

CHALLENGES IN RESTRUCTURING ALASKA'S SALMON FISHERIES

By

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Editor's Note (September 2005): Fran Ulmer and Gunnar Knapp wrote this paper in November 2004. Near the end of the paper, they discuss the Chignik salmon cooperative and the then-pending Alaska Supreme Court decision about whether the Board of Fisheries had the authority to issue an allocation to the co-op. Page 34 says, "if the Supreme Court upholds the decision of the Superior Court [that the Board did have this authority], it will have the effect of extending the extent to which the board has clear authority to restructure fisheries for economic purposes." Since the paper was written, there have been several court decisions affecting the status of the Chignik fishing cooperative. The fundamental legal issues at stake relate to the board's authority and the legislature's intent in the Limited Entry Act. As of fall 2005, the future of the co-op was uncertain, pending a final ruling by the Alaska Supreme Court. This continuing legal battle reinforces a central point of the paper: that absence of clear authority to make changes in fishery management represents an important obstacle to restructuring.

The authors have also written a more recent short paper on restructuring, "Changing Alaska's Salmon Harvesting System: What Are the Challenges?" in *Understanding Alaska, Research Summary No. 5*, September 2005. It is available at www.alaskanconomy.uaa.alaska.edu or from ISER; call 907-786-7710.

Challenges in Restructuring Alaska's Salmon Fisheries

by Fran Ulmer and Gunnar Knapp

EXECUTIVE SUMMARY

Over the past fifteen years, Alaska's salmon industry has experienced dramatic losses in income, market share, permit and boat values, and tax revenues to communities and the state. The economic crisis in the salmon industry—driven by competition from farmed salmon and other factors—has prompted numerous task forces and summits to call for improved quality, new products, better marketing, and other measures to enable Alaska's salmon industry to compete more effectively in world salmon markets. However, there has been relatively little discussion of restructuring Alaska's salmon fisheries.

Alaska's salmon management has multiple objectives. A primary objective has been conserving Alaska's salmon resources. Alaska's success in achieving this objective is reflected in healthy and abundant salmon runs.

Another objective of Alaska's salmon management has been to spread the wealth of salmon fisheries among Alaskans. Alaska has also succeeded in this objective, as reflected in the fact that thousands of Alaskans from across the state fish for salmon every year, and many communities in Alaska rely on and benefit from these fisheries.

However, the salmon management that has succeeded in conserving resources and spreading the wealth has also—in some cases—resulted in higher costs of harvesting salmon or lower quality and value than would have been the case if salmon fisheries were managed differently. Regulations, which have evolved to achieve conservation and social objectives, have also had economic consequences—making it more difficult for Alaska's salmon industry to compete in increasingly competitive world markets. Restructuring could potentially lower costs and raise the quality and value of Alaska salmon harvests—allowing the salmon industry to remain competitive.

But restructuring is difficult. Changes in salmon management would affect fishermen and communities in different ways, and the industry is divided about what kinds of changes are needed—or whether any are needed at all. Partly because of the complexity and divisiveness of the issues, Alaskans have avoided serious discussion of restructuring salmon management. As the economic challenges facing the salmon industry have worsened, Alaska's salmon management has remained essentially unchanged.

The Board of Fisheries recently created the Salmon Industry Restructuring Panel to study the issues raised by restructuring proposals and to make recommendations to the legislature about how to address them. If the Salmon Industry Restructuring Panel is to succeed in engaging Alaskans in a meaningful discussion leading to real change, it is important for everyone to understand the obstacles that have thus far hampered discussions of restructuring.

In this paper, we argue that public debate and action on restructuring have been limited by several factors: the complexity and controversial nature of restructuring, the absence of

leadership on this issue from either the industry or government, and the ambiguity of responsibility and authority within state government for the economic success of Alaska's fisheries. The Board of Fisheries and the Alaska Department of Fish and Game have a clear mandate to conserve Alaska's salmon and authority to enact regulations necessary to achieve that objective. But that mandate and authority do not extend to the more complex and difficult objective of managing Alaska's salmon resources for the "maximum benefit" of Alaskans, as the Alaska Constitution requires.

The state legislature—which has the ultimate authority for managing Alaska's fisheries—has neither defined "maximum benefit" nor established policies to achieve such maximum benefit. Nor has the legislature delegated clear responsibility and authority to any other agency for either defining maximum benefit or restructuring Alaska salmon management to strengthen the industry's economic viability. Until this responsibility and authority are clearly established, it will be difficult for restructuring to succeed.

As long-time participants in and observers of the debate about the salmon industry, we have thought about these issues for many years. Like many Alaskans, we care about the future of Alaska's salmon industry and those who depend on it. Our goal is not to advocate any specific changes in the management of Alaska's salmon fisheries, but rather to advocate for a process to address the concerns and needs of Alaskans—and ultimately enable change—so that Alaska's salmon fisheries can be not only a biological success but also an economic success.

Our purpose in this paper is not to suggest that restructuring is the only way to address the challenges facing the salmon industry. We recognize that restructuring is only part of a broader strategy, which must include effective marketing, infrastructure development, and other changes. Nor do we advocate any particular management changes. We recognize that Alaska's salmon fisheries vary widely and that different approaches are needed in different fisheries.

The Board of Fisheries' Salmon Industry Restructuring Panel offers a new opportunity to address the complex issues associated with restructuring the salmon industry. Based on our analysis of the inherent challenges in restructuring Alaska salmon management, the institutional constraints to restructuring, and previous experiences in restructuring Alaska fisheries, we have some ideas about how the panel could make a substantive contribution. We suggest that the panel should:

- Concentrate exclusively on restructuring, because many previous forums have focused on other strategies for revitalizing the salmon industry but largely ignored restructuring.
- Analyze the legal, economic, and social implications of restructuring.
- Devise a process by which stakeholders can initiate and achieve change, including standards by which restructuring proposals will be evaluated, and how and by whom decisions will be made. More generally, the panel should recommend how clear responsibility, authority, and capability can be established within state government to make the changes in fisheries management necessary for the economic success of Alaska's fisheries. Ultimately, this will require action by the legislature.
- Assist the Board of Fisheries and the Alaska Legislature in a meaningful discussion of Alaska's goals for its salmon fisheries—including definition of "maximum benefit"—because the regulatory agencies and participants in Alaska salmon fisheries need clearer policy guidance.

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Introduction

Over the past fifteen years, Alaska’s salmon industry has experienced dramatic losses in income, market share, permit and boat values, and tax revenues to communities and the state. Between 1986 and 1995, the value of Alaska’s salmon catches averaged more than \$500 million. Between 2001 and 2004 it averaged less than \$200 million.

The economic crisis in the salmon industry—driven by competition from farmed salmon and other factors—has prompted numerous task forces and “summits” to call for improved quality, new products, better marketing, and other measures to enable Alaska’s salmon industry to compete more effectively in world salmon markets. However, there has been relatively little discussion of restructuring Alaska’s salmon fisheries.

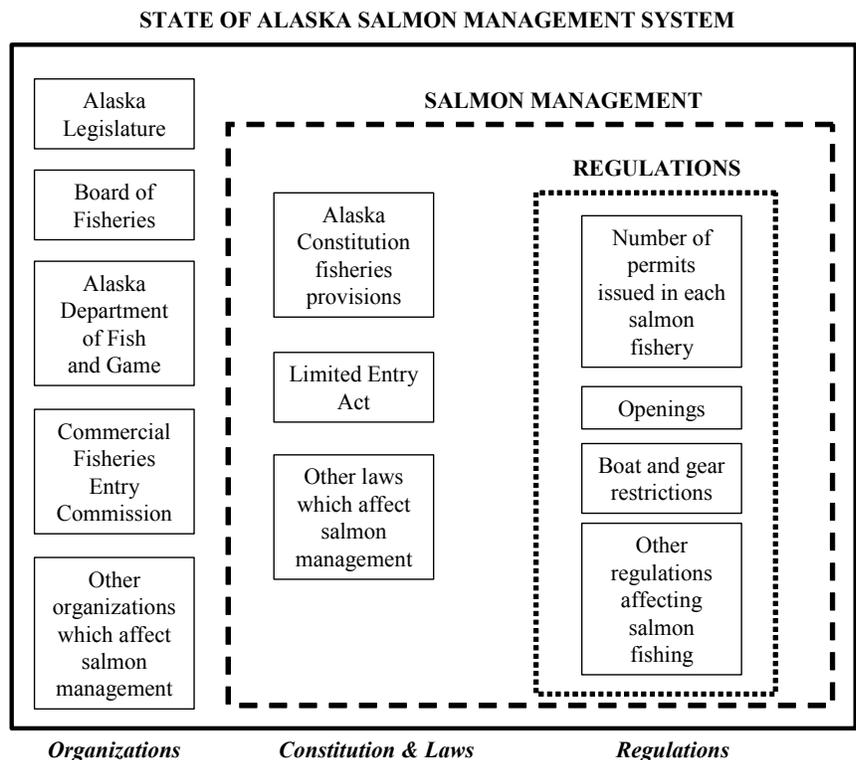
Terms such as “management system”, “management,” and “restructuring” mean different things to different people. Here is how we define those terms in this paper:

Salmon management system:

All the organizations that make decisions affecting salmon management, the laws that establish the general framework for salmon management, and the regulations implementing those laws.

Salmon management: *The constitutional provisions relating to fisheries management, the laws establishing the general framework for salmon management (such as the Limited Entry Act), and the regulations implementing those laws.*

Restructuring: *Major changes in the management of a fishery, undertaken primarily for economic or social reasons, rather than for conservation. Restructuring generally is intended to change how and by whom fish are harvested, rather than how many fish are harvested.*



Alaska's salmon management has multiple objectives. A primary objective has been conservation of Alaska's salmon resources. Alaska's success in achieving this objective is reflected in healthy and abundant salmon runs.

Another objective of Alaska's salmon management has been to spread the wealth of salmon fisheries among Alaskans. Alaska has also succeeded in this objective, as reflected in the fact that thousands of Alaskans from across the state—permit holders and crew—fish for salmon every year. The salmon industry is the major economic support for dozens of coastal communities.

However, the salmon management system that has succeeded in conserving resources and spreading the wealth has also—in some cases—resulted in higher costs of harvesting salmon or lower quality and value. Laws and regulations that have evolved to achieve conservation and social objectives have also had economic consequences, making it more difficult for Alaska's salmon industry to compete in increasingly competitive world markets. Restructuring could potentially lower costs and raise the quality and value of Alaska salmon harvests—allowing the salmon industry to remain competitive.

But restructuring is difficult. Changes in management would affect fishermen and communities in different ways, and the industry is divided about what kinds of changes are needed—or whether any change are needed at all. The issues are complex, and the stakes are high.

Partly because of the complexity and divisiveness of the issues, Alaskans have avoided serious discussion of restructuring salmon management. For more than a decade, as the economic challenges facing the salmon industry have worsened,¹ Alaska's salmon management has remained essentially unchanged. The single notable exception is the Chignik salmon fishery, where the Board of Fisheries authorized a fishing cooperative, which we discuss later.

However, serious discussion of restructuring is beginning. Over the coming year, a Board of Fisheries' Salmon Industry Restructuring Panel will study the issues raised by restructuring proposals and make recommendations to the legislature about how to address them.²

If the Salmon Restructuring Panel is to succeed in engaging Alaskans in a meaningful discussion that could lead to real change, it is important to understand the obstacles hampering discussions of restructuring. In this paper, we argue that three things have limited public debate and action on restructuring: (1) restructuring is complicated and controversial: stakeholders are divided about what change is desirable because they will be affected differently; (2) there has been very little leadership from either the industry or government to promote restructuring; and (3) there is an absence of clear responsibility and authority within state government for the economic success of Alaska's fisheries. The Board of Fisheries and the Alaska Department of Fish and

¹ The 2004 salmon season provided welcome good news in several fisheries that provide high-quality fresh and frozen salmon for domestic markets (such as the Copper River fishery and Southeast Alaska troll fisheries). These fisheries experienced strong prices, fueled by rising demand for wild salmon following press reports questioning the safety of farmed salmon. However, for many Alaska salmon fisheries dependent on other markets, prices remained severely depressed.

² Announcement of the Salmon Industry Restructuring Panel, posted May 19, 2004 on the Web site of the Alaska Board of Fisheries: <http://www.boards.adfg.state.ak.us/news/callfwkgrp.pdf>.

Game have a clear mandate to conserve Alaska’s salmon resources and authority to enact regulations necessary to achieve that objective. But that mandate and authority do not extend to the more complex and difficult objective—required by the state constitution—of managing Alaska’s salmon resources for the “maximum benefit” of Alaskans. There is no clear definition of “maximum benefit” nor any clear policy to guide the economic regulation of the industry.

The legislature—which has ultimate authority for Alaska’s fisheries management—has avoided the difficult task of defining “maximum benefit” or policies to achieve it. Nor has it delegated clear responsibility and authority for this task to any other agency, or the responsibility and authority to restructure Alaska salmon management for the purpose of strengthening the economic viability of the industry. Unless and until this responsibility and authority are clearly established, it will be difficult for restructuring to succeed.

Our purpose in this paper is not to suggest that restructuring is the only way to address the challenges facing the salmon industry. We recognize that restructuring is only part of a broader strategy that must also include effective marketing, infrastructure development, and other changes. Nor do we advocate any particular management changes. We recognize that Alaska’s salmon fisheries vary widely and that different approaches are needed in different fisheries.

As long-time participants in and observers of the debate about the salmon industry, we offer these suggestions to stimulate additional discussion of the full range of options. Like many Alaskans, we have thought about these issues for many years, and we care strongly about the future of Alaska’s salmon industry and those who depend on it. Our goal is not to advocate any specific changes in the management of Alaska’s salmon fisheries, but rather to advocate for a process to address the concerns and needs of Alaskans—and ultimately enable change—so Alaska’s salmon fisheries can be not only a biological success but also an economic success.

Constitutional Principles for Alaska’s Salmon Management

One of the prizes of statehood was the right for Alaskans to manage their salmon fisheries. During territorial days, over many decades of federal management, Alaskans had experienced a dramatic decline in salmon runs and the economic control of the salmon fisheries by Seattle-based processing interests. Resentment of processor owned salmon traps—which caught a large share of Alaska’s salmon—was an important catalyst in the drive for Alaska statehood.

Alaska’s Constitution established several fundamental principles for the management of Alaska’s fisheries. Fisheries were to be managed for “sustained yield” and “for the “maximum benefit” of the people. In addition, fisheries were “reserved to the people for common use,” and no “exclusive right or special privilege of fishery” was to be created.

Key Provisions of the Alaska Constitution (Article VIII) Related to Fishery Management

SECTION 2. GENERAL AUTHORITY. The legislature shall provide for the utilization, development, and conservation of all natural resources belonging to the State, including land and waters, for the maximum benefit of its people.

SECTION 4. SUSTAINED YIELD. Fish, forests, wildlife, grasslands, and all other replenishable resources belonging to the State shall be utilized, developed, and maintained on the sustained yield principle, subject to preferences among beneficial uses.

SECTION 3. COMMON USE. Wherever occurring in their natural state, fish, wildlife, and waters are reserved to the people for common use.

SECTION 15. NO EXCLUSIVE RIGHT OF FISHERY. No exclusive right or special privilege of fishery shall be created or authorized in the natural waters of the State. This section does not restrict the power of the State to limit entry into any fishery for purposes of resource conservation, to prevent economic distress among fishermen and those dependent upon them for a livelihood and to promote the efficient development of aquaculture in the State.

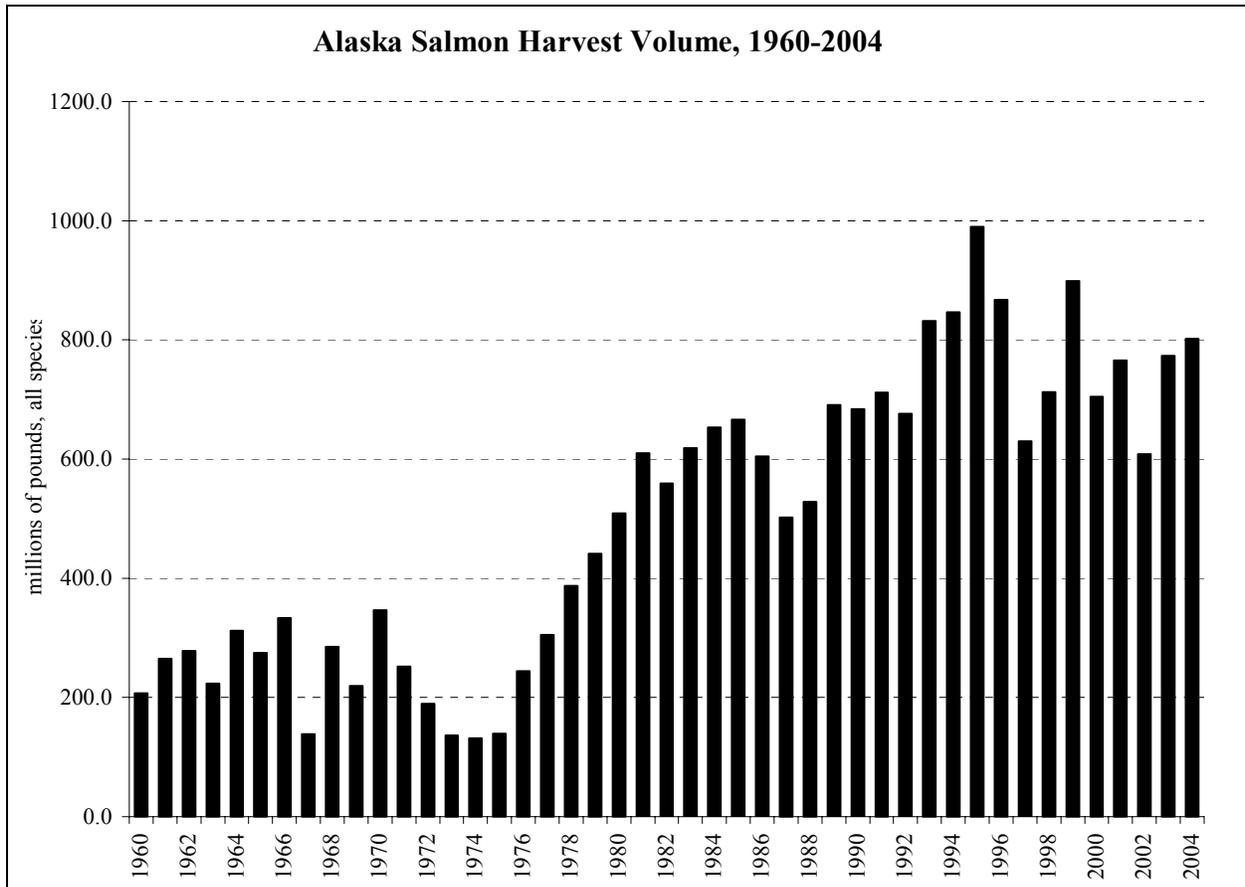
Note: The second sentence of Section 15 was adopted by constitutional amendment in 1972 to allow for limited entry management.

Alaska’s Biological Success in Managing Salmon for Sustained Yield

Given the health of Alaska salmon runs and very high commercial salmon catches over the past two decades (Figure 1), Alaska salmon resource management is considered a biological success, particularly in comparison with other places where salmon stocks have declined. Alaska has succeeded in meeting the constitutional mandate to manage salmon fisheries for “sustained yield”—as reflected in the certification of Alaska’s commercial salmon fisheries program as “sustainable” by the Marine Stewardship Council (MSC) in 2000, following an evaluation by an independent certification firm.

Alaskans are justifiably proud of this success. For example, an Alaska Department of Fish and Game brochure, entitled “Alaska’s Salmon Management: A Story of Success,” describes how Alaska’s “management and policies promote the sustainability of salmon stocks that are wild, abundant and healthy.”³

Figure 1



Why has Alaska succeeded in sustained yield management of its salmon fisheries? One cornerstone in this success has been in-season management focused on achieving escapement objectives by monitoring run strength and allowing commercial harvests only when progress towards escapement goals is satisfactory. Another cornerstone has been the protection of habitat and water quality.

A more fundamental reason, however, has been an institutional commitment to sustained yield management. The Alaska Legislature, which has fundamental authority for Alaska fisheries management, has clearly delegated authority to the Board of Fisheries to establish regulations

³ The state’s fishery management is not the only factor contributing to strong harvests over the past two decades. Other factors include the state’s salmon enhancement program—in particular, hatchery releases of pink and chum salmon—and favorable ocean conditions (Milo D. Adkison and Bruce P. Finney, “The Long-Term Outlook for Salmon Returns to Alaska,” *Alaska Fishery Research Bulletin*, Vol. 10 No. 2, Winter 2003).

“for the purposes of conservation and development” of Alaska’s fisheries resources⁴ and to the Department of Fish and Game to “manage, protect, maintain, improve, and extend” Alaska’s fish resources.⁵

In government, the salmon industry, and among the public, there is a clear understanding of the priority of conservation goals over other goals such as allocation. There is a clear separation of conservation goals from other goals in the regulatory process.⁶ The Department of Fish and Game has employed biologists who have done research as a basis for regulatory decisions affecting conservation. The legislature has provided adequate funding for the Board and the Department to make the necessary decisions to meet conservation objectives (although in recent years these budgets have been significantly reduced).

Put simply, Alaska has achieved biological goals for its salmon management because these goals are clearly understood, the responsibility and authority for achieving these goals is clear, and there is adequate funding for the research and management needed to achieve these goals.

The Tension Between Social and Economic Objectives in Alaska Salmon Management

While Alaska’s objective of managing salmon fisheries for sustained yield is clear, other objectives are less clear. The state constitution establishes that fisheries shall be managed for the “maximum benefit” of the people. However, the meaning of “maximum benefit” is subject to a wide range of interpretations. Thus it is not surprising that fisheries management has always been one of the most contentious topics of Alaska politics.

Inherent in the challenge of managing fisheries for “maximum benefit” has been a long-standing tension between social and economic objectives. Since statehood, an implicit “social” objective of Alaska’s salmon management system has been to spread the benefits of our salmon fisheries widely among Alaskans. This objective is specifically reflected in the constitutional provisions that the fisheries are “reserved to the people for common use” and banning the establishment of any “exclusive right or special privilege of fishery.”

An implicit economic objective of salmon management is to keep costs low—at least low enough so that fishing is profitable. Commercial fishing is an economic activity that cannot continue at all—or provide any social benefits—unless the costs of catching the fish are less than the value of the fish.

The tension between social and economic objectives arises from the fact that many regulations which help to spread the benefits of the fishery also directly or indirectly add to costs of fishing or lower the value of the fish, compared with other potential ways of managing the fishery.

⁴ AS 16.05.221

⁵ AS 16.01.10

⁶ A 1987 study by the legislature’s Senate Advisory Council noted that “In Alaska there is a de facto separation of the conservation and allocation decision processes. The Board of Fisheries almost invariably accepts the recommendations of the department, its technical advisor, on conservation matters, while concentrating its attention on allocation issues.” (Sheila Helgath and Richard Rainery, *The Alaska Board of Fisheries: Fishery Management Alternatives*, Senate Advisory Council, October 1987, page 11.

For example, in many Alaska salmon fisheries, the number of limited entry permits—and boats fishing—is significantly greater than the number of boats that would be needed to catch the available fish. As a result, total costs are higher and the profitability of individual fishing operations is lower than if there were fewer permits and boats.

A wide variety of fishery regulations were adopted with the specific goal of reducing the efficiency of fishing, such as restrictions on the amount of gear that can be fished from a single boat or set-net site, and restrictions on the use of boats in more than one salmon fishery per year.

In some Alaska fisheries, fish could be caught more efficiently using other types of gear. For example, in high-volume fisheries such as Bristol Bay, fish could be caught at lower cost using seine gear. However, seiners would employ far fewer fishermen and would make it very difficult for small gillnet boats to compete.

Perhaps the most prominent example of a regulation adopted to reduce efficiency is Alaska's ban on fish traps—one of the first pieces of legislation adopted by the Alaska Legislature after statehood. Traps can be a very efficient way of catching salmon—and have the added potential advantage of catching fish live, allowing for very high quality. But traps employ far fewer fishermen and concentrate the value of the catch in the hands of the few trap owners—as occurred in territorial days, when resentment against Outside-owned traps was a major issue in Alaska's drive for statehood.

One feature of Alaska's salmon management system is a “race for fish.” When fishing capacity significantly exceeds the number of fish available to be caught in a given period, fishermen need to work as fast as possible to compete successfully for the available fish—allowing less time for careful handling. This, together with restrictions on boat size and gear, adds to costs and contributes to widely recognized quality problems in some fisheries, lowering the reputation and value of Alaska salmon in world markets.



Two thirty-two foot Bristol Bay gillnetters. Although regulations limit boat length, over time more and more fishermen have built wider and taller boats in an effort to catch a larger share of the available fish. Boat costs have increased without any corresponding increase in catches. (Photograph by Norm Van Vactor)

Fishing the Egegik North Line in Bristol Bay. Clearly, the available fish could be caught by fewer boats at lower cost. Intense competition also results in gear damage and makes it difficult to handle fish carefully. (Photograph by Bart Eaton.)





Bristol Bay fishermen picking fish from a drift gillnet. It is difficult to handle fish carefully in the crowded space on board small boats while working to catch fish as fast as possible. (Photograph by Gunnar Knapp)

Fish delivered to a processor from a beach set net operation. It is difficult to maintain high quality for fish delivered in this way. (Photograph by Gunnar Knapp)



A holding pen at a Norwegian salmon processing plant. In contrast to most Alaska wild salmon, farmed salmon are tendered live from the farm site to the holding pen and are kept alive until immediately before processing—allowing for very high quality. (Photograph by Gunnar Knapp)

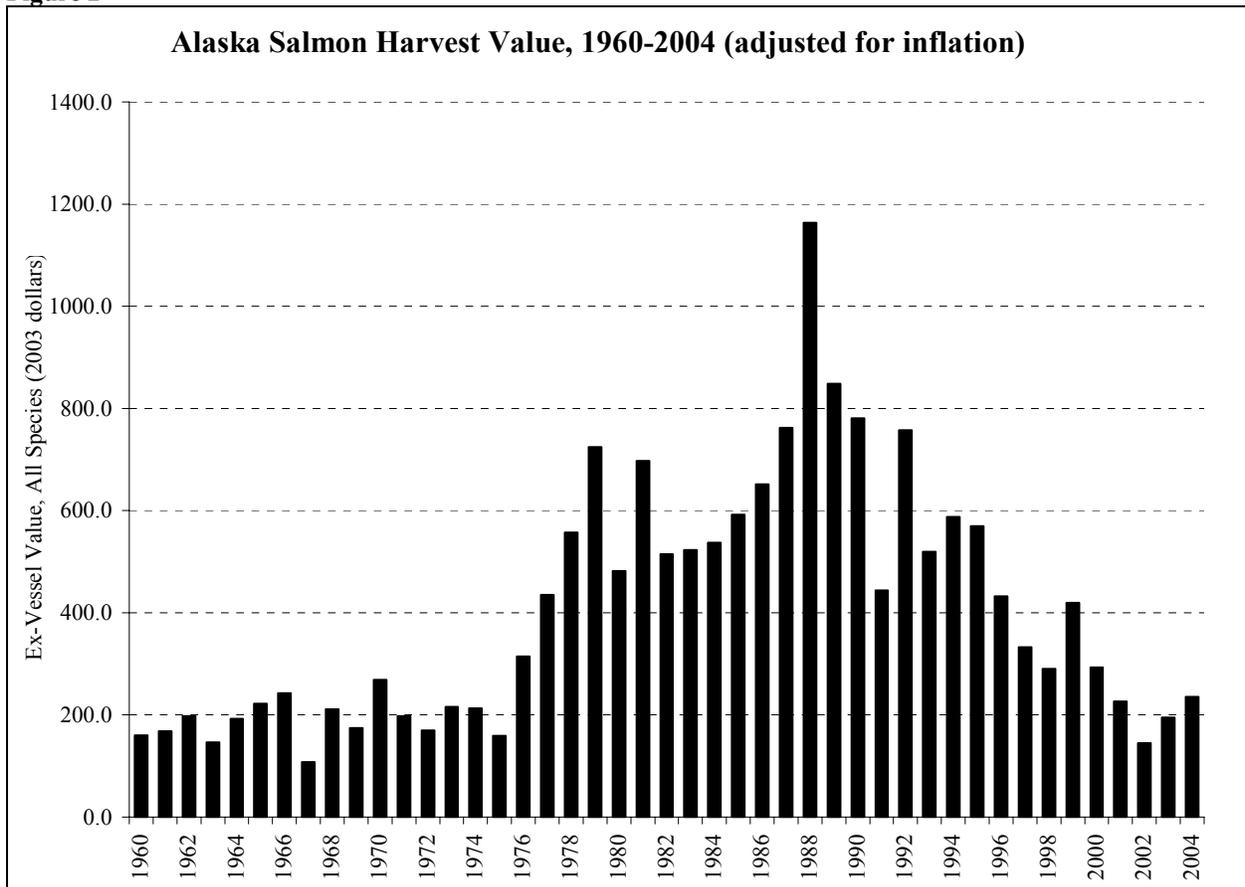
The Economic Crisis in the Alaska Salmon Industry

The 1980s were prosperous economic times in the Alaska salmon fishery. Salmon runs rebounded and prices rose—driven by a booming Japanese economy and the rising value of the Japanese yen. The value of Alaska salmon harvests increased from average of about \$200 million during most of the 1960s and 1970s to more than \$500 million throughout the 1980s, with a peak value of more than \$1 billion in 1988 (Figure 2).

The salmon fisheries were not only an economic success. Alaska was also succeeding in the social objective of spreading the wealth of the salmon fisheries widely among Alaskans. Tens of thousands of Alaskans from across the state—permit holders and crew—were employed in salmon fishing. Coastal communities prospered, and limited entry permit holders' wealth grew as permits increased in value. Not surprisingly, little thought was given to the ways in which salmon management regulations affected costs or quality.

Over the past fifteen years, the economic condition of the salmon industry has been drastically reversed. Alaska's salmon industry has experienced dramatic losses in income, market share, permit and boat values, and tax revenues to communities and the state. Between 2001 and 2004, the average real (inflation-adjusted) value of Alaska salmon catches was less than one-third the average for the years 1978 to 1995.

Figure 2



The causes of the decline in prices and value in Alaska’s commercial salmon industry are complex, and they vary from fishery to fishery. The biggest factor has been competition from farmed salmon—but other factors such as lower sockeye salmon catches and a stagnant Japanese economy have also contributed.⁷

Table 1

Changes in Alaska Salmon Fisheries, 1986-90 to 2000-02: Total Earnings and Average Earnings

Area	Gear	Change in average annual total earnings		Change in average annual earnings per permit fished	
		millions of dollars	%	dollars	%
Southeast	Purse Seine	-19.3	-36%	-\$42,367	-30%
Bristol Bay	Drift Gillnet	-113.1	-73%	-\$57,756	-69%
Prince William Sd.	Drift Gillnet	-5.0	-20%	-\$10,284	-21%
Kodiak	Purse Seine	-28.4	-66%	-\$56,294	-42%
Statewide	Power Troll	-10.0	-42%	-\$8,801	-31%
Prince William Sd.	Purse Seine	-17.4	-59%	-\$25,502	-22%
Southeast	Drift Gillnet	-10.0	-49%	-\$18,874	-43%
Bristol Bay	Set Gillnet	-15.0	-60%	-\$14,919	-55%
Chignik	Purse Seine	-13.6	-61%	-\$108,869	-50%
Kodiak	Set Gillnet	-8.5	-65%	-\$58,392	-66%
Cook Inlet	Set Gillnet	-32.3	-87%	-\$47,097	-83%
Cook Inlet	Drift Gillnet	-45.0	-91%	-\$74,708	-88%
Ak Peninsula	Drift Gillnet	-14.2	-67%	-\$81,072	-63%
Ak Pen./Aleut. Is.	Purse Seine	-20.0	-85%	-\$145,051	-72%
Ak Peninsula	Set Gillnet	-4.9	-62%	-\$44,086	-60%
Prince William Sd.	Set Gillnet	0.4	49%	\$12,830	40%
Yakutat	Set Gillnet	-3.7	-77%	-\$20,460	-67%
Statewide	Hand Troll	-3.1	-79%	-\$2,434	-46%
Kuskokwim	Set Gillnet	-6.6	-89%	-\$7,638	-84%
Cook Inlet	Purse Seine	-2.6	-76%	-\$21,692	-43%
Kotzebue	Set Gillnet	-0.8	-74%	-\$1,713	-28%
Norton Sound	Set Gillnet	-0.5	-86%	-\$2,485	-68%
Kodiak	Beach Seine	0.0	0%	\$0	0%
Upper Yukon	Fish Wheel	-0.9	-99%	-\$7,113	-94%
Lower Yukon	Set Gillnet	-6.9	-90%	-\$10,036	-88%
Upper Yukon	Set Gillnet	-0.2	-98%	-\$4,779	-95%
Total, All Fisheries		-381.6	-66%		

Source: Commercial Fisheries Entry Commission, Basic Information Tables for Alaska salmon fisheries. Note: 1986-90 average from which the changes were calculated excludes 1989 (the year of the Exxon Valdez oil spill) for the following fisheries: Kodiak purse seine, Cook Inlet drift gillnet, Prince William Sound set gillnet, and Kodiak Beach Seine.

The decline in the value of Alaska’s salmon fisheries has had wide-ranging economic and social effects on Alaska’s salmon fishermen and fishing communities. Processing plants have closed, leaving fishermen without markets. Fishermen have had trouble meeting loan payments, and some have lost their permits and boats. As permit and boat values have declined, many

⁷ For recent discussions of the causes and effects of the decline in economic value of the salmon industry, see Neal Gilbertsen, “The Global Salmon Industry and Its Impacts in Alaska,” *Alaska Economic Trends*, October 2003, and Gunnar Knapp, *Challenges and Strategies for the Alaska Salmon Industry*, University of Alaska Anchorage, Institute of Social and Economic Research, 2001.

fishermen have lost much of the value of their assets. Communities have cut back on services as tax revenues have declined. Many permit holders have stopped fishing their permits, and young people and fishing families have left fishing communities in search of other opportunities. All of these economic stresses have contributed to social stress.

Table 2
Changes in Alaska Salmon Fisheries, 1986-90 to 2000-02: Permit Prices and Permit Wealth

Area	Gear	Change in permit price		Change in permit wealth	
		dollars	%	millions of dollars	%
Southeast	Purse Seine	-\$34,244	-51%	-14.3	-52%
Bristol Bay	Drift Gillnet	-\$133,630	-75%	-231.4	-73%
Prince William Sd.	Drift Gillnet	-\$47,553	-47%	-25.5	-47%
Kodiak	Purse Seine	-\$71,201	-82%	-27.2	-82%
Statewide	Power Troll	-\$15,631	-53%	-14.4	-52%
Prince William Sd.	Purse Seine	-\$148,462	-88%	-39.0	-87%
Southeast	Drift Gillnet	-\$48,587	-59%	-22.6	-58%
Bristol Bay	Set Gillnet	-\$25,024	-52%	-23.8	-50%
Chignik	Purse Seine	-\$175,200	-48%	-14.9	-46%
Kodiak	Set Gillnet	\$9,516	12%	1.8	12%
Cook Inlet	Set Gillnet	-\$39,497	-79%	-29.3	-79%
Cook Inlet	Drift Gillnet	-\$111,807	-83%	-62.5	-83%
Ak Peninsula	Drift Gillnet	-\$171,412	-64%	-26.8	-63%
Ak Pen./Aleut. Is.	Purse Seine	-\$161,650	-78%	-19.2	-78%
Ak Peninsula	Set Gillnet	-\$6,024	-7%	-0.7	-7%
Prince William Sd.	Set Gillnet	\$2,427	4%	0.2	15%
Yakutat	Set Gillnet	-\$4,923	-16%	-0.7	-15%
Statewide	Hand Troll	-\$2,539	-39%	-7.0	-58%
Kuskokwim	Set Gillnet	-\$4,010	-37%	-3.4	-38%
Cook Inlet	Purse Seine	-\$78,276	-84%	-6.4	-84%
Kotzebue	Set Gillnet	-\$6,878	-77%	-1.6	-81%
Norton Sound	Set Gillnet	-\$5,733	-56%	-1.2	-59%
Kodiak	Beach Seine	-\$17,182	-51%	-0.3	-37%
Upper Yukon	Fish Wheel	-\$3,691	-33%	-0.3	-21%
Lower Yukon	Set Gillnet	-\$11,414	-49%	-8.1	-49%
Upper Yukon	Set Gillnet	-\$1,838	-20%	-0.1	-17%
Total, All Fisheries				-578.7	-66%

Source: Commercial Fisheries Entry Commission, Basic Information Tables for Alaska salmon fisheries.

Note: Permit wealth was calculated by multiplying permit price by the number of permanent permits renewed.

As the profitability of the Alaska salmon fishery has declined, the effects of regulations on cost and value of have become increasingly important. They are important not just because they affect the profitability of the fisheries, but also because they affect Alaska's ability to achieve social objectives of the fisheries. An industry which is not profitable cannot provide wealth to be spread among Alaskans.

Alaska's Salmon Strategy Debate

Since salmon prices began to decline in the early 1990s, fishermen, processors, policy makers, community leaders, and consultants have debated how to address the challenges facing Alaska's

salmon industry. A series of task forces, forums, and summits have recommended a wide variety of strategies for revitalizing Alaska’s salmon industry.⁸

Alaska’s Salmon Strategy Debate, 1991-2004: Selected Reports, Task Forces and Forums

Salmon Strategy Task Force (1991)	A 13-member Task Force appointed by Governor Wally Hickel, including three legislators, two commissioners, three processors, the executive director of the United Fishermen of Alaska, and others. The task force met four times during the fall of 1991, invited written and oral comments, and wrote a 10-page report that included “Recommendations for Dealing with the Immediate Crisis,” “Mid-Range Recommendations,” and “Long-Term Recommendations.”
Alaska Salmon Strategy Forum (1997)	A three-day meeting held in Juneau in January 1997. About 120 people attended, including the governor and lieutenant governor, commissioners, state employees, representatives of fishermen’s organizations, processors, hatcheries, municipalities, and others. A proceedings report, prepared by a consultant, included “strategies for action” that “represented the general consensus of breakout groups.”
Salmon Forum II (1998)	A two-day meeting held in Anchorage in February 1998, sponsored by Governor Tony Knowles’ Salmon Cabinet. Over 200 people attended, including harvesters representing every gear type and region, large and small processors, and state agency officials. The forum featured presentations by industry experts and extensive discussion focused on quality, cost efficiency, and industry relations. Based on discussions at the forum, a “Sounding Board” working group prepared a Forum Issue Summary and Action Plan. Many of the recommendations addressed quality, cost efficiency, and industry relations.
Alaska Salmon Forum (1999)	A two-day meeting held in Anchorage in March 1999, sponsored by Governor Tony Knowles’ Salmon Cabinet, and attended by numerous state and community representatives as well as fishermen and processors. On the first day invited speakers discussed the state of the industry, challenges facing the industry, and potential strategies for the industry. On the second day work groups discussed issues and developed recommendations, which were summarized in a 58-page report.
Alaska Fish Summit (2002)	A one-day meeting held in Kodiak in April 2004, co-hosted by Governor Tony Knowles and U.S. Senator Ted Stevens and attended by many Alaska legislators and state and community officials, as well as numerous representatives of fishing and fish processing companies. The summit endorsed the creation of a Joint Legislative Salmon Industry Task Force to “work on what the state, the federal government and industry can do to deal with current salmon fishing issues.” The summit also endorsed “creation of regional task force sub-groups to work on fleet reduction and fleet behavior strategies” and recommended “a marketing vision for Alaska to develop the brand and stick with the strengths of Alaska salmon.”
Joint Legislative Salmon Industry Task Force (2002-2004)	A task force, consisting of six legislators and nine industry and community representatives, created by the legislature in 2002 “to address those elements of the crisis in the Alaska industry that can be solved through governmental policy” and “through action on the part of industry.” The Task Force in turn formed five subcommittees consisting of task force and public members, to address issues of finance, governance, marketing, production, and quality. After conducting extensive public hearings during its first year, the Task Force was extended for a second year. The Task Force received over 279 proposals from the public and eventually introduced 14 pieces of legislation in 2003 and 13 in 2004, with over half passing the legislature. Most of the bills dealt with marketing and taxation; very few raised restructuring issues. Examples include the creation of regional seafood development associations for marketing (HB 419), finfish labeling requirements (SB 282), and ASMI restructuring (SB 273).

⁸ Reports of most of these efforts are posted on the Web site of the Alaska Department of Community and Economic Development’s Office of Fisheries Development, at <http://www.dced.state.ak.us/oed/seafood/seafoodreports.htm>.

Several general themes have emerged from these efforts. Repeatedly, there have been calls for the industry to improve the quality of Alaska salmon; to become more market oriented; to develop new products; to develop new markets (in particular the U.S. domestic market); and to invest more in marketing:

“The Task Force recognizes that the entire seafood industry must improve the inherent quality of the salmon it processes, the freshness and workmanship of the product, and the consistency of grading to remain competitive, particularly when competing with farmed salmon. . . (Salmon Strategy Task Force, 1992)

“[The state] should contract a major marketing research firm . . . to develop and analyze the “facts” related to salmon market trends, opportunities, and weaknesses in major and potential markets. The group should also evaluate the state and industry’s marketing efforts . . . to permit, if possible, a more effective approach to marketing Alaska seafood.” (Salmon Strategy Task Force, 1992)

“Without improved quality and product consistency, Alaska salmon is ill-suited to compete with farmed salmon on the whole fish market and unable to meet the quality and consistency standards required for long shelf-life as convenience-form frozen food products.” (Recovering World Leadership in Salmon: A Strategic and Tactical Plan for the State of Alaska, 1993)

“We will collectively move the salmon industry from a production-driven fish industry to a market-driven food industry that knows its customers. . . We must build in predictability and consistency for the buyers of Alaska salmon.” (Salmon Strategy Forum, 1997)

“Alaska’s fisheries and the industry must be managed for quality. . . We need to plug the ‘leaks’ in the quality pipeline.” (Salmon Forum II, 1998).

“The Alaska Fish Summit recommended a marketing vision for Alaska to develop the brand and stick with the strengths of Alaska salmon. The state and industry should develop a comprehensive marketing strategy, moving beyond promotion of Alaska salmon. Quality should be tied to marketing, including consideration of state incentives for promoting quality.” (Summary of Recommendations of the Alaska Fish Summit, 2002)

A wide variety of other themes and proposals has also emerged: the need for better cold storage and transportation infrastructure, and the need to overcome traditional divisions within the industry between gear groups, between different regions, and between processors and fishermen. The “priorities for action” identified by the “Sounding Board” of the 1999 Salmon Forum (shown on the following page) provide a typical example of the “quality,” “marketing,” and other themes emerging from Alaska’s salmon strategy debate.

Priorities for Action Identified by the “Sounding Board” of the 1999 Salmon Forum

INDUSTRY AS A WHOLE. 1. Form a coalition for an industry-wide united voice in Juneau and Anchorage. The focus would be to help decision-makers and urban residents recognize the importance of the seafood industry to all of Alaska. The coalition would: aggressively support and defend a workable budget for ADF&G, seafood inspection programs at DEC, and ASMI’s salmon marketing initiatives. 2. Organize an annual industry fly-in during the legislative session. 3. Get Anchorage/Railbelt area permit holders, processors, and support services politically involved.

FISHERMEN 1. Improve quality through proper handling and chilling wherever possible. For those quality-conscious fishermen, continue to deliver quality salmon and encourage other fishermen to do likewise. 2. Organize quality-conscious fishermen and appropriate local processors for regional salmon marketing efforts similar to the Copper River effort. **3. In Bristol Bay, continue efforts to address fleet or gear consolidation.**

PROCESSORS. 1. Help create consistency in consumers’ expectation of quality and at a minimum use ASMI quality standards as a foundation for individual plant grading standards. 2. Include fishermen in discussions on short and long-term marketing strategies; explore ways to achieve those goals together. 3. Create and use incentives for promoting quality and loyalty to new and/or expanding markets and products.

ADF&G 1. Continue pre-season regional meetings with industry representatives to set in-season parameters for maximizing quality and efficiency. 2. Initiate pre-season regional meetings with processors and shippers to determine if in-season modifications are possible for meeting key marketing events and schedules. 3. Expand timely collection of salmon wholesale value and harvest information including at a minimum one more COAR report. 4. Seek consistency in the enforcement of regulations, such as roe stripping.

ASMI. 1. Expand marketing efforts to positively differentiate wild salmon from farmed salmon. 2. Capitalize on health benefits of wild salmon, including obtaining a heart-healthy certification, such as the American Heart Association. 3. Continue to seek outside funding sources for salmon marketing efforts. 4. Develop and support marketing strategies that differentiate Alaska salmon from endangered salmon, including eco-labeling programs.

DCED. 1. Achieve credible organic certification for wild salmon. 2. Promote regional salmon marketing in a manner that does not lead to consumer confusion or fractionalization. 3. Pursue quality seal research and pilot project. 4. Serve as a clearinghouse for performance information on different pin bone machines.

BOF. 1. Amend board proposal form to include a question about quality impacts of fish harvest. **2. Inject concern for improving quality and economic efficiency into board discussion. 3. Absent major allocation repercussions, support those proposals that improve quality and efficiency.**

ASTF. 1. Continue funding and support for pin bone removal projects. 2. Follow-up on projects/proposals to extend shelf life of fresh salmon, such as using ozone in slush ice; work closely with DEC on these projects.

DEC. 1. Be receptive and responsive to ASTF projects that demonstrate how shelf life can be extended while complying with food safety and inspection requirements. 2. Initiate a state organic labeling program that relies on credible private certifiers and industry to cover inspection and costs. 3. Seek consistency in the enforcement of food safety regulations.

Source: Proceedings of the Alaska Salmon Forum 99. www.dced.state.ak.us/oed/seafood/pub/forum99.pdf

Note: **Underlined and bolded** recommendations relate to restructuring.

Despite repeated calls for action, the state government has done relatively little to address many of the themes arising from the salmon strategy debate. The legislature, facing declining state revenues, has ended all state funding of salmon marketing (except for funds derived from federal grants). With the industry unable to reach consensus on quality or grading standards, the state has not imposed such standards. The state has done nothing to change the fundamental economic challenges facing the salmon industry.

Restructuring in the Salmon Strategy Debate

From the beginning of the salmon strategy debate, part of the discussion has focused on the effects of salmon management regulations on costs and quality, as well as the broader issue of “restructuring” the management of Alaska salmon fisheries.⁹ Various reports and forums have called for studying potential changes in regulations and management:

The Commercial Fisheries Entry Commission, DCED and DF&G, should develop fishery management and regulatory measures aimed at reducing operating costs, more efficiently utilizing present investments, and promoting a rational sustainable industry. Investigate ways to retain permits in Alaska and rural areas in particular, provide greater stability and enhanced revenues to resident fishermen, and increased shoreside investment consistent with sound financial standards, through (a) reexamination of loan policies and permit use limitations, and (b) reexamination of Alaska’s limited entry system. (Salmon Strategy Task Force, 1992)

Reduce the cost of production. An overcapitalized harvesting fleet [contributes] to increased production costs. Permit buy back programs financed by the state or by fishermen should be investigated. (Alaska Department of Commerce and Economic Development, *Scenario Planning: Developing a Strategy for the Future of the Alaska Salmon Industry*, 1993)

Review and modify existing regulations which constrain the achievement of maximum intrinsic value of our many fishery resources. . . . Lower operational and capital costs by fishery and gear groups. Remove gear requirements that reduce efficiencies. . . (Strategic Solutions Consulting Group, *Proceedings of the Alaska Salmon Strategy Forum*, 1997)

⁹The term “restructuring” is generally used to refer to major changes in the management of a fishery undertaken primarily for economic or social reasons, rather than for conservation reasons. Restructuring generally is intended to change how and by whom fish are harvested, rather than how many fish are harvested. Some advocates refer to restructuring as “rationalization”—because they believe that changes would result in more “rational” fisheries management.

Initiate a review of the state's long-run goals for the commercial salmon industry and the combined effect of the different state policies which affect the salmon industry, including (but not limited to) constitutional standards, the limited entry system (including permit numbers), fisheries management and allocation, vessel and gear regulations. . . The Limited Entry Commission should undertake an analysis of options for fleet consolidation. This should include (a) implications of different options for cost efficiency and other goals; (b) review of potential legal and constitutional constraints and ways of overcoming them; (c) administrative or legislative actions needed to implement different options; and d) options to safeguard Alaska's resident small boat fleet wherever possible. Options should be examined on a fishery-by-fishery basis. Have Board of Fisheries hold a work session on how and why cost efficiency strategies and quality involves them. (Alaska Department of Commerce and Economic Development, *Salmon Forum II Report, 1998*)

The Alaska Fish Summit endorsed creation of regional task force sub-groups to work on fleet reduction and fleet-behavior strategies. . . (Information Insights, *Report on 2002 Alaska Fish Summit*)

However, despite these calls to study the issues, Alaskans have engaged in little substantive discussion of restructuring. In general—as illustrated by the 1999 Salmon Forum priorities for action summarized above—restructuring has been a lesser theme in Alaska's salmon strategy debate, receiving less discussion and less follow-up than other themes.

Since the beginning of the salmon crisis, there has been relatively little change in Alaska salmon management. (The one notable exception is the Chignik salmon fishery, which we discuss later in this paper.) In most fisheries, the management remains very similar to what it was in the late 1980s, at the peak of value and prosperity in the Alaska salmon industry.

However, serious discussion of restructuring is beginning. Over the coming year, at the request of the Joint Legislative Salmon Industry Task Force, a “Salmon Industry Restructuring Panel” established by the Board of Fisheries’ will study the issues raised by restructuring proposals and make recommendations to the legislature about how to address them.

If the Salmon Industry Restructuring Panel is to engage Alaskans in a productive discussion of restructuring that could lead to real change, it is important for Alaskans to understand the obstacles that have hampered discussions of restructuring so far. Why has so little change occurred? What needs to happen for change to occur?

We suggest that numerous factors have combined to make it inherently difficult to debate and bring about significant changes in salmon management regulations: the diversity of Alaska salmon fisheries; the complexity and highly controversial nature of the issues; uncertainty of stakeholders over the implications and potential impacts of changes; and the uncertainty over what changes may or may not be constitutional. Aggravating these inherent challenges is an institutional problem: the absence of clear responsibility and authority within state government for the economic success of Alaska's fisheries.

Inherent Challenges in Restructuring Alaska Salmon Management

Diversity of Alaska Salmon Fisheries

Alaska has more than 25 limited-entry salmon fisheries, including 21 fisheries with more than 100 permits and 18 fisheries that had a catch value greater than \$1 million in 2001. These fisheries vary widely in species, gear, markets, catch, and price trends.

Table 3
Overview of Alaska Salmon Fisheries, 2001

Area	Gear	Total earnings (millions of dollars)	Total catch volume (millions of pounds)	Total permits issued	Alaska resident share of permits	Share of permits fished	Average earnings per permit fished	Average permit price
Southeast	Purse Seine	48.8	251.2	415	45%	83%	\$141,339	\$34,700
Bristol Bay	Drift Gillnet	32.4	80.6	1,885	51%	83%	\$20,699	\$34,700
Prince William Sd.	Drift Gillnet	21.2	26.4	541	73%	96%	\$40,682	\$57,500
Kodiak	Purse Seine	17.1	81.7	384	75%	47%	\$93,727	\$17,100
Statewide	Power Troll	16.2	18.3	965	80%	73%	\$23,073	\$13,000
Prince William Sd.	Purse Seine	12.9	83.8	268	73%	55%	\$87,498	\$21,400
Southeast	Drift Gillnet	12.5	27.4	482	74%	90%	\$28,845	\$41,300
Bristol Bay	Set Gillnet	8.5	20.8	1,010	72%	83%	\$10,181	\$25,300
Chignik	Purse Seine	8.4	17.7	98	85%	94%	\$91,425	\$185,800
Kodiak	Set Gillnet	5.1	12.5	188	72%	91%	\$29,515	\$101,800
Cook Inlet	Set Gillnet	4.1	6.6	744	84%	68%	\$8,082	\$10,600
Cook Inlet	Drift Gillnet	3.7	6.3	574	69%	81%	\$7,947	\$22,300
Ak Peninsula	Drift Gillnet	3.6	7.8	160	50%	86%	\$26,623	\$123,000
Ak Pen./Aleut. Is.	Purse Seine	2.9	22.0	121	74%	53%	\$45,983	\$48,800
Ak Peninsula	Set Gillnet	2.0	5.7	113	83%	87%	\$20,027	\$73,300
Prince William Sd.	Set Gillnet	1.3	1.6	30	83%	100%	\$44,732	\$60,300
Yakutat	Set Gillnet	1.1	3.1	169	80%	67%	\$9,954	\$27,400
Statewide	Hand Troll	1.0	1.0	1,295	88%	24%	\$3,318	\$4,100
Kuskokwim	Set Gillnet	0.8	2.6	818	99%	63%	\$1,562	\$7,000
Cook Inlet	Purse Seine	0.7	1.9	83	90%	30%	\$28,844	\$15,800
Kotzebue	Set Gillnet	0.3	1.8	190	96%	34%	\$4,973	\$2,000
Norton Sound	Set Gillnet	0.1	0.2	190	98%	27%	\$1,233	\$4,500
Kodiak	Beach Seine	0.0	0.0	34	85%	0%	\$0	\$16,400
Upper Yukon	Fish Wheel	0.0	0.0	157	98%	0%	\$0	\$7,700
Lower Yukon	Set Gillnet	0.0	0.0	701	99%	0%	\$0	\$11,500
Upper Yukon	Set Gillnet	0.0	0.0	72	99%	0%	\$0	\$7,500
Total, All Fisheries		204.7	681.1	11,687	76%	63%	\$29,625	\$37,492

Source: Commercial Fisheries Entry Commission, Basic Information Tables for Alaska salmon fisheries.

The diversity of Alaska salmon fisheries makes it difficult just to describe the issues associated with salmon management. Cost and quality issues vary widely between gear types and regions. The extent to which the number of permits or boats exceed what is needed to harvest the available fish also varies among individual fisheries, as does the feasibility of particular restructuring options such as co-ops. Clearly there is no single problem or single solution. This means that many of the issues can only be addressed on a fishery-by-fishery basis.

But other issues are inherently statewide—such as legal issues associated with restructuring or restrictions on participation in multiple fisheries. The combination of fishery-specific and

statewide issues makes it inherently challenging to determine who should be involved in discussions of restructuring.

Complexity of the Issues

For any specific Alaska salmon fishery, restructuring is not a single issue or option, but rather a very wide range of issues and options. Although much of the discussion about restructuring has been about fleet reduction—in particular buybacks—there are a much wider range of options for changing fishery management to reduce costs and increase value. They range from relatively simple changes such as “permit stacking” (allowing permit holders to combine operations and fish more gear from a single boat) to major changes such as co-ops. In the extreme, restructuring could conceivably mean changing from limited entry to a different kind of management system, such as one based on quota shares.

Examples of Potential Restructuring Options for Alaska Salmon Fisheries

Option	Rationale	Selected Design Issues	Selected Concerns
Divide permit holders into groups which fish at different times	Reduces total boat and fuel costs	What is the basis for dividing permit holders into groups?	Fishing opportunities may differ between groups
Allow permit holders to combine operations and fish more gear from one boat (permit stacking)	Reduces total boat and fuel costs	How much gear do combined operations get to use?	Potential for participation by permits that would have gone unfished--thus increasing total gear use
Permit buybacks	Reduces boat and fuel costs	Which permits get bought out, and for what price? Who pays for buybacks?	Cost of buybacks Increased investment by remaining boats Decline in local ownership of permits
Harvester co-ops Community quotas Group of individual quotas	Ends "race for fish" & focuses effort on reducing costs & improving quality	What is the basis for allocations? Are allocations fished simulatenously or sequentially? Are allocations temporary or permanent? Are allocations transferable?	Ability of managers to achieve allocations Ability to enforce Administrative costs Degree of local participation Payments for "not fishing"
Changes in boat restrictions Changes in gear	Reduces costs and enhances quality	Should restrictions be similar in different fisheries? Over what period of time are changes phased in?	Loss in value of original boats or gear Access to funding for new boats or gear

Associated with each broad restructuring option are numerous design issues that profoundly influence how different fishermen and communities might be affected by restructuring. For example, who would benefit from a “buyback” of fishing permits clearly depends on who would have to pay for it. Who benefits from a co-op depends on how the co-op profits are divided among the participants.

Restructuring would have complex economic and social implications. How different stakeholders would be affected by different options is far from clear. The long-term effects may be different—and more profound—than the short-term effects. Restructuring would also result in new challenges for fisheries managers in meeting biological objectives, as a result of potential changes in fishing fleets, fishing gear, or fishery participants.

Constitutional Issues

Restructuring of Alaska salmon fisheries raises complex constitutional issues.¹⁰ Many of these derive from the constitutional requirements that fisheries are “reserved to the people for common use” and that “no exclusive right or special privilege of fishery shall be created or authorized.” Thus changes in fisheries management that reduce the number of participants, or create “privileges”—such as quota shares for groups or individuals—run the risk of being found unconstitutional and declared invalid after they have been implemented. Some kinds of restructuring might only be possible through amendments to the Alaska constitution.

Many kinds of changes might or might not be constitutional, depending on how they are designed. It is impossible to be assured of their constitutionality until after they are adopted, challenged, litigated, and decided by the Alaska Supreme Court.

This constitutional uncertainty poses risks that efforts to achieve changes in salmon management will be for naught. A 1998 study by the Commercial Fisheries Entry Commission that briefly reviewed restructuring options pointed out that:

. . . Under our state constitution, a limited fishery can become too exclusive, requiring the state to add more permits back into the fishery to make the limited fishery constitutional. In other words, money could be invested in a buy out program, but a court could, subsequently, require permits to be added back into the fishery. This is a risk for those who would pay for a buy out program. The degree of risk must be assessed on a fishery-by-fishery basis.¹¹

This constitutional risk—and the difficulty of getting clear answers about just how risky different kinds of changes might be—serves to discourage individuals in both industry and government from investing significant effort to achieve restructuring.

Controversy

Restructuring is a very controversial topic. The stakes are high, and restructuring involves difficult tradeoffs between social and economic objectives.

Any change in fisheries management affects different fishermen, different gear groups, and different communities in different ways. Proposed management changes that would benefit fishermen wouldn't necessarily benefit processors—and vice versa. Even a change in management specific to a particular fishery may provoke opposition in other areas, as stakeholders worry that the changes may set a precedent for what changes may occur, and how they may occur, in other areas.

For all these reasons and others, the fishing industry and fishing communities are divided about whether management changes are needed, and if so, what kinds of changes are needed. Private

¹⁰ University of Alaska Marine Advisory Program, “Charting New Courses for Alaska Salmon Fisheries: The Legal Waters” (November 2003) provides a more detailed overview of constitutional issues associated with restructuring.

¹¹ Commercial Fisheries Entry Commission, *Outline of Options for Fleet Consolidation in Alaska's Salmon Fisheries* (1998).

industry associations and membership groups, such as the United Fishermen of Alaska, often find it difficult to recommend comprehensive changes due to lack of consensus. In turn, the lack of consensus within the industry makes legislators reluctant to embrace changes that might hurt some constituents.

A useful example of the complexity and controversy of restructuring is provided by the discussion of fleet reduction among breakout groups at the “Salmon Forum ’99,” as summarized in the forum proceedings (on the following page). Different concerns and attitudes towards restructuring were expressed in different regions, and by different individuals and gear groups within regions. A common theme was that “regions are unique” and that “one regional solution should not affect other areas.” Many people were clearly opposed to any kind of fleet reduction, while those who supported fleet reduction had different concepts of how it might be done.

Summary of Discussion of Fleet Reduction by Breakout Groups at Salmon Forum '99

SELECTED SOUTHEAST ALASKA RESPONSES

Setnetters in Yakutat are opposed to fleet reduction.

Southeast Seiners has started looking at it, but first need more information and dialogue.

Alaska Trollers Association looked at it before and opposes it because it wouldn't benefit the remaining fleet. [76% power troll permits were fished in 1997, therefore 24% unfished; 27% of handtroll permits unfished; buyback might not have any effect.]

Fleet reduction shouldn't be a knee-jerk response to recent issues and turmoil.

We should preserve the ability to enter the fishery for future fishers.

Too much exclusivity will hurt industry.

Highs and lows come and go as part of a natural cycle.

Fleet reduction could mean fewer fish-related/support jobs in communities.

Fleets today are more efficient than in the 70s.

Buyback could result in reallocation to sportfish.

Further discussions may have to be tailored to specific fisheries; it is hard to educate the public except generically.

A buyback would need structure to be effective (not just unfished permits).

Permit stacking is an interesting idea that should be explored.

Communities should buy back permits and hold them, rather than the state (it is not legal now for communities to hold permits).

Regions are unique.

Southeast doesn't need a buyback program now; not enough information now to make a decision; but consider the long-term and keep looking at options.

SELECTED BRISTOL BAY RESPONSES

It is a management problem.

Court cases limit options.

Fleet reduction should be voluntary only.

In a fleet survey of 400 by AIFMA, 95% of fishermen were interested in buyback.

Look at the AIFMA model for buyback.

We prefer federal buyback up front.

Slow the pace to deal with boats.

The plan must include setnets too.

Consider a sliding gear scale until a buyback can be put in place.

The NMFS buyback program sounds good to many.

Avoid sudden buyout because of boat glut and other adjustment problems.

Room poll: fleet reduction, any type: yes, 25; no, 6.

SELECTED COPPER RIVER AND PRINCE WILLIAM SOUND RESPONSES

It's not a problem.

There are 150 too many permits; increase efficiency; 250 boats can provide adequate harvest.

Exclusive area/vessel registration opposition may make the other 50% of the seine fleet active.

Where will the buyout money come from?

SELECTED KODIAK/COOK INLET/CHIGNIK RESPONSES

We don't need a buy-out program. Let the free market control the number of active permits.

Caution/concern needs to be exercised that one regional solution should not affect other areas.

Clean up the statute to allow fishermen to conduct their own buyback program

No consolidation. Pursue diversification for more opportunities

Promote efficiency (processing and harvesting)

This group doesn't want to explore any option that reduces permits.

Source: Proceedings of the Alaska Salmon Forum 99. www.dced.state.ak.us/oed/seafood/pub/forum99.pdf

The Institutional Challenge in Restructuring

Adding to these inherent challenges in restructuring is a fundamental institutional problem: the absence of clear responsibility and authority within state government for the economic success of Alaska's fisheries. Put simply, part of the reason that restructuring—major changes in the management of Alaska salmon fisheries to improve the economic viability of the industry—has not occurred is that the legislature has not undertaken such changes, nor has it delegated clear authority to any other agency to make such changes.

The Alaska Legislature has the constitutional responsibility and authority for the management of Alaska's fishery resources. Over time, the legislature has delegated parts of this management authority to a number of different agencies. But it has not delegated clear responsibility, authority and ability to any agency to ensure the economic viability of the salmon industry, or to restructure Alaska salmon management for the purpose of strengthening the economic viability of the industry. Nor has it provided the necessary resources to any agency for economic analysis to consider and understand the economic impact of the resource protection and allocation decisions that they make. Unless and until the legislature assumes or clearly delegates this responsibility and authority—as well as the necessary resources—restructuring is unlikely to occur in most salmon fisheries.

The Board of Fisheries and the Alaska Department of Fish and Game have a clear mandate to conserve Alaska's salmon resources, and authority to enact regulations necessary to achieve that objective. But that mandate and authority do not extend to the more complex and difficult constitutionally-mandated objective of managing Alaska's salmon resources for the "maximum benefit" of Alaskans. There is no clear definition of "maximum benefit" or the extent to which economic viability is encompassed in this objective. The Board and the Department do not have a clear responsibility or mandate to manage salmon fisheries for economic viability.

The Board of Fisheries is primarily responsible for allocating the fisheries resource among users (commercial, sport, subsistence, and personal use) based on historical practices and fairness, within the bounds of biological limits. Its mission is silent on its authority and responsibility to consider the economic viability of the fisheries. The board's January 2002 decision to authorize an allocation to the Chignik co-op, to enhance the economic viability of that fishery, is being challenged in the Alaska Supreme Court on the grounds that the decision was outside of the board's statutory authority. (We discuss limits to the board's authority and ability to address restructuring in greater detail below.)

The Department of Fish and Game has the statutory mandate to protect fishery resources and to manage for sustained yield. It must undertake the necessary biological analyses to assure adequate escapements and protect the waters and habitat that are essential for the health of the species. But it does not have a mandate or authority to regulate specifically for the purpose of improving the economic viability of a fishery.

The Commercial Fisheries Entry Commission (CFEC) implements Alaska's limited entry law, which establishes the general framework for determining how many permits may be fished in each salmon fishery, who may hold and fish those permits, and how the number of permits may be changed. CFEC has the authority to undertake certain kinds of restructuring, such as a buy-

back program, but only as specifically provided for under the limited entry law. As we discuss below, there are problems with the “optimum number” and buyback provisions of the limited entry law, as a result of which there have been no buybacks and no significant reductions in the number of permits issued in any Alaska salmon fishery, despite more than a decade of economic crisis in the industry. Only the legislature—not CFEC—can change the limited entry law to address these problems.

Other state government agencies also have only limited responsibility and authority for management of salmon fisheries. For example, the Department of Commerce and Economic Development is charged with promoting economic development in Alaska, including the fishing industry, but it has no authority over fisheries management. The Alaska Seafood Marketing Institute (ASMI) is charged with marketing Alaska seafood, but also has no authority over management—even though management may directly affect the effectiveness of Alaska seafood marketing. The Habitat Division of the Alaska Department of Fish and Game was charged with protecting waters and habitat—which are essential to the health of Alaska fish resources—until 2003, when that function was transferred to the Alaska Department of Natural Resources (DNR). Water quality is regulated by the Alaska Department of Environmental Conservation.

An example of the absence of clear responsibility and authority for restructuring is provided by a recommendation of the 1997 Salmon Strategy Forum, which called for a “review of the state’s long-run goals for the commercial salmon industry and the combined effect of the different state policies which affect the salmon industry, including (but not limited to) constitutional standards, the limited entry system (including permit numbers), fisheries management and allocation, vessel and gear regulations, state loan programs, the hatchery program, and marketing.”¹² It was not clear who should conduct the review—and it required the participation of numerous different agencies.

The review should be based within a designated agency or commission (or the Salmon Cabinet) and should seek broad input from different sectors of the industry. The purpose of the review should be to examine whether state policies are consistent with long-run goals and with each other, and what kinds of major policy changes may be needed. . . . The Limited Entry Commission should undertake an analysis of options for fleet consolidation. . . . Have Board of Fisheries hold a work session on how and why cost efficiency strategies and quality involves them . . . The work session should involve the ASMI Board of Directors. Staff from Commercial Fisheries Management and Development identifies regulations that promote inefficiencies, i.e. gear and vessel requirements. [emphasis added]

Another example of absence of clear responsibility and authority for restructuring is provided in the report of the Commercial Fisheries Entry Commission outlining options for fleet consolidation in Alaska’s salmon fisheries, undertaken in response to a request of the 1998 Salmon Forum II. The report briefly described a number of options, concluding each description with a short summary of “how to undertake” the option. For only one option—

¹² Strategic Solutions Consulting Group, Proceedings of the Alaska Salmon Strategy Forum, January 27-29, 1997. Available at <http://www.dced.state.ak.us/oed/seafood/seafoodreports.htm>.

authorizing an alternative gear type—was it clear who would have the responsibility and authority for making the change.

How to Undertake Selected Restructuring Options, as Described in a CFEC Report

Option	"How to Undertake"
Authorize an alternative gear type	Petition the Board of Fisheries and the Commercial Fisheries Entry Commission for a change of regulation.
Exclusive Fishing Group Registration	Seek a regulation from the Alaska Board of Fisheries. It would be necessary to persuade the Board such a regulatory provision would serve management needs and would be authorized under the Board's existing statutory authority.
State-Managed, Fisherman-Financed Buy Out Program	A change of state law would be required. Discuss proposed legislation with Entry Commission, Department of Fish and Game, members of the Board of Fisheries, the Attorney General, legislative attorneys and legislators. Any legislative proposal would require serious work by interested private individuals. Constitutional risks . . . would be present in such a program. A careful examination of the risks on a fishery-by-fishery basis, and, ultimately, an optimum number study would be required to undertake a buy out program.
Cooperatives	Locate existing cooperatives and learn from their experience. Consult with potential cooperative members to determine their interest. Consult with a knowledgeable attorney.
Authorize a Single Individual to hold two or more Entry Permits in the same Fishery and Fish an Incremental amount of Additional Gear.	Discuss proposed legislation with Entry Commission, Department of Fish and Game, Department of Public Safety, members of the Board of Fisheries, the Attorney General, legislative attorneys and legislators. Any legislative proposal would require serious work by interested private individuals.
Fractional entry permits	Discuss proposed legislation with the Entry Commission, Department of Fish and Game, members of the Board of Fisheries, the Attorney General, legislative attorneys and Legislators. Any legislative proposal would require serious work by interested private individuals.
Individual fishing quotas	First, talk to in-season managers of the fishery to assess the feasibility of an IFQ program for a particular salmon fishery. Then, if feasible, discuss proposed legislation with Entry Commission, Department of Fish and Game, members of the Board of Fisheries, the Attorney General, legislative attorneys and Legislators. Any legislative proposal would require serious work by interested private individuals.

Source: Commercial Fisheries Entry Commission, *Outline of Options for Fleet Consolidation in Alaska's Salmon Fisheries* (1998).

The continuing uncertainty over the responsibility and authority for restructuring was apparent in the conclusions of a recent report, commissioned by the Bristol Bay Economic Development Corporation, which analyzed options for restructuring the Bristol Bay salmon fishery:¹³

If restructuring actions are chosen, we further recommend: [1] The task of designing restructuring options should be done by those most familiar with the fishery. [2] One or more organizations take the lead in bringing together representatives of all groups in the fishery to design a restructuring action that all parties can support.

¹³ Link et al, *An Analysis of Options to Restructure the Bristol Bay Salmon Fishery* (2003).

Put simply, the state government, and in particular the legislature, has not taken the lead in facilitating and enabling restructuring—even though the state has sole authority for the management of Alaska’s salmon fisheries. Those interested in promoting change in salmon management to improve the fisheries’ economic viability have been on their own—in developing proposals, analyzing the issues, finding consensus, and figuring out who in state government—if anyone—has authority to make the changes.

Constraints to Restructuring Under the Limited Entry Law

In the 1970s, the legislature adopted limited entry legislation to “promote the conservation and the sustained yield management of Alaska’s fishery resource and the *economic health and stability* of commercial fishing.”¹⁴ The law directed the Commercial Fisheries Entry Commission (CFEC) to establish “optimum numbers of permits” for each fishery, based in part on economic considerations:¹⁵

“ . . . The commission shall establish the optimum number of entry permits for each fishery based on a reasonable balance of the following general standards:

(1) the number of entry permits sufficient to maintain *an economically healthy fishery that will result in a reasonable average rate of economic return to the fishermen participating in that fishery*, considering time fished and necessary investments in vessels and gear

(2) the number of entry permits necessary to harvest the allowable commercial take of the fishery resource during all *years in an orderly, efficient manner*, and consistent with sound fishery management techniques

(3) the number of entry permits sufficient *to avoid serious economic hardship* to those currently engaged in the fishery, considering other economic opportunities reasonably available to them

The law also provided a mechanism for adjusting the number of permits in response to changes in economic considerations:¹⁶

. . . The commission may increase or decrease the optimum number of entry permits for a fishery when one or more of the following conditions makes a change desirable . . . :

(1) an established long-term change in the biological condition of the fishery has occurred . . . ;

¹⁴ AS 16.43.010. Emphasis added.

¹⁵ AS 16.43.290. Emphasis added.

¹⁶ AS 16.43.300. Emphasis added.

(2) *an established long-term change in market conditions has occurred, directly affecting the fishery, that substantially alters the optimum number of entry permits permissible*

(b) If the commission decreases the optimum number of entry permits for a fishery, the number of entry permits may be reduced only under the voluntary buy-back provisions [as set out in other parts of the legislation].

Clearly, these provisions have not functioned as originally intended under the law. Prior to 2004, CFEC had never established or recommended an “optimum number” of permits for any Alaska salmon fishery. CFEC completed its first analysis of the “optimum number” of permits for any Alaska salmon fishery in October 2004.¹⁷

In the late 1970s and early 1980s CFEC did not pursue analysis of “optimum numbers” because economic conditions were rapidly improving in the fisheries. CFEC was preoccupied with legal challenges to limited entry and whether it provided enough access to the fishery, rather than with whether there might be too many permits. By the late 1990s, with the salmon industry facing deteriorating economic conditions, CFEC was cautioning the industry that optimum number studies and buyouts—as provided for under the limited entry law—were of uncertain economic benefit, and were constitutionally risky:¹⁸

. . . If optimism associated with a buy out program generates substantial additional capital investment by remaining fishermen, beneficial results of buy out could be dissipated over time. Additionally, under our state constitution, a limited fishery can become too exclusive, requiring the state to add more permits back into the fishery to make the limited fishery constitutional. In other words, money could be invested in a buy out program, but a court could, subsequently, require permits to be added back into the fishery. This is a risk for those who would pay for a buy out program. The degree of risk must be assessed on a fishery-by-fishery basis.

In effect, CFEC was saying that the only mechanism provided by the limited entry law for adjusting permit numbers to improve the economic viability of Alaska salmon fisheries might be both economically ineffective as well as unconstitutional. To the extent that this was or is the case, clearly only the legislature—and not CFEC—can address this situation.

The optimum number study completed by CFEC for the Bristol Bay drift gillnet fishery in October 2004 reiterated that a Bristol Bay buyback “may require more statutory changes.” It also noted that alternative approaches to restructuring, such as cooperative management, might allow for “economic profits per permit much higher than forecasted in this report” (by changing only the number of permits).¹⁹

¹⁷Commercial Fisheries Entry Commission, *Bristol Bay Salmon Drift Gillnet Fishery Optimum Number Report*, CFEC Report 04-3N, October 2004.

¹⁸ Commercial Fisheries Entry Commission, *Outline of Options for Fleet Consolidation in Alaska’s Salmon Fisheries* (1998).

¹⁹Commercial Fisheries Entry Commission, *Bristol Bay Salmon Drift Gillnet Fishery Optimum Number Report*, CFEC Report 04-3N, October 2004, page 137.

Limits to the Board of Fisheries' Ability to Address Restructuring

The legislature established the Board of Fisheries “for purposes of the conservation and development of the fishery resources of the state.”²⁰ Historically, the board has primarily been concerned with allocating the fisheries resource among users (commercial, sport, subsistence, and personal use) based on historical practices and fairness, within the bounds of biological limits.

The board’s mission is silent on the board’s authority and responsibility to consider the economic viability of the fisheries. Some people argue that the board has and should use this authority. Clearly, the board’s January 2002 decision to authorize an allocation to the Chignik co-op was undertaken to enhance the economic viability of that fishery. Whether the board had the authority to do so was an important part of the debate over the Chignik co-op and is being challenged in the Alaska Supreme Court (as discussed below). Until this uncertainty is resolved, it will clearly remain a major disincentive to any group contemplating the effort, time, and expense of bringing a restructuring proposal before the board.

Regardless of its statutory authority, from a practical standpoint, the overworked and understaffed Board of Fisheries currently has neither the time nor the resources to manage Alaska salmon fisheries for economic viability or to address the complex issues involved in restructuring. The board members are volunteers who spend more than eight weeks a year in meetings, responding to proposals, usually narrowly focused on a particular gear group. The board is so overwhelmed that it must rotate its hearings on issues affecting different regions on a multi-year cycle. Regardless of the stress one region might be experiencing, it could be three or four years before the board will have time to consider modifications. Clearly, the board does not have the ability to generate proposals of its own that would deal with the statewide or even region-wide economic needs of the industry, even if it wanted to do so.

The board has no research staff and no research budget. Board members have no way to independently assess the economic condition of the fisheries, the economic impact of the resource protection and allocation decisions they make, the economic impact of any proposals for restructuring fisheries to make them more economically viable, or the validity of the economic arguments made by restructuring proponents or opponents. Nor do they have any independent ability to assess even more complex potential social effects of restructuring.

Restructuring proposals for any given area may have economic implications for other areas. For example, reductions in the number of permit holders or boats fishing in one area may cause those individuals or boats to shift effort to other areas. Most of the people attending board meetings, and most of the arguments presented by proponents or opponents of any specific restructuring proposal, are likely to be concerned primarily with the specific area for which management changes are proposed. The board has no independent ability to consider potential economic effects on other areas.

Not surprisingly, given these limitations, the board has usually adhered to established harvest patterns, making minor modifications, but not grappling with the magnitude and rate of changes

²⁰ AS 16.05.251.

in effort, capability, or cumulative impact. Nor has it demonstrated the ability to anticipate systemic changes from either environmental or economic indicators, whether they be regime changes in ocean conditions brought on by the Pacific decadal oscillation or regime changes in economic conditions brought about by salmon farming.

These observations are not new. Similar observations were made in a 1987 report of the Alaska Senate Advisory Council—when the Alaska salmon industry was booming.²¹

Today, there is greatly improved conservation management as a result of an emphasis on collecting the best available biological information and basing regulation on it. Conversely, the social and economic aspects of regulatory decisions still receive relatively short shrift.”

Little of the information available to the Board of Fisheries addresses the socio-economic implications of regulatory decisions...Neither the department nor the board has the staff capacity to evaluate such information and must accept it at face value or view it with caution if originating with a user group without being able to test it. Nor does the capability to develop independent analyses of proposals from any source exist. In many cases then, the Board must make allocation decisions without any opportunity to evaluate the long term consequences of those decisions. So too, many changes in regulations must be regarded as economic mysteries by affected user groups.

The ability to look forward into the implications of other trends in the industry, such as mariculture and its affect on existing Alaskan fisheries and how it will figure in global markets, is also essential. Will policies of regulated inefficiency eventually price Alaskan seafood out of global markets?

Lack of Action on Restructuring by the Alaska Legislature

As noted above, the Alaska Legislature has the constitutional authority and responsibility to manage Alaska’s salmon fisheries for the “maximum benefit” of Alaskans. But the legislature has neither assumed nor delegated clear responsibility, authority, and ability to restructure Alaska salmon management for the purpose of strengthening the economic viability of the industry.

The most recent example of the reluctance of the legislature to address the complex and controversial issues associated with restructuring was provided by the 2002-2004 Joint Legislative Salmon Industry Task Force. The legislature gave the Task Force a broad charge “to address those elements of the crisis in the Alaska salmon industry that can be solved through governmental policy.” Restructuring was clearly encompassed within the mission statement adopted by Task Force “. . . to evaluate the State of Alaska’s statutory framework for Alaska’s wild salmon industry as well as current industry practices and to make recommendations for statutory, regulatory and structural changes that will improve the industry while recognizing Alaska’s coastal economy.”

²¹ Sheila Helgath and Richard Rainery. *The Alaska Board of Fisheries: Fisheries Management Alternatives* (1987), pages 49, 48, 63.

However, the Task Force did relatively little to address the central issues associated with restructuring. It conducted no research on economic or social issues related to restructuring. Fourteen pieces of legislation developed by the Task Force were enacted by the legislature.²² Most of the bills dealt with issues other than restructuring.²³ The two bills that had some restructuring implications addressed very specific issues, rather than the critical broad questions of who has responsibility and authority for restructuring, and the legal, economic, and social criteria for restructuring the management of salmon fisheries.²⁴ Recognizing that additional work was needed to address these and other issues, the Task Force provided its remaining funds to the Board of Fish for the Board's Salmon Industry Restructuring Panel.

Why has the Alaska Legislature avoided substantively engaging the central issues associated with restructuring? One reason is the complexity of fisheries management issues and the controversy and lack of consensus surrounding them. Few legislators have sufficient knowledge of the various gear groups or regional differences in the structure and economics of those groups to feel comfortable imposing a change in management when there is no consensus among stakeholders. Even those who do so often give up after trying to find "the right balance," as that balance is intensely disputed. If a legislator introduces a bill to change the allocation or harvesting process, the odds are high that another legislator will go to the rescue of the opponents of the proposal and will champion the status quo or some other alternative. Given the many other pressing issues before the legislature, from budgets to bills that are less controversial, proposed legislation related to fisheries restructuring is often tabled.

Another reason is that the salmon industry has been shrinking in size, both economically and politically. Other industries—such as federal spending, oil and gas, tourism, and health care—have eclipsed salmon fishing as economic engines of Alaska. The leadership of the business community and the government—as well as most urban voters—are more interested in and spend much more time and energy on discussing, promoting and developing other industries. In spite of the fact that much of coastal Alaska depends upon the salmon industry, it does not get much attention. The agencies with responsibility for the salmon industry do not get much direction or support.

²² Joint Legislative Salmon Industry Task Force. 2004. *Summary of Legislation Passed 2002-04*. Available at http://www.ufa-fish.org/taskforce/sum_leg04.htm.

²³ Examples include the creation of regional seafood development associations for marketing (HB 419), finfish labeling requirements (SB 282), and changes in the Alaska Seafood Marketing Institute (SB 273).

²⁴ HB 409 provides that the Board of Fish cannot "authorize the use of a vessel longer than 58 feet overall length in a salmon seine fishery . . . unless at least 66 percent of the entry permit holders for that fishery favor the adoption of the regulation at a referendum conducted by the department." SB315 allows the Commercial Fisheries Entry Commission to conduct a referendum on the question of imposing a buy-back surcharge on the renewal of entry permits for a fishery, which can only be authorized with the approval of 66 percent of the entry permit holders in that fishery.

Restructuring Alaska Fisheries: Lessons from Experience

In the early 1970s, Alaska undertook significant restructuring of its salmon fisheries with the adoption of limited entry. In January 2002, the Board of Fisheries approved major restructuring of the Chignik salmon fishery by approving an allocation to the Chignik salmon cooperative. In the 1990s, the federal North Pacific Fishery Management Council dramatically restructured the management of the Alaska halibut and sablefish fisheries, and more recently the Bering Sea crab fisheries, with the adoption of IFQ management. Below, we briefly review lessons that these experiences suggest about the opportunities and challenges for future restructuring of Alaska salmon fisheries.

Alaska's Adoption of Limited Entry

For the first decade of statehood, Alaska managed its salmon fishery through a traditional conservation management mode. A principle objective was to increase salmon runs, and a secondary objective was to expand benefits of the fishery to Alaskans, after many years of perceived injustices under federal management, which deferred to Seattle interests.

However, in the late 1960s the combination of diminishing stocks and rapidly increasing numbers of fishermen prompted policymakers to consider alternatives for limiting the number of fishermen.^{25, 26} In 1967, Governor Walter Hickel, reacting to the lowest salmon harvest since 1899, proposed to limit the number of fishermen who would be permitted to fish in Bristol Bay. The Board of Fisheries rejected the proposal from the Department of Fish and Game, after objections from fishermen and processors, and then developed its own version, which was ruled unconstitutional by the attorney general.

In 1968, the legislature passed a limited entry law giving authority to the board to set eligibility criteria for permits based on previous experience. The board's regulations were challenged and in 1969 a three judge federal panel found them unconstitutional under both the U.S. and Alaska constitutions.

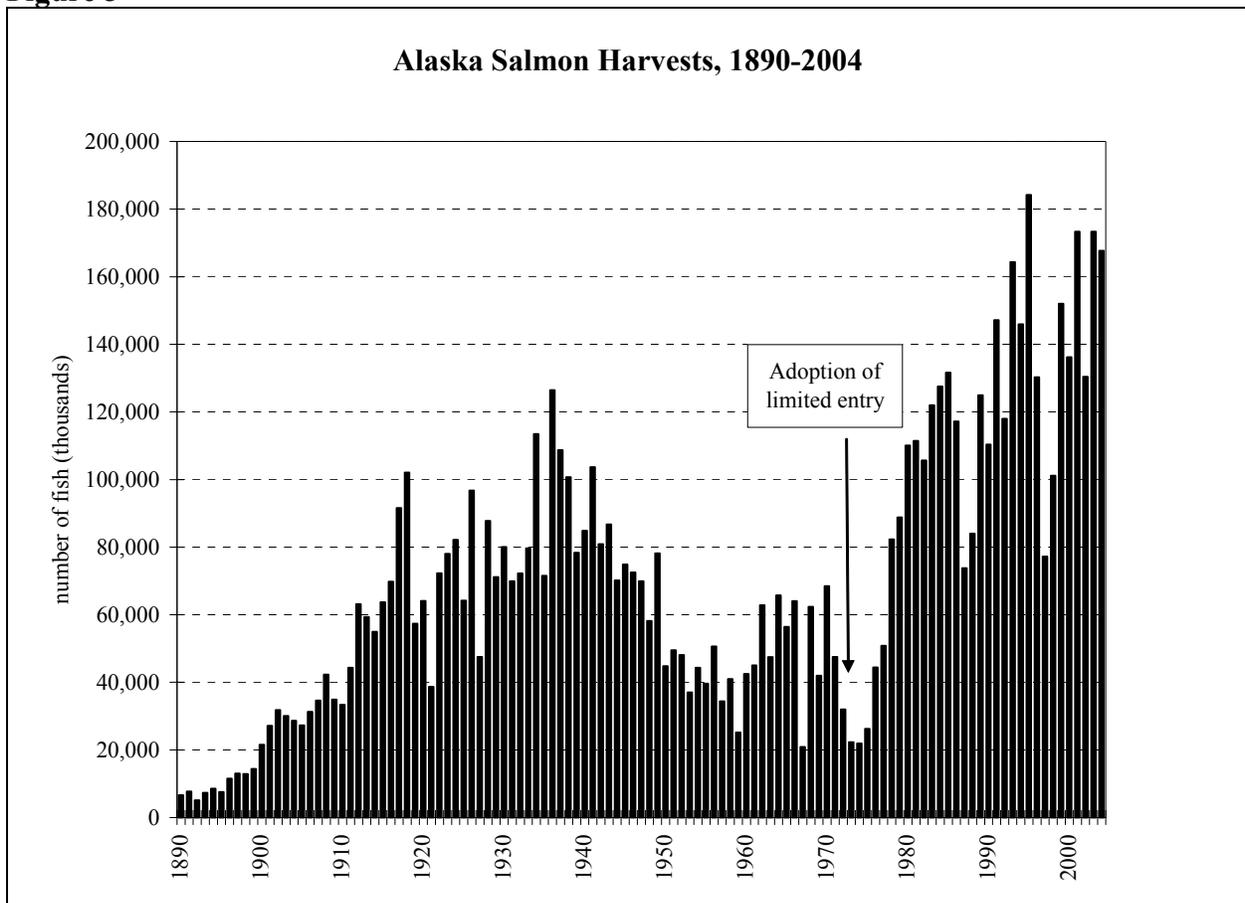
In 1971, Governor Egan proposed, and the legislature passed, a resolution amending Article VIII, section 15 of the Alaska Constitution—which prohibited creation or authorization of “any exclusive right of fishery—to allow limited entry “to prevent economic distress among fishermen and those dependent upon them for a livelihood.” The amendment was passed by Alaska voters in 1972.²⁷

²⁵ “In the late 1960s, there were more than twice as many fishermen, who used more capital equipment to catch about 40 per cent as many fish as were taken in the 1930s, when production was at its peak.” J. Crutchfield and G. Pontecorvo, *The Pacific Salmon Fisheries, a Study of Irrational Conservation* (Baltimore, Johns Hopkins Press for Resources for the Future, Inc., 1969), cited in Thomas Morehouse and Jack Hession, “Politics and Management: The Problem of Limited Entry,” in Arlon R. Tussing, Thomas A. Morehouse, and James D. Babb, Jr., eds., *Alaska Fisheries Policy* (UA Fairbanks, Institute of Social, Economic and Government Research, 1972), page 304.

²⁶ The number of salmon gear licenses issued in Alaska increased from 5100 in 1960 to 8923 in 1970 (Alaska Department of Fish and Game, cited in “Morehouse and Hession, “Politics and Management: The Problem of Limited Entry,” page 305.

²⁷ Originally Section 15 had read as follows: “No exclusive right or special privilege of fishery shall be created or authorized in the natural waters of the State.” The amendment added the following sentence: “This section does not restrict the power of the State to limit entry into any fishery for purposes of resource conservation, to prevent economic distress among fishermen and those dependent upon them for a livelihood and to promote the efficient development of aquaculture in the State.”

Figure 3



The difficult task of balancing economic, social, political, legal and biological considerations in limiting entry then fell to the legislative and executive branches, in specifically prescribing the criteria for and implementing the new program. To provide a factual basis for developing the program, the Governor appointed a Study Group on Limited Entry. After six months of work, the Study Group released a 345-page report in February 1973, stating as its goal:

The plan is intended to work fairly to leave in the fishery those people who depend most on fishing and have been at it the longest. The result will be a stable fishery that permits more effective sustained yield management and allows commercial fishermen the opportunity to make an adequate livelihood from fishing.

The report recommended a full-time regulatory commission, with professional staff, to study each area, set maximum allowable gear levels, taking into consideration harvest history, income of fishermen, and sustained yield. It authorized the commission to set “standards of preference” and “priority classifications” in order to determine who would qualify for limited entry permits, and generally described the procedures to be used.

The legislature subsequently adopted statutes based on the Study Group's recommendations that session.²⁸ The law was challenged and successfully defended in the years that followed. The Commercial Fisheries Entry Commission was established, appointed, and equipped to take on the difficult job of implementation.

Thirty years have passed. There is little doubt that the adoption of limited entry allowed many fishermen, their families, and communities to be better off economically than they would have been had the large numbers of fishermen continued without limitation, at marginal levels of sustainability. However, with the wisdom of hindsight, we can also see that limited entry did not stop the growth in fishing capacity. Over time, fishermen who received limited entry permits invested more capital in boats and equipment, which led to increased fishing pressure on the stocks, and in turn to additional "conservation" regulations to restrict harvests and efficiency. Also, as discussed earlier, the provisions of the limited entry act that provided for determination and achievement of "optimum numbers" of permits were not implemented. Limited entry, as implemented, did not provide a mechanism for adaptation of effort in the salmon industry to changing economic conditions during the 1990s.

Our point, however, is not to debate the merits of the limited entry law, but rather to point out three critical elements of the process by which limited entry was proposed, debated, and adopted. First, the governor and the legislature were directly involved as leaders of this process. They recognized that the industry faced an economic crisis and took responsibility for addressing it. Second, in proposing limited entry, the governor and the legislature were willing to think broadly and to consider far-reaching changes in fisheries management—to the extent of amending the Alaska constitution to allow these changes to take place. Third, the governor and the legislature recognized the complexity of the issues and the need for expert research and analysis. They created a Study Group on Limited Entry that addressed key technical issues related to limited entry.

It is likely that these same three elements will be needed for successful restructuring to address the current economic crisis in the salmon industry: leadership from the governor and the legislature, a willingness to think broadly, and expert research and analysis.

As discussed above, it may be more difficult for the legislature to provide leadership for addressing salmon industry restructuring today than it was in the early 1970s. At that time, many of the leaders in the legislature were fishermen, including the president of the Senate, Jay Hammond. They understood the issues from personal experience and were willing to take action because they understood the significance to their communities. Today a majority of legislators come from a few urban areas where few constituents identify commercial fishing issues as a primary concern. This does not, however, make it any less essential for the legislature to take a leadership role if restructuring is to succeed.

²⁸ Alaska Statutes, Chapter 16.43.

The Political Challenge of Limiting Entry

Writing in 1972, Morehouse and Hession characterized the challenge of adopting limited entry as “essentially political”:

The unlimited access of fishermen to resource stocks in commercial fisheries leads to excessive capacity, low average fishermen incomes and difficult and expensive regulation and enforcement.... The managers of Alaska’s salmon fisheries have traditionally defined their task as one of assuring the largest possible number of fish from season to season and their overriding concern has been with biological factors affecting that objective.

The main types of regulation currently used to restrain efforts are those which impose limits on fishing time, area and gear. Regulations of this sort are referred to as “biological” or “conservation” modes, because their primary purpose is to prevent over fishing or to preserve the stocks...there are several problems associated with conservation modes of regulation. ...they significantly reduce the efficiency of fishing operations—since they require more costly efforts on the part of a growing number of fishermen to catch a limited number of fish—and they are difficult and expensive to enforce...

Why then, do fisheries managers in Alaska and elsewhere continue to depend on conservation modes of regulations to the exclusion of limitations on entry? The reasons are essentially political, and they can all be reduced to the issues of who is to be excluded, how are the increased benefits to be distributed, and with what justifications.

Source: Thomas A. Morehouse and Jack Hession , “Politics and Management: the Problem of Limited Entry,” in Arlon R. Tussing, Thomas A. Morehouse, and James D. Babb, Jr., eds., *Alaska Fisheries Policy* (Fairbanks, Institute of Social, Economic and Government Research). pages 280 and 281.

The Allocation to the Chignik Salmon Cooperative

In January 2002, the Board of Fisheries passed regulations authorizing an allocation to a cooperative in the Chignik salmon fishery, which resulted in major restructuring of the fishery. Under the regulations, if 51 or more Chignik permit holders choose to join a cooperative, the cooperative receives an allocation of a percentage of the Chignik sockeye salmon harvest. Permit holders who choose not to join the cooperative may fish in a competitive fishery for that share of the harvest not allocated to the cooperative.²⁹

The Alaska Department of Fish and Game (ADFG) manages the Chignik fishery with separate openings for the co-op and the competitive fishery. The purpose of the regulations was to allow permit holders the opportunity to fish cooperatively to reduce costs, improve quality and increase value by reducing the number of vessels fishing and slowing down the fishery.

²⁹Current regulations relating to the Chignik Co-op may be found in 5 AAC 15.359.

In 2002, the Chignik Seafood Producers Alliance (CSPA) formed as a cooperative in accordance with the new regulations. In 2002 and 2003, 77 permit holders (out of a total of 100 permit holders in 2002 and 101 in 2003) joined the co-op, which was allocated 69.3% of the total harvest. In 2004, 87 permit holders joined the co-op, which was allocated 87% of the total harvest.

Our purpose here is not to argue that the Chignik co-op has or hasn't been successful, or to advocate for or against potential similar co-ops in other salmon fisheries. Instead our purpose is to discuss the *process* by which the Chignik co-op was established, and whether this process can serve as a useful model for restructuring of other Alaska salmon fisheries.

Chignik permit holders had discussed the concept of a co-op for many years prior to 2002. Partly because of their experience with temporary co-ops—which fished during strikes—most recognized that substantial savings would be possible by fishing with fewer boats. However, partly because of the wide variation in catches among permit holders, it was not possible to devise a way of sharing costs and profits that would satisfy everyone. In addition, some permit holders were philosophically opposed to a co-op, or simply wanted to keep the fishery as it was.

Thus the proposal considered by the Board of Fisheries in January 2002 was supported by a majority of permit holders, but strongly opposed by a vocal minority. Supporters argued that the proposal was a reasonable and fair compromise among alternative proposals with respect to the size of the allocation and the sharing of profits among co-op members; that the proposal was essential for the economic survival of the fishery; and that the board had authority to make an allocation for the purpose of enhancing the economic viability of the fishery. Opponents argued that the proposal was unfair, not necessary, and beyond the authority of the board.

For months prior to the board meeting, as well as during the board meeting, co-op proponents engaged in discussions about the proposal with other Chignik permit holders as well as with board members, fishery managers, legislators, and others whom they thought could help persuade the board to support the proposal. These efforts reflected sophisticated understanding of the board process and a great deal of time and effort. Ultimately, they succeeded. The board was persuaded by arguments that it would be acting within its authority, that the co-op would result in significant economic benefits, and that “Rome is burning”³⁰ and action was needed to address an economic crisis. The board unanimously voted to authorize an allocation to the co-op, after modifying the formula for calculating the size of the allocation to the co-op.

In considering the co-op, the board faced uncertainty about the extent of its authority to authorize an allocation to a co-op, or how that authority might be affected by the nature of the allocation. A legal opinion provided by the Alaska Department of Law concluded:

While there are no court cases specifically on point that guarantee how a court would rule on a challenge to a regulation based on Proposal 105, we believe there are enough legal issues surrounding this proposal to warrant very careful consideration of whether it would be appropriate for the Board to proceed under its current statutory authorities. If the Board decides it wants to adopt Proposal

³⁰ This expression was used by Board of Fisheries member Dan Coffey in deliberations over the proposal.

105 or a similar proposal, we recommend that the Board seek additional statutory authority from the legislature to strengthen the Board's ability to guarantee the equality of opportunity. One option might be for the Board to take preliminary action contingent upon the legislature's action to strengthen and expand Board authority."³¹

After the board approved the allocation, two Chignik permit holders sued to stop the allocation. In October 2002, an Alaska Superior Court ruled that the board did have authority to allocate to a co-op. The case is currently under appeal to the Alaska Supreme Court. If the Supreme Court upholds the decision of the Superior Court, it will have the effect of extending the extent to which the board has clear authority to restructure fisheries for economic purposes.

The board also faced uncertainty about how the proposed allocation might affect catches of permit holders who did not join the co-op, how crew might be affected, how processors and tender operators might be affected, how different Chignik-area communities might be affected, how other Alaska salmon fisheries might be affected, and other potential economic and social effects of the co-op. It acted with little or no independent analysis of what the specific economic or social effects of the co-op might be.³²

Since its implementation, the co-op has been extremely controversial among Chignik permit holders and Chignik area residents. While a majority of permit holders have generally supported and praised the co-op in testimony to the Board of Fisheries and in a University of Alaska survey,³³ some have bitterly opposed it. Different permit holders offer widely varying perspectives on the effects of the co-op and whether it has been good or bad for permit holders and Chignik-area communities. The issues associated with the co-op have deeply divided some communities.

What lessons may be drawn from the process by which the Chignik co-op was established? One lesson is that it *was* possible for permit holders in an important Alaska salmon fishery to achieve significant restructuring by proposing changes to the Board of Fisheries. This suggests that a carefully developed proposal for change, supported by a majority of permit holders, can be successfully achieved with extensive and effective lobbying of board members and others able to influence the board's decisions.

³¹ Memorandum to Ed Dersham (Chair, Board of Fisheries) and Doug Mecum (Director, Division of Commercial Fisheries) from Lance B. Nelson, Assistant Attorney General, Alaska Department of Law, Natural Resources Section, January 3, 2002.

³² One of the authors of this paper, Gunnar Knapp, testified to the Board of Fisheries in favor of "the basic concept" of the proposal, stating that "I support the Chignik proposal concept because it makes basic economic sense. It makes sense to cut costs and improve quality." He did not analyze any of the specific issues, except to suggest that they were important, but should not become an excuse for inaction: "When you change fisheries management, the devil is in the details. Who gets what allocation matters. Effects on other fisheries matter. Effects on processors matter. We have to talk about these issues. But we can resolve them. We should not let them become an excuse for doing nothing."

³³ Gunnar Knapp et al, *Effects of the 2002 Chignik Cooperative: A Survey of Chignik Salmon Permit Holders* (2002).

However, the “Chignik co-op process” for achieving restructuring may be significantly more difficult for other Alaska fisheries than it was for Chignik. Chignik is a unique fishery in several ways, including the concentration of the fishery in Chignik Lagoon on the sockeye salmon runs to a single river. The Chignik co-op offered a clear opportunity for significant cost savings and quality improvement, while continuing to achieve conservation objectives and providing an alternative for those who wished to continue to fish in a (somewhat) traditional way. In larger and more complex Alaska salmon fisheries, it may be much more difficult to devise approaches to restructuring that meet these three conditions.

Because there are a relatively small number of Chignik permit holders, many of whom are local residents or have long-standing personal ties to the Chignik area, it was possible for co-op proponents to engage other permit holders in extensive discussions and thereby enlist significant support for the proposal. In other fisheries with larger numbers of permit holders, or for which a larger share of permit holders are non-local residents, it may be much harder to bring a proposal to the board with the advance endorsement of a majority of permit holders.³⁴

In approving an allocation to the Chignik co-op, the board acted with significant uncertainty about potential economic and social effects of the co-op. It had no specific standards against which to judge a proposal for restructuring the fishery, nor any independent analysis to help it understand how the proposal might meet such standards. For example, the formula for the allocation to the co-op was a critical part of the board’s action, with significant implications for how different permit holders might be affected by the co-op. In devising this formula, the board relied primarily on the judgment of its members and the arguments of co-op supporters and opponents as to what objectives it was trying to achieve through this allocation and whether the formula would achieve these objectives.

This is perhaps the greatest concern in using the “Chignik co-op process” for restructuring other salmon fisheries. With larger and more complex fisheries, there is greater potential for overworked and under-supported board members to approve significant management changes with unforeseen and unintended consequences.

Prior to and since the board’s January 2002 allocation to the Chignik co-op, no other major restructuring proposal has been adopted or seriously discussed by the board for any other Alaska salmon fishery, despite a long and continuing economic decline in the Alaska salmon industry. This, perhaps more than any other argument, suggests that the Chignik co-op represents an exception, rather than a model for how restructuring of other Alaska fisheries may be undertaken. Without clearer responsibility, clearer authority, and clearer definition of the relationship of economic objectives to other fisheries management objectives, and additional resources, it is unlikely that the Board of Fisheries can take the lead in initiating or facilitating restructuring of Alaska salmon fisheries.

³⁴ In addition, most Chignik permits continued to be fished at the time the co-op was proposed. It may be much more difficult to enlist support for restructuring from active permit holders in other fisheries in which significant numbers of permits are no longer fished, and in which the benefits of restructuring might have to be shared with larger numbers of “latent” or inactive permit holders.

Restructuring of Federally Managed Alaska Fisheries

The federal government manages fisheries in the Exclusive Economic Zone off Alaska (beyond three miles offshore). Over the past fifteen years, the federal government has undertaken major restructuring of several important Alaska fisheries, including implementation of individual fishing quotas in the halibut and sablefish fisheries,³⁵ the allocation of Bering Sea pollock fisheries to cooperatives under the American Fisheries Act,³⁶ and the recent adoption of a plan for individual fishing quotas (and processor quotas) for Bering Sea crab fisheries.³⁷ A full review of these management changes is far beyond the scope of this paper. Here we briefly suggest some lessons that the federal restructuring of these fisheries may hold for state restructuring of Alaska salmon fisheries.

A first lesson is that restructuring can succeed in strengthening the economic viability of commercial fisheries. Restructuring has lowered costs, increased value, and helped to develop new markets for Alaska's halibut, sablefish, and pollock fisheries. The profitability of these fisheries has increased—in dramatic contrast to recent trends in Alaska's salmon fisheries.

A second lesson is that restructuring is inherently controversial. The restructuring of federal fisheries was highly contentious. Controversy continues over the economic and social impacts of the changes in these fisheries on fishermen, processors, and communities. This suggests that it is unlikely that restructuring of salmon fisheries can occur without controversy and without making some people unhappy. Restructuring will inevitably involve difficult choices.

A third lesson is that restructuring is possible when management agencies have clear responsibility, authority, and resources to consider economic viability in managing fisheries. The North Pacific Fishery Management Council is charged with establishing management policy for federal fisheries off Alaska. Unlike the Alaska Board of Fisheries, the council has clear responsibility and authority to consider economic implications of fisheries management and to undertake major restructuring for primarily economic purposes. It also has the resources to do so. The council has a permanent staff of sixteen people, including an executive director, deputy director, three economists, three fisheries analysts and two plan coordinators.³⁸ (In contrast, the Board of Fisheries has an executive director, no research staff, and no research budget.) The council also has an industry advisory panel (AP) and a scientific and statistical committee (SSC) of experts—including economists--which meet concurrently and advise the council.

The council has both the capacity to develop and analyze restructuring proposals independently and to examine not only biological impacts on the ecosystem but economic effects on fishery participants and communities. The council decides whether to consider a general area of policy and directs staff to do the necessary analyses. It relies on both its science advisors and its

³⁵ For a review of the development of the halibut and sablefish IFQ program, see Clarence G. Pautzke and Chris W. Oliver, *Development of the Individual Fishing Quota Program for Sablefish and Halibut Longline Fisheries off Alaska* (1997).

³⁶For a detailed discussion of the American Fisheries Act, see North Pacific Fisheries Management Council, *Impacts of the American Fisheries Act*, Report to the U.S. Congress and the Secretary of Commerce (2002).

³⁷ For a detailed discussion of restructuring of Bering Sea crab fisheries, see National Marine Fisheries Service, *Final Environmental Impact Statement for the Bering Sea Aleutian Islands King and Tanner Crab Fisheries* (2004).

³⁸ Information posted on the Web site of the North Pacific Fishery Management Council, October 2004, at <http://www.fakr.noaa.gov/npfmc>.

stakeholder panel, in addition to its professional staff, for advice and suggestions. It then schedules the policy initiative for formal hearings. Its decisions are implemented unless disapproved by the Secretary of Commerce or Congress, which occurs only rarely.

In making its decisions, the council can look to the national standards of the Magnuson-Stevens Fishery Conservation and Management Act for authority and guidance. As indicated by the underlined portions of the standards listed below, these include a number of direct and indirect economic and social considerations that must be balanced with other management objectives.

Selected National Standards of the Magnuson-Stevens Fishery Conservation and Management Act

(1) 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.

(4) 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) 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.

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

(8) 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 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.

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

Source: Public Law 94-265, as amended through October 11, 1996. Posted at www.nmfs.noaa.gov/sfa/magact.

When the council has been unable to reach agreement on controversial restructuring issues, the U.S. Congress has played an active role in bringing about change, as occurred with the direct involvement of Senator Ted Stevens in the development of the American Fisheries Act. Congress may also block the council from some actions, as occurred with the congressionally imposed moratorium on new IFQ programs in the late 1990s. For better or worse, in contrast to the reluctance of the Alaska legislature to become involved in restructuring state-managed salmon fisheries, the U.S. Congress has played an active role in restructuring federal fisheries off Alaska, largely because of the influence and interest of powerful legislators, including Senator Stevens.

We are not suggesting that the federal fisheries management process is an ideal model for the state to follow. It can be cumbersome, time-consuming, and expensive. Much of the analysis that it undertakes may be driven more by process than substance. It may not always be fair. It may be dominated at times by the interests of particular groups or individuals. It is subject to intervention by Congress. But the federal fishery management process *has* been able to bring

about change in response to changing economic circumstances—which has been difficult for the state.

If the state’s fishery management process is at one extreme in its capacity for addressing restructuring—with insufficient involvement by the legislature, unclear delegation of responsibility and authority for restructuring to fishery management agencies, lack of standards to guide restructuring, and minimal capacity for independent analysis—the federal fishery management process may be at the other extreme. But the state should consider what features of the federal fishery management process—if any—might strengthen the state process in its ability to address restructuring.

Conclusions: Suggestions for the Salmon Restructuring Panel

The Board of Fisheries’ Salmon Industry Restructuring Panel offers a new opportunity to address the complex issues associated with restructuring the salmon industry. In concluding this paper, we offer four suggestions we believe can help the panel make substantive progress in addressing these issues. Our suggestions are based on our analysis of the inherent challenges in restructuring Alaska salmon management (diversity of the fisheries, complexity of the issues, constitutional uncertainties, and controversy), the institutional constraints to restructuring, and previous experiences in restructuring Alaska fisheries.

First, the panel members should focus their efforts on issues associated with restructuring, and avoid the temptation to discuss other approaches for enhancing the economic viability of Alaska’s salmon industry, such as marketing, product diversification and infrastructure support. While these approaches are important, they have been and continue to be discussed extensively in other forums. In contrast, restructuring has been ignored or avoided. It is by focusing specifically on restructuring that the panel can best serve the board and the legislature.

Second, the panel should initiate careful analysis of a number of legal, economic, and social issues. These include the complex legal questions associated with restructuring and how legal uncertainties might be resolved by legislation; the cumulative economic and social effects of salmon management regulations that have been adopted over time; the potential economic and social effects on fishermen and communities of different approaches to restructuring; and how adverse effects might be mitigated. Collectively, this analysis will represent a major undertaking, requiring significant time and money. However, it is essential for addressing the uncertainty and confusion that has hampered substantive discussion of restructuring.

Third, the panel should not try to define specific restructuring solutions for Alaska’s many different salmon fisheries. Rather, it should devise a process by which the stakeholders in different fisheries can initiate and achieve change, within a broad framework of management options. It should identify biological, economic, social, and legal standards by which proposals will be evaluated, and how and by whom decisions will be made.

Stated more generally, the panel should recommend a solution to the fundamental institutional problem of the absence of clear responsibility, authority, and capability to make changes in fisheries management necessary for the economic success of Alaska’s fisheries. It should suggest how this responsibility, authority and capability can be clearly established. Ultimately,

this will require action by the legislature. The most difficult but most important contribution of the panel can be in suggesting how to address this fundamental problem which has kept Alaska from responding effectively to a worsening economic crisis in the salmon industry.

Last but not least, the panel should assist the board and the legislature in a meaningful discussion of Alaska's goals for its salmon fishery. Ideally, this discussion would lead to a clearer definition of the constitutionally mandated objective of managing Alaska's salmon resources for the "maximum benefit" of Alaskans. Clearer policy guidance from the legislature on the relationship between biological, social and economic objectives would help all the organizations that have some responsibility for management. This could perhaps take the form of state salmon management standards, with a similar role to that of the national standards of the Magnuson-Stevens Act for federal fisheries management.

Ultimately, the legislature must follow through on the work of the panel. Without a commitment by the legislature to take action, real progress cannot be accomplished. Alaska cannot afford to avoid decisions about how to make our salmon fisheries more competitive internationally. As painful as the choices may be, the alternative is more painful. As time passes with no action, the conditions that are hurting the industry will continue to stress the industry's viability and the capacity of participants to continue in the fishery. Alaska should take action to avoid more bankruptcies, more lost boats and permits, and more people leaving coastal communities that rely on fishing.

The authority to manage our salmon fisheries was one of the prizes of statehood. Our federally managed fisheries—specifically halibut and pollock—have succeeded in difficult and fundamental restructuring efforts that have made them not only biological but also economic successes. It will be a sad irony if Alaska—having won the right to manage our salmon fisheries—cannot find a way to enable them to succeed economically.

The future of Alaska's salmon industry may depend on the work of this panel, and on how the Board of Fisheries and the Alaska Legislature respond to its recommendations. All Alaskans should take an interest in and support this process.

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