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*PART 2:  
THE ROLES OF  
GOVERNMENT  
INFLUENCING INVESTMENT*



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# Chapter V: Habitat and Ecosystems

## Abstract

*The federal government has played a major role in loss of habitat for marine fish populations. Although it has recognized its responsibility and is now working to protect and recover habitats, many important fisheries will never be restored to their historic levels loss. Of central importance to this report, much habitat loss is likely to continue. Because excess fishing capacity results not only from investments in the fishing capital of fishing vessels and the human capital of fishermen, but also from the loss of the natural capital of fish stocks, the federal government has a continuing obligation to help fishing fleets adjust to loss of fishing opportunities caused by the federal government. In this chapter, we illustrate these points with three cases: Pacific salmon habitat, coastal wetlands in Louisiana, and the Florida Everglades. These cases, often in newspaper headlines, are only indicators of severe problems in many other marine fisheries.*

## **Introduction**

Excess fishing capacity results both from expanding investments and from declining fish stocks. In many U.S. fisheries, fish stocks are either currently below historical levels or may fall in the near future. In many cases, this is at least in part due to degraded or lost habitats. Well aware of this, Congress included in the Sustainable Fisheries Act requirements that regional fishery management councils describe and identify essential fish habitats for each species they manage, including adverse impacts from fishing and other activities.

The federal government has played and continues to play an important role in activities that have destroyed or impaired fish habitats. Recognizing its responsibility, it is actively working to reduce harm. The Task Force considered three cases in which the federal government has contributed to habitat loss in the past and is currently spending large sums to reverse these losses. The first example is Pacific salmon where hundreds of millions of dollars annually, much of which is budgeted through federal agencies, is being spent to reverse the impairment of spawning and migration habitats. Although much of the national discussion has been on activities in the Columbia River basin, large scale efforts are under way from California to Alaska and inland to the upper reaches of the Columbia River tributaries in Washington, Oregon, Idaho, and Montana.<sup>1</sup> The second example is the loss of coastal wetlands, which provide essential habitat for critical life stages of many marine fish species; we focus on recent initiatives to restore wetland habitat, particularly in Louisiana.

Our final example is the Florida Everglades, once thought of as a dismal swamp and a roadblock to economic development. It

is now valued for many reasons including its critical role in fresh water supply to one of the most rapidly growing areas in the United States and its unique habitat for fish and wildlife valued for its own sake and for its contribution to the valuable tourism sector. Not only did wetland drainage directly reduce habitats, it also degraded coastal estuaries and the valuable connections between the Everglades and the rich waters of Florida Bay. Recognizing past damages, large expenditures are being devoted to improve both terrestrial and marine habitats in Florida.

This section reviews the relationship between habitat and fishing capacity, and highlights some of the ways the federal government affects salmon habitat.

The Task Force believed that no summary of the influences of government programs on investment decisions in the fishing industry would be complete without a consideration of the habitat requirements of fish populations, and how government has affected fish habitat. Recalling the approach that the Task Force has taken in defining “subsidy,” the reduction in fish populations attributable to habitat degradation and loss is a negative subsidy and has surely constrained overall capital investment in fisheries.

## ***The Pacific Northwest Salmon Crisis***

A recent report of the U.S. National Research Council (1996), drawing on data from the Wilderness Society, reported that 40% of Pacific salmon stocks (chinook, coho, chum, sockeye, and pink salmon plus sea-run cutthroat trout and steelhead trout) in the Pacific Northwest were extinct. Another 13% were endangered; 14% were threatened; 17%

were of special concern; and only 16% were not known to be declining. Under the Endangered Species Act, five stocks of salmon (Sacramento winter run chinook, Umpqua River cutthroat trout, southern California steelhead, Snake River sockeye, and the upper Columbia River steelhead) have been listed as endangered and seven as threatened (two chinook stocks, two coho stocks and three steelhead stocks).

In 1978, 4,919 troll fishing vessels landed 6.8 million pounds of salmon worth \$11 million in California. In 1982, the first year of a license limitation program, 4,013 of the 5,964 vessels carrying troll salmon permits landed 19.5 million pounds worth \$8 million. By 1997, the number of troll permits had declined to 2,069, of which 832 vessels landed 5.2 million pounds worth \$7.2 million. Oregon troll salmon landings and fishing capacity dropped even faster. In 1980, 3,875 of the 4,314 vessels with limited entry troll permits landed 4.4 million pounds worth \$8.2 million (which was about half of the landed value the previous year). By 1997, only 433 of the 1,286 vessels with troll salmon permits landed 1.5

million pounds worth \$2.5 million. And, in Washington, where license buyback programs have been most extensively used, the 3,291 non-Indian salmon troll permits fell to 323 in 1997.

Between 1976 and 1980, troll-caught chinook salmon sold for an average price of \$4.71 per pound in 1997 dollars (adjusted by the GNP implicit price deflator). By 1997, this price fell to \$1.60 per pound. The Pacific Fishery Management Council estimates that the

total impact to coastal fishing communities, measured in 1997 dollars, fell over this two-decade period to one-fourth of its 1976-1980 base in California, to one-tenth in Oregon, and to about one-twentieth in Washington. The economic impact on central California's coastal communities of the drop in the troll salmon fishery was offset somewhat by a fairly stable recreational salmon fishery. For example, estimates by the Pacific Fishery Management Council suggest that recreational salmon fisheries generated more income for Fort Bragg, San Francisco, and Monterey in 1997 than in 1976-1980. On the other hand, economic contributions from recreational salmon fisheries to northern California communities fell by half. With a growing list of salmon on, or proposed for, the threatened and endangered species lists, the contribution of ocean recreational salmon industries to the coastal economies of Oregon and Washington in the late 1990s fell to about one-tenth of what it had been two decades earlier. Not

Pacific salmon provides a particularly vivid example of the role of the federal government in the degradation of fish habitats. Recognizing its role in habitat loss and degradation, the federal government has also been playing a large role in the protection of remaining habitat, mitigation of damages, and compensation programs. Compensation, both in terms of hatchery operations to supply alternative fish stocks to replace lost wild stocks and in terms of funding of vessel and license buyback programs, continues to be controversial.

surprisingly, the declaration of the salmon fishing industries as natural disasters was seen as an overdue recognition of difficult times.

Some of the decline in fishing capacity can be attributed to the buyback programs in Washington state and the job retraining programs associated with disaster-relief assistance in California, Oregon, and Washington. However, the economic dislocation in the fishing industry has contributed heavily to exit from the industry.

Whether the industry can now stabilize or regain its prominence in northern California, Oregon, and Washington communities hinges on the success of programs to reverse the decline in quantity and quality of salmon habitats. Partly because the federal government has played a role in habitat decline, it is currently involved in habitat recovery programs as well.

### Dammed with Good Intentions

Pacific salmon reproduce in freshwater streams and lakes. Their offspring migrate to the ocean to grow and mature before returning to their stream of origin to close the life cycle. Natural environmental variations, including ocean conditions unfavorable for survival of the young salmon as they migrate seaward (Percy 1997) and terrestrial perturbations such as forest fires, floods and stream blockage (National Research Council 1996), provide challenges to salmon survival. Nevertheless, these species have evolved to provide a surplus above natural mortality. However, many human activities have greatly disturbed the natural habitat.

The loss of salmon habitats is directly linked to economic activities that provided the wellspring of growth in the Pacific Northwest over the past century: mining; forestry; agriculture; grazing; industry that discharged waste water into the streams; and commercial, residential and recreational developments. Some of the largest runs of salmon evolved in the clear cold waters of mighty rivers such as the Columbia River; which has since been transformed into a series of slow moving bodies of water impounded by large multipurpose dams.

Within the Columbia River Basin are around 150 hydroelectric projects including 18

mainstem dams on the Columbia River and its tributary, the Snake River. The U.S. Corps of Engineers and the U.S. Bureau of Reclamation operate the major federal projects including the Grand Coulee, which blocked upstream passage of salmon when it was built on the Columbia River and Dworshak Dam which blocked passage on the Clearwater River, a tributary of the Snake River. A third high dam, the Hells Canyon Dam, which blocked off upstream passage on the Snake River, is one of the many non-federal dams licensed by the Federal Energy Regulatory Commission. These and many other dams either totally block passage or disrupt passage in order to serve important social interests such as hydroelectric power, flood control, navigation, recreation, fish and wildlife, municipal and industrial water supply, and irrigation.

This era of dam construction enabled the rapid growth of such energy-intensive industries as aluminum processing. Although the differential in electrical energy rates between the Pacific Northwest and other parts of the country has since declined, they remain the lowest in the country. One of the industries that responded to inexpensive electricity rates and abundant water was irrigated agriculture, with many areas developed by the Bureau of Reclamation under support by the federal government.

Navigation locks at the four federal projects on the lower Columbia River and on the four dams on the lower Snake River allow Lewiston, Idaho to function as a seaport. The barge traffic carries grain, wood products, and other bulk commodities from the interior Columbia Basin to Portland, Oregon, and then to ocean transport.

Policies on federal timber and grazing lands have led to important economic contributions and helped make wood products and

agriculture leading industries of the Pacific Northwest states. The value of these contributions became strikingly clear when they were hamstrung in recent years to provide endangered species protection for salmon and other species.

In summary, economic growth in the Pacific Northwest has profited greatly from the same natural resource agencies that are currently being blamed for the decline in salmon. And, just as the federal government has been a partner in creating economic growth, so is it now helping to maintain remaining critical habitat and recover the endangered salmon and other species.

## Unscrambling the Development Eggs

Hydroelectric dams in the Columbia River Basin are a major source of mortality for salmon. They alter the migration timing of salmon, elevate water temperature beyond a safe threshold for salmon migration, and contribute to fish mortality during passage at dams. To mitigate these losses or compensate for them through hatchery operations, the Bonneville Power Administration (BPA) spends approximately \$250 million per year to support the fish and wildlife program of the Northwest Power Planning Council (NPPC). According to an analysis provided by the Council's staff, these funds are spent on direct program expenditures of approximately \$100 million per year, capital investment repayments of \$112 million per year, and reimbursable operations and maintenance expenditures of \$40 million per year (NPPC 1997).

In supporting the salmon recovery program, the BPA also incurs opportunity costs through reduced hydroelectricity sales required

to spill water over dams rather than through generators and to move water flow through the dams when needed by salmon rather than storing it for use in generating electricity during seasonal peak demands. A recent planning memorandum from BPA suggests that the sum of both expenditures and opportunity costs will range from \$438 million to \$721 million per year between 2002 and 2006.

Many other agencies are bearing the costs for salmon habitat recovery. For example, harvests on land owned by the U.S. Forest Service and the Bureau of Land Management have declined sharply to protect salmon and other endangered species, and this leads to a sharp reduction in revenues to the Forest Service. However, many of these commitments would be required even without respect to salmon habitat protection. Water quality standards in Oregon, for example, are set based on the most critical use of water. Because of its vulnerability to elevated temperatures, compliance with the Clean Water Act requires that human activities that raise stream temperatures be modified. However, if riparian habitats along stream corridors were not protected for salmon, they would still need protection for swimming, drinking water and other river uses. Thus fish that require water quality protection are the "canaries in the mine" that warn of damages to ecosystems.

Although sharp reductions in harvesting opportunities for commercial and recreational fishermen, both in the ocean and in fresh water, have taken a sharp toll on both the fishing fleets and related industry along the Pacific coast, fishermen are strong advocates of salmon restoration. They are active participants in watershed councils, working hard to restore habitat. Having put their money and their own labor into this activity, they hope to recoup their investments, if not for themselves then for family and future generations.

## **Louisiana Coastal Wetlands**

Coastal wetlands and estuaries are among the most productive marine ecosystems found in the world. In addition to serving as nursery grounds for many species, they provide essential habitat for key life stages of many marine species including the salmon populations just discussed. They are also critical for valuable shrimp stocks. About three-fourths of U.S. commercial fish and shellfish depend on estuaries sometime during their life cycles, and estuaries, in turn, depend on wetlands to maintain water quality and contribute to their food chains.

Unfortunately, we have lost much of our most valuable wetland, although the Clean Water Act and other federal environmental laws have reduced our rate of loss. Coastal wetlands have suffered much, and loss is likely to continue because coastal population has been growing at four times the national average. Among the most valuable wetlands and among the wetlands most at risk are those found in Louisiana where the Mississippi River joins the Gulf of Mexico. Although the future challenges are high here, action by the federal government is producing good results.

### **Why Is Louisiana So Special?**

Louisiana has more salt marsh acreage than any other state in the United States, and it is second only to Florida in total acreage of wetlands. The Louisiana Coastal Wetlands Conservation Restoration Task Force<sup>2</sup> estimated the value of Louisiana coastal wetlands at more than \$100 billion in 1993. For example, in 1997, 14% of the weight and 9% of the value of United States fisheries were landed in Louisiana, with three-quarters of harvested species dependent on wetlands.

However, Louisiana is also losing its wetlands more rapidly than any other state, accounting for 80% of the nation's coastal land loss.

For the past 10,000 years, wetlands in southeastern Louisiana have been balanced between building and erosion processes, creating a complex and rich environment well suited for the growth of many species of fish and wildlife. However, during the twentieth century, human interventions disrupted these natural processes and accelerated the loss of wetlands, threatening the viability of the entire ecosystem. The most important factor has been the construction of levees along the Mississippi River to reduce flooding damages and facilitate navigation. The amount of sediment available to offset subsidence of coastal marshes is only half of what was carried during historic delta building times. Also contributing to the loss of quality and quantity of wetlands has been the construction of canals that restrict the drainage of water from the marsh and the accumulation of additional sediment.

If current land losses continue, major changes will occur in Louisiana including the loss in the next forty years of more than one million acres of wetlands and the exposure by such major cities as New Orleans to open forces of the Gulf of Mexico (Louisiana Coastal Wetlands Conservation and Management Task Force 1997). Of interest to this Task Force is the possible decline of commercial and recreational fisheries harvest by 30% with employment impacts of nearly 50,000 jobs. As in the salmon example, major efforts led by the federal government to provide for the social and economic well-being of U.S. citizens have had, and are likely to continue to have, the effect of reducing available fish harvests and contributing to the overcapacity of Gulf of Mexico fishing fleets.

Recognizing the loss of coastal wetlands

as a national concern, Congress moved to protect wetlands around the country but with a key focus on the problem in Louisiana. The Coastal Wetlands Planning Protection and Restoration Act (P. L. 101-646, Title III (CWPPRA)) has made notable achievements in the past decade.

Over the past two decades, the state of Louisiana has carried out many restoration projects, including approximately 100 restoration projects over the past decade, funded, at least in part, by the state at a cost of \$44 million since 1986. In 1990, Congress passed the CWPPRA in recognition of the importance of the need to protect our valuable coastal wetlands.

Due to the magnitude and complexity of the problems, much of the activity in the 1990s has been on careful planning including feasibility and design studies. Fourteen projects are small-scale demonstration projects needed to guide the more substantial and costly projects that will follow. Sixty-two projects are planned over the next 20 years at a cost of \$226,759, 067. The anticipated acreage that will be created, restored, protected, and enhanced will be 73,687 acres.

The CWPPRA builds on the North American Wetlands Conservation Act, which was passed in 1989. Under the combination of these two acts, and relying on state matching funds as well, projects have been funded around the United States, including a diked wetland in Oregon and Allens Pond, a coastal salt pond on Buzzard Bay, Massachusetts. As an aside, the Allens Pond project is a useful example of the teaming of federal and state governments with private organizations, in this case the Massachusetts Audubon Society, Dartmouth Natural Resources Trust, and several individual donors.

Finally, wetlands protection activities in Louisiana and other states mitigate the damages from human development. Although these useful programs will offset some past damages and reduce the impact of continuing habitat loss from human development and natural evolutionary processes, the prognosis for fish stocks is not good. Stocks are not likely to be restored fully to their pre-development states. Because fully protecting and restoring these fisheries may not be feasible, careful planning will be needed to match the fishing capacity with the stocks available.

## ***The Florida Everglades***

Marine fish and shellfish species of high commercial and recreational value in the Gulf of Mexico, Caribbean Sea, and Atlantic Ocean rely heavily on estuaries and protected coastal waters for key stages of their life. In the previous discussion, the valuable fish harvest in Louisiana was highlighted. In addition to its approximate \$200 million annual value of commercial fish and shellfish landings, Florida provides recreational experiences to more than four million marine anglers per year. The availability of fresh seafood and recreational fishing opportunities, in turn, plays a critical role in the large Florida tourism industry and contributes to the life style that is attracting many people to locate to the state each year.

Aware that agricultural development, water transportation networks, and measures to facilitate settlement of Florida have already damaged key fish habitats and could soon cripple these valuable resources, the state government has been working to save the Everglades. Their initiatives include partnerships with many federal agencies and have broad support by private citizen organizations. Evidence suggests that loss of

fishing availability has already occurred. Of even greater concern is that settlement trends and agricultural developments, if not mitigated, could create a massive crisis in both freshwater and marine fish and wildlife species.

### Taming Mother Nature: Draining Swamps and Avoiding Floods

Although the federal government's involvement in drainage and flood protection projects in southern Florida dates only from the 1930s, the federal government has supported development efforts that affect the landscape ever since Spain deeded Florida to the United States in 1819. When Florida became a state, most of its lands were federally owned. However, the Swamp and Overflowed Lands Grant Act of 1850 transferred 20.3 million acres to the State of Florida on condition that they be drained for private development (Carter 1975). In combination with other measures adding another 2 million acres of federal land to state registers, nearly 65% of the land area of the state, was shifted to Florida. Although the state had ample "high and dry" land to support the small population of the newly formed state, plans to drain the Everglades appeared early and dominated thinking for the next century. Originally created to open opportunities for land conversion for economic development, primarily for agriculture, and human settlements, the federal government has played an increasing role to facilitate transportation and control floods. Today, the Central and Southern Florida Flood Control Project (C&SFP) accounts for a complex network of "1,400 miles of levees and canals, 18 major pumping stations, 125 major and hundreds of minor water control structures, and 13 boat docks." (Snell and Boggess 1994) federal expenditures from its start through 1987

include the more than \$300 million for construction and more than \$55 million for maintenance of the C&SFP (Snell and Boggess 1994).

### Environmental Changes in the Everglades

Drainage permitted by the C&SFP was substantially magnified when on-farm streams were redirected into the C&SFP channels. A recent analysis for Congress identified "four direct, adverse, hydrological impacts on wetlands:

- Drainage and flood control converted 700,000 acres of wetlands to dry lands, and the decreased flow and reduced period of saturation has degraded many others.
- An average of 2.2 million acre feet of fresh water is siphoned off annually to the Atlantic Ocean or the Gulf of Mexico, where it has upset the normal saline balance and produced siltation in the estuaries with major consequences for fisheries. The diversion of the water diminishes the historical contribution to the Biscayne Aquifer.<sup>3</sup>
- The sheetflow and hydroperiod in the remaining Everglades has been disrupted by construction of the project and pre-project drainage works.<sup>4</sup>
- Water delivery practices have drastically altered the seasonal patterns of high and low flows to the remaining Everglades within and outside of the Park. One result of this is that the Florida Bay fisheries to the south, in contrast to those on the Gulf and Atlantic coasts, do not receive adequate freshwater inflow and suffer from increased

incidences of hypersalinity.” (U.S. Department of the Interior 1994).

Studies that show high correlation between reduced freshwater flow out of the Everglades into Florida Bay and subsequent levels of pink shrimp harvests provide a powerful explanation for recent declines in the pink shrimp fishery in the Tortugas (McIvor, Ley and Bjork 1994). Designing a series of scientific studies to better understand the relationship between environmental and habitat change and the recruitment, growth and survivorship of animals in Florida Bay is a high priority for an interagency scientific task force.<sup>5</sup> That group notes that the loss of seagrasses and environmental deterioration has shifted both the composition and location of many fish and shellfish in Florida Bay. They are concerned with the die-off of sponges which provide nursery habitat for spiny lobster, low abundance of mollusks in the central Bay, and adverse impacts on pink shrimp and Caridean shrimp. Although total biological productivity in the Bay has not declined, the change in species composition raises serious questions about many valuable resources. Among the other fish populations that appear to suffer from elevated salinity is red drum, which provides one of the highly prized recreational fisheries in Florida.

Adverse impacts on fishery resources come not only from hypersalinity. Many pollutants are changing the ecosystems in the Everglades, Florida Bay, and coastal estuaries. Agriculture is a major contributor to high concentrations of phosphorus and nitrogen (McPherson and Halley 1996). In addition to agriculture, the continued expansion of human settlements will continue to harm the entire ecosystem.

The review by the Department of the Interior (1994)<sup>6</sup> identifies many ways including but not limited to drainage projects that the

federal government has contributed to the environmental deterioration in the Everglades. As in the earlier case studies, the federal government has recognized its role in environmental deterioration and its obligation to do something about it.

Just as Congress helped the land developers, so have they helped preserve these valuable resources. In 1947, the Everglades National Park was opened.

*“Although including only a portion of the original Everglades and two-thirds of what had been authorized by Congress in 1934, the Park established a clear federal interest in preserving what was left of the natural South Florida ecosystem. Congress expanded the federal interest when it created and enlarged the Big Cypress National Preserve in the 1970s and 1980s and through establishment of the Arthur R. Marshall Loxahatchee Wildlife Refuge, Biscayne National Park and the Florida Keys National Marine Sanctuary.”*

(Snell and Boggess, p. 53).

According to information supplied by the South Florida Ecosystem Task Force, more than \$1.1 billion has already been appropriated for restoration work on projects that will cost more than \$4.1 billion to complete (Weisskoff 1998). Additional studies and follow up projects will more than double this commitment.

## Discussion

Many U.S. fisheries face excess capacity problems that have been aggravated by declining fish stocks, and widespread concern

exists that the situation will become worse before it gets better. Three cases were provided in this section to illustrate two key findings. First, the federal government has contributed to the decline in key fish habitats over many years. Second, the federal government has recognized its role and is making important and necessary contributions that must be sustained and expanded to maintain a national commitment to sustainable fisheries.

Large expenditures continue to be made in the Pacific Northwest to mitigate human sources of salmon habitat degradation, and large expenditures are under way to mitigate human influences on our coastal wetlands, including but certainly not limited to the valuable Mississippi delta and the Florida Everglades. Much of this funding is coming from federal sources to offset previous federal assistance in developing economic activities and to pay for species protection. These activities have been described briefly in this section to illustrate two roles played by the federal government. First, in the Pacific salmon fisheries, much of the excess fishing capacity has been caused by decline in fish populations due, in large part, to human economic development aided and abetted by the federal government. Likewise, both past and expected future negative impacts on Gulf of Mexico shrimp fisheries can be linked to federal efforts to allow the people of the United States make good use of the Mississippi River basin and to assist in agricultural development and human settlements in Florida. Second, if the large investments in salmon habitat protection and wetland restoration are successful, the socially optimal fishing fleets of the future can be larger than can be sustained in the absence of habitat protection and restoration.

The Task Force anticipates that the regional fishery management councils will diligently examine federal policies that degrade fish

habitats. The role of the federal government in habitat loss, intended or unintended, has been an unfortunate but significant role in creating excess capacity. In other sections of this report, the excess capacity arose from encouraging fleet expansion. This section suggests that actions directly reducing fish populations through habitat degradation also contribute to “too many fishermen chasing too few fish.”

Recent initiatives in habitat restoration, in the case studies discussed in this section and in many other instances, must be continued to help the valuable fish resources of the United States that fishing fleets (i.e., capital) depend upon. However, the case studies examined by the Task Force are not very encouraging. Measures to protect salmon habitats on the Pacific coast are heavily resisted by people concerned about reducing river transportation, the possible increases in energy costs, and restrictions on economic development and residential construction for a steadily growing human population. Intervention in southern Louisiana can offset only some of the habitat loss, given the need to maintain water-borne transportation from Mississippi River ports and the Gulf of Mexico and to allow additional economic development and settlement patterns in Louisiana. The substantial efforts to improve valuable coastal habitats in Florida must address continuing high levels of agricultural production north of the remaining area of the Everglades as well as large increases in human populations.

Consequently, vigilance in anticipating activities that may degrade fishery habitats, concerted effort to mitigate past damages and restore at least part of lost and damaged habitat, and efforts to carefully match the capacity of fishing fleets to available resources, must all be undertaken together. It has proven very difficult, highly political, and very controversial to find a proper balance between

the need for economic growth and the need for the environmental protection required to sustain economic growth in the long term. The Task Force notes with pleasure that the United States government has, in recent years, made strenuous efforts to correct the former imbalance between development and environmental protection.

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### ***Endnotes:***

1. The headwaters of the Columbia River are in Canada, making negotiations between the United States and Canada central to concerns both about harvesting levels and about habitat quality.
2. The following material is taken in large part from the 1997 report by Louisiana Coastal Wetlands Conservation and Management Task Force to Congress.
3. The Biscayne Aquifer, which lies beneath the “peaty muck” of the Everglades, is the primary source of drinking water for the entire southeastern Florida coast.
4. The Everglades originally stretched 100 miles from the southern end of Lake Okeechobee down to the tidal estuaries of the Gulf of Mexico and Florida Bay. The topography is so flat that in the wet season, sheetflows used to average 40 miles wide and 2 feet deep.” (U.S. Department of Interior 1994, p. 123)
5. The Florida Bay Program Management Committee includes members from the National Park Service, the Florida Department of Environmental Protection, the National Oceanic and Atmospheric Administration, the National Biological Service, the U.S. Fish and Wildlife Service, the South Florida Water Management District, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, and the U.S. Geological Survey.
6. The Central and South Florida (C&SF) Project Comprehensive Review Study was authorized by Congress in the Water Resources Development Act (WRDA) of 1992 and accelerated by the WRDA of 1996. Information on its activities is available on the Internet at <<<http://www.restudy.org>>>



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# Chapter VI: Capital Construction Fund

## Abstract

*All over the world, a common way for governments to subsidize economic activity is to provide some form of preferential tax treatment. Fisheries and the United States are no exceptions. The Capital Construction Fund program allows profits from vessel operations, including fishing vessels, to be set aside and to grow pre-tax if they are used for the construction or reconstruction of a new vessel. Severe tax penalties apply for non-qualified withdrawals. Today, active CCF accounts contain net deposits of almost \$250 million; and these invested funds have been growing, although balances are not reported.*

*CCF is a subsidy program that has influenced capital investment in fisheries. However, the magnitude of that impact is impossible to measure. As the Task Force found with other programs, the policy context for the CCF program is changing. The once-laudable goal of capitalizing and modernizing fishing fleets is today giving way to an emphasis on conservation and capacity control.*

*CCF presented the most challenging set of issues that the Task Force dealt with. There was no clear consensus among the members, but the predominant view on the Task Force was that, because of capacity considerations, CCF should no longer be permitted to be used for the purchase, building or rebuilding of fishing vessels. Other members of the Task Force, whose views are reflected in separate statements, reflect such concerns as that the United States fishing fleets are aging and that there may be a legitimate public interest in the government, through such a program as CCF, supporting fleet replacement.*

*The Task Force also considered a number of other forms of preferential tax treatment. Capital investment incentives that applied throughout the economy during the 1980s, particularly the Investment Tax Credit, correlate with a significant increase in U.S. fishing capacity. However, causal relationships are difficult to draw; and most of these programs have since been repealed.*

## **Introduction**

All over the world, a common method of providing financial assistance to fisheries is through special tax treatment. The United States has done this for many years through some provisions aimed especially at fisheries, others at shipbuilding that influence decisions to build fishing vessels, and others that were directed to capital investment generally in the U.S. economy. Because of its notoriety, the Capital Construction Fund (CCF) program was the tax program that the Task Force spent most of its time considering. This chapter begins by considering the Capital Construction Fund first in detail; and then discusses other tax programs, some of which were very significant.

In 1970, Congress amended the Internal Revenue Code to allow certain vessel owners to defer income tax on profits from vessel operations if the money was set aside in a special account that would be used to purchase or reconstruct a vessel. This provision, known as the Capital Construction Fund, had a dual purpose — to support the U. S. shipbuilding industry, and to provide for the accumulation of capital that would allow domestic fleets to become, and continue to be, modern and competitive. CCF is available to owners of many classes of vessels, not just fishing vessels; but the discussion here will be specific to fishing vessels. This program has had a significant effect on capitalization in the fishing industry. The effect of the program is to allow fishermen to set aside earnings, and allow those earnings to accumulate and grow on a pre-tax basis, so that they can be used to purchase a new vessel or reconstruct a vessel as a replacement to the one that the fisherman is currently using.

## **Background**

The CCF program was created by the Merchant Marine Act of 1936, as amended (46 U.S.C. 1177). For fishing vessels, the program is jointly administered by the National Marine Fisheries Service (for the Department of Commerce) and the Internal Revenue Service. The joint regulation governing the program was issued in 1976 (26 CFR Part 3). Also in 1976 a rule was proposed to clarify certain tax aspects of the program. However, these regulations have never been either adopted or officially withdrawn.

The CCF program enables fishermen to construct, reconstruct, or under limited circumstances to acquire fishing vessels with before-tax, rather than after-tax dollars. It allows fishermen to defer taxable income from the operation of their fishing vessels. This tax-deferred fishing income under the CCF program when used to help pay for a vessel project is, in effect, an interest-free loan from the government. The purpose of the CCF program is to improve the fishing fleet by allowing fishermen to accelerate their accumulation of funds with which to replace or improve their fishing vessels.

## **How the Program Operates**

The following discussion must be treated as an overview. As with any sophisticated, capital-intensive business enterprise, the tax treatment of fishing operations is complex, and there are often not clear answers to many questions.

### **Eligibility**

Any owner of a U.S. vessel (so long as the

vessel is owned at least 75% by U.S. individuals or companies) is eligible to participate in the CCF program. “Vessel” includes U.S.-built fishing vessels over 2 net tons used for catching, processing or transporting fish, including passenger vessels for hire.

## Establishing the Account

An eligible person initiates participation in the program by entering into a CCF agreement with the Secretary of Commerce. The purpose of the agreement is to provide for replacement of fishing vessels through construction or reconstruction of replacement vessels.

The agreement specifically refers to two vessels. The fisherman’s “Schedule A” vessel is the vessel he is currently using to fish to generate the earnings that will be placed in the CCF account. The “Schedule B” objective is the vessel that the fisherman is seeking to build or reconstruct. It can be the same as the “Schedule A” vessel. The fisherman can negotiate with NMFS for changes to the agreement, once executed. The fisherman can begin making deposits into the account upon receiving notification from NMFS that the agreement has been accepted and entered into.

## Making Deposits; Investments

A fisherman can make deposits to a CCF account in any year up to the total of all taxable income from the Schedule A vessel’s operations, plus all depreciation attributable to the vessel, plus all of the net proceeds from the sale of the vessel, plus all of the earnings in the account. A fisherman must make a minimum deposit into the account each year

of 2% of the estimated cost of the Schedule B objective. Once the funds are placed in the account, they may be invested in a limited, but broad range of securities.

## Managing the Account

Within a fisherman’s CCF account there are three separate bookkeeping accounts: a capital account includes 1.) deposits that represent depreciation of the Schedule A vessel, 2.) proceeds from the sale of the Schedule A vessel (or insurance proceeds), and 3.) tax exempt interest on the account; a capital gain account includes 1.) deposits from capital gains on assets held in the fund for more than 6 months, or 2.) insurance proceeds attributable to capital gains on a Schedule A vessel; an ordinary income account includes 1.) deposits that would have been taxable if not placed in the account, 2.) short-term capital gains, 3.) interest, and 4.) any ordinary income generated by the sale of a Schedule A vessel or insurance proceeds.

## Withdrawals

Funds in a CCF account may only be used for the purposes specified in the agreement, i.e., to construct or reconstruct a fishing vessel. Any withdrawals that are not in accord with the agreement are “non-qualified” and subject to tax and penalties. All withdrawals must be approved by the National Marine Fisheries Service. Qualified withdrawals are treated as coming first from the capital account, second from the capital gain account, and third from the ordinary income account. Non-qualified withdrawals are treated in reverse order.

## Tax Treatment

Funds placed in an account are deducted from taxable income, and this can result in significant tax savings. In the account, funds grow and accumulate tax-free. Earnings may be withdrawn annually, and would be taxed at the taxpayer's marginal rate. If funds are withdrawn on a qualified basis, e.g., to construct the Schedule B vessel described in the agreement, there is no tax on the withdrawal. However, the fisherman's tax basis in the new vessel is reduced by the amount of CCF funds in the capital gain account and the ordinary income account that are used for its construction. Therefore, this portion of the cost of the new or refurbished vessel is not depreciable for tax purposes. (Funds in the capital account are considered a return of capital, and therefore no basis reduction is necessary.) All non-qualified withdrawals are taxed in the year of withdrawal, separate from the tax payer's other gross income, at the highest marginal tax rate; and interest from the date of the original deposit is charged on the tax.

## The Schedule B Objective

Since the purpose of the program is to provide for the replacement of the Schedule A vessel, the fisherman must specify in the CCF agreement with what the vessel is to be replaced. The Schedule B objective may include an existing vessel designated for reconstruction, including the fisherman's own Schedule A vessel. Although this can be amended by agreement with NMFS, the agreement is supposed to include a firm representation of what it is that the fisherman intends to do with the CCF account, including an estimate of cost. The replacement should be planned to start within 10 years of entering

the agreement. Construction or reconstruction must take place in a U.S. shipyard, and must be completed within 18 months. Reconstruction must be completed within 18 months, cost at least 20% of the original acquisition cost or \$100,000 (whichever is less), and must either prolong the useful life of the vessel, increase its value, or adapt it to new use. A Schedule B vessel may not be used for a fishery that is classified as a "conditional fishery." (See discussion of conditional fisheries, box at p. 81.)

## Termination of the Agreement

A fisherman may agree with NMFS to terminate a CCF agreement at any time. However, all funds that are in the account at that time are treated as non-qualified withdrawals.

## Program Statistics

The first deposits into CCF accounts for fishing vessels were made in 1970. In that year, \$3.44 million were deposited into CCF accounts for fishing vessels, and \$670,000 was withdrawn. In only seven of the next twenty-five years did the total withdrawals in the year exceed the total deposits. NMFS has entered into in excess of 7,000 CCF agreements, 3,500 of that are still active. The most recent year for which data are complete is 1995, at the end of which a total of \$1.82 billion had been deposited over the history of the program, and \$1.58 billion withdrawn. The total net balances in existing CCF accounts for fishing vessels was \$242 million. Over the years, these deposits have been invested in a variety of ways, and undoubtedly are growing; although account balances are not reported.

The National Marine Fisheries Service estimates that 50% of the completed Schedule B projects have been for reconstruction of existing vessels, 25 % for the purchase of new vessels and 25% for the purchase of used vessels. There are no firm estimates of the effect of these projects on fishing capacity.

One of the problems that the Task Force encountered in doing its analysis was the lack of data regarding CCF agreements and accounts. Each account is handled separately. Little if any of the information is computerized or entered into a database. The Task Force did not have the time or the resources to independently analyze the files to determine the types of vessels that constituted Schedule B projects, or to compare Schedule A and Schedule B vessels to get some idea of the amount of increase in capacity that may have been influenced by the CCF program.

## ***Issues***

During its public hearings, the Task Force received many comments concerning the Capital Construction Fund program, and spent a significant portion of its time discussing it. It is clear that there is a perception throughout the fishing community that the current rules governing CCF accounts, with deposits that add up to nearly \$250 million, are major problems. There is a fear that these balances, and the strict requirements for qualified withdrawals, create too much pressure to make new capital investments in fisheries at a time when the fishing industry generally is perceived to have excess fishing capacity. Owners of the accounts feel caught in an untenable situation. Their original plans for capital investment may not make sense today; but the penalties that are associated with non-qualified withdrawals are perceived to be so severe that they cannot

justify closing their accounts. And so the funds continue to accumulate, and in many instances fishermen continue to make new contributions to accounts. By implicit mutual consent, the 10-year rule is frequently extended. On the other hand, it would be naïve to assume that the fishing industry will never need new capital investment; and the Task Force also heard comments that although the program may look superfluous today, it may be needed in the future. In addition, it should be acknowledged that annually large amounts are run through CCF accounts with no net accumulation of monies in the fund.

The Task Force believes that the CCF program is a subsidy that has influenced aggregate capital investments in the fisheries of the United States. Current year taxes are deferred as an incentive to investment in new or refurbished capital. These taxes are recaptured by the government over time through lost depreciation expenses on the new vessels, resulting from the reduction in the tax basis of the Schedule B vessels.

On the other hand, the extent of the impact of this subsidy on investment in the fishing industry is impossible to measure. One simply cannot tell how many fishermen would have taken the risk of making investments absent the subsidy. The Task Force was also concerned at how little is known about individual CCF accounts. The National Marine Fisheries Service has very large amounts of information that it has simply not had the resources to compile and analyze. Because of other significant program priorities (e.g., Fisheries Financing Program; see Chapter VII), the CCF program over the years has barely been able to keep pace with its own day-to-day paperwork, much less with interpreting the law or analyzing how the availability of the program has affected investment decisions.

The public policy implications of this program have not been examined thoroughly in recent years, and the stage on which they must be considered has changed dramatically. As a result of global economic development, excess fishing capacity, and greater emphasis on trade free of government influences, subsidies such as this program have come under scrutiny and criticism. While it once may have been laudable to support the U.S. shipbuilding industry and provide for ongoing modernization of U.S. fishing fleets, it must be asked whether this continues to make sense in a global marketplace, especially in the context of declining fish stocks. In theory, U.S. fishermen may be paying more for their capital to the extent that it must come from U.S. builders, and this could perhaps be used to justify the need for the subsidy. But the program may be criticized from another standpoint – in an era of excessive capitalization in U.S. fisheries, is it really in the public interest to continue to make it easier to accumulate the necessary capital for the purchase of still more vessels?

The issue becomes even more complex, however, when looked at not just from the perspective of today, but from the needs of U.S. fisheries over the next twenty-five years. The Task Force heard concerns from fishermen that the prevailing financial climate in the U.S. fishing industry is leading to a significant disinvestment in many areas of the country. In many regions, new vessels are not being constructed, and the fishing fleet is aging significantly. There is, therefore, a legitimate concern that sometime in the next decade a recapitalization of major sectors of the U.S. fishing fleet will be necessary. But whether the government should subsidize the recapitalization through CCF or other programs remains an open question.

What to do with the CCF program is one

of the major concerns the Task Force identified in studying issues of the government's role in promoting or discouraging investment in U.S. fisheries. New capitalization today is generally considered to be a bad idea. Significant balances are sitting in CCF accounts. Presumably these are waiting to fund vessel construction that would exacerbate current problems with excess capacity, even though that was not the intention when the funds were deposited. And the alternative uses to which these funds could be put are severely limited by statute.

Thus, the CCF program neatly represents the public policy dilemma faced by the United States, and perhaps many other countries as well. Because of a change in the economic, social and management environment for marine fisheries over the last fifteen years, an apparently successful program is believed by many not to be helpful under today's circumstances, but may be useful in the future. Today, the existence of large balances in many of these accounts, coupled with stiff penalties for non-qualified withdrawals, creates some incentive to undertake construction or reconstruction projects. In fact, this is arguably required by the existing CCF agreements between fishermen and the National Marine Fisheries Service. On the other hand, virtually anybody looking broadly at the matching of available capital in the fishing industry to the available fishery resources would conclude that the last thing that U.S. fisheries need today is a large infusion of new capital.

## ***Policy Options***

The United States could approach the future of the CCF program in a number of ways. It should also be noted that these options are not mutually exclusive, and could be mixed and matched.

1. DO NOTHING. LEAVE THE PROGRAM ALONE.

This option would continue the uncertainty over the eventual utilization of existing CCF fund balances. It may continue incentives to add capacity to the fisheries at a time when most people believe that the fisheries are already overcapitalized. It would certainly continue the current dilemma faced by the industry, and thereby contribute to the unsettled situation caused by having this large source of available capital waiting to be put to use. However, there are significant reasons for keeping the program. It allows fishermen to even out cash flow in a very uncertain industry, and to match cash flow to taxable income (since 100% of a year's profits may be channeled back into capital improvements). The initial purpose of the program, i.e., keeping the nation's fleet in the best possible condition, is still relevant and important. This could keep the cost of entry to a fishery reasonable as costs for obtaining fishing access rises in limited entry systems. The government assistance also compensates fishermen for the increased costs of requiring fishing vessel construction in United States shipyards, and helps to keep the U.S. fishing industry competitive in international markets.

2. PURSUE AMENDMENTS TO CCF AGREEMENTS THAT POSTPONE THE ENTRY OF CAPITAL INTO THE FISHERIES.

Each CCF account has an objective — the Schedule B vessel. By liberally agreeing to amendments of CCF agreements, including extending the 10-year time frame for projects, the National Marine Fisheries Service could postpone the entry of the capital represented in the accounts into the fishery.

3. AGGRESSIVELY MANAGE THE CCF PROGRAM TO RESTRICT NEW DEPOSITS TO ACCOUNTS.

The National Marine Fisheries Service has the ability to require modifications to CCF agreements. It may have substantial discretion in structuring the terms of those accounts that would allow it to control new inflows of funds to the accounts. NMFS would have to be able to devote more staff and management attention to the CCF program in order to make this option effective.

4. ALLOW CCF FUNDS TO BE WITHDRAWN FOR OTHER PURPOSES, NOT RELATED TO VESSEL CAPITALIZATION.

The Task Force considered a number of alternative uses for CCF account balances. Each of these would require legislative changes in order to be effective.

- Repairs and maintenance.
- Aquaculture. The Task Force heard recommendations that this would be a good use for CCF balances. However, the Task Force was also concerned that the impacts of aquaculture on existing capital investments are not well-understood. It is believed that the aquaculture of salmon has affected the traditional markets for capture fisheries; and that these affects influence profits. Stimulating investments in aquaculture may negatively affect fisheries.
- Purchase Individual Fishing Quotas, limited access permits, or licenses. There is some concern by Task Force members that this would only serve to inflate the value of these fishing rights.
- Fishing gear, onshore storage or capital additions. This would allow non-capital, fishing-related operational expenses, or small capital expenses that are less than the current required minimum withdrawal to count as a qualified

withdrawal in the CCF program.

- Shoreside plants.
- Buyback plans. There is a major concern regarding where the capital may come from to fund buybacks of fishing capacity. The MSFCMA contains significant provisions allowing the industry to fund buyback programs; and CCF funds could perhaps be a potential source of capital.
- Safety programs, education and training. This is supportive of the recent National Standards amendments in MSFCMA relating to fishing vessel safety.
- Gear innovations or other research that reduces bycatch. This too would address a concern of the SFA that has been incorporated into the National Standards of MSFCMA.
- Deposit into a qualified retirement account.
- Allow funds to be used for other personal purposes such as home mortgage or education. This would be consistent with other tax-advantage fund programs.

5. ALLOW CCF FUNDS TO BE WITHDRAWN FROM ACCOUNTS WITH NO PENALTY, OR A REDUCED PENALTY.

There is some precedent for allowing tax-advantaged funds to be converted without penalty, *e.g.*, when Domestic International Sales Corporations were terminated in 1986. This alternative is an umbrella that covers a virtually limitless range of possible options. For example, the rate at which the withdrawals are taxed could be reduced to some lower level; perhaps equaling the capital gains rate rather than the highest marginal tax rate, or perhaps

the taxpayers marginal tax rate in the year of withdrawal, or in the years in which the income was earned. It would also be possible to implement this option for only a limited window of time, *e.g.*, a one-time allowance that would have to be taken within twelve, eighteen or twenty-four months.

6. APPLY SOME MIX OF THESE OPTIONS ON A FISHERY BASIS.

Fisheries vary. For some, excess capacity is a significant problem; while for others it is not. One option is to develop limitations on the use of CCF based on the circumstances of specific fisheries. Decisions concerning such limitations could be guided by policies established by Regional Fishery Management Councils and other relevant bodies.

7. CLOSE THE PROGRAM.

This could be accomplished through some combination of options 3, 4 and 5.

## ***CCF Conclusions and Recommendations***

Evaluating the issues involved in CCF was the most difficult part of the Task Force's deliberations. There was no broad-based, consensus recommendation developed by the Task Force. The predominant view of Task Force members (14 of the 22 members) supported the following seven points. (Separate views stated by Task Force members are included at the end of these recommendations.)

1. The Task Force concludes that the CCF program has contributed to capital investment

in U.S. fisheries. It is, however, impossible to measure the impact of CCF with any precision because of a lack of adequate data. The Task Force recommends that any revised CCF legislation require a data gathering operation to permit the proper evaluation of the revised CCF program.

2. The Jones Act, by requiring the building and refurbishing of US fishing vessels in the United States, imposes a negative subsidy on fisheries. In the interest of fairness to U.S. fishermen, positive subsidies to offset the negative subsidies are necessary. The CCF program should be modified to provide this offset, or a new program can be implemented to accomplish this purpose. Alternatively, the appropriate part of the Jones Act can be modified.

3. The SFA establishes the framework of current fisheries policy with an emphasis on conservation, and a mandate to limit fish catching capacity to levels consistent with the sustainability of the fish stocks. CCF should therefore no longer be permitted to finance the building, rebuilding, or refitting of fishery vessels, other than the offset described in recommendation # 2 above.

4. Fishing vessel owners have been placing money in CCF funds to finance the building, rebuilding, and refitting of fishing vessels. Since under # 3 above, such activities should no longer be possible with CCF funds, fairness requires that holders of CCF accounts be permitted to withdraw any portion of their CCF funds under favorable tax treatment, such as the funds being taxed at the CCF account holder's current marginal rate. The withdrawal of funds under these conditions should be a one-time option, with Congress setting both a deadline for making the election and a cut-off date defining those funds which can be withdrawn under these favorable conditions.

5. In addition to the offset in # 2, CCF funds may be used for such purposes as fishing vessel safety upgrades, training, research, buyouts, ITQ purchases, IRA rollovers, and other projects that do not tend to increase capacity.

6. Congress should set a limitation on the maximum amount any firm or individual can accumulate in CCF funds.

7. In order to keep them from being recycled, funds received from a vessel buyback program should not be allowed to be deposited into a CCF account, except: 1.) in the case of a qualified, one-time withdrawal as allowed in # 4; or 2.) when the funds are rolled into an IRA as provided in # 5.

### **Separate Views of Bryce W. Morgan, joined by Bob Jones:**

The Task Force report includes conclusions and recommendations regarding the future use of the Capital Construction Fund (CCF) program. While these statements deal with many aspects of the program, there are additional compelling factors that are not fully addressed, but must be considered in determining the future of the program.

A major advantage of the CCF program is that it allows boat owners to manage their resources in a way that partially compensates for the dramatic seasonal fluctuations in the industry. By allowing boat owners to deposit up to 100% of their net fishing income for use on future vessel purchase, construction or reconstruction, the CCF program enables vessel owners to weather the income fluctuations inherent in the industry, and ensures their ability to invest in the business despite these fluctuations.

While there are other industries that face similar ups and downs, the fishing industry faces some unique situations that set it apart from others. The most obvious of these is the capital-intensive nature of fishing, which requires large amounts of funds to be available for reconstruction when necessary. Often the capital requirements will exceed a given year's profits. Because such investments are often not financed by banks, it is imperative that boat owners have a means to accumulate resources to meet these capital requirements. The CCF program makes it possible for owners to set aside funds in good years for large capital improvements that may be required during bad years.

In addition, the dangers inherent to the fishing industry make it crucial that boat owners be able to make necessary changes to their vessels regardless of the success or failure of a particular fishing year. Vessels can require large non-discretionary capital expenditures at unpredictable times. Failure to make these adjustments can jeopardize not only the existence of the business, but also more importantly the lives of the crewmembers. By allowing boat owners to set aside funds during good years, the CCF program provides a means of ensuring that money will be available for safety improvements when needed.

The CCF program provides a means of meeting the unique demands of the industry in terms of capital requirements and safety issues. For these reasons, I believe that it is critical that the CCF program continue to exist without limits on how much can be deposited.

## Separate Views of Barbara Stevenson, joined by Borden Wallace:

CCF should not be allowed to increase capacity in U.S. fisheries. However, given the rate at which our fishing fleet is rapidly aging, a mechanism to allow fishermen to put away tax deferred funds in anticipation of the need to replace existing vessels is essential.

The more a business is dependent on fishing, the more essential this set aside is. In considering changes in this program, it should be remembered that this program has very stringent fishery knowledge and experience requirements. Concerns over impacts on fishery management when owners are not participants are valid, and changes in programs that would make ownership less likely to remain in the fishery should be considered in this light. The Task Force has not given this problem sufficient consideration.

In addition, it is unclear what the Task Force means by, or how to determine an offset due to the Jones Act. For these reasons, a more appropriate approach would be to leave the program alone until Congress determines either to change the Jones Act or what an appropriately different offset might be.

An inherent advantage of this program is that it allows the industry to invest in its own future rather than be dependent upon or driven by outside forces such as its bankers. I may rather put money into a CCF program to use if I lost one of my boats, than have to buy another boat now for the tax benefits. We have gotten too lost in the perception that there has to be a problem with CCF, and have confused some overgrown trees for the forest.

## Separate Views of Gordon Blue, joined by Tom Hill and Ricks Savage:

The SFA establishes the framework of current fisheries policy with an emphasis on conservation, and a mandate to limit fish catching capacity to levels consistent with the sustainability of the fish stocks. The buybacks described in MSFCMA 312(b) are currently the one method available to most of the fishing industry, which may reduce active and latent capacity in the fisheries. This mechanism, as well as a one-time withdrawal of funds recommended by the Task Force to reduce the potential capacity represented by CCF funds currently on deposit, both require that such proceeds not be reinvested in the fisheries. The best available mechanism to provide assurance of this is the CCF itself. The CCF provides an accounting mechanism sufficient to track unqualified use of funds, or any successive use of invested funds. CCF agreements provide a system of administration, limitations on use and a term of years for existence of the accounts. Also, penalties and processes are already in place in code to deal with breaches of CCF agreements. The present penalties for unqualified withdrawal are quite severe deterrents to unqualified uses, and provide a ready source of cash to compensate the government for any such breach of trust.

1. The CCF program has contributed to capital investment in U.S. fisheries. The CCF program implements policy that intentionally affects capacity. Any revised CCF legislation require a data gathering operation to permit proper evaluation of the revised CCF program.

2. The Jones Act, by requiring the building and refurbishing of US fishing vessels in the U.S., imposes a negative subsidy on fisheries. In the interest of fairness to U.S. fishermen,

positive subsidies to offset the negative subsidies are necessary. The CCF program should be modified to provide this offset.

3. In the future, managers should explicitly analyze the impacts on fishing capacity of any proposed fisheries regulations. CCF financed increases in capacity should not be allowed when areas/fisheries are at or near full utilization. Replacement of aging vessels (in consideration of increased safety) without increasing capacity is a desirable use of CCF, and must be carefully monitored for compliance. This requires regional input into determinations of capacity; and the technical demands of an effective program to address capacity issues require national program administration.

4a. The structure at (3) above disqualifies many existing CCF (Schedule B) objectives. Regional Fishery Management Councils may decide to allow replacement of existing vessels without increasing capacity, subject to approval by Commerce. Fairness requires that holders of CCF accounts be permitted to withdraw CCF funds under favorable tax treatment.

4b. Therefore, the holder of a fund should be allowed to make a one-time election to change the schedule (B) objective of the fund to "Fisheries Capacity Reduction [FCR]." This change of objective should be made irrevocable, and the proceeds of FCR funds should be prohibited from reinvestment in the fishing industry.

4c. FCR funds should be permitted to be used for non-fishing investments (reported annually, as are other CCF accounts) or IRAs, or to provide a scheduled series of cash flows, which are dissipated as income and taxed at the present marginal rate of the fund holder.

5a. CCF funds should be able to be used for

such purposes as fishing vessel safety upgrades, training, research, and other projects that do not tend to increase capacity.

5b. CCF funds should be able to be used for industry-funded buyback payments and ITQ purchases.

6. Regional Fishery Management Councils should recommend a limitation on the maximum amount any firm or individual fishing within the region can accumulate in CCF funds, for approval by the Secretary.

7. Payments received from fishing capacity reduction buybacks should be able to be deposited into FCR funds, to prevent recycling of proceeds into the fisheries.

### Separate Views of Jim Kendall:

Although the CCF program has contributed capacity to our Nation's fisheries, it still serves a valuable service, especially in our region of the country. Several problems associated with the fisheries in New England necessitate the continuation of the CCF program in order to effectively deal with these issues. It is believed that the CCF program should be continued to address these issues, while adding appropriate safeguards to prevent including further capacity and capital within these fisheries.

In the Northeast and elsewhere, much of the fishing fleet is aging to the point where the safety of the crew is compromised. The CCF program allows a vessel owner to upgrade the safety of the boat by rebuilding or refitting the existing vessel. This process can be accomplished without increasing the capacity of the vessel and, in many instances, may actually be refitted in a manner that decreases the capacity of the boat.

Many fishermen in the Northeast are experiencing tough times due to several factors including: overfished stocks, restrictive management measures, and the general fluctuations common to the industry. The CCF program helps a fishermen withstand these difficulties by allowing income to be averaged through deposits to a CCF account. The fishermen are able to make it through the bad years by making deposits during the good years.

Finally, many fishermen in New England are looking for ways to get out of the fishing business but find themselves forced to remain because of an outstanding CCF balance that can only be withdrawn for certain qualified uses. Fishermen are reluctant to make unqualified withdrawals and exit the fishery because of the severe tax ramifications. Furthermore, many fishermen exacerbate the overcapacity problem by building new boats or reconditioning an existing boat because it is the only way they can use their CCF accounts without being penalized unfairly. The CCF program should be changed to expand the list of currently allowed qualified withdrawals. For example, many fishermen would gladly exit the fishery if they were able to roll their CCF balances over into an IRA or at least be given an opportunity to withdraw the funds under a fair and equitable tax treatment.

The CCF program should remain in effect for several reasons. First, it allows a vessel owner to rebuild an aging vessel that may seriously be compromising the safety of the crew members. Second, the program provides a fishermen with a mechanism to average their income in order to get them through the tough fishing years, and allows for the continued upkeep of the vessels. Finally, the CCF program should change its list of qualified withdrawals to include an IRA rollover or a one-time withdrawal under reasonable tax

treatment. These recommendations will improve the safety of the fleet, enhance the economic viability of the fishing operation, and reduce fishing capacity by offering an incentive to exit the fishery.

### Separate Views of Don Woodworth:

I have reviewed the various versions of the CCF recommendations for their general impact on mainland fisheries and also the impact each would have on the U.S. insular areas. As happens too often, it is difficult to find a policy on the CCF program that will suit conditions in both the mainland and the U.S. insular areas.

The pelagic fisheries in these islands are underdeveloped and, it is believed, underutilized. They are geographically remote from mainland fisheries and from mainland shipbuilders. If continuation of the CCF program makes sense anywhere, it is in the U.S. insular areas. Establishing sustainable pelagic fisheries in these islands right away could have especially beneficial long-term effects. Such fisheries could establish a track record of a kind necessary to justify a quota allocation under the anticipated Pacific-wide tuna treaty which is expected to result from the Multi-Lateral High Level Consultation on Highly Migratory Species of Fish.

For this and other reasons, I favor continuing the program in appropriate circumstances. I do not, however, favor using the negative subsidy to fishermen under the Jones Act as the grounds for doing so. I am generally uncomfortable with the idea of using a subsidy to one industry (fishing) to compensate that industry for the negative effects of a subsidy to another industry (shipbuilding).

Use of the Jones Act as the overriding rationale for limiting, but continuing the CCF program is particularly awkward in its application to the U.S. insular areas. The Jones Act is not universally applied to the U.S. insular areas. For example, boatbuilders in the U.S. territories have not been considered eligible for ship construction subsidies. Similarly, provisions of the Nicholson Act do not apply to most U.S. insular areas, although they partially apply to the U.S. Virgin Islands. The coastwise laws apply to Guam, but not to most of the other U.S. insular areas. Because of these anomalies in application of the “Jones Act”, the Task Force recommendations may not work for fishermen in these islands as they do in the mainland.

Gordon Blue’s proposal has several attractive features. It would limit the use of CCF funds for vessel financing to underutilized fisheries, set limits on maximum deposits, and promote capacity reduction through industry-based buybacks. His proposal is also based on the Jones Act, however, and I do not think we have had sufficient opportunity to consider it.

### **Other Tax Programs**

A wide array of tax programs has been or continues to be available to U.S. fisheries.

From 1962 to 1986, an Investment Tax Credit (ITC) was allowed. It was available to any taxpayer making a capital investment. The ITC allowed the taxpayer to take a credit against taxes of up to 10% of the cost of capital additions. There was a low annual limit on used assets. Although this program was not crafted specifically for fisheries, as a capital-intensive industry fisheries were able to take particular advantage of this tax allowance. The ITC was repealed in 1986, and is no longer available.

Depreciation has been handled in different ways over the years. Prior to 1981, assets were written off under various methods, some accelerated, over an approximate economic useful life of the asset. From 1981 to 1986, assets were allowed to be written off at an accelerated rate that was typically much shorter than the economic useful life of the asset. The life of a fishing vessel for purposes of depreciation was set at five years. Beginning in 1987 depreciable lives were lengthened to more approximate the economic life. The life of a fishing vessel was 7 years for regular tax and 12 years for alternative minimum tax (see discussion below).

Beginning in 1987, the tax treatment that made investing in fishing vessels attractive, including investments by non-fishermen, were dramatically scaled back. The Investment Tax Credit was repealed and depreciation schedules revised. In addition, the alternative minimum tax (AMT) was established. AMT is a parallel tax system. This system provides for taxes in situations where the taxpayer has unusually high deductions. Taxpayers were required to pay tax on whichever taxing scheme created the most tax due. Accelerated depreciation was severely limited when arriving at AMT income. The net effect of the AMT is to reduce the value of the deductions and increase the taxpayers' effective tax rate. The tax due under the AMT in excess of the regular tax can under certain circumstances be used as a credit against regular tax in a future year.

Passive Activity Loss (PAL) rules were introduced in 1986, and put severe limits on taxpayers who previously took losses or credits from investments in which they were not actively involved. This shut down most tax shelters and also drove out of fisheries individuals who were buying and constructing vessels to be run by the vessel managers, simply to take advantage of the tax benefits

created by the accelerated depreciation and tax credit.

Until the end of 1986, fishermen were able to average their incomes for tax purposes in order to compensate for the income fluctuations common to the fishing industry. Individuals who had a peak year were allowed to spread the income over preceding years, which served to reduce their effective tax rate for that particular peak year. Income averaging was no longer allowed following the tax code changes of 1986. Although fishermen are no longer able to average their income, the CCF program does allow them to shelter some of their income during these peak years.

There are some tax provisions that are still in effect today that benefit fishing businesses. Special tax treatment is afforded to Foreign Sales Corporations. This provision reduces an exporter's tax by approximately 15% of any profit from export sales. Because many seafood products are exported, this has been a device frequently utilized by fishing companies and fish brokers. However, it is generally available to all taxpayers, and not focused specifically at fisheries.

Section 197 of the tax code allows any intangibles such as permits, individual fishing quotas or licenses that are acquired after July, 1991, to be amortized over 15 years. Previously no deduction was allowed.

A provision targeted directly at the fishing industry is Section 1321(b)(20) of the tax code. This allows smaller vessel operators to treat crewmen as independent contractors rather than employees. This is only for vessels where the typical crew is 10 or less. Presumably it is to spare a small vessel owner from the complexities of payroll withholding.

Fishermen are eligible to receive a Fuel Tax

Credit (FTC). In effect, fishermen are exempted from paying the federal highway tax on diesel fuels, presumably on the theory that their vessels do not use highways.

The Task Force concluded that these tax programs, created to stimulate capital investment in the U.S. economy at large, were a significant factor in the notable growth in U.S. fishing capacity. This view was supported time and again by public testimony that the Task Force heard. It is also true that the period that these programs were most conducive to new capital investment, the early 1980s, coincides with the period when U.S. fishing capacity was increasing markedly. The fishing industry also to a certain extent became a haven for passive investors, using vessel managers, to invest in vessels for the tax credit and depreciation write-off. This was further compounded by the accelerated depreciation methods allowed after 1980.

An example how this worked would proceed as follows. Assume that in 1984 an individual investor bought a vessel for \$250,000, either with cash or vessel financing. The investor would have been allowed to take the deductions/credits against other, non-fishing, income and income tax as shown in Table 1.

TABLE 1: ACCELERATED DEPRECIATION

Year	Deduction	Credit against tax
1	\$37,500	\$25,000
2	55,000	
3	52,500	
4	52,500	
5	52,500	
<b>Total</b>	<b>250,000</b>	<b>25,000</b>

However, the 1986 tax act dramatically changed any incentives that had existed. This occurred through cessation of the ITC, creation of the AMT and the new PAL Rules. In addition, putting profits into a CCF account became less attractive in 1986 with the increase in the tax rate for non-qualified withdrawals and a change in the AMT treatment. With the credit gone and a limit on the taking of losses, investors who were not commercial fishermen no longer had an incentive to invest in fisheries or fish harvesting activities.



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# Chapter VII: Fishing Vessel Obligation Guarantee Program

## Abstract

*For almost the past three decades, the Fishing Vessel Obligation Guarantee Program (also known as the “FOG” program) has guaranteed debt obligation by holding and servicing mortgages used for constructing or reconstructing fishing vessels. Congress later amended the program’s authorizing legislation to allow guarantees for onshore facilities, such as processing plants; for aquaculture; for financing vessel buyback programs; and for the purchase for the purchase of halibut and sablefish quota shares by crew members.*

*The goal of the FOG program was to promote the modernization and expansion of the U.S. commercial fishing sector by encouraging capital loans with long repayment periods. The program was designed to improve the terms on which qualified fishermen could secure financing in order to ensure that they could survive the natural and economic cycles that affect all fishermen. The government did so by providing a guarantee to lenders that it would assume any defaults on loans. In return, lending institutions offered loans to fishermen with longer amortization periods than they otherwise would offer. Whereas FOG-financed loans had repayment terms as long as 17 years, private lenders generally required repayment within five to ten years. A longer amortization period has been attractive as a hedge against changing management regimes and fluctuations in the abundance of target species.*

*The principal argument for the government’s intervention has been that private commercial markets tend to overestimate the risk associated with fishing and therefore set interest rates too high and amortization periods too short, when they offered loans to fishermen at all. As well, the relatively small number of fishing-related loans discouraged private lenders from maintaining staff who understood fisheries and could meaningfully evaluate a loan application.*

## **Introduction**

The Federal Ship Financing Act of 1972 established the Fishing Vessel Obligation Guarantee Program (FOG).<sup>1</sup> For a number of reasons, the fishing industry has traditionally had difficulty securing adequate capital to finance investments.<sup>2</sup> The FOG program used the full faith and credit of the United States to guarantee the repayment of loans made for the construction and reconstruction<sup>3</sup> of fishing vessels. In a typical FOG case, a fisherman would apply to the National Marine Fisheries Service for financing. NMFS would investigate the credit worthiness of the applicant; and if the loan was found to be sound, would arrange to place the loan with private lenders. FOG would guarantee the repayment of the loan to the lender by the fisherman; and in return the United States would take a first preferred mortgage on the vessel along with whatever other security was deemed appropriate by the NMFS administrators of the program.

The program was generally considered to have very strict lending standards. Fishermen who would not be able to qualify were discouraged from applying. In addition, NMFS has always been very conservative concerning collateral – it typically did not agree to allow a second mortgage to be placed on vessels it is financing. In return, the qualified fishermen received better terms for their financing, as a result of the government guarantee, than they could have secured in the strictly private market. The greatest benefit to fisherman borrowers was the length of time for repayment. Whereas private lenders might normally seek amortization of a loan over five to seven years, with the government guarantee loan repayment could be stretched out over fifteen to seventeen years. The government guarantee also meant that financing rates were typically two percent lower than could be

secured without the guarantee.

The FOG program is one of the most obvious examples of a subsidy (see definitions discussion in Chapter IV) that the Task Force studied, although it is not necessarily the most significant. FOG occupied a middle period in the history of federal assistance for fisheries vessel financing, between the earlier Fisheries Loan Fund and mortgage insurance programs, and the new Fisheries Finance Program (FFP) under the Sustainable Fisheries Act (SFA). A full appreciation of the impact of the FOG program thus must begin with a historical perspective.

## **Historical Background**

In evaluating the FOG program and its successors, it is important to keep the historical context in mind. According to Coast Guard documentation data presented to the Task Force, the number of documented fishing vessels built each year grew from 592 in 1970 to a peak of 2,404 in 1979. More than half of the 30,503 new vessel documentations in the period 1950-1997 were filed in the period 1973-1984.

This growth reflected a renewed commitment by industry, state governments, the Executive Branch, and Congress. By far, the largest number of vessels were built without direct government assistance. After passage of the Fishery Conservation and Management Act in 1976, private lenders and other investors sought to cash in on the anticipated benefits of extended fisheries jurisdiction. Thus, private sources funded much of the growth in the U.S. fishing fleet during this period.

At the same time, at the urging of industry, Congress and the Executive Branch revised and redirected government assistance programs to

reduce remaining difficulties in securing capital for expansion of fishing capacity (Dewar 1983). One of these programs was the Fishery Obligation Guarantee Program or FOG. While this program was not a major contributor to the growth in fleet size and power during this period, it did play a role.

## Antecedents

In an effort to build the confidence of fishermen and financial institutions, Congress established the Fisheries Loan Fund (FLF) through Section 4(a) of the Fish and Wildlife Act of 1956 (BCF 1962a). Under the FLF, the federal government was to make loans “for financing and refinancing of operations, maintenance, replacement, repair, and equipment of fishing gear and vessels, and for research into the basic problems of fisheries.” The loans were to bear an interest rate of at least 3 percent and mature in no more than ten years. Loans were to be granted only if the “financial assistance applied for is not otherwise available on reasonable terms.” Congress initially authorized loans up to \$10 million for the program. The program was administered by the Bureau of Commercial Fisheries (BCF) in the U.S. Fish and Wildlife Service of the Department of the Interior.

In 1957, its first year of activity, the FLF approved 187 loans for \$5 million (BCF 1962a). More than half of the loans were granted in New England, while fishermen in California and the southeastern United States each received about 20 percent of the loans. More than half of the loans were for refinancing debt, while most of the balance was dedicated to new construction or improvements. In 1959, Congress increased the authorization for the program from \$10 million to \$20 million (BCF 1962b).

In the next few years, these trends changed slightly. For instance, FLF loans were used more for new construction and reconstruction than for refinancing debt, a sign that the Department of the Interior’s BCF found encouraging (BCF 1962d). Similarly, BCF found encouragement in the increased use of FLF funds for converting tuna clippers to purse seiners in 1961. According to the BCF (1963a), “[T]he conversion of these vessels revived this segment of the industry [i.e., tuna fisheries] to a point where instead of being one of the least profitable U.S. fisheries, it became one of the most profitable.” By 1963, nearly one-third of FLF loans had been dedicated to the conversion of 30 tuna clippers, while private funds financed the conversion of another 70 tuna clippers (BCF 1964).

Table 2 presents information from annual reports of the BCF and NMFS regarding activities of the FLF between 1957 and 1973.<sup>4</sup> During this period, the annual number of applications ranged between 99 in 1963 and 219 in 1964, while loan approvals ranged between 41 in 1972 and 187 in 1957. Annual cumulative loan amounts ranged between \$826,640 in 1963 to \$5 million in 1957. By 1972, \$31.3 million in loans had been approved, or somewhat less than half the loan amounts requested. Unfortunately, annual BCF and NMFS reports do not provide a breakdown of loan uses or regional uses.

By the early 1960s, concerns already were arising that FLF might be contributing to crowding and overcapitalization in some fisheries (BCF 1966). As the Fish and Wildlife Act neared expiration in June 1965, Congress reauthorized the FLF with amendments. Under the amended program, loans could be used for construction of new vessels if the Secretary of the Interior, through BCF, determined that a new vessel would not cause economic hardship or injury “to efficient vessel operators already

TABLE 2: FISHERIES LOAN PROGRAM ACTIVITY, 1957 - 1973

Activity	1957	1958	1959	1960	1961	1962	1963	1964	1965
FLF authorized loan ceiling	\$ 10,000,000		\$ 20,000,000						
Number of FLF applications in year	160	184	150	184	184	208	99	219	157
Amount of FLF applications in year	\$ 4,439,212	\$ 4,805,604	\$ 3,279,763	\$ 4,805,604	\$ 4,718,000	\$ 4,059,254	\$ 1,519,178	\$ 5,420,655	\$ 2,893,938
Cumulative number of FLF applications	514	664	664	848	961	1,169	1,268	1,487	1,644
Cumulative amount of FLF applications	\$ 17,780,883	\$ 21,060,646	\$ 21,060,646	\$ 25,866,250	\$ 28,949,169	\$ 33,008,423	\$ 34,599,601	\$ 39,840,256	\$ 42,734,194
Number of FLF applications denied in year					45	63			
Cumulative number of FLF applications denied	125	173	173	214				384	
Number of FLF applications approved in year	187				89	107	55		74
Amount of FLF applications approved in year	\$ 5,000,000				\$ 2,080,552	\$ 2,632,502	\$ 826,640		\$ 1,403,908
Cumulative number of approved FLF applications	278	355	355	459			673	791	845
Cumulative amount of approved FLF applications	\$ 7,176,800	\$ 8,356,000	\$ 8,356,000	\$ 11,107,203			\$ 15,472,951	\$ 17,802,763	\$ 19,206,671
Percent FLF approved in New England and Mid-Atlantic	44%	42%	42%	35%					
Percent FLF approved in South Atlantic and Gulf of Mexico	21%	19%	19%	15%					
Percent FLF approved in California	23%	26%	26%	32%	50%	33%	30%		
Percent FLF approved in Pacific Northwest	8%	9%	9%	12%					
Percent FLF approved elsewhere	4%	4%	4%	6%					
Percent of FLF amount for refinancing debt	57%	56%	56%	48%					
Percent of FLF amount for new construction or improvements	38%	40%	40%	49%					
Percent of FLF amount for operating expenses	5%	4%	4%	3%					

Legend: FLF = Fisheries Loan Fund

TABLE 2 (CONT.)

Activity	1966	1967	1968	1969	1970	1971	1972	1973
FLF authorized loan ceiling								
Number of FLF applications in year	186	145	139	145				
Amount of FLF applications in year	\$ 3,724,525	\$ 5,191,285	\$ 5,614,227	\$ 5,519,216			\$ 2,200,000	
Cumulative number of FLF applications	1,830	1,975	2,114	2,259				
Cumulative amount of FLF applications	\$46,458,719	\$51,650,004	\$57,264,231	\$62,783,447				
Number of FLF applications denied in year								
Cumulative number of FLF applications denied								
Number of FLF applications approved in year	92	84	75	71	100	100	41	
Amount of FLF applications approved in year	\$ 1,912,895	\$ 3,033,075	\$ 2,441,115	\$ 2,408,958	\$ 2,000,000	\$ 2,000,000	\$ 1,000,000	\$ 865,000
Cumulative number of approved FLF applications	957	1,041	1,116	1,187				
Cumulative amount of approved FLF applications	\$21,119,566	\$24,152,641	\$26,593,756	\$29,002,714			\$31,300,000	
Percent FLF approved in New England and Mid-Atlantic								
Percent FLF approved in South Atlantic and Gulf of Mexico								
Percent FLF approved in California								
Percent FLF approved in Pacific Northwest								
Percent FLF approved elsewhere								
Percent of FLF amount for refinancing debt								
Percent of FLF amount for new construction or improvements								
Percent of FLF amount for operating expenses								

Legend: FLF = Fisheries Loan Fund

Sources: Annual reports of the Bureau of Commercial Fisheries and the National Marine Fisheries Service

TABLE 3: FISHING VESSEL MORTGAGE INSURANCE PROGRAM, 1962 - 1972.

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
Number of applications for year	9	14	24	21	45	45	51	22			46
Applications approved for year	5	12	25			40	46	20			29
Insurance requested for year	\$ 1,611,050	\$ 1,593,180	\$ 998,874	\$ 2,491,684	\$ 2,908,253	\$ 9,923,773	\$ 4,094,918	\$ 7,441,041			\$ 3,600,000
Insured amount for year	\$ 1,050,346	\$ 817,130	\$ 1,050,620			\$ 8,330,415	\$ 5,209,308	\$ 3,937,449			\$ 2,300,000
Cumulative applications	9	31	55	77	122	167	218	240			
Cumulative application approvals	5	23	48	63	93	133	179	199			
Cumulative insurance requested	\$ 1,611,050	\$ 3,897,720	\$ 4,896,614	\$ 7,469,992	\$ 10,378,245	\$ 20,302,018	\$ 24,396,936	\$ 31,837,977			
Cumulative insured amounts	\$ 1,050,346	\$ 2,187,455	\$ 3,239,095	\$ 4,850,967	\$ 6,721,656	\$ 15,052,071	\$ 20,261,379	\$ 24,198,828			\$ 40,000,000

Sources: Annual reports of the Bureau of Commercial Fisheries and the National Marine Fisheries Service

in the fishery.”

In 1960, BCF established the Fishing Vessel Mortgage Insurance Program to provide insurance for mortgages used for the construction, reconstruction or reconditioning of fishing vessels (BCF 1963b). The program, which the Fish and Wildlife Act of 1956 had authorized through an amendment to Title XI of the Merchant Marine Act of 1936, was directed at increasing the availability of private financing by having the federal government guarantee repayment of any debts (NMFS 1973; Dewar 1983). In 1962, more than \$1 million in mortgage insurance was granted for five loans. (See Table 3.) Between 1960 and 1969, the federal government issued mortgage insurance for 199 loans worth \$24,198,828 (BCF 1970).<sup>5</sup>

Clearly, the federal government was more open to insuring than to providing loans, since four of every five insurance applications was approved. (See Table 3.) By comparison, only half of all FLF applications were approved between 1957 and 1969. (See Table 2.) Under the Nixon Administration, federal assistance programs came under increasing scrutiny. In an October 1969 letter to Interior Secretary Walter J. Hickel, the Assistant Director of the Bureau of the Budget, James Schlesinger, questioned the federal government’s role in providing subsidies to the fishing industry.

*“To the extent that Government expenditures are a necessary cost of supplying fish and shellfish, they should be a cost to the consumers of those products and not to the taxpayer. If the consumer is not willing to pay all of the costs of the product that he consumes then that product should not be produced and the resources thus released should be shifted to those alternative uses whose values are*

*reflected in the costs of producing the product.”*

No action followed from this intervention.

The National Oceanic and Atmospheric Administration (NOAA) was created in 1970; and the functions of BCF were transferred to NOAA’s National Marine Fisheries Service (NMFS). Shortly thereafter, NOAA formed an internal Task Group on Financial Assistance, which submitted a draft report in 1972. Clearly, support at the senior levels of the agency for direct financial assistance to the fishing industry was eroding. The 1973 NMFS annual report observed the following (NMFS 1974):

*“NMFS’s financial assistance effort*

*during 1973 was in a transitional period. The programs are moving toward the use, wherever possible, of private capital to accomplish the overall program mission.”*

These concerns reflected growing apprehension about excessive fishing capacity and effort in some fisheries. In 1972, NMFS economists had completed a study on the extent of capitalization in U.S. fisheries

*“to identify those fisheries which have too many vessels and fishermen relative to the resource potential so that corrective action may be taken by NMFS through management schemes or alterations in financial assistance policy” (Weber 1998).*

#### CONDITIONAL FISHERIES

One of the mechanisms used by NMFS to limit the use of its financial assistance programs was the concept of “conditional fisheries.” On October 24, 1973, NMFS published a notice establishing a system to limit financial assistance in fisheries where entrance of additional vessels was “unwarranted” (50 CFR 253.11). NMFS financial assistance programs could not be used for any project in a fishery that was characterized as “conditional.” In theory, these were fisheries where the level of capacity was sufficient without any more capital investment using federal assistance. Title XI of the Merchant Marine Act of 1936 required the Secretary of Commerce to limit funding to those projects that were “consistent with the wise use of the fisheries.” The designation affected more than just the FOG program. Objectives in the Capital Construction Fund could not include projects for conditional fisheries.

The first fishery declared to be declared “conditional” was the yellowfin tuna fishery in the area under the jurisdiction of the Inter-American Tropical Tuna Commission (IATTC). Between 1974 and 1979, seven fisheries were declared conditional.<sup>6</sup>

On May 1, 1996, NMFS administratively excluded any new fishing vessel construction from eligibility for FOG financing (50 CFR 253.11). NMFS also prohibited the program’s use for refurbishing existing vessels if the project would materially increase the vessel’s harvesting capacity. These limits remain in place today, although the conditional fisheries rule itself has been repealed.

Yellowfin tuna in the IATTC area	1974
Gulf of Maine lobster	1975
Alaska king crab	1975
Alaska salmon	1975
Northwest salmon	1975
Atlantic surf clam	1977
Atlantic groundfish	1979

At the same time, other studies focused on revitalizing the New England fishing industry.

Concerns about overexpansion of some commercial fishing fleets lay behind restrictions that NMFS began placing on financial assistance to fishing fleets in 1973, three years before passage of the Fishery Conservation and Management Act of 1976. (See “Conditional Fisheries,” p. 81.) On March 1, 1973, NMFS imposed a moratorium on applications to the Fisheries Loan Program

*“in order to replenish lending reserves...eliminate loans for marginally productive purposes. When the redirection is accomplished, the program will be oriented toward developing underutilized fisheries, stimulating entrance of new vessels into selected fisheries when and if some form of extended fisheries jurisdiction is effected, assisting young fishermen..., shifting vessels from over-utilized to less utilized fisheries, technological improvement, and financing acquisition cost of used vessels to be upgraded with private capital made available by other programs.”*

In 1974, NMFS admitted that the Fisheries Loan Fund and other assistance programs had been “only partially successful in meeting their objective—increase efficiency and competitiveness of the harvesting segment of the industry” (NMFS 1975). As a result, NMFS continued the administrative moratorium on FLF applications.<sup>7</sup>

## The Fishing Vessel Obligation Guarantee Program

In October, 1972, Congress enacted the

Federal Ship Financing Act of 1972 (NMFS 1973). The Act amended Title XI of the Merchant Marine Act of 1936, which had established the Fishing Vessel Mortgage Insurance Program, and established the Fishing Vessel Obligation Guarantee Program (popularly, “the FOG program”). The purpose of the legislation was to expedite procedures, simplify paperwork, and “better meet the industry’s need for investment capital.” Another reason cited for the program’s creation was “to make U.S. built vessels as affordable as foreign-built vessels” (NMFS 1997).

Among other changes, the Act established the government as the mortgagee, rather than the guaranteed lender, and broadened the uses for which guaranteed obligations were available. NMFS expected assistance to double within a year (NMFS 1973). On July 31, 1973, NMFS published interim regulations implementing the FOG program (NMFS 1974). In its first year, the program received two applications requesting guarantees for \$165,000 in obligations. From nearly the beginning, the FOG program recovered administrative and other costs through fees paid as part of the application and approval process (NMFS 1977). According to NMFS, criteria for the approval of applications to FOG have not changed materially over time (Grable 1998c). During the 1970s and early 1980s, when credit approval was delegated to the regions, application of the criteria varied.

In 1974, NMFS issued permanent regulations for FOG at 50 CFR Part 255. According to NMFS, the program was aimed at

*“developing capital alternatives to conventional bank lenders because 1974’s restrictive monetary policy made conventional lending funds very scarce and inflation discouraged long-*

*term, fixed-interest-rate, conventional loans except at historically high interest rates” (NMFS 1975).*

In 1974, NMFS received more than \$10 million in applications.

By the end of 1975, the FOG program had \$41 million in outstanding guarantees and applications on hand, more than the \$25 million ceiling assigned to the fishery portion of the Department of Commerce’s authority (NMFS 1976). Loans guaranteed under FOG had an average maturity of 13.5 years and an average interest rate of 8.74 percent.<sup>8</sup> NMFS continued receiving applications for FOG loans—\$19.8 million in applications in 1976 alone.

By 1977, FOG had guaranteed loans amounting to \$26 million, with an average maturity of 13.23 years and an average interest rate of 8.46 percent (NMFS 1978). NMFS expected that the program could soon exceed its increased guarantee authority of \$50 million. With the approval of \$74.9 million in guarantees in 1978, the FOG program’s total outstanding guarantees, approved cases awaiting closing, and pending applications reached \$180 million (NMFS 1979). In response, the guarantee authority for the program was raised from \$75 million to \$250 million. The average interest rate of loans closed during the year was 8.93 percent.

In 1978, Congress increased the percentage of a loan that might be guaranteed from 75% to 87.5 %, and the maximum maturity from 15 to 20 years (NMFS 1979).<sup>9</sup> Both amendments reflected a concern to make “FOG more responsive to the fishing industry’s needs” (NMFS 1978). As the decade ended, the FOG program had \$310 million in outstanding guarantees, approved cases awaiting closing, and pending applications (NMFS 1980).

In 1980, authority was added for financing shoreside facilities, and in 1992 authority was added for financing aquaculture facilities (Grable 1998c). In 1986, FOG reduced the percentage of project costs that FOG might finance from 87.5 percent to 80 percent.

## Fisheries Finance Program

With the passage of the Sustainable Fisheries Act in 1996, the FOG program was renamed the Fisheries Finance Program (FFP) and was authorized to finance buy-back programs and the purchase of Individual Transferable Quota (ITQs) shares by small-scale fishermen and crew members. The law was silent on previous approved uses.

The FFP program now is a direct federal loan program—that is, it no longer involves private lenders. Funds for the program come directly from the Treasury Department. The program used to charge one percent above private lenders’ rates, which themselves reflected a one percent surcharge imposed by private lenders. The FFP now charges a rate two percent above the current market rate of interest.

Regulations implementing the new authority for financing industry-funded vessel buybacks have not been promulgated. However, the program is expected to require that an interested fishery develop and submit a business plan for the buyback to NMFS for review and approval. The plan will have to include an economic analysis describing the benefits to remaining vessels. If the plan is approved by NMFS, participants in the fishery must vote whether to implement the plan. Two-thirds of a fishery’s vessel owners or permit holders must approve the plan if it is to take effect (SFA §312(b)-(e)).

If a plan is approved by the fishery's participants, the FFP will borrow money from the Treasury Department to buy back vessels or permits. The vessel owners or permit holders remaining in the fishery will repay the Treasury loan through a levy of up to 5% of the ex-vessel value of the fishery's landings. The interest rate will be set at a level 2% above the interest rate charged by the Treasury Department. The SFA authorizes repayment terms as long as 20 years.

The first two buyback requests are for Pacific Coast groundfish and Bering Sea and Aleutian Island Crab (Grable, 1998c). If approved, the FOG/FFP program would finance the buybacks, and fishermen remaining in the fishery would pay back the loan.<sup>10</sup>

The Federal Credit Reform Act of 1992 requires federal agencies to state the "subsidy cost" of their financing assistance programs. Each year, Congress appropriates a specific amount of these "subsidy costs" for each agency. For FY1998, Congress appropriated \$100,000 to fund the subsidy cost of loans of the FFP. NMFS expects that this will support loans totaling about \$5 million for FY1998. The future subsidy cost of loans to purchase quota shares in these two fisheries are to be funded by a percentage of revenues from an individual fishing quota fee that is to be implemented in these fisheries.

## ***Contribution of FOG to Capitalization in Fisheries***

### **Theoretical Considerations**

As described in Chapter IV, a subsidy is "Government action or inaction that modifies, by increasing or decreasing, the potential profits earned by the firm in the short-

medium-, or long- term." (See p. 36, above). Lowering costs increases profits and attracts increased fishing capacity. In this way, subsidies contribute to capacity, especially in open access fisheries, thus making it more appealing for individuals or corporations to invest in the fishery.

In the case of the FOG program, the government encouraged the construction, replacement, or reconstruction of fishing vessels by providing a guarantee to lenders that the government would assume any defaults on loans. In return, lending institutions offered loans to fishermen with longer amortization periods than they otherwise would offer. The principal argument for the government's intervention was that private commercial markets overestimated the risk associated with fishing and therefore set interest rates too high and amortization periods too short, if they offered loans to fishermen at all. As well, the relatively small number of fishing-related loans discouraged private lenders from maintaining staff who understood fisheries and could meaningfully evaluate a loan application.

Because fishermen were its original clients, the FOG program's impact on the entry and exit of vessels in U.S. fisheries has received the most attention. However, for reasons outlined in the section on defining subsidies, subsidies to processors also can increase harvesting capacity. Here, theory suggests that subsidies will allow entry or continuance of businesses operating at the margin and expansion of facilities. The increased demand for fish generated by the increase in processing capacity bids up the price of fish, leading to increased profits for fishermen in the short-term. In open access fisheries, this generally leads to expansion of fishing effort and capacity. Processors who also own vessels will seek to keep their vessels fishing, in order to promote the productivity of their investment

not only in vessels but also in processing facilities.

Several observations may be made about the possible impact of FOG financing on individual decisions to invest in additional fishing capacity. No one observation probably applies to the program as a whole. Rather, the benefits of and motivation for seeking a FOG loan probably have varied with each case, such as conditions in the fishery, general economic conditions, and other government policies. Some common perspectives are as follows:

1) Given risk and uncertainty in the fishing industry, a longer loan repayment period (beyond that provided by private institutions) could increase investment in the fishing industry. This is because fishing businesses would have better cash flow situations and be less likely to default on loan payments during periods when returns from fishing activities are diminished.

2) On the other hand, a longer-term repayment period might not increase investment since assets are tied up over the full term of the debt. Since the FOG program has been very conservative in protecting its security interests, this may also have discouraged some investment in additional capacity.

3) Assuming that FOG-financed fishermen have better cash flows, they might be better able to adapt to regulatory restrictions on catch. They also have improved cash flows. These and other benefits of the FOG program have almost certainly made it easier for participants to stay in the fisheries.

4) Most successful applicants for FOG financing could have secured private financing without FOG's assistance; however, these businesses often sought FOG financing to lower their short-term costs.

The Task Force was unable within the time and resources available to fully analyze the available statistical information. It is important to note that the NMFS Financial Services Division maintains quite an extensive database on its activities. The database includes the following information:

- Basic provisions on each loan, such as amount, interest rate, closing date, term, payment, frequency, payment amount, maturity, amortization schedule, etc.;
- Name, address, and phone numbers of borrowers and guarantors;
- Vessel information such as length, gross and net tonnage, horsepower, fishing areas, primary species fished, etc.;
- Non-vessel collateral information, e.g., residential real estate, life insurance, shoreside facilities;
- Lender names, addresses, and phone numbers;
- Insurance on all collateral securing loans, including insurance type, amount, inclusive dates, underwriter rating and financial size, insurance agents, etc.;
- Summary annual financial data on each account and loan officer assessments of financial condition of the project;
- Uniform Commercial Code (UCC) tracking information for renewing UCC liens on collateral; and
- Billing and receipts data on Fisheries Financing Loans (Matlock 1998).

## **FFP to Finance ITQ Purchases**

The SFA also authorized the FFP to finance the purchase of ITQs in the Alaska halibut and sablefish fisheries (NOAA 1998a). The new loan program will provide fishermen who did not initially receive quota share and small boat fisherman who wish to purchase additional quota share with the opportunity to purchase a greater stake in these fisheries. The SFA defines an entry-level fisherman as a fisherman who:

- does not currently hold any quota share in the halibut and sablefish fisheries;
- wishes to purchase, with the proceeds of a loan, quota shares that will not yield more than 8,000 pounds of IFQ in the year during which the loan is made; and
- will be a crew member aboard the vessel when the IFQ associated with the quota share to be purchased with the loan proceeds is being harvested.

The SFA defines a fisherman who fishes from a small vessel as a fisherman who:

- wishes to purchase catcher vessel quota shares;
- has demonstrated at least 150 days' experience working as part of a harvesting crew in any U.S. commercial fishery;
- will not hold an ownership interest in quota shares that yields more than 50,000 pounds of IFQ during the fishing year in which a loan application is submitted,
- does not hold any ownership interest in a processor vessel or a catcher vessel with a length overall of greater than 60 feet; and

- will be on board the vessel when all IFQ held by the fisherman is being harvested.

The FOG program does not maintain information on the number of FOG applicants who might have applied to private sources before applying to FOG (Grable 1998c). The program has declined few applications, apparently because "undesirable credits" are excluded before they apply. Generally, those interested in FOG financing engage in discussions with FOG staff before filing an application. Learning of the restrictions and equity requirements that the program imposes, many potential applicants do not proceed to complete a formal application. The Task Force was not provided with information on dollar amounts of foreclosures and repayment failures, nor on the specific capacity-increasing effects of FOG projects.

## **Vessel Financing**

Based on summaries of information provided to the Task Force by NMFS, the following may be said about the program's vessel financing activity nationally and regionally. In the period 1976-1995, FOG facilitated 1,286 loans totaling \$828 million. (See Table 5). For the period 1976 to 1998, the FOG program guaranteed loans amounting to \$728 million for 1,250 vessels. (See Table 4.) Of this, the Northwest Region originated 39 percent of the guaranteed loan amounts, followed by the Southeast Region with 24 percent, the Northeast and Southwest Regions with 17 percent each, and the Alaska Region with 4 percent. Funding was used for the following purposes:

- \$48 million (7%) were for financing or refinancing the purchase of 33 existing vessels.

- \$247 million (34%) were for financing or refinancing reconstruction or reconditioning of 225 existing vessels.
- \$83 million (11%) were for refinancing the construction of 93 existing vessels.
- \$350 million (48%) were for the construction of 899 vessels. Of this, \$37 million was disbursed before construction of 140 vessels started, while \$313 million was disbursed after construction on 759 vessels started.
- The FOG program’s financing involved 42 fisheries (NOAA Undated).

The regional breakdown for FOG financing and refinancing of vessel construction and reconstruction is presented in Table 5 and in Figures 1 and 2.

- Eighteen percent (\$128 million) of the national total went to the Northeast Region to finance 291 fishing vessels. (See Table 4, Figures 1 and 2) Three million dollars of this amount went to finance or refinance the purchase of nine existing vessels. Forty-eight million dollars were provided to finance or refinance reconstruction or reconditioning of 95 existing vessels, while \$21 million were provided to refinance construction cost of 28 existing vessels. Also, \$56 million were provided to finance the construction of 159 vessels. Of these, \$1.0 million were disbursed to construct three vessels before construction started and \$55 million were disbursed to finance 156 vessels after construction of these vessels started.

- Loans amounting to \$173 million (24% of the total) were disbursed in the Southeast Region from 1976 to 1998 to finance or refinance 523 vessels. (See Table 4, Figures 1 and 2.) Two million dollars (1 percent) were

TABLE 4: FOG/FFP ACTIVITY BY REGION AND PURPOSE, 1976 - 1998.

PURPOSE	NORTHEAST REGION		SOUTHEAST REGION		SOUTHWEST REGION		NORTHWEST REGION		ALASKA	
	Amount (in \$000s)	Vessels	Amount (in \$000s)	Vessels						
1) Finance or refinance purchase of existing vessel	3,000	9	2,000	5	25,000	11	17,000	5	1,000	3
2) Finance or refinance reconstruction or recondition of existing vessel	48,000	95	50,000	30	33,000	30	107,000	52	9,000	18
3) Refinance construction cost of existing vessel	21,000	28	22,000	34	20,000	17	19,000	9	1,000	5
4-a) Finance construction of a new vessel before start of construction	1,000	3	18,000	87	12,000	39	3,000	8	3,000	3
4-b) Finance construction of a new vessel after start of construction	55,000	156	81,000	367	31,000	86	134,000	123	12,000	27
<b>TOTALS</b>	<b>128,000</b>	<b>291</b>	<b>173,000</b>	<b>523</b>	<b>121,000</b>	<b>183</b>	<b>280,000</b>	<b>197</b>	<b>26,000</b>	<b>56</b>

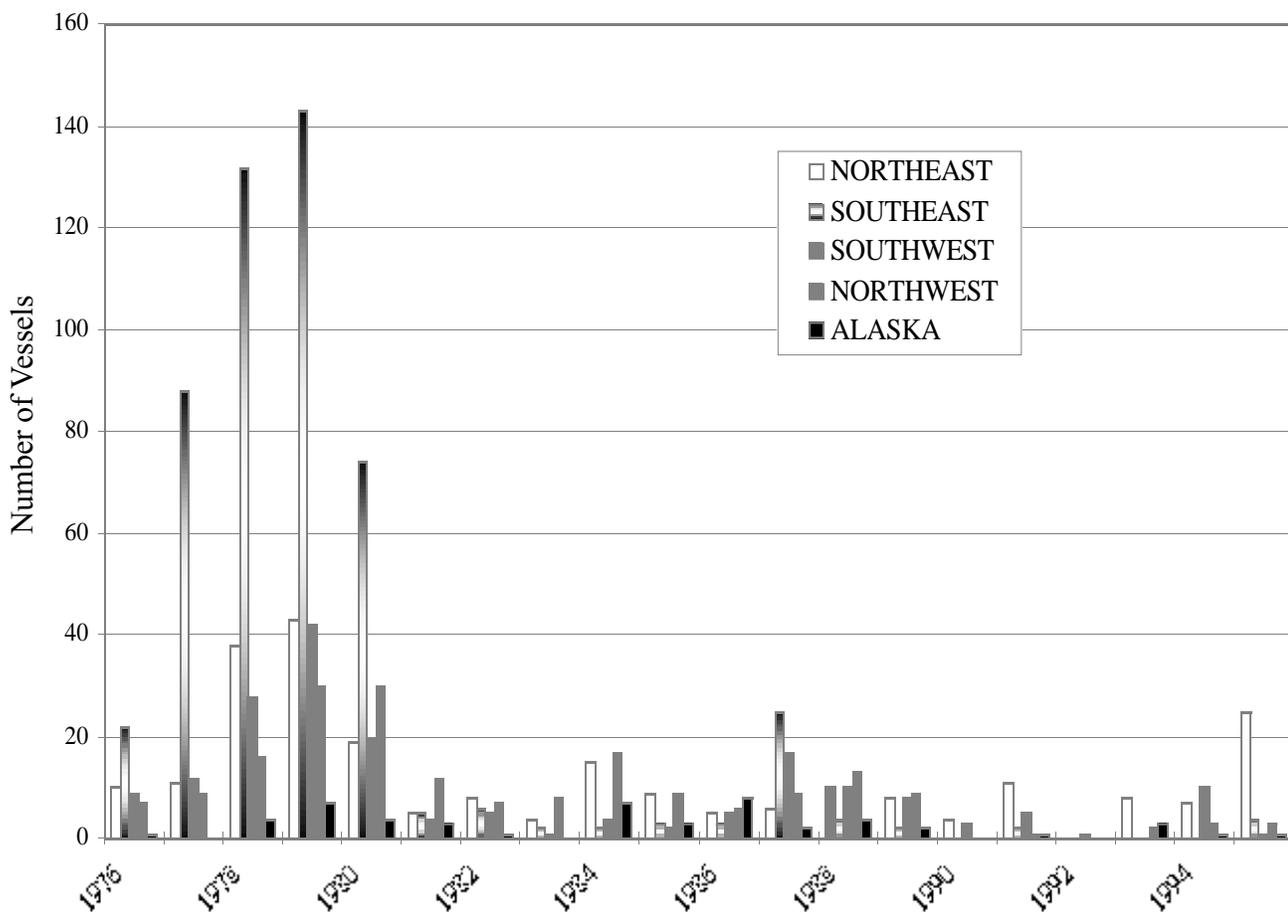
provided to finance or refinance purchase of five existing vessels, while \$50 million were provided to finance or refinance reconstruction or reconditioning of 30 existing vessels. Also, \$22 million were provided to refinance construction cost of 34 existing vessels.

A total of \$99 million of the \$173 million were provided to finance the construction of 454 new vessels. Of these, \$18 million were disbursed to construct 87 vessels before construction started and \$81 million were disbursed to finance 367 vessels after construction of these vessels started. About two-thirds of the loans were disbursed within a four-year period in the late 1970s for

construction of shrimp vessels in the Gulf of Mexico. This was during the period immediately following the passage of the FCMA. The next section of this chapter provides a case study of FOG program's financing activity in the Gulf of Mexico shrimp fishery.

- The Southwest Region received \$121 million (17 percent of the total) disbursed by the FOG program from 1976 to 1998 for financing or refinancing of 183 vessels. (See Table 4, Figures 1 and 2.) Nearly two-thirds of this funding went to finance and refinance existing vessels, while \$25 million were provided to finance or refinance the purchase

FIGURE 1: FOG LOAN GUARANTEES BY NUMBER OF VESSELS AND REGION



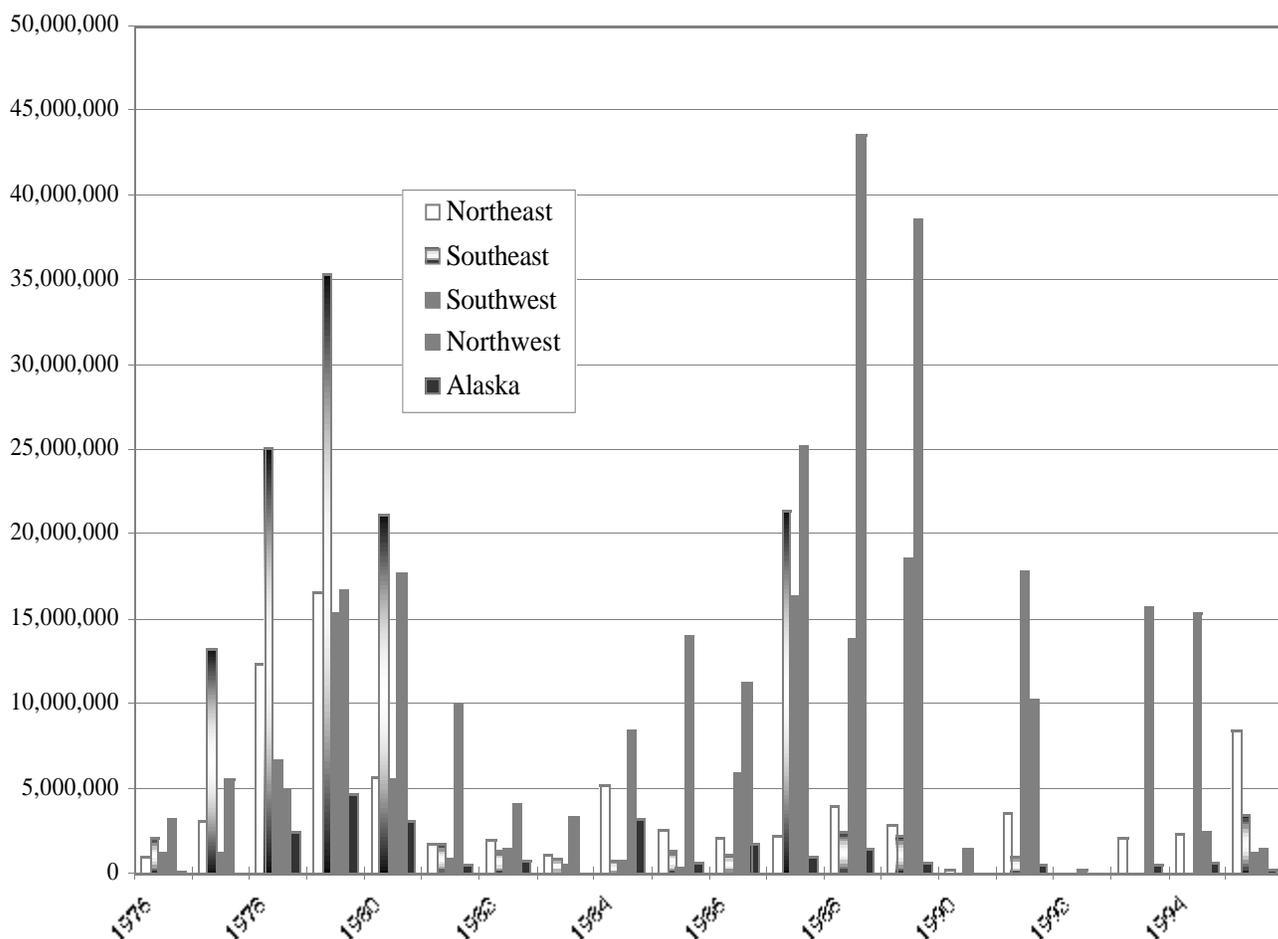
of 11 existing vessels. Also, \$33 million were provided to finance or refinance reconstruction or reconditioning of 30 existing vessels and \$20 million were provided to refinance construction cost of 17 existing vessels. Of the \$43 million provided to finance the construction of 125 new vessels, \$12 million were disbursed to construct 39 vessels before construction started and \$31 million were disbursed to finance 86 vessels after construction of these vessels started.

- The Northwest Region received \$280 million (39 percent of the total disbursed by the FOG program) from 1976 to 1998 to finance or refinance 197 vessels. Fifty-one

percent (\$143 million) went to finance or refinance existing vessels as follows: \$17 million to finance or refinance purchase of 5 existing vessels, \$107 million to finance or refinance reconstruction or reconditioning of 52 existing vessels and \$19 million to refinance construction cost of nine existing vessels.

A total of 131 new vessel constructions were funded with \$137 million from the FOG program. Of these, \$3 million were disbursed to construct 8 vessels before construction started and \$134 million were disbursed to finance 123 vessels after construction of these vessels started.

FIGURE 2: VALUE OF FOG-GUARANTEED LOANS FOR VESSELS BY REGION



- Alaska received only 4 percent of the total amount disbursed by the FOG program from 1976 to 1998. A total of 56 vessels were financed or refinanced with \$26 million. Forty-two percent of this amount went to finance or refinance existing vessels as follows: \$1 million was provided to finance or refinance purchase of 3 existing vessels, \$9 million were provided to finance or refinance reconstruction or reconditioning of 18 existing vessels and \$1 million were provided to refinance construction cost of 5 existing vessels.

A total of \$15 million were provided to finance the construction of 30 new vessels. Of these, \$3 million were disbursed to construct 3 vessels before construction started and \$12 million were disbursed to finance 27 vessels after construction of these vessels started.

## ***Shoreside Facilities***

Although FOG received authority for loans for shoreside facilities in December 1980, it did not consummate a loan under this authority until 1984. Since then, the program has facilitated 50 loans totaling \$120 million, including \$20 million under the New England Emergency Assistance Program (NEEAP). (See Table 8.) Most loans have been for existing facilities. Of the 50 loans, only two have defaulted for \$3.5 million, or slightly less than 3 percent of all loans. Both defaults are active and NMFS anticipates that all loan amounts will be recovered. Regional detail is as follows:

- Alaska received seven guarantees totaling \$48.4 million. These funds were used primarily for unloading and processing salmon, crab, herring and pollock. All loans are active or paid with no defaults.
- The Western Pacific Region has one loan

guarantee of \$2.7 million. This was used for tuna unloading, processing, freezing and storage. This loan is in active default with full recovery probable.

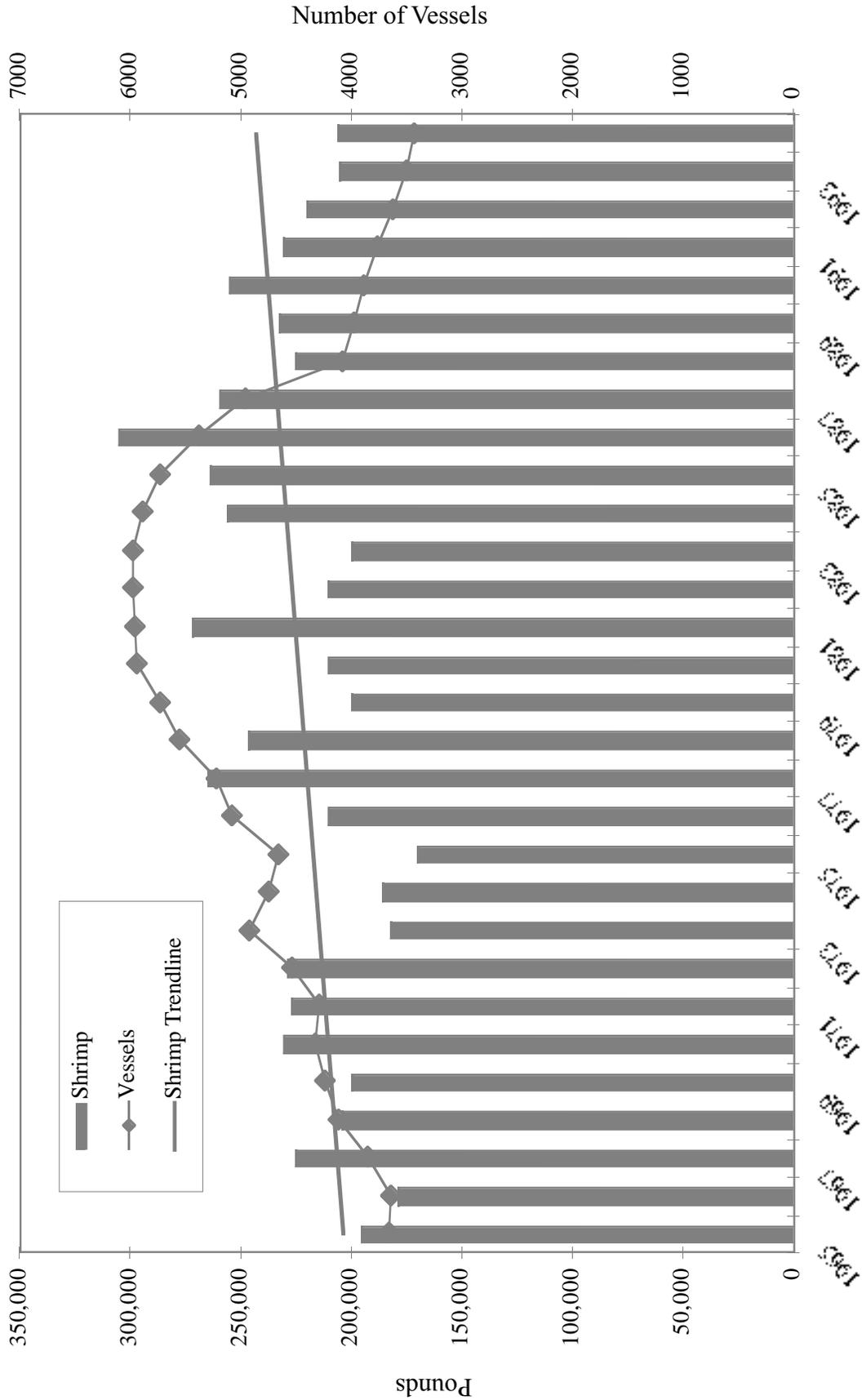
- The Northeast Region has received 28 guarantees totaling \$30.6 million. In addition to the \$20 million of NEEAP, which was used to convert existing groundfish facilities in trouble into other fisheries or businesses, the loans were used largely for unloading, processing, ice production, freezing, pollution control, and dock and marina facilities. The principal fisheries involved are groundfish, herring, lobster, monkfish, various shellfish, smelt, mackerel, whiting, and offal rendering. One loan for \$0.8 million is in active default and is current after restructuring.

- The Southeast Region has received 14 guarantees totaling \$38.7 million. These guarantees were used for lobster distribution, menhaden processing, and shrimp unloading and processing. All loans are active or paid with no defaults.

The FOG program experienced very low default rates on the loans that it guaranteed, and was able to cover these defaults with its mark-up. (Grable 1998c).<sup>11</sup> This record largely is due to FOG's stringent underwriting requirements, which could be met only by financially healthy businesses. One result of this was that most borrowers that qualified for FOG guarantees could have secured private financing in any case, but at a higher interest cost and a shorter repayment term (Grable 1998c). NMFS has suggested that private lenders might charge long-term fisheries borrowers interest rates that were 3 to 5 percent higher than their cost of lending capital, compared to the 2-percent mark-up by FOG.

FOG financing lowered costs in the short term. In the long run, the longer repayment

FIGURE 3: GULF OF MEXICO SHRIMP LANDINGS AND TRAWL VESSELS: 1965 - 1994



Sources: Fisheries of the United States; Grable 1998

period would increase the finance costs of a FOG loan over a shorter-term private loan, but these later payments might be paid with inflated dollars. As well, these later costs could be avoided by refinancing the loan when interest rates fell, provided that the refinancing was at a lower rate, term, points, and closing costs.<sup>12</sup>

### Case Studies

In its evaluation of FOG, the Task Force has relied on several case studies and the literature regarding several fisheries. Because the case studies focus on particular fisheries, and do not evaluate other elements of the FOG program such as shoreside facilities, the case studies illustrate some features of FOG and not others.

TABLE 5: FOG/FFP ACTIVITY BY REGION AND USE, 1976 - 1995.

Year	NORTHEAST REGION				SOUTHEAST REGION				SOUTHWEST REGION			
	Vessels		Shoreside		Vessels		Shoreside		Vessels		Shoreside	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
1976	10	1,025,932			22	2,141,643			9	1,188,104		
1977	11	3,144,085			88	13,183,763			12	1,199,290		
1978	38	12,431,627			132	25,183,581			28	6,688,252		
1979	43	16,630,013			143	35,379,664			42	15,303,038		
1980	19	5,664,104			74	21,105,083			20	5,610,189		
1981	5	1,686,250			5	1,786,359			4	814,970		
1982	8	1,996,500			6	1,304,415			5	1,500,332		
1983	4	1,063,500	1	386,200	2	818,000			1	468,125		
1984	15	5,187,000	1	238,000	2	705,328			4	763,271		
1985	9	2,611,250	1	155,000	3	1,353,630			2	366,000		
1986	5	2,072,000	1	350,000	3	1,123,800	1	295,000	5	5,986,000		
1987	6	2,212,400	2	789,000	25	21,468,817			17	16,369,474		
1988	10	3,914,700	1	1,500,000	4	2,526,124			10	13,860,405		
1989	8	2,830,350	2	480,000	2	2,282,000			8	18,619,000	1	2,720,000
1990	4	285,000	1	835,000					3	1,435,000		
1991	11	3,642,500	6	11,489,000	2	950,000			5	17,800,000		
1992			2	1,650,000					1	200,000		
1993	8	2,117,375	1	2,000,000			2	11,267,200				
1994	7	2,299,000					3	11,775,000				
1995	25	8,388,409			4	3,499,500	3	7,000,000				
TOTAL	246	\$ 79,201,995	19	\$ 19,872,200	517	\$134,811,707	9	\$30,337,200	187	\$124,691,946	1	\$2,720,000

NOTE: The region in which a vessel or shoreside facility operated may be different from the region in which the loan was originated.

Gulf of Mexico Shrimp Fishery

The dramatic growth of the Gulf of Mexico shrimp vessel fleet in the late 1970s shows the general impact of the FOG program in one fishery.<sup>13</sup> While other factors, such as increased landings and ex-vessel prices as well as investment tax policy attracted private investment, the FOG program played a unique role in facilitating some of the investment.

After 1965, overall landings in the Gulf of Mexico shrimp fishery increased, but not at the rate at which vessels entered the fishery. (See Figure 3) Ward and Sutinen (1994) found that the six-year average catch of shrimp after 1967 increased 43 percent over the pre-1967 average. This occurred for a variety of reasons, including increased habitat due to the sinking of coastal freshwater marsh, improved gear technology, and favorable prices and costs.

The apparent increase in shrimp abundance also

TABLE 5 (CONT.)

Year	NORTHWEST REGION				ALASKA			
	Vessels		Shoreside		Vessels		Shoreside	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
1976	7	3,189,852			1	106,074		
1977	9	5,608,820						
1978	16	4,971,021			4	2,424,321		
1979	30	16,742,829			7	4,686,056		
1980	30	17,679,318			4	3,060,551		
1981	12	9,978,256			3	492,628		
1982	7	4,065,718			1	750,000		
1983	8	3,321,831	1	10,200,000				
1984	17	8,456,779			7	3,273,131		
1985	9	13,940,210			3	635,819	1	49,000
1986	6	11,242,886	1	5,380,876	8	1,689,902		
1987	9	25,260,477			2	975,420		
1988	13	43,608,580			4	1,488,816		
1989	9	38,664,907	1	15,000,000	2	640,000		
1990							1	2,500,000
1991	1	10,250,000			1	500,000		
1992								
1993	2	15,700,000	2	15,300,000	3	437,000		
1994	3	2,461,947			1	678,000		
1995	3	1,510,000			1	208,500		
TOTAL	191	\$236,653,431	5	\$45,880,876	52	\$22,046,218	2	\$2,549,000

Source: Grable 1998b

reduced congestion on the fishing grounds for a while, but induced a long-run increase in the size of the fleet (Ward and Sutinen 1994). During the late 1960s and the 1970s, the Gulf shrimp fleet continued increasing both in number and capacity (See Tables 4 and 6, and Figure 3). Ward and Sutinen found that between 1965 and 1988, the number of Gulf of Mexico shrimp fishing vessels grew by 102%, while the average hold capacity increased 33% and average length increased 12%. This growth occurred during a time when ex-vessel prices declined 41%, due to an 1,180% increase in imports and slightly increasing landings (Ward and Sutinen 1994). (See Figure 3).

Some of the

TABLE 6:  
GULF OF MEXICO LANDINGS

Year	Shrimp Landings (000s pounds)	Vessels*
1950	151,753	
1951	193,651	
1952	198,268	
1953	224,503	
1954	237,153	
1955	212,402	
1956	193,621	
1957	168,453	
1958	173,354	
1959	193,503	
1960	205,725	
1961	133,795	
1962	141,726	
1963	203,116	
1964	179,032	
1965	195,237	3,662
1966	179,230	3,654
1967	225,731	3,860
1968	204,024	4,125
1969	200,429	4,242
1970	230,474	4,333
1971	227,376	4,306
1972	228,941	4,537
1973	182,206	4,928
1974	186,208	4,749
1975	170,083	4,670
1976	210,167	5,094
1977	265,119	5,221
1978	246,394	5,564
1979	199,698	5,738
1980	210,117	5,951
1981	272,238	5,973
1982	210,432	5,979
1983	200,263	5,986
1984	256,336	5,900
1985	264,322	5,740
1986	305,644	5,394
1987	259,639	4,964
1988	225,873	4,092
1989	232,399	3,980
1990	255,521	3,900
1991	230,955	3,767
1992	220,355	3,626
1993	205,411	3,510
1994	206,220	3,447
1995	222,788	
1996	205,740	

\* Documented vessels over 5 net tons.

Source: Fisheries of the United States; Grable 1998.

growth in the Gulf shrimp fleet was facilitated by FOG during the 1970's and 1980's. One striking feature of the FOG activity in the southeastern shrimp fishery is that two-thirds of the guarantees were made in the four years after passage of the FCMA. (See Table 7). In the years 1977-1980, FOG financed a total of 433 vessels, which accounted for half of the 857 net increase in vessels in the fishery (Allen 1994). There were other reasons for growth in the fleet as well. This was a time when U.S. shrimp fishermen were being excluded from traditional distant waters in Brazil, Guyana, and Mexico. Many shrimp fishermen brought their vessels back to the southeastern United States, creating crowding and resentment in the fleet.

The discussion above strongly warrants several observations. First, the steady growth of the shrimp fleet before the mid-1980's suggests that potential investors in the shrimp fleet did not face a shortage of private financing. Indeed, in its landmark report, *Our Nation and the Sea*, the Stratton Commission noted that while private financial institutions had hesitated to invest in or extend credit in most fisheries, there was adequate private financing for "the profitable shrimp and tuna industries" (Commission on Marine Science, Engineering and Resources 1969). This clearly undercuts a common rationale for the FOG program: The FOG program provides financing that otherwise would not be available for modernizing and expanding fleets.

Second, although other factors played a role in the expansion of the shrimp fleet in the late 1970s, FOG clearly had an impact since it underwrote more than half the new vessels.

Third, the fleet long ago exceeded the size necessary for optimum economic use of the shrimp resource. By the time FOG began financing vessels, there already were more than 4,700 vessels of greater than 5 gross registered

tons in the fishery. In the 1980s, the financial viability of many shrimp vessels deteriorated for several reasons. Dramatic increases in imported shrimp, particularly from shrimp farms, drove ex-vessel prices down. For instance, the growth in the number and power of shrimp trawlers decreased the average catch-per-vessel.

Fourth, as a result of poor financial situation that developed in the 1980s, vessels exited the fishery—more than 2,000 vessels from 1984 to 1990. Most of these vessels, some of which

had been financed by FOG, moved into other fisheries along the west and east coasts and as far away as Hawaii. Some of the fisheries that these vessels entered, such as the Atlantic scallop and the Pacific groundfish fisheries, now themselves are overcapitalized.

As it turned out, many of the FOG-financed vessels proved to be bad investments. At one time or another during the 1980s, 18 percent of the FOG accounts in the Gulf shrimp fishery defaulted (Grable 1998).

#### PERSPECTIVES: THE GULF OF MEXICO SHRIMP FISHERY

In general terms, the Gulf shrimp fleet has for decades been larger than its optimal size, well before the burst of vessel entries financed with or without government support. A 1991 Gulf of Mexico Fishery Management Council report estimated that the optimum fleet size for the Gulf offshore shrimp fleet would have been about 2,700 vessels in 1980, a year in which there were 5,951 documented shrimp vessels in the Gulf (Upton et al. 1992).

In a NMFS report, Ward (1989) analyzed entry and exit from the Gulf shrimp fishery and found that “the own-price elasticity of demand for the optimum size fleet” was high, indicating that “a small decline in the cost of financing the fleet would result in a large increase in the size of the fleet.” More specifically, Ward’s model found that “an increase of one [basis] point in the cost of financing the fleet from an interest rate of 4.49 to 4.50 percent would result in a decline of 20 vessels in the size of the fishing fleet.” This suggests that by reducing short-term financing costs—the timeframe that most fishermen use—FOG could help increase capacity in the shrimp fishery.

Ward and Sutinen (1994) found that the entry and exit of vessels was equally affected by changes in harvesting costs and ex-vessel prices. Between 1975 and 1979, when the offshore shrimp fleet grew from 4,670 to 5,738 documented vessels, ex-vessel shrimp prices increased substantially (See Table 5).

In their study, Ward and Sutinen (1994) found that vessels were more likely to enter the Gulf shrimp fishery when profits increased than to exit the fishery when profits declined. Between 1966 and 1979, an annual average of 515 vessels entered the shrimp fishery as new constructions or from other fisheries, and 376 exited.<sup>14</sup> The authors also noted that congestion on the fishing grounds discouraged the entry of new vessels. Thus, to the extent that the beneficial terms of FOG financing may have made it possible to stay in the fishery and thereby contribute to overcrowding on the grounds, the program may have discouraged new entrants using private financing.

TABLE 7: FOG FINANCING ACTIVITY IN THE SOUTHEAST SHRIMP FISHERY, 1965 - 1994.

Year	Documented Vessels in Fishery*	Change in Number of Documented Vessels between Years	Percent Change in Documented Vessels	Number of New FOG Loans for Documented Vessels	Percent FOG/New Documentations	Total FOG Financed Vessels:**
1965	3,622			15		15
1966	3,654	32	0.9%	16	50.0%	31
1967	3,860	206	5.3%	29	14.1%	60
1968	4,125	265	6.4%	32	12.1%	92
1969	4,242	117	2.8%	13	11.1%	105
1970	4,333	91	2.1%	16	17.6%	121
1971	4,306	(27)	-0.6%	20		141
1972	4,537	231	5.1%	0	0.0%	141
1973	4,928	391	7.9%	4	1.0%	145
1974	4,749	(179)	-3.8%	4		149
1975	4,670	(79)	-1.7%	11		160
1976	5,094	424	8.3%	22	5.2%	182
1977	5,221	127	2.4%	84	66.1%	256
1978	5,564	343	6.2%	128	37.3%	394
1979	5,738	174	3.0%	165	94.8%	559
1980	5,951	213	3.6%	56	26.3%	615
1981	5,973	22	0.4%	0		615
1982	5,979	6	0.1%	0		615
1983	5,986	7	0.1%	0		615
1984	5,900	(86)	-1.5%	0		615
1985	5,740	(160)	-2.8%	0		615
1986	5,394	(346)	-6.4%	0		615
1987	4,964	(430)	-8.7%	0		615
1988	4,092	(872)	-21.3%	0		615
1989	3,980	(112)	-2.8%	0		615
1990	3,900	(80)	-2.1%	0		615
1991	3,767	(133)	-3.5%	0		615
1992	3,626	(141)	-3.9%	0		615
1993	3,510	(116)	-3.3%	0		615
1994	3,447	(63)	-1.8%	0		615

\* Documented vessels over 5 net tons

\*\* This assumes that every FOG-financed vessel remained in the fleet. No doubt, some vessels moved to other fisheries, sank, or left fishing entirely.

Office of Strategic Planning Study,  
New England Groundfish

In the early 1990s, Assistant Secretary of Commerce Douglas Hall called for a study to determine whether FOG had contributed to the

growth of U.S. fishing capacity. An internal NOAA working group was formed in response to this. While Hall called for an empirical study by outside contractors, the NOAA study group successfully argued against an external study.

TABLE 7 (CONT.)

Year	Number of New FOG Loans After 1976	Cumulative Number of FOG Loans After 1976	Percent Post-1976 FOG/Total Vessels	Number of Defaults	Cumulative Defaults	Percent Defaults/Loans
1965				0	0	0.00%
1966				0	0	0.00%
1967				0	0	0.00%
1968				0	0	0.00%
1969				0	0	0.00%
1970				0	0	0.00%
1971				0	0	0.00%
1972				0	0	0.00%
1973				0	0	0.00%
1974				0	0	0.00%
1975				0	0	0.00%
1976				0	0	0.00%
1977	84	84	1.61%	0	0	0.00%
1978	128	212	3.81%	0	0	0.00%
1979	165	377	6.57%	1	1	0.18%
1980	56	433	7.28%	0	0	0.00%
1981	0	433	7.25%	9	10	1.63%
1982	0	433	7.24%	14	24	3.90%
1983	0	433	7.23%	7	31	5.04%
1984	0	433	7.34%	13	44	7.15%
1985	0	433	7.54%	22	66	10.73%
1986	0	433	8.03%	5	71	11.54%
1987	0	433	8.72%	4	75	12.20%
1988	0	433	10.58%	8	83	13.50%
1989	0	433	10.88%	6	89	14.47%
1990	0	433	11.10%	21	110	17.89%
1991	0	433	11.49%	5	115	18.70%
1992	0	433	11.94%	3	118	19.19%
1993	0	433	12.34%	2	120	19.51%
1994	0	433	12.56%	0	120	19.51%

Source: Memorandum from Michael Grable to John Reisenweber, May 8, 1998.

The NOAA study group also narrowed its inquiry to the following:

*“The primary issue is the extent to which FOG Program’s refinancing of private debt, by reducing the debt service required to repay the vessels’ loan, provides additional working capital that is subsequently used to increase the Program participant’s investment in additional harvesting capacity.”*

This statement of the issue excluded other possible impacts of the program, such as enabling operators to remain in a fishery who otherwise would exit.

To determine effects, the NOAA study group decided to compare a FOG-funded vessel group with a non-FOG-funded group. Partly because information on the latter was very difficult to obtain generally, the study group conducted two case-studies. The study group first evaluated all FOG financing and refinancing activities in the Northeast multispecies groundfish fishery. In a second study, the NOAA group reviewed historic FOG refinancing activity to determine, on average, how much potential reinvestment capital was generated in relationship to a vessel’s annual operating budget and replacement cost of vessel.

#### NORTHEAST MULTISPECIES GROUND FISH FISHERY

The purpose of this study was to determine, on an empirical basis, the extent and impact of FOG loan activity on the Northeast multispecies groundfish fishery through examination of the loan record of the FOG program in the fishery.<sup>15</sup> The study group reviewed all financings or refinancings of any kind in the fishery from 1976 through 1994, as well as tax returns, CCF records, and permit

applications.

During that period, FOG financed or refinanced 44 vessels in this fishery for 6,297 gross tons—15 percent of the FOG financing in the Northeast Region. Average gross tonnage of the fleet as a whole during the period was 186,094 gross tons. Thus, FOG-financed vessels accounted for three percent of the average gross tonnage of the fleet for that period. (See Table 9.) The fleet reached a peak of 225,270 gross tons in 1988—growth of 73.9 percent over 1980. FOG financing peaked in 1988 as well, having grown 24 percent since 1980. By 1994, the fleet’s gross tonnage had fallen to 198,668 tons. Thus, between 1980 and 1994, the fleet grew 53.4 percent. FOG-financed vessels represented about two percent of the fleet.

Between 1980 and 1994, FOG financing grew 8.5 percent, peaking at the same time as the fleet in 1988. Original financing for vessels was prohibited after 1979 when the fishery was declared conditional, but refinancing was allowed.

#### EFFECT OF FOG REFINANCING ACTIVITY ON FLEET CAPACITY

In a second study, the NOAA group tried to determine whether or not FOG refinancing activity could have generated sufficient debt service reductions to permit fishermen to invest in new harvesting capacity. The group initially looked at 455 loans, or 32% of all FOG loans to 1994. After excluding several types of loans, such as shoreside facilities, loans that did not refinance existing FOG debt, and others, the study group looked at 20 loans from the East and West coasts. The group believed this provided a statistically significant sample. The study group compared debt service before and after FOG financing, and savings generated by

reduced debt service with the replacement cost of the vessel and the vessel's annual operating budget.

The study group concluded that by diversifying loan activity across numerous fisheries, FOG decreased the opportunity or likelihood of contributing to overcapitalization in any one fishery. The group found that FOG borrowers had more than 50% equity in their vessels, which was tied up for the duration of the loan. Because FOG rarely allowed a second mortgage on vessel, the borrower could not borrow against the boat's equity. Thus, the group concluded, "it appears that FOG financing, from the perspective of tying up borrower's assets, is investment restrictive rather than investment conducive." (NOAA, n.d.) At the time of the study, terms for private debt averaged 8.2 years while FOG debt averaged 12.2 years. On average, FOG financing ultimately cost the borrower more money over the life of a loan— \$252,317 on average. The group argued that if the norm for fishing industry lending is a 50 percent down payment and if FOG refinancing generates a 4.21% savings, it would take nearly 12 years to build up enough equity to buy new vessel.

The findings and recommendations of the NOAA study group may be summarized as follows:

- There was virtually no FOG involvement in evolution of the Northeast groundfish fishery. FOG authorized loans for only a tiny percentage of the overall number and gross tonnage of groundfish vessels. After 1980, FOG financed vessels never represented more than 3% of gross tonnage in fishery.
- FOG refinanced vessels did not invest short-term savings into additional fishing capital.

- Equity and additional collateral requirements imposed by FOG tended to discourage additional investments in the fishery because assets were already encumbered.

- Present NOAA loan policies are an effective deterrent to growth in fleet capitalization.<sup>16</sup>

This Task Force has not independently evaluated these findings.

## The Zuanich Fleet

Late in 1996, one of the largest remaining fishing enterprises in the U.S. Pacific tuna fishery collapsed as the fleet of 12 superseiners operated by the Zuanich family foundered on overexpansion, debt, and extended periods of low prices for skipjack tuna (SWFSC 1997). FOG guaranteed loans on six of the seiners in the late 1980s and early 1990s for a total of about \$21 million. Upon default, these six FOG-guaranteed seiners were seized and auctioned for a total of \$26.2 million.

## Summary and Conclusions

Under the FOG program, the government has encouraged the construction, replacement, or reconstruction of fishing vessels by providing a guarantee to lenders that the government will assume any defaults on loans. In return, lending institutions have offered loans to fishermen with longer amortization periods than they otherwise would offer. A longer amortization period is attractive as a means of reducing risk from changing management regimes and fluctuations in the abundance of target species.

The principal argument for the

TABLE 8: FOG / FFP SHORESIDE LOANS

Loan Date	Region	State	Amount	Fishery	Purpose	New Reference	Paid Other	Impact on Fishery or Processing Capacity
Oct-94	AK	AK	6,000,000	Salmon, halibut, crab	Unloading/processing	R	A	
Jun-94	AK	AK	9,300,000	Crab	Unloading/processing	R	P	
Aug-90	AK	AK	15,000,000	Salmon, crab, hrng, pllk	Unloading/processing	R	A	
Jun-90	AK	AK	2,500,000	Salmon, herring	Unloading/processing	R	A	Upgraded unloading capacity
Feb-86	AK	AK	5,380,876	Salmon, crab, hrng, pllk	Unloading/processing	R	A	
Nov-85	AK	AK	49,000	Crab	Boilers/refrigeration	N	P	
May-84	AK	AK	10,200,000	Salmon, crab, hrng, pllk	Unloading/processing	N	A	
			42,429,876					
Dec-89	CA	WP	2,720,000	Tuna	Unloading/processing/freezing /storage	N	Act Def	
Apr-98	NE	MA	1,200,000	Herring	Unloading/processing	R	A	Convrt groundfish to herring
Feb-98	NE	RI	249,000	Squid, mackrl, whiting	Working capital due to oil spill/shutdwn	N	A	
Jan-98	NE	MA	550,000	Lobster	Upgrade holding/distribution center	R	A	Existing facility
Dec-97	NE	RI	2,517,000	Clams	Wastewater facility	R	A	Existing facility ITQ fishery
Aug-97	NE	MA	532,500	Herring/wastes	Imprve refrigtn/frzing away from grndfsh	N	A	Existing facility
Jun-97	NE	NJ	3,500,000	Squid, mackeral	Freezer/cold storage	N	P	Existing facility
Mar-97	NE	MA	400,000	Monkfish	Repaired building/able to handle less fish	R	A	Existing facility
Aug-96	NE	MA	650,000	NE Multispecies	Ice plant	R	A	Existing facility
Oct-95	NE	MA	1,100,000	Groundfish	Vessel - Collateral only		A	Existing vessel
Feb-94	NE	RI	2,000,000	Clams	Unloading/processing quality imprvmnts	R	A	Existing facility ITQ fishery
Jan-93	NE	NJ	1,000,000	Squid, mackeral	Unloading/processing	R	P	
Nov-92	NE	RI	650,000	Lobster/SNE spp	Unloading/processing	R	Assmd	Out of business
Sep-91	NE	NY	578,000	Mid Atl spp	Marina for 15 PCFVs	R	A	
Aug-91	NE	RI	1,100,000	Squid, mackrl, whiting	Unloading/processing/freezing	R	A	Existing facility
Jul-91	NE	VA	7,631,000	Clams	Processing-waste water treatment	R	A	ITQ fishery, plant moved inland
Jul-91	NE	VA	1,400,000	Clams	Unloading	R	A	Existing facility
Feb-91	NE	ME	560,000	Mussels	Unloading/processing	R	A	
Feb-91	NE	NY	220,000	Sauid, whiting	Ice machines/ice storage	R	A	Existing facility
Sep-90	NE	ME	835,000	Groundfish	Processing	R	Act Def	Existing facility
Oct-89	NE	NJ	240,000	Scallops/mid Atl spp	Unloading/added ice plant	N	A	Existing facility
Mar-89	NE	MA	240,000	Offal/trimmings	Processing	R	P	
Jun-88	NE	NJ	1,500,000	Squid, mackeral	Unloading/processing	N	P	Sorting/freezing for export
Oct-87	NE	WI	148,000	Smelt/Lakes spp	Unloading/processing	R	A	Existing facility
Jan-87	NE	MA	641,000	Offal/trimmings	Processing	R	A	
Feb-86	NE	MA	350,000	Offal/trimmings	Processing	R	P	Converted from human to pet
Oct-85	NE	ME	155,000	Mussels/urchins	Processing	N	P	
Nov-84	NE	RI	238,000	Lobster	Boat dock purchasing	R	A	Existing facility
Apr-84	NE	NJ	386,200	Squid, mackeral	Unloading/processing	R	P	
			30,570,700					
May-98	SE	LA	987,309	Menhaden	Processing	N	A	Existing facility same capacity
Feb-97	SE	AL	3,000,000	Shrimp	Unloading/processing	R	A	Existing facility
Oct-96	SE	GA	1,574,000	Lobster	Holding/distributiom	R	A	
Oct-96	SE	LA	1,848,562	Menhaden	Processing	N	A	Existing facility same capacity
Aug-96	SE	FL	988,209	Salmon	Smoking facility	R	A	Existing facility
Dec-95	SE	LA	3,000,000	Menhaden	Product imprvmnts/processing	N	A	Existing facility same capacity
Sep-95	SE	GA	2,500,000	Lobster	Holding/distributiom	R	A	
Aug-95	SE	LA	1,500,000	Menhaden	Product imprvmnts/processing	R	A	Existing facility same capacity
Dec-94	SE	LA	8,500,000	Menhaden	Unloading/processing	R	A	Existing facility same capacity
Aug-94	SE	TX	875,000	Shrimp/fish	Unloading/processing	R	A	Existing facility
Jul-94	SE	TX	2,400,000	Shrimp	Unloading/processing	R	A	Existing facility
Jun-94	SE	TX	1,267,200	Shrimp	Unloading/processing	R	A	Existing facility
Sep-93	SE	TX	10,000,000	Shrimp	Unloading/processing	N	A	Existing facility
Jul-86	SE	LA	295,000	Shrimp	Unloading/processing	R	P	
			38,735,280					

government's intervention has been that private commercial markets overestimate the risk associated with fishing and therefore set interest rates too high and amortization periods too short, when they offer loans to fishermen at all. As well, the relatively small number of fishing-related loans discouraged private lenders from maintaining staff who understood fisheries and could meaningfully evaluate a loan application.

Both program policy for FOG and external factors have altered the impact of FOG loan guarantees over the years. For instance, a principal purpose of the program initially was "to make U.S. built vessels as affordable as foreign-built vessels." (NMFS 1996) This purpose reflected the relatively high interest rates of the period and the expressed desire of the government to expand and modernize the U.S. fishing fleet. The FOG program was created partly to counteract the impact of federal monetary policy on the fishing industry in 1974. As often is the case with such programs, the FOG program persisted long after the conditions that gave rise to it did.

In the 1970s, the government began imposing restrictions on loan activities. For instance, FOG financing was prohibited in seven fisheries that were declared "conditional." In 1996, this prohibition was extended administratively to financing new construction in any fishery or refurbishing existing vessels if the refurbishing would materially increase the vessel's harvesting capacity.

**TABLE 9:  
FOG PROGRAM ACTIVITY IN THE NORTHEAST  
GROUNDFISH FISHERY, 1980 - 1994.**

Year	FOG Loans in Gross Tons	Fishery in Gross Tons	Percent FOG/Fishery
1980	3,803	129,537	2.94%
1981	3,654	146,449	2.50%
1982	3,810	155,227	2.45%
1983	3,769	167,059	2.26%
1984	4,082	181,319	2.25%
1985	4,255	191,839	2.22%
1986	4,255	202,635	2.10%
1987	4,112	212,697	1.93%
1988	4,730	225,270	2.10%
1989	4,400	192,671	2.28%
1990	4,400	197,434	2.23%
1991	4,281	199,023	2.15%
1992	4,281	189,915	2.25%
1993	4,126	201,516	2.05%
1994	4,126	198,668	2.08%

Other elements of federal policy are among external factors influencing investment decisions, and, by extension, the impact of FOG. For instance, passage of the Magnuson Fishery Conservation and Management Act created the sense that U.S. fishermen would enjoy substantial increases in landings with the exclusion of foreign fishermen. This encouraged private investment in expanding and modernizing some U.S. fishing fleets, leading to large increases in the number and size of fishing vessels in the late 1970s. Government policy aimed at Americanizing the pollock fishery led to a similar burst in fleet growth in the late 1980s.

More general government policy also influenced investment in fleets and, by extension, the relative impact of the FOG

program. For instance, before the 1986 tax reform law, tax policy, including the investment tax credit, encouraged investment, particularly in capital intensive industries. Finally, such other factors as ex-vessel prices and imports have influenced investment in fishing vessels.

With passage of the SFA, government policy has moved from the development aims of the period 1950-1990 to sustainability as a principal focus of federal fisheries policy. With the SFA, the renamed Fisheries Finance Program evolved further with the addition of two new activities: financing vessel buyback programs and financing the purchase of quota shares by crew-members and small boat fishermen in the Alaska halibut-sablefish fishery.

## ***Summary of findings***

The Task Force came to several conclusions about the FOG/FFP program.

1. As a general rule, lack of private financing was not a limiting factor in expanding and modernizing fishing fleets. Rather, FOG provided a more favorable financial basis for doing so.
2. Together with investment tax law and such policies as the Americanization of fisheries within the U.S. fishery conservation zone, FOG has increased investment and fleet capacity.
3. FOG's impact has changed over time.
4. FOG's impact has been concentrated in a few regions and fisheries.
5. The main benefit of the program to a private interest is the longer term that risk-averse private bankers will not assume.

6. The focus of the FFP should carefully reflect the new direction of federal fisheries policy. At present, the prohibition on the use of FFP for vessel construction, or reconstruction that increases fishing capacity, should be maintained. The program should focus on activities that directly assist in the transition toward reduced fleets, as through vessel buyback programs and the establishment of rights-based management systems, or that reduce bycatch, improve gear selectivity or improve the safety of vessels.

7. Congress and NMFS should also establish a process to consider the future role of FOG in financing vessel construction and reconstruction. This should be done in consultation with the Regional Fishery Management Councils and the states, in order to assure that the future use of the program is consistent with regional conservation and management objectives. Any future use of FOG for these purposes should be limited to fisheries where excess capacity is not a problem, and where a lack of appropriate private financing is an important limiting factor in achieving a desired capacity level. The Task Force recommends that the use of FOG financing for vessel reconstruction in underutilized fisheries, especially in the Western Pacific, receive special consideration.<sup>17</sup> However, it was recognized by the Task Force that a number of instances exist in which government incentives to expand underutilized fisheries have led to overcapacity and resource depletion. Hence, a precautionary approach is warranted. Potential leakage of FOG/FFP-financed vessels is also a problem. No measures currently exist to prevent the transfer of FOG financed vessels to fisheries where overcapacity is an issue; and such measures should be implemented within FFP.

## **Endnotes:**

1. The Sustainable Fisheries Act of 1996 changed the name of the FOG program to the Fisheries Finance Program (FFP). Because the Task Force generally evaluated the effect of government programs on past capital investment, most references in the report are to the “FOG” program, although references are made to FOG/FFP when appropriate.
2. Because the Jones Act of 1936 prohibited the use of foreign built vessels in U.S. fisheries and coastwise trade, fishermen were required to buy vessels from U.S. shipyards, whose prices were higher than those of foreign shipyards. Federally-assisted financing theoretically softened the impact of this prohibition and enabled U.S. fishermen to buy U.S. built vessels on the one hand, and U.S. shipyards to continue building them on the other. The Federal Ship Financing Act, however, more reflected a Congressional concern over shipyards than over fishermen’s access to affordable fishing vessels.
3. Some FOG refinancing packages actually funded new vessel construction. Vessel buyers would secure a short-term commercial loan as a bridge to a FOG-financed loan, which then would be characterized as a refinancing.
4. Unfortunately, these annual reports were inconsistent in reporting on FLF, and after 1973 this reporting all but disappeared from the reports.
5. Reporting on this program deteriorated with the reorganization of the Federal government’s ocean-related activities in 1970, including the creation of the National Marine Fisheries Service in the Department of Commerce and the elimination of the Bureau of Commercial Fisheries in the Department of the Interior. In its report for 1972 (NMFS 1973), NMFS reported that since 1960, the Fishing Vessel Mortgage and Loan Insurance program had insured loans worth about \$40 million since 1960.
6. The conditional fishery classification of the yellowfin tuna fishery ended effectively with movement of the tuna fleet to western Pacific (NOAA undated). The Alaska salmon conditional fishery status ended January 23, 1991, with the success of Alaska limited entry program. The adoption of an Individual Transferable Quota plan prompted a request to declare an end to the conditional fishery status of the Atlantic surf clam fishery, but the proposal was never adopted.
7. The Fisheries Loan Program was resurrected briefly, when President Ronald Reagan signed the American Fisheries Promotion Act (AFPA), which formalized the so-called fish-and-chips policy that aimed at developing the U.S. harvesting and processing sectors. Besides extending the authorization of the Fisheries Loan Program, the AFPA directed that fees collected from foreign vessels in 1981 and 1982 be deposited in the loan program fund (Weber 1998).
8. In 1975, the New York prime interest rate ranged from a high of 10.0 % in January to 7.0 % in July (Allen 1994).
9. Interestingly, the FOG program does not seem to have ranked as a high priority in the view of many fishermen. In its report to Congress, the Eastland Fisheries Survey did not include the FOG program specifically or generally in its recommendations for financial assistance to fisheries (Atlantic States Marine Fisheries Commission, et al. 1977). The report did include fishermen’s recommendations for low-cost loans to support pilot programs for underutilized fisheries and to compensate fishing operations hurt by natural resource disasters, pollution, or foreign competition.
10. Federally funded vessel buyback programs, such as in the New England groundfish fishery, are different from FOG/FFP buybacks in one major way. The entire cost of Federally funded buybacks must be appropriated, whereas only the subsidy cost (if any) of a FOG/FFP-financed buyback must be appropriated under the Federal Credit Reform Act (Grable 1998c).
11. The FOG program’s mark-up has ranged between 1.75 and 2.0 percent. This mark-up has included a guarantee fee of 0.75-1.0 percent and a premium of about 1.0 percent above the U.S. Treasury’s borrowing cost

for similar maturities that investors sought. With the passage of the Sustainable Fisheries Act, the FFP has set its interest rates at the cost of the U.S. Treasury's borrowing cost plus a 2 percent fee.

12. Between 1980 and 1994, prime interest rates varied between a high of 21.50 percent in December 1980 and a low of 5.50 percent in October 1993 (Allen 1994). In 1980, the consumer price index averaged a little more than 13.0 percent (Wurman et alii 1990). In 1987, when the prime interest rate averaged 8.50 percent, inflation averaged 4.50 percent.

13. The Gulf of Mexico shrimp fleet is composed of two principal segments: many thousands of "boats" smaller than 5 gross registered tons (GRT) and several thousand "vessels" larger than 5 GRT. These latter are the focus of this discussion, partly because they provide a better paper trail since they must be registered with the U.S. Coast Guard.

14. One might better determine what FOG's role may have been in the lack of exit from a fishery with declining economics by identifying how many of the 433 FOG-financed shrimp vessels remained in the fishery. If one assumes that they all stayed in the fishery, which they certainly did not, post-1976 FOG vessels made up a growing portion of the fleet, reaching 12.5 percent in 1994.

15. In a thorough review of Federal financial assistance program's to the fishing industry, particularly the New England commercial fishing industry, Dewar (1983) concluded that many of the programs, which originally had been promoted by New England interests, failed to solve the New England industry's problems. Dewar found that Congress and industry operated with several incorrect assumptions:

- A shortage of capital hurt the groundfish industry;
- Boat owners who could repay loans could not get financing from private sources; and
- Banks overestimated the risk of loans to individuals based on problems of the industry as a whole.

Dewar found, however, that the shortage of capital was much smaller than thought. Managers of the Fisheries Loan Program found it difficult to locate groundfish boat owners whom they believed could repay even favorably structured loans.

16. At the time of the study, FOG approved no credit for original fishing vessel financing for any U.S. fishery. Nor did FOG approve financing of construction of new vessels, purchase of used vessels, or reconstruction or reconditioning of any used fishing vessel. The FOG program was restricted to financing for existing debt on existing vessels and shoreside facilities. FOG did have authority to finance and refinance construction, reconstruction, reconditioning, and purchase of aquacultural facilities.

17. Underutilized fisheries continue to be an issue of concern under MSFCMA. The special needs of the Western Pacific are noted many times in the MSFCMA and the SFA. See, e.g., MSFCMA Sections 2 (a)(10), 202(e)(5), 204 (e), 305 (i), 305 (note), and 311(g).