrella term of “rationalization.”

From our conversations with residents, industry members, and state officials we sense a certain sensitivity to discussing the Council and the Council process. For example, existing rationalization programs are here referred to as experiments because that is what they are—some combination of Congress and the Council exploring policy options to reach multiple goals. We regard the Council as well intentioned, but not infallible. After all, “the Council” is a shifting assemblage of people making policy decisions at specific points in time in an intensely political process.

In our view, the constituencies of the Council and the State of Alaska are not the same, and this important distinction must be kept in mind while considering the issues under discussion here. From our vantage point, there are two rather obvious interrelated “demographic” trends relevant to fisheries policy off Alaska.

First, “the Council family” is narrowing—perhaps inevitably—as consolidation of the industry occurs under the various rationalization programs. Second, a number of people in Alaska are expressing a growing sense of disenfranchisement from fisheries policy.

In our view, the pressing policy question that emerges from these trends is whether it is possible to achieve the same benefits with fewer adverse consequences—and with less divisiveness. To ask this question in a serious manner means that it is now time to break free of the “for them or against them” dichotomy. All who are concerned with fisheries policy off Alaska must be able to openly discuss policies without those discussions being characterized as unwarranted attacks. If discussion is regarded as unwelcome, defensiveness sets in that will further deflect the necessary conversation away from the essential question—can the benefits of rationalization be retained while mitigating the adverse consequences?

We have encountered suggestions that because the Council process is open and deliberative, and because these deliberations are (and have been) quite extensive (sometimes lasting up to a decade), the outcome of the Council process must, by definition, be both ideal and just. In our view, such suggestions defeat serious conversation. The issues that seem to be boiling over in the Gulf appear to be issues involving distributional equity. In our view, much of the concern—even anger—can be traced to the prevailing policy of what is usually called “picking winners.” The schemes employed to accomplish the initial allocation of endowments under the

existing rationalization experiments are clear examples of government entities picking winners in a process that is always going to be viewed with resentment by those not selected to receive endowments. The durability of the debate over rationalization experiments is the best possible proof of the sense that those programs are not neutral in their impacts.

Debates over rationalization programs are protracted precisely because they involve the government (and the Council is an arm of the federal government) picking winners. The fact that a rationalization debate, for example over the halibut/sablefish program, lasted a decade is clear testament to the distributional stakes involved—not the Council’s wisdom and compassion in deciding on a particular distribution. There is no doubt in our mind that the debates would be less divisive if the allocation process were perceived to be more equitable. The reason for the divisiveness is none other than the fact that significant windfalls are being awarded—and a sense that the fisheries are being “privatized.” These windfalls exist because the initial allocations are given out for free, and the magnitude of the windfall is proportional to the term of the catch shares awarded (e.g., shares good for five years would command less on the market than permanent shares). The frustration with “privatization” is rooted in the sense that the wealth of the fishery has been permanently conferred on a few. It is important here to distinguish between the *effect* (the result) of a program or particular feature of a program, and the *intent* (purpose) of that program or feature. It is clear that past rationalization programs have brought results (effects) that are quite divisive.

Our purpose here, therefore, is to explore options for retaining the benefits of catch-share fisheries while lessening the rancor over perceived unfair permanent endowments. A clear advance in policy would be to remove the perception that public resources are being privatized.

Feasible alternatives exist. Our goal here is to explain the possibilities to the citizens and political leaders of Alaska so that a fuller consideration of future options may occur.

EXECUTIVE SUMMARY

1. The fisheries in the Gulf of Alaska face pressure from several sources. Vessels (or firms) said to have benefited from rationalization programs in other fisheries are alleged to be directing heightened effort at the Gulf (despite so-called sideboard provisions in other rationalization schemes). Vessels and firms that have been excluded from previously rationalized fisheries are thought to be “spilling over” into the Gulf. Within the Gulf, there is tension between various sectors of the industry. Latent pressure on the Gulf will not go away.
2. Current rationalization programs, while addressing the problems of derby fisheries, have resulted in the perception that public resources have been “privatized.” Existing market prices for quota shares have made it very difficult for new entrants to participate in the fisheries. Moreover, the permanent gifting of IFQs has weakened the State’s ability to control economic concentration. With the market for IFQs now operating outside of the regulatory process, federal and State of Alaska officials have little control over economic concentration. The permanent gifting of IFQs means that with current programs in place, the State of Alaska has few options to assist communities in promoting local economic development.
3. The free gifting of IFQs, and the subsequent consolidation of that gifted quota on far fewer vessels, has enriched some quota recipients while pushing others out of the fisheries off Alaska. This creation of a new class of “haves and have-nots” is fueling a sense of disenfranchisement on the part of many Alaskans directed at both the State and the fishery policy process.
4. Existing rationalization experiments have a decidedly mixed record, offering both substantial benefits and distributional concerns.
5. Introducing fixed-term permits (called assigned TAC Shares) will solve the race for fish. These permits can be structured to prevent unwanted consolidation. And depending on how these permits are allocated, such permits may make it possible to capture some resource revenue for the State of Alaska.
6. Fixed-term TAC-Share permits would not be “owned” by those fishing. Instead, such permits would be held on lease.

7. Fixed-term TAC-Share permits could initially be allocated based on historical participation (as has been done for past rationalization programs). Following this initial period, there could be a transition to a new regime in which continued access to TAC-Share permits would be based on competition for those permits. This competition could include a preference for existing permit holders. Recurring competition for fixed-term TAC-Share permits, say by lottery or by auction, will remove entry barriers that exist in current rationalized fisheries and open up access for those who wish to participate in the fisheries off Alaska.
8. Fixed-term TAC-Share permits could be made available to vessel owners, skippers, crew, processors, or to local communities.
9. Fixed-term TAC-Share permits could be issued with staggered terms (duration) so that an individual would not face the prospect of all permits expiring in the same year. This will give a reasonable horizon for sound business planning.
10. Some current participants in the Gulf of Alaska will be nervous about any transition away from the status quo. Consideration should be given to policies that explicitly provide a period of transition (recognizing existing interests) without transforming these important transitional concerns into permanent claims on the wealth of publicly owned fisheries.

I. Introduction

We start with a set of statements about plausible goals for the fisheries off Alaska. That is, we presume that harvesters, processors, and the citizens of Alaska share a set of core values that should guide the future of fisheries policy.

First, the fisheries resources off Alaska's coast should be managed to achieve maximum sustainable yield while minimizing bycatch and enhancing incomes for all participants in the fishery.

Second, the fisheries resources off Alaska's coast should be managed so as to provide entry opportunities and economic stability for coastal communities.

- **For harvesters**, this goal means low barriers to entry and promising career options for individuals as owners, skippers, and crew of small, medium, and large vessels. To assure the attainment of this goal, there must be safeguards against consolidation that will harm smaller participants. Moreover, absentee holding of quota should be discouraged.
- **For processors and marketers**, this goal assures clear entry opportunities for small, medium, and large companies dedicated to enhancing the market potential and economic value of the fisheries resources. With open entry for processors and marketing firms, competition will be assured and this will reduce the risk of growing market power. Competition among processors and marketing firms also assures enhanced prospects for stable jobs and reasonable career advancement as economic circumstances evolve. This goal is often advanced if the fishing season is spread over a longer period of the year—often resulting in a regular supply of fresh product and opportunities to provide value-added products depending on the characteristics of the particular fishery involved. It must, however, be acknowledged that a lengthened season is not always beneficial for some processors.
- **For coastal communities**, this goal enhances employment prospects and offers stability in labor markets, thereby providing families with a more reliable income base throughout the year. In addition, the service sector in small coastal communities is often tied closely to fisheries, and so improved economic prospects for coastal communities is dependent on a structure of fishing and processing that keeps income circulating very close to home.

Third, the citizens of Alaska (and of the United States) should begin to realize some royalty income from the value of fisheries off Alaska. This principle has been a pillar of the State's policies with respect to oil and gas resources.

II. Issues in Previously Rationalized Fisheries

We here summarize a number of issues that have arisen out of the current experiments with rationalization. We use the word experiments to remind the reader that the approaches in the pollock, halibut/sablefish and crab fisheries are indeed novel. Special Congressional legislation was required to enable “cooperatives” in the Bering Sea. There is, to our knowledge, not another fishery in the world where harvesters—in this case crab—as independent entrepreneurs are required to deliver the bulk of their landings to a specific processor. And the number of programs similar to the halibut/sablefish IFQ experiment can be counted on the fingers of one hand. All three rationalization programs are indeed experimental in nature.

These policies were innovative at the time they were adopted. The abiding problem with innovative public policies, however, is that no one else has tried the same thing and therefore it is impossible to predict the full implications of what will materialize. All public policies are adopted with good intentions and with optimistic expectations. If those policies were not deemed to have important advantages over the *status quo* arrangements then it is difficult to imagine their adoption.

The difficulty in reconsidering innovative policy is that expectations of normalcy quickly emerge in the wake of such changes, and then any reconsideration is regarded as tampering with what is “natural.” It seems that what exists at the moment has a compelling grip on the public mind. However, to revisit policy innovation is not to deny the obvious gains that have been wrought. Rather, the point is to see if some of the unanticipated disadvantages might somehow be reduced.

It is with this in mind that we start by a general inquiry concerning how things seem to stand with respect to fisheries policy off Alaska. We will classify these issues under nine headings.

A. Fleet Consolidation

An explicit goal for each rationalization program was to increase profitability through the exit of some vessels (considered by proponents of rationalization as small and/or “inefficient”), followed by quota stacking on the more “efficient” vessels remaining in each fishery. It was understood that increasing the profitability of some vessels would require the concentration of fishing effort and landings on fewer vessels. This profound distributional impact has always been masked by vague talk of improving the “efficiency” of the fishery. Unfortunately, the concept of “efficiency” in economics is far more complex than it may seem.

What is clear however is that rationalization advocates have known that it would not be politically convenient to promote rationalization schemes on the grounds that by evicting some participants, and then limiting future entry, the incomes of those who remained in a fishery would most certainly increase over time. Moreover, if stocks remain good, those incomes would begin to entail what economists call “quasi-monopoly rents.” That is,

without the possibility of entry into rationalized fisheries—except by purchasing quota from an existing participant—the number of participants becomes locked in. There is a profound economic difference between one participant merely replacing an existing participant, and new (additional) entrants being allowed in to compete away the quasi-monopoly rents accruing to a closed class of firms. Replacing one vessel for another does nothing to create competition among protected participants.

It may be argued that existing participants could sell off a portion of their quota shares and thus create an entry opportunity for a new vessel(s). If, in fact, this behavior was widespread it could be argued that true competition had indeed been introduced. The answer to this is an empirical question, and existing data suggests that the trend is towards smaller rather than larger fleets [NOAA, 2007]. Note that if vessel owners would sell off a portion of their quota share holdings they would, in effect, be returning to the pre-IFQ situation in which vessels were said to be operating at less-than-optimal capacity. Economic theory offers little support for the idea that vessel owners have an incentive to decrease the efficiency of their operations.

A market economy demands—indeed relies upon—competitive entry for the simple reason that this opportunity for others to enter and compete is the driving force that keeps all owners alert, and therefore all firms efficient. A closed class of firms induces managerial lassitude, offers some scope for putting downward pressure on wages and salaries paid to employees, and offers the chance to put upward pressure on the prices of product delivered to the next step in the commodity chain.

Consolidation is, therefore, not an unfortunate or unintended side-effect of rationalization. Consolidation is the reason why IFQ programs have been introduced. After all, the term “to rationalize” often means to bring more efficient procedures to bear on an industry. To “rationalize” often means “to transform.” In fisheries, the transformation has been in terms of excluding the “less efficient” firms. Thus, consolidation cannot be a surprise [Grafton, 1996; Eythorsson, 1996].

It was also understood that consolidation would displace skippers, crew and processing workers. Consolidation was further understood to induce a change in the demand for fishery support services. However, the literature in fisheries economics has presented consolidation as a good thing—even for those who are excluded. It is confidently claimed that once these “inefficient” (low producing) participants are out of fishing they are then free to find work elsewhere—as carpenters, electricians, school teachers. Interestingly, it now seems that many in Alaska—allegedly liberated from a life of hard work and depressed incomes, and thus free to make more money elsewhere—are not as happy as some confident economists predicted they would be. Is there something wrong with the economic theory of rationalization programs? Isn’t consolidation said to make everyone better off?

In addition to the social dislocation of consolidation programs, there is a biological dimension. It is not automatic that a consolidated fleet will solve the concern for sustainable fish stocks. If consolidation is extreme, and if monitoring and enforcement

budgets are cut on the presumption that an IFQ fishery is immune to overfishing, it could mean that only those activities advocated by the newly concentrated industry will receive political support. This can be problematic for sustainable fisheries [Edwards, 1994].

When IFQs are handed out and then consolidation occurs under the buying and selling of quota, it becomes almost impossible to control the extent of consolidation. While ownership caps exist, they can be skirted by creative business arrangements.

In addition, it is not clear how relative bargaining power between harvesters and processors has been altered. Academic studies indicate that for halibut, harvesters captured up to 90% of the wholesale price gains after rationalization, while the processing sector lost revenues in excess of variable costs relative to the pre-IFQ period [Hermann and Criddle, 2006; Matulich and Clark, 2003].

There is evidence suggesting that requiring pollock harvesters to cooperate and negotiate with processors resulted in large financial gains and profit sharing between harvesters and processors. However, critics maintain that providing processors with additional bargaining leverage in the pollock fishery, or “two-pie” quota in the crab fishery, has reduced competition among processors and therefore brought about lower ex-vessel prices for harvesters. It is possible that circumstances in world markets may have contributed to depressed harvester prices.

B. Solving the Derby Fishery

Once a fishery has been rationalized, the effect will be less racing for fish. Indeed, harvesters have gained flexibility so that they do not have to fish in bad weather. However, other issues are important in setting fishing schedules. Market demands and management restrictions continue to play an important role in the timing of harvests. Longer seasons do seem to have provided a better balance of harvesting and processing effort, and have distributed processing activity more evenly over time when compared with the previous pulse fisheries. It is true that the extended seasons have reduced total harvesting and processing jobs, but those remaining jobs are now more stable and last longer during each calendar year.

The extended seasons have provided new opportunities for product and marketing innovation. Harvesting and processing profits have probably increased because of lower costs, increased product recovery, and enhanced product forms. The fresh market for halibut, and the increased production of pollock fillets, are beneficial aspects of rationalization. Some new crab product forms were also developed in the rationalized fishery, and the fresh, cooked crab market has experienced a jump in production.

However, the processing sector may find this elongated processing period detrimental to the necessary maintenance of an ideal mix of labor and capital [Matulich, Mittelhammer, and Reberte, 1996].

While the derbies of the past seem to have been remedied, the expectation of future rationalization in the Gulf of Alaska has induced a different race—a “race for history.” Indeed, before crab rationalization it was generally understood that participants were continuing to fish even though losing money—simply to be assured of a gifting of crab quota.

The Gulf of Alaska now seems to be bearing the brunt of others—pushed out by previous rationalization programs—pursuing “history” in the Gulf. Although harvest by previously rationalized vessels is limited by rules concerning spilling over into non-rationalized fisheries, the incentive to “race for history” in anticipation of future gifting is, apparently, still at work and fishing for history is not limited to “new” or “outside” vessels as the incentive applies to long-time participants in Gulf fisheries as well.

C. Privatizing the Public’s Resource

"Given the importance of property rights in economics, it might be expected that there would be some consensus in economic theory about what property rights are. But no such consensus exists [Cole and Grossman 2002, p. 317]."

Much of the public concern over pending rationalization in the Gulf of Alaska seems focused on “privatization.” The standard line from some fisheries economists concerning the need to impose property rights to solve the problems associated with “common property resources” has not been well received by the general public. And there are good reasons for this. The most obvious reason is that the EEZ fishery is not “un-owned,” nor is it a “common property resource” at all—within the EEZ, fish are already owned by the citizens of the United States. It is on the basis of this ownership that the National Marine Fisheries Service has legislated authority to manage those fisheries. That was the point of creating the Exclusive Economic Zone [Bromley, 2005].

Claims that IFQs are property rights reflect a failure to understand the meaning and content of property rights [Becker, 1977; Bromley, 1991, 2004, 2005; Christman, 1994; Macpherson, 1978]. One quote pertaining to this confusion among economists seems appropriate: "Unwary readers may be misled into thinking that economists’ definitions reflect legal reality or, at least, the understanding of legal scholars, when they do not [Cole and Grossman, 2002, p. 325]."

Several points warrant discussion in this regard. First, confusion arises from the existence of an after-market for quota shares. If shares can be bought and sold they “must” be private property. Actually, the market for shares is nothing but a market for permits. The mere fact that a permit is tradable is not sufficient for it to become a property right. Nor does it follow that the object embodied in the permit (the right to pursue and land a certain quantity of particular fish) necessarily becomes the private property of those who hold a permit. The fish are owned by the citizens of the United States until they have been certified as now “belonging to” the person who brings those fish to the dock. Where permit trading is allowed, and not all programs allow trading,

this is a market in permits but *not* a market in property rights—despite how the matter has been discussed in the literature. See Macinko and Bromley [2002, 2004] for an elaboration of these issues. Indeed, the Magnuson-Stevens Act is clear in this regard.

Quoting from the Act:

“SEC. 303A. LIMITED ACCESS PRIVILEGE PROGRAMS.

(a) In General.--After the date of enactment of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, a Council may submit, and the Secretary may approve, for a fishery that is managed under a limited access system, a limited access privilege program to harvest fish if the program meets the requirements of this section.

(b) No Creation of Right, Title, or Interest.--Limited access privilege, quota share, or other limited access system authorization established, implemented, or managed under this Act--

- (1) shall be considered a permit for the purposes of sections 307, 308, and 309;
- (2) may be revoked, limited, or modified at any time in accordance with this Act, including revocation if the system is found to have jeopardized the sustainability of the stock or the safety of fishermen;
- (3) shall not confer any right of compensation to the holder of such limited access privilege, quota share, or other such limited access system authorization if it is revoked, limited, or modified;
- (4) 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; and
- (5) shall be considered a grant of permission to the holder of the limited access privilege or quota share to engage in activities permitted by such limited access privilege or quota share.”

There can be little doubt as to Congressional intent concerning the legal standing of fishing permits. A lease or a permit such as in IFQ does not bestow a “property interest” in the fish. Congress has spoken very clearly on this matter—IFQs are permits and nothing more [Macinko and Bromley, 2004].

The irony here is that many people seem to imagine that the public’s wealth has been privatized. Those who have IFQs often talk as if those permits represent “property rights.” The blame for this unfortunate confusion can be laid at the feet of a generation of fisheries economists who have justified IFQs, and have persuaded fisheries managers to introduce IFQs, on the notion that “private property” is necessary for stewardship of nature, and that IFQs are “private property.” And those who reject rationalization will do so because they are opposed to “privatization” of the public’s wealth. In reality, this opposition is focused on the massive handouts to a sub-set of former participants, and also on behavior that seems based on the presumption of “ownership.”

The public's wealth in ocean fisheries is secure and not in dispute. However, continual talk of "rights" and "rights-based fishing"—and ever more windfalls—*is* clouding public perception, it confounds the policy process, and it hampers the ability of the public to realize the full benefit of its ownership of the fisheries resource.

D. Conservation and Stewardship

Rationalization experiments using IFQs have also been justified on the grounds that if those who fish have "property rights" (allegedly what the IFQ represents) they will then quite automatically become good stewards of the resource. There is no plausible support for this presumption. To believe a claim of stewardship—leaving fish in the water to grow and perhaps reproduce for the benefit of future stock enhancement—requires assurance on the part of this far-sighted steward that those fish (or their abundant progeny) will be there next season (or any other future season). Notice that this is precisely the "stewardship incentive" facing the owner of a timber stand—harvest a tree today, or leave the tree standing and harvest it next year when it will be larger and therefore more valuable (assuming that inflation-adjusted prices keep increasing). It is impossible for IFQs automatically to instill far-sightedness on the part of any holder of an IFQ as long as there are other IFQ holders able to benefit from the forbearance of others. After all, what is to prevent others from taking the fish that one individual decides to leave in the water so that it can grow and reproduce?

There is only one way to instill the sort of stewardship that IFQ proponents seem to have in mind—make a single fishing firm the sole owner of the entire stock. In this setting, the fishing firm that leaves fish in the water is assured that those fish (and their progeny) will be there in the future. This does not, of course, guarantee that the sole owner will be able to find those fish—or their more abundant progeny—next year.

But there remains a fundamental theoretical flaw in the idea that a sole owner will be a good steward. If a sole owner has a strong incentive to maximize annual income over a particular series of years (seasons), there is nothing in private ownership that will protect a natural resource being driven to extinction so that the proceeds of harvest can be spent or invested in some other activity. This well-known phenomenon has been clearly documented in the economics literature [Clark, 1973; Page, 1978; Smith, 1968]. Not only must the assured revenue from continued harvesting coincide with the owner's planning horizon, the celebration of stewardship said to arise necessarily from private owners requires that owners hold some emotional affinity for fishing as a means to produce annual revenue as opposed to some alternative investment. However, if the sole owner is indifferent in terms of how specific assets are deployed, and the source of the derived income, then fishing becomes just another way to produce income [Sumaila and Bawumia, 2006; Sumaila and Walters, 2005]. When the making of money trumps a commitment to fish, there is no assurance that the prospects of more money will not win out over sustainable fish stocks.

This issue has been studied by Ainsworth and Sumaila [2005]. In their work, a model of the Atlantic cod stock off Newfoundland revealed that for discount rates ranging from 0 to 25 percent, the sole owner of cod stocks would have a powerful incentive to drive down the end-state biomass of cod as the discount rate increases. Indeed, the authors suggest that at a discount rate of 20%, which may be plausible in the context of cod fishing, the recent collapse of the cod stock can be replicated by this relation between discount rates and “stewardship.” A sole owner is not sufficient to induce good stewardship.

The basic flaw in attributing stewardship to “owning IFQs” is that stewardship has nothing to do with ownership, and everything to do with attitudes and expectations. Both private owners and public owners exhibit varying degrees of stewardship toward nature. Some owners and government agencies are good stewards, some are not. There is no magic remedy in terms of promoting stewardship. The talk of ownership as a necessary precondition to stewardship is simply a diversion that deflects attention away from the very real distributional struggle involved when government entities endow some with public wealth and disenfranchise others.

E. Management Issues

High grading and discarding, in which lower-valued (perhaps smaller) fish are thrown back, dead or alive, is an important problem in IFQ programs. Recall that IFQ programs do not alter an objective of harvesters—to make sure that their quotas are filled with the most valuable fish available at the lowest possible outlay of time and money. This central fact renders certain durable behaviors detrimental to conservation [Alverson, Freeberg, Murawski, and Pope, 1994]. Indeed, the evidence suggests that incentives to discard or high grade are quite high in IFQ programs [Vestergaard, 1996]. This means that the management agency will be obliged to increase its budget for monitoring and enforcement—thus undermining one of the major assertions about the benefits of IFQ fisheries. The danger here, again, is unrecorded bycatch [Baulch and Pascoe, 1992].

In current programs, observer coverage is limited for the halibut fleet, so changes in fleet bycatch management after rationalization are not well-documented. Rationalization of the pollock fleet initially resulted in decreased bycatch through cooperative behavior and significant improvements in product utilization. However, it is our understanding that the pollock fleet has recently produced record levels of salmon bycatch. Moreover, high grading and associated discarding has apparently increased significantly in the rationalized crab fisheries, largely due to the incentive created by the coupling of market preferences with the more relaxed pace of the rationalized fishery.

Additional observer coverage was mandated in the pollock and crab programs, which provided improved harvest information for management. In addition, a comprehensive socio-economic data collection protocol was developed for the crab program. The collection of historical and ongoing participation, revenue and cost information should enable a quantitative evaluation of the costs, benefits and distributional effects of the

program. When those are available it will be possible to gain a better idea of what has actually happened in the crab fishery.

F. Social Considerations

Social scientists suggest that the claimed economic benefits of IFQs work against the principles of equity and social justice in fishing communities [Davis, 1996; McCay et al., 1998]. An important issue in this connection relates to the initial allocation of IFQs [Grafton, 1996; Matulich and Sever, 1999]. As above, concentration of fishing power has been documented in many IFQ fisheries [Grafton, 1996; Eythorsson, 1996]. This means that several concerns are yet to be fully understood: (1) emerging monopoly power; (2) increased social inequity; and (3) the confusion of vessel size with coherent scale in the harvest of a highly variable natural resource. In addition, the potential for political problems can impede fishery conservation and management because a few large firms may be more successful in resisting conservation strategies than would a large number of small and scattered harvesters.

The relative ineffectiveness, or even absence, of rules requiring active participation in the rationalized fisheries may have encouraged absentee holding of quota. To the extent that this has happened, income and associated spending has left Alaska.

The dominant social issue is that consolidation has resulted in lost jobs for skippers, crew and the support sector. In the halibut program there are approximately 1,500 fewer participants over a 10-year period, and an early study of the crab rationalization program indicates that approximately 900 skipper and crew jobs were lost in the red king crab fishery in the first year of the program [Dinneford et al., 1999; Knapp, 2006]. For those not excluded from the fishery, incomes for skippers and crew have generally increased. It is our understanding that in the first rationalized crab fishery skippers and crew earned more total income over the entire season, but they worked longer hours meaning that they now have lower earnings per day fishing. It is also our understanding that for those vessels with additional leased quota, the share of ex-vessel value paid to skippers and crew declined, while the share paid as royalties increased [Knapp, 2006]. Moreover, ongoing research suggests that this phenomenon is not confined to additional leased quota. Some owners have reportedly added a new deduction to settlement sheets to reflect the value of owning quota (included quota gifted in the initial allocation). This new charge against the gross stock is as high as 70% of the gross in the red king crab fishery.

In addition, consolidation has been quite harmful to those who provide services to the fishing fleet. It seems that welders, mechanics, and gear suppliers in Alaska, and the lower 48 states, were negatively impacted by crab fleet consolidation.

Community effects from the rationalization experiments are difficult to isolate, but some effects are clear. The most obvious example following rationalization is the shift in halibut landings from Kodiak to road-system communities such as Homer and Seward, and from ports in Southeast Alaska (e.g. Pelican and Petersburg) to Seattle. The pollock

program has provided significant economic benefits to Dutch Harbor, where most of the onshore landings take place. However, the onshore fleet did not undergo significant consolidation following rationalization because it received an increased pollock allocation under the American Fisheries Act (AFA).

It is also important to consider the situation in other fisheries in which vessel owners, skippers and crew participated. Although the halibut program clearly caused economic disruption to the fleet, changes in world markets for Alaska salmon certainly contributed to economic hardship for many harvesters and processors who participated in both fisheries.

G. Who Should Get Access to Fish?

There is some sense in all fisheries that the fish in the ocean “belong” to the harvesters and it is their natural right to get those fish and bring them to the dock. With this as background, it may seem “logical” that only harvesters should receive quota—after all, only harvesters have a “history.” The tradition of history-based allocations of quota has induced a sense of entitlement among harvesters and this naturally fuels concern when there is talk of others gaining access to quota. When, as in past rationalizations, IFQs are gifted to vessel owners to the exclusion of skippers and crew, and the after-market for quota enriches some with cash—and others with larger quotas—the sense of injustice is heightened.

The long-run incentive effect of this perception of entitlement is that many participants in certain fisheries are particularly interested in “fishing for history.” But of course processors, local communities, and skippers/crew cannot fish for history as long as history is tied to vessels and vessel owners. But, as is evident from the CDQ program, communities with quota cannot possibly bring fish to the dock unless harvesters are involved. The same holds for skippers, crew, and processors.

It is possible to envision a new arrangement in which skippers and crew, or communities, or indeed processors, could hold TAC-Share permits and then enter into contracts with vessel owners to bring product to the docks.

The matter of individual processor quotas (IPQs) is controversial, and remains one of the most contested dimensions of the crab rationalization experiment. The rather strange compromise—and talk of “two pies”—is the result of a belief that only harvesters are entitled to quota shares. Forced deliveries to processors in the Bering Sea/Aleutian Island (hereafter BS/AI) crab fishery appears to be the price harvesters had to pay in order to receive the gifting of crab IFQs.

We are not in favor of a recent addition to the fishery toolkit called “individual processor quotas” (IPQs). This nomenclature gives the impression that a portion of the fishery “belongs to” the processing sector. If processors could obtain fixed-term TAC-Share permits there would be no need for “pies”—and it would not be necessary to have forced

deliveries. Processors with fixed-term TAC-Share permits could contract with vessel owners to harvest fish. Skippers and crew with fixed-term TAC-Share permits could contract with vessel owners to harvest fish.

Indeed, one important reason why it may be good policy to let processors acquire TAC-Share permits is that this could serve to secure employment in small fishing communities. For example, if shore-based processors should acquire TAC-Share permits they could be required to post a performance bond for the life of their permit so that the community might be partially indemnified if they should leave town.

We understand that talk of processors obtaining harvesting permits might raise old concerns of a return to the atmosphere of processor dominance associated with pre-statehood conditions. A robust policy discussion would weigh these fears against equally legitimate concerns about the alternative of matching processor quota shares and forced deliveries as now exists with crab. With care, it should be possible to find a workable solution to these concerns.

One point worth emphasizing is that processors face a *transitional* issue—adjusting to the different demands of elongated seasons as compared to the demands of the compressed seasons associated with derbies. Current policy in the BS/AI crab fishery is to provide processors with permanent endowments, as well as forced deliveries, in response to claims of transitional harm. And for the pollock fishery, the AFA established a permanent closed class of processors. Thus, there is a mismatch between the impacts which are transitional, and the remedy which is permanent. Of course, one might well ask whether harvesters warrant permanent endowments any more than processors. In our view, permanent endowments to any sector are unnecessary—and in fact introduce adverse consequences (Macinko, 2005). All that is necessary in the harvesting sector is that operations on the water be in pursuit of an assigned catch share. The political decision of where to strike the balance between the interests of harvesters and processors should be carefully thought out free from preconceived belief in the necessity of any permanent endowments.

H. Balancing Business Planning with Management Flexibility

Perhaps the most controversial aspect of rationalization programs is the permanent gifting of IFQ to the private sector. This is seen as “privatizing” the public’s resource. This permanent gifting has been advocated by some fisheries economists on the grounds that: (1) no one owns the fish in the EEZ; (2) IFQs represent private property rights; (3) the grant of IFQs must be permanent; and (4) such permanent rights are necessary and sufficient to bring about stewardship or conservation of the resource. Not a single one of these assertions is true, and it is therefore surprising that these claims hold such sway in the policy process.

The fish in the EEZ are already owned, IFQs are not private property, the planning horizon of business is not infinity, and private property is neither necessary nor sufficient

to ensure conservation. We touch on these issues elsewhere in this report, and refer the interested reader to the extensive bibliography for further elaboration. We stress that the ample record of vessels operating under lease arrangements off Alaska is sufficient evidence that assigned TAC shares, not some imagined “private property rights,” are responsible for the benefits exhibited in rationalized fisheries. The benefits are present regardless of whether the catch shares in question are leased or thought to be “owned.”

At this point the pertinent issue is quite simple: for what period of time will a TAC-Share permit offer security for sound business planning on the part of those who fish, and yet allow for management flexibility on the part of the NPFMC and the State of Alaska (and indeed flexibility for the businesses involved). In other words, how can fishing businesses have an adequate planning horizon to allow investment and prudent management, while also making sure that the public agencies charged with protecting the natural resource can do their job? The report of the U.S. Commission on Ocean Policy suggests that:

"[We should] assign quota shares for a limited period of time to reduce confusion concerning public ownership of living marine resources, allow managers flexibility to manage fisheries adaptively, and provide stability to fishermen for investment decisions [USCOP, 2004, p. 290]."

Eliminating the permanent gifting of IFQs is, in our judgment, a necessary first step. Permits of permanent duration are responsible for a number of adverse effects in terms of both high quota prices and basic questions of distributional equity. Since these adverse effects are not necessary to produce the benefits associated with assigned TAC shares, the justification for permanent gifting of IFQs is fatally flawed.

So, how long should permits run? Most business plans are crafted over a horizon that is between 10 – 15 years. We are not aware of any banker who insists on a business plan that runs into perpetuity. Nor are we aware that bankers wish to contemplate a 50-year business plan. In our view, a TAC-Share permit that is 10-15 years in duration seems to match, for the most part, the planning horizon of most businesses. An option to stagger the terms (duration) of the TAC-Share permits held by an individual would extend the planning horizon for permit holders.

Indeed, the Magnuson-Stevens Act seems to suggest a shorter period for the term of a TAC-Share permit. In Section 303A the Act states:

A limited access privilege established after the date of enactment of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 is a permit issued for a period of not more than 10 years that--
(1) will be renewed before the end of that period, unless it has been revoked, limited, or modified as provided in this subsection;

I. Safety Considerations

It appears that issues of safety have been somewhat overplayed. Of course a system that provides fishermen with control over when they fish (versus being compelled to fish during predetermined open seasons) will bring important improvements in safety. But these safety improvements cannot justify an argument for or against any particular selection of initial recipients. There is no basis in safety for providing financial windfalls to particular individuals over others. The gains in safety spring from the fact that catches are assigned, not assigned for free, or assigned to individuals with this catch history portfolio versus that history portfolio, or assigned in perpetuity. Safety has been deployed in a manner that detracts from reasoned discussion about distributional equity in the design of new policies. The safety gains in catch-share fisheries should be acknowledged and celebrated. Safety is a matter of life and death, but gains in safety cannot be used to justify any particular allocations of wealth under traditional rationalization programs.

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## An Assessment

On balance, the experience with current rationalization experiments cannot be declared an unqualified success, nor can those experiments be said to have failed. Some good things have happened, and some bad things have happened. The structure of these fisheries is still evolving and so it is premature to claim that rationalization has been either entirely good or entirely bad. It has been good for some participants, and it has been bad for other participants.

Is this a record that would encourage the adoption of a similar rationalization approach in the Gulf of Alaska?

We do not believe that the outcomes of rationalization—on balance—have been sufficiently positive to justify a replication in the Gulf of Alaska.

Indeed, early public hostility to a rationalization plan for the Gulf suggests to us that there is ample skepticism among many who fish in the Gulf. It seems likely that a rationalization plan that bears any resemblance to the BS/AI crab program, or indeed to any existing rationalization program, would bring enormous political costs to Alaska's public officials responsible for that approach.

We now turn to a discussion of some alternatives worthy of consideration.

### **III. The Gulf of Alaska: Learning From the Past**

#### **A. Lessons Learned**

The above account suggests that current policies have brought some progress on several fronts. However, these rationalization efforts have also created a number of problems. Since 1995 there have been three broad rationalization experiments affecting Alaska—Bering Sea pollock, Alaskan halibut/sablefish, and BS/AI crab. In addition, there have been two community-oriented programs—the CDQ program, and a smaller “community purchase provision” in the halibut/sablefish program. The obvious question is: “What have these experiments accomplished?”

There is general recognition that the pollock, halibut/sablefish, and crab initiatives have corrected the frenetic derby fisheries that had evolved over time.

These fisheries have all seen more relaxed prosecution of the fishery, and this has meant a more methodical attainment of the TAC by permit holders. Several beneficial effects flow from this. First, there have been obvious safety gains from slowing down and picking when to fish. Second, this relatively relaxed pace has provided opportunities for improvements in product quality and form, with attendant improvements in market prices. Finally, slowing down has reduced the prevalence of lost gear.

Despite these gains, these experiments have also given rise to some serious problems. First, these policy experiments have bestowed enormous financial gains (wealth transfers) on some initial recipients of fishing quotas. Such wealth effects inevitably pit neighbor against neighbor, crew against skippers, and crew and skippers against owners. These wealth transfers also divide many local communities into sub-sets of “haves” and “have-nots.”

As the number of participants in each fishery has shrunk, considerable economic advantages have accrued to a shrinking class of beneficiaries. Then, as quota prices rise it becomes much more difficult for new participants to enter. Economists worry about artificial barriers to entry because such barriers inevitably lead to market power among the lucky few. The evidence is clear that except for those few who have been advantaged by past programs, the rationalization experiments have had adverse effects on the current generation of Alaskans—as well as on future generations.

For example, in the resulting after-market for quota shares, those members of the current generation that were selectively advantaged by the gifting of quota shares are at a competitive advantage compared to all others. This advantage arises from their ability to leverage their newly acquired wealth. In this way, initial quota recipients are doubly endowed by the initial allocation—they gained wealth, and they gained in the subsequent quota market for permits. This differential advantage bestowed on individuals within the same industry, and within the same communities, invariably gives rise to equity concerns.

We assume that the apparent hostility to yet another “rationalization” experiment in the Gulf of Alaska owes its vigor to this realization of inequity in existing fisheries experiments off the coast of Alaska. Concerned families in the Gulf of Alaska view past policy experiments as the “privatization” of public wealth, and the attendant enrichment of but a subset of historic participants.

Beyond the distorted financial outcomes of the initial allocation in prior rationalization experiments, the fisheries in the Gulf of Alaska are now experiencing heightened “spillover” pressure. Aside from the added fishing pressure, traditional participants in those other fisheries now see their livelihoods threatened. More boats are chasing a fixed TAC. As each successive fishery has been “rationalized,” the pressure on the remaining fisheries—and fisheries managers—mounts. Such pressure also arises from within the Gulf as traditional sectors have started to anticipate future IFQ allocations if they can accrue some creditable fishing history.

This behavior reminds us that one of the central flaws with past fisheries policies is that they have produced a situation in which fishing for history can be extremely profitable if it leads to permanent gifting of free IFQs.

By way of summary, the wealth of ocean fisheries are public resources and new policies should be crafted in recognition of this legal reality. Moreover, it is time for an open public discussion concerning whether or not the State of Alaska should continue to support the free gifting of great wealth streams to but a few fortunate recipients. There is certainly no need to do so in order to fix what might be wrong with the status quo in the Gulf.

The assignment of TAC-Share permits will solve the race for fish. These assigned catch shares focus the competitive energy of those fishing away from maximizing catch at any cost (the essence of the derby) towards maximizing the profit from any given amount of assigned catch (by reducing costs). A necessary reassessment of the role of competition in fisheries management is implied by this lesson. No one wishes to return to the derbies of the past. Unfortunately, misplaced emphasis on “rights-based-fishing”—and the resultant allocation of IFQs to those with fishing “history”—have conflated the need for secure harvesting shares with mere rhetoric about “property rights.”

These considerations suggest several guiding principles.

## **B. Guiding Principles**

To build on the shared values expressed at the outset, we suggest that the fisheries resources off Alaska’s coast should be managed for the benefit of Alaskans. With that goal in mind, policies should seek to ensure that the benefits flowing to Alaska—and to Alaskans—from the fisheries in the EEZ are equitable, sustainable, and show promise of increasing over time.

Fisheries policies must assure sustainable fish stocks, and those policies should protect viable ocean ecosystems capable of supporting a range of valuable natural resources. Second, fisheries policies should create sustainable economic opportunities for future generations—including reasonable prospects for entering the fisheries in pursuit of sustainable livelihoods.

Third, ways and means should be found to enhance employment opportunities in the fisheries off Alaska, to foster vibrant fishing communities, and to offer some assurances of stability to small isolated coastal communities. Fourth, as with oil and gas resources, fisheries should begin to earn royalty revenue to benefit all Alaskans. While these are indeed federal fisheries, the State of Alaska may be able to gain access to some of those new royalty proceeds.

These funds could be used to enhance management of the State's natural resources, they could be a source of municipal revenue sharing in coastal Alaska, and they could be a source of targeted community development in coastal areas. In the short run, these revenues could also be used to buyout existing participants who wish to leave the industry.

Finally, the policies implemented for the future should be transparent to all, they should be immune from blatant political interference, and they should offer a reasonably reliable economic environment in which business owners can make plans and carry them through.

Building on these principles, we now review some policy options for the Gulf of Alaska.

## IV. Policy Options for the Gulf of Alaska

Two considerations recommend immediate policy action in the Gulf. First, the “spillovers” into the Gulf from: (1) those no longer able to fish for pollock, crab and halibut/sablefish; and (2) those endowed (with both wealth and more certain planning horizons) by previous rationalization schemes are causing serious pressure on fish stocks, as well as on costs and thus the net-income profiles of participants in the Gulf fisheries. Second, if a new policy for the Gulf is not formulated soon, there is danger that—as in the past—some interests will undertake an end-run around the NPFMC by going directly to Congress. The Gulf of Alaska offers the last best opportunity to get fisheries policy right.

We start by suggesting that the jig fishery should remain outside of the program spelled out below. Our reasoning is based on the fact that this is an entry-level fishery that does not represent any threat to fish stocks in the Gulf. Nor is the Gulf jig fishery under severe competitive pressure from previously rationalized fisheries.

For other fisheries in the Gulf, we suggest that consideration should be given to a program involving assigned catch shares that have a fixed-term rather than being permanent as has happened under prior rationalization programs. Fixed-term catch shares will provide all the familiar, and desired, benefits of past programs while addressing some of the fundamental sources of conflict associated with those programs. Fixed-term catch shares will require attention to the design of both the initial allocation and the subsequent reallocation of the shares at the end of the fixed-term. We offer the following outline of what a program based upon fixed-term TAC shares could look like, and we highlight some options within that program. Our purpose is not to discuss or define all the particular implementation steps involved but rather to present a general concept for discussion.

### A. General Features of a Program Featuring Fixed-Term Catch Shares

For the purposes of discussion, we will call these fixed-term catch shares TAC-Shares. The TAC-Share program would be based on permits that entitle the holder to harvest and sell a specified share of the annual Total Allowable Catch in a particular fishery. The permit would have a certain term (period of years) associated with it. This permit must be understood to represent a leasehold interest as opposed to ownership. The holder of the permit is a lessee, not an owner.

TAC-Share permits should be available only to single and legally accountable entities such as vessel owners, skippers and crew, processors, and communities. We have heard a concern that conservation groups might acquire TAC-Share permits but hold them and not fish them—presumably to accomplish conservation goals. This appears analogous to environmental groups putting land into conservation “banks.” But notice that if TACs are judiciously set, and if those limits are well enforced, conservation groups would be wasting their money since no plausible conservation objectives could be met by not fishing a share of the TAC.

We favor a “use-it-or-lose-it” provision on all permit holders so the banking (or “hoarding”) of TAC-Share permits would not be permissible . One area where conservation groups could provide a positive contribution to GOA fisheries policy would be if they acquired TAC-Share permits and then wrote contracts with harvesters who had an exemplary record of clean fishing.

We are not in favor of “sector-splits” in which groups of vessels (called “cooperatives” in the American Fisheries Act) can acquire a large group of permits that are then fished collectively. While the cooperatives are delivering the benefits associated with catch share-based programs, there are concerns about a lack of transparency regarding entry and exit.

## **B. Implementing the TAC-Share Fishery**

We here present some possible scenarios for implementing a TAC-Share Fishery in the Gulf of Alaska. Given that fisheries in the Gulf are already fully subscribed, and that there is an existing array of investments in these fisheries, we think it is implausible to introduce a new regime based on TAC-Shares overnight. Rather, a thoughtful transition is called for that both recognizes the interests of current participants yet allows for a new, more open management system in the long run. Rather than introducing such a fishery quickly, we spell out an approach in which the TAC-Share Fishery would be phased in over a number of years. This phase in would involve three distinct periods: (1) an initial phase (the Initial Fishery); (2) a transition phase (the Transition Fishery); and the final, long-term, post-transition phase (the TAC-Share Fishery). Below, we present general comments and outline some possible policy options for these three phases.

### **1. The Initial Fishery**

Permits for fixed-term catch shares could be issued, with a term length of 5 years, based on qualifying catch history. This qualification process could be similar to initial allocation approaches adopted in previous rationalization programs—but modified to be good for a fixed term.

During the Initial Fishery there could be a landings fee of 1-2 percent on the value of all landings. The purpose of this fee is to begin to generate resource revenue that might be available to stimulate economic development in fishing communities. An additional purpose for this fee might also be to accumulate a fund that could be used to buy out those historic participants who decide not to continue fishing beyond the period of the Initial Fishery. Of course a buyout program will be controversial to some, but it may be an important component of a necessary transition to the TAC-Share Fishery.

The Council will need to decide if sub-leasing should be permitted during the Initial Fishery. We can see arguments on both sides of this issue. If the Council chose to prohibit sub-leasing then the shares held by those who retire during the Initial Fishery would go into the Reversion Pool (discussed below).

## **2. The Transition Fishery**

At the end of the Initial Fishery, the Transition Fishery would gradually introduce the longer-term permits that would prevail in the fully implemented TAC-Share Fishery.

Two issues arise: (1) how long should the Transition Fishery run? And (2) what is the appropriate length of TAC-Share permits issued during the Transition Fishery? Both issues would need to be determined by the Council. We offer a few thoughts on these issues—taking the length of permits first.

### **a) Term Length of Permits**

We suggest that permits issued in the Transition Fishery should range from 5-15 years in length. Considerations here involve the tradeoff between greater certainty for business planning, and the clear need for program flexibility that will allow for entry opportunities. The shorter the term, the more frequently TAC-Shares will become available for new entrants. The longer the term, the longer the planning horizon presented to individual operators.

These shares (permits) issued in the Transition Fishery would continue on (carry over) into the long-run TAC-Share Fishery (the third phase).

### **b) Duration of Transition Fishery**

The Transition Fishery could run for a period of time ranging from 5-10 years.

For illustrative purposes only, consider an Initial Fishery based upon 5-year permits awarded on the basis of catch history. Following this, the Transition Fishery would run for 10 years. At the end of this 15-year period, the TAC-Share Fishery would be implemented.

Under this scenario, initial (history-based) recipients would fish the catch shares received in the Initial Fishery for 5 years. Then, in the first year of the Transition Fishery (year 6 overall), an individual's catch share holdings would be reduced by 10%. This 10% would go into the Reversion Pool and would be available for acquisition by any qualifying party by means discussed below. Each successive year of the Transition Fishery, 10% of an individual's Initial Fishery shares would be transferred to the Reversion Pool. At the end of 10 years (under this example), all Initial Fishery shares would be transferred into the Reversion Pool and the long-term TAC-Share Fishery would commence.

This scenario means that initial history-based participants would have a 15-year period over which the TAC-Share Fishery is gradually phased in.



New entrants could begin entering anytime during years 6-15. That is, during the course of the Transition Fishery, the proportion of TAC-Share permits made available to all who wish to fish will gradually increase and the proportion of Initial Shares controlled on the basis of historic participation will decline. Notice that as the proportion allocated on the basis of history declines, those with historic accreditation will still be able to compete for TAC-Share permits, but the acquisition of those permits will be on the same basis as all others seeking to participate in the Gulf fisheries. That is, historic participants will not be discriminated against in that allocation process, but neither will they be advantaged.

As under the Initial Fishery, a landings fee could be applied throughout the Transition Fishery.

During the Transition Fishery, if those with accredited historic participation decide to exit the fishery they could become eligible for a buyout program explained below. For those who exit, their catch history would go into the Reversion Pool.

Sub-leasing of TAC-Share permits could be allowed during the Transition Fishery—subject to caps on concentration of permits. If leasing were found to be leading to unwanted economic concentration it could be prohibited as the fishery moves into the long-term TAC-Share Fishery.

In addition, if continuous leasing of the same permits were observed, those permits could be voided and they would go into the Reversion Pool. This provision enhances the extent to which “absentee leaseholders” are discouraged.

### **c) The Reversion Pool**

As described above, during the Transition Fishery, catch shares allocated during the Initial Fishery would gradually revert into a pool for subsequent acquisition by any eligible participants. As these shares come into the Reversion Pool they would become TAC-Share permits with the term (duration) assigned to them as determined by the Council. During the Transition Fishery there would thus be two kinds of shares: (1) initial shares—good for 5 years but then slowly phased out at a rate of 10% a year; and (2) TAC-Shares—good for 10 years in our example.

Once shares are in the Reversion Pool, there must be some means for distributing these shares to those seeking access to the Gulf fisheries. Note that this will be a periodic process. That is, if the Council elects to define the TAC-Shares as having a 10-year length, then every 10 years those shares will again revert back to the Reversion Pool for reacquisition. There are two means by which TAC-Share permits could be acquired from the Reversion Pool—by lottery and by auction.

## **i. Permits Allocated by Lottery**

TAC-Share permits could be allocated to eligible vessel owners, skippers, crew, processors, or to local communities (i.e., whomever the Council elects to consider “eligible participants”) by means of a lottery. The lottery would be conducted for TAC-Share permits as they are placed into the Reversion Pool. These TAC-Share permits would have a length (duration) established by the Council.

## **ii. Permits Allocated By Auction**

An alternative to a lottery would be to allocate the TAC-Shares in the Reversion Pool by auction. While a lottery would award TAC-Share permits by the luck of the draw, an auction would award those same permits on the basis of bid price. The advantage of an auction is that it allows those who wish to gain access to the fishery an opportunity to compete for that access on the basis of price rather than at the arbitrary whim of a lottery. A second advantage is that the auction could be used to determine the royalty rate to be assessed on all landings. As with the lottery, TAC-Share permits would be good for a length of time chosen by the Council.

We need to address several issues associated with auctions.

First, there are several instances of auctions in fishery management. In the Falkland Islands most fish resources are auctioned on an annual basis [Barton, 2002]. Similarly, the rights to harvest the Washington State geoducks from specified tracts are sold at annual auctions [Bromley, 2005]. Indeed, the Magnuson-Stevens Act recognizes the potential for auctions. It states (in Section 303A(d)) that:

“In establishing a limited access privilege program, a Council may consider, and provide for, if appropriate, an auction system or other program to collect royalties for the initial, or any subsequent, distribution of allocations in a limited access privilege program if—(1) the system or program is administered in such a way that the resulting distribution of limited access privilege shares meets the program requirements of this section; and (2) revenues generated through such a royalty program are deposited in the Limited Access System Administration Fund established by section 305(h)(5)(B) and available subject to annual appropriations.”

Second, the advantages of auctions were recently acknowledged in a publication from the National Marine Fisheries Service [Anderson and Holliday, 2007]. Auctions:

- a. Promote the economically efficient allocation of fishing permits;
- b. Allow for new entrants into a fishery;
- c. Provide “price discovery”; and
- d. Generate revenue.

That is, auctions allow the free expression of a commitment by a particular business enterprise to pay a specific price in order to realize some specific beneficial outcome. Applying this principle to commercial (not recreational) fisheries means that those who wish to participate in certain GOA fisheries would express their willingness to pay (their bid) for the opportunity to pursue commercial fishing as a livelihood strategy. The bid (the payment) would be a percentage of the gross value of landings in a given year.

Third, there is no reason to believe that an auction would favor large firms over small (family) firms. The Council can partition the Reversion Pool in ways similar to other rationalization programs (for example, by vessel size categories). An auction could have bidders seeking access to permits in partitions (by size and gear) and so similar technologies and fishing power will be grouped together. This means that there could be no competition for permits between large and small firms. Each partition could have a portion of the TAC allotted to it, and the bidding for TAC-Share permits within that partition would be confined to members of that partition.

Fourth, it would be preferable to structure the TAC-Share Fishery so that there is staggered access to the Reversion Pool shares. That is, it would be beneficial from the standpoint of business planning to insure that an individual’s holdings do not expire all at the same time. An individual would therefore hold a portfolio of shares that would revert to the Reversion Pool at different times. Staggering of auction/lottery offerings is well-known in the field of market design.

Fifth, there is a common fear that all of the TAC-Share permits would go to the “highest bidder.” Notice that the auction under consideration here is NOT for a single item—in which case there can be only one winner and many losers. There is no reason to believe that auctions would be any more susceptible to dominance by big firms than under the current market for quota shares in the halibut fishery. That is, we already have markets for quota shares and auctions are simply a different means of accessing a market. Auctions offer *more* design flexibility to respond to concerns of undue dominance in the market by big firms.

Related to this is the fear that an auction would allow some participants (for instance, processors) to “buy it all up” thereby turning harvesters into the equivalent of “share-croppers.” This fear is misplaced. There are two ways to preclude this. There could be a processor’s partition in the bidding for TAC-Share permits. In addition, no bidder (processor, community, or vessel owner) could be allowed to exceed some explicit share of the total permits in a particular GOA fishery. Notice that this prevents excessive economic concentration among permit holders.

Sixth, and finally, there are profound advantages in the financial flexibility for the harvester. Rather than having to purchase quota shares up front as with current programs, the auction merely establishes the fee that is paid when fish are landed. Successful bidders can fish when and where they wish. If they catch fish they pay the small royalty on the value of the landings. If they do not catch fish they pay nothing. An auction fishery of this design is a “pay-as-you fish” fishery. Again, auctions of fixed-term catch shares reduce the cost of entry since there is no need to buy permanent (i.e., extremely valuable) quota shares from those who received them through gifting or subsequent purchase.

### **3. The (Post-Transition) TAC-Share Fishery**

At the end of the Transition Fishery, all catch shares would be the long-term TAC-Shares and all would be in the Reversion Pool. As under the Transition Fishery, options for access to the TAC-Shares in the Reversion Pool would be by lottery or by auction.

## **C. Summary: A Vision of the Future**

The gradual development of the TAC-Share Fishery in the Gulf of Alaska would insure the continued economic viability of the fleet.

The jig fishery would continue to operate as it has.

TACs in each specific fishery would be scientifically based and regulations on total harvests would ensure sustainability of all components of the fishery.

Entry to all sectors of the Gulf fishery would be limited to holders of TAC-Share permits. Those wishing to enter would not need to purchase expensive permanent quota shares. Shares would be leased for fixed terms from the Reversion Pool.

All landings would be assessed a small percentage fee (a royalty). Revenues from this fee could be used in several ways: (1) to enhance management programs; (2) to contribute to a buyout fund for historic participants who decide to leave the fishery; or (3) to contribute to local community development activities.

TAC-Share permits would be available to a variety of participants—harvesters, skippers and crew, processors, and communities.

Processors could have access to a capped portion of catch shares for a particular species. These processors would enter into contracts with harvesters to schedule deliveries at mutually advantageous times and places. Access to shares in this partition could be conditional upon a provision to assure jobs and economic benefits to particular communities.

One or more communities might also have access to a capped portion of catch shares in particular fisheries. Here too, contracts would be arranged with particular harvesters. Harvesters based in those communities could be given preferential treatment in such contracts.

Skippers and crew could hold TAC-Shares and enter into contracts with vessels owners.

The staggered duration of TAC-Shares would bring periodic opportunities for holders of shares to relinquish those holdings to the Reversion Pool if they decide to retire from the fishery or downscale their operation. This assures all participants of a portfolio of shares that would facilitate sound business planning.

Participants in the Gulf fishery would hold TAC-Shares in accord with provisions in the Magnuson-Stevens Fishery Management and Conservation Act.

While we have discussed both lotteries and auctions as a means to allocate TAC-Share permits from the Reversion Pool, we believe that auctions are superior to the arbitrariness of lotteries.

## V. Implications for Existing Programs

In addition to suggesting policy options for the Gulf of Alaska, we were asked to comment, if only briefly, on the implications of our proposals for existing rationalization experiments. That request is understandable. The options spelled out here for the Gulf of Alaska will surely cause reflection on current programs. “Getting things right” in the Gulf of Alaska will most certainly raise questions of equitable treatment for those in the Gulf fisheries, particularly if the gifts of public wealth in current experiments continue to be regarded as permanent and inviolable.

Reconsidering past policy decisions is sure to be controversial. Any reconsideration will presumably be motivated by the desire to maintain the advantages of existing programs, while at the same time allowing the Council to correct undesirable outcomes. As a start, those advantages could be retained, and many of the disadvantages could be ameliorated, by converting existing IFQs into fixed-term TAC-Share permits. This conversion would bring several advantages to fisheries policy:

1. Provide transparent entry opportunities for those wishing to participate in these fisheries;
2. Reduce the cost of entry—it would no longer be necessary to purchase permanent quota shares—we would have a “pay-as-you-fish” fishery;
3. Prevent undue consolidation and the attendant emergence of market power;
4. Enable a royalty program to recover some resource revenue for Alaska; and
5. Enhance the economic prospects for some small fishing communities.

Because the three existing programs differ, we will offer a few brief comments about each.

### A. BS/AI Crab Fishery

It is our view that the extent of consolidation in this fishery is considerable (some might say excessive), the price of quota is a barrier to entry, and the requirement of forced product delivery to specific processors lacks coherent justification. These problems could be rectified if TAC-Share permits were made available to a more inclusive group of individuals—additional vessel owners, skippers and crew, processors, or communities.

That is, existing IFQ shares in the crab fishery could be re-acquired (repatriated) by the Council into the Reversion Pool so that they could be re-issued to those seeking access to the crab fishery. This change would be controversial because those with gifted IFQs will regard them (the IFQs) as having been given to them. In addition, those who have purchased quota from others who left the crab fishery will make a legitimate argument that they have paid for those permits. Recognizing these concerns, the conversion could proceed in several steps.

First, the introduction of a gradually increasing landings fee would serve to erode some of the pure “economic rent” embedded in existing quota shares.<sup>1</sup> This escalating fee (a royalty on total landings value at the time of sale to processors) might be 1% in year one, 2% in year 2, 3% in year 3, 4% in year 4, and 5% in year 5. Notice that the increased royalty on landings will reduce the magnitude of economic rent in those quota shares and tend to reduce their market value.

Second, offsetting this decline in the market value of crab IFQs could be a gradual elimination—over the same 5-year period—of the 90-10 split in forced deliveries to specific processors. The new holders of crab IFQ would be free to deliver their landings to the processor of their choice.

Third, at the end of year five there could be a buyout auction similar to those held in other U.S. fisheries. Specifically, holders of crab IFQs could submit a bid indicating the price at which they would be willing to relinquish their IFQs.

Fourth, a parallel auction could be held in which current holders would submit a bid indicating the price at which they would be willing to convert their IFQs into a fixed-term TAC-Share permit.

With the gradually increased landings fee, and then with all new TAC-Share permits yielding royalty income after year five, the proceeds from these royalties could be used to amortize a loan from the NMFS to buy out those who decided to relinquish their BS/AI crab IFQ.

The BS/AI crab fishery could be reconstituted in this way to break down existing barriers to entry, and to allow all harvesters to deliver crab to processors of their choice.

## **B. Bering Sea-AFA Pollock**

A similar escalating landings fee on all Bering Sea pollock could be instituted with the same general goals in mind as with crab in terms of revenue generation and return to the public. In terms of opening new entry opportunities, the situation is not analogous to crab because of the lack of transparency and open market trading that is missing from the cooperative structure in the current pollock rationalization scheme. It is not possible to buy back existing catch shares because those shares are not held by individuals but by the entire group. Indeed, this is one of the problems with the so-called “cooperative.” In contrast to other rationalization programs in which individual harvesters received IFQ, here a **group** of harvesters received an allocation of the entire pollock TAC and there is no way to “unscramble the egg.”

One option would be to reserve a portion of the TAC for a new scheme of individual assigned TAC shares administered by the lottery or auction options discussed above. Revenues

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<sup>1</sup> “Economic rent” is that value over and above what was paid to acquire some valuable asset (or factor of production such as an IFQ). Since some of the IFQs were given free to current holders, the entire value of those shares represents pure “economic rent.” For shares purchased by the current holder, the magnitude of economic rent embodied in those purchased shares would depend on the current market price minus the original purchase price.

from an enhanced landings fee (and from any resulting auction) could be devoted to providing transitional compensation to existing participants as the TAC is partitioned. Over time, the proportion of the TAC that is placed into the lottery/auction Reversion Pool could be gradually increased effecting a transition away from the closed cooperative fishery.

Given the Congressional origins of this program, alterations will likely require Congressional approval.

### **C. BS/AI and GOA Halibut/Sablefish**

The IFQ program in the halibut and sablefish fisheries is the oldest rationalization program in the North Pacific. This history means that the discussion presented earlier about the sensitivity of any transition to a new policy regime is extremely important. If it is deemed desirable to try to adjust the current program, there are options ranging from relatively minor adjustments to more complete reformation of the program. For example, in terms of minor changes, it appears that the original goal of the program to ensure a transition into a fully owner-operator fleet has not been met. We will leave it to others to determine why this goal has been compromised. We merely want to point out that *if* this goal is to be salvaged, it will require a phasing out of the practice of leasing regardless of whether or not the lessor is an original recipient.

A more fundamental restructuring of the program—a gradual conversion to fixed-term TAC-Share permits—could proceed as spelled out above for pollock *with* particular attention paid to the phasing of the conversion. That is, a gradually increasing portion of the TAC might be put into an auction (or a lottery) pool (the Reversion Pool).

### **D. Gulf Rockfish**

The newest rationalization experiment in the EEZ off Alaska is known as the Gulf Rockfish Pilot Program—a program established by Congress involving both target and bycatch species. This is a new program and we will not comment on it further, except to note that options exist for the conversion of this program to a more transparent approach based on assigned TAC shares along the lines discussed above for possible conversion of other existing rationalization experiments.



## VI. Summary

As noted at the outset, it is our intention here to stimulate serious discussion of possible new directions for fisheries policy in Alaska. We believe this shared conversation must include a challenge to the rather standard claims about “rights,” stewardship, safety, and racing that together have been used to justify existing policy experiments.

We hope that the ensuing conversation will allow all interested parties to “step back” a bit and reflect on the convoluted processes by which fisheries policy has been formulated in the past, and then to compare those processes with possible alternatives.

One key point we wish to emphasize is that each successive policy innovation has brought less and less coherence in the overall policy mix. Each successive program (policy experiment) became so exquisitely tailored to specific requests for endowments that fisheries management has become increasingly detached from its fundamental purpose.

Options exist that will provide the same benefits of existing programs with less adverse impacts, with much less divisiveness, and—perhaps most important—with much less rigid and complex regulatory excess.

It is possible, and we believe it is imperative, to design fisheries policies with more overall coherence—grounded on a set of shared goals.

Finally, we trust that it is not too idealistic to imagine that a coherent fisheries policy can be crafted so that all those in the industry can spend more time on the actual business of fishing, and less time seeking and/or defending spoils in the political process. This would also free federal and state resource managers to devote more time to the fundamentals of fisheries management.

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