

CHARTING A NEW COURSE: TOWARDS THE FISHERY OF THE FUTURE

Task Force on Incomes and Adjustment in the Atlantic Fishery

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TOWARDS THE FISHERY
OF THE FUTURE**

**Report of the Task Force on
Incomes and Adjustment
in the Atlantic Fishery**

November 1993

Published by:

Communications Directorate
Fisheries and Oceans
Ottawa, Ontario
K1A 0E6

DFO/4904

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Cat. No. Fs 23-243/1993
ISBN 0-662-60052-5



*Printed on
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Preface

When our Task Force was set up, our main focus was to examine the existing income structure in Canada's Atlantic fishery and to recommend a long-term program of income supplementation and stabilization. To this end, we have developed proposals which we believe will address the needs of those active in the industry.

However, our mandate from the beginning was broader. During our work we came to realize, like most other Canadians and certainly everyone in the Atlantic fishery, that a new phenomenon was upon us, and that the fishery was experiencing not just a cyclical downturn, but a failure of its most important species: groundfish.

Fishermen, especially those based inshore with fixed gear, had been saying for some time that there was a resource crisis, whose dimensions are now beyond even their most dire predictions. Some fisheries, such as shellfish, continue to thrive, but the industry as a whole is in crisis, and a great many of Atlantic Canada's coastal communities are threatened with collapse. We face a disaster of monumental proportions.

In what follows, we have tried to describe the Atlantic fishery, to set out its problems, and to recommend ways to break the cycle of overdependence, excessive pressure on a finite resource that is the fish stock and overcapacity in both harvesting and processing, ultimately resulting in chronically low and unstable incomes. We have arrived at our conclusions through research and consultation. We want to thank all of those who have helped in our work, and they are many. Nevertheless, the responsibility for our findings rests with us.

Because we believe the message of our final report is urgent, we have organized it into separate parts. The first is a narrative summarizing our examination, analyses and findings, and setting out our recommendations. The second is the technical basis of our work, set out in summary in the annex

to this volume. The third is in the form of background papers to be published separately and available to those needing a more detailed perspective on our work.

Those outside the fishery will find it hard to understand the shock that has been felt by the loss of groundfish, where people have been told the resource may not rebuild for a decade. The sea is to those who fish what land is to those who farm. The devastation of the fish stocks is like the land becoming barren and no longer capable of producing crops. Fishing, like farming, is more than a job. The relationship of the harvester to the elements — the sea or the land — is more than economic: it is organic. It is how one gains a sense of place, of belonging and of accomplishment. What then has befallen the people of the coastal communities is a catastrophe. It is so great and so horrendous as to challenge the ingenuity and creativity of the communities themselves, and the nation as a whole.

Hardest hit has been Newfoundland, because it is most dependent on groundfish. Newfoundland accounts for most of the Atlantic groundfish fishery in number of jobs, landed tonnage and overall contribution to the provincial economy. Those coastal communities in other areas of Atlantic Canada where the groundfish has collapsed face the same bleak prospects as Newfoundland. Failure of the resource means a calamity that threatens the existence of many of these communities throughout Canada's Atlantic coast, and the collapse of a whole society.

Because this has happened, there will be much pain. We have been asked not to design detailed programs, but rather to formulate a strategy that will give a credible vision of hope to the coastal communities that there is a future for the fishing society. Indeed, we believe there is such a future fishery. However, it will support fewer people. Many who made all or some of their income in the fishery will have no work. Some will relocate; many will retrain for jobs that are unfamiliar and are uncertain. For many others, because of the abysmal lack of real economic alternatives, the prospects of retraining as matters now stand offer little hope. Some, perhaps half of those who until recently depended on the industry, should have a decent living in a renewed and sustainable Atlantic fishery. All must face social change greater than they have ever known, and greater than most Canadians would tolerate or even contemplate.

The alternative to the planned change which we describe is quite simply disaster and destitution. Rebuilding key groundfish stocks will take five to seven years. That is the best expert advice we can obtain. This is probability, not certainty. Nonetheless, it provides a planning framework.

PREFACE

Far more is at stake than the closure of single-industry towns. The society itself is at peril. We have a tragedy of enormous proportions for the people who operated the boats, the people who worked in the plants, and for many processing and fishing enterprises, large and small, where people have laboured for so long.

Conventional approaches to adjustment, including conventional ways of delivering programs to individuals, will be far from adequate. The task is too great to be undertaken as things have been done in the past. Key in shaping the fishery of the future and in dealing with appropriate adjustment programs will be involving the affected people themselves through their own institutions: fishermen's and industry organizations, co-operatives and community organizations. Sending in outsiders, however well intentioned, to sit fishery workers down in classrooms and tell them about the future will not inspire confidence among those whose livelihood has been destroyed. Unless governments, in partnership with the industry and the people affected, can shape a credible vision of hope, the coastal society of Atlantic Canada will be consumed by anger and despair — a brew for unprecedented social unrest.

We are dealing here with a famine of biblical scale — a great destruction. The social and economic consequences of this great destruction are a challenge to be met and a burden to be borne by the nation, not just those who are its victims. We believe that the Atlantic fishery can be renewed, rebuilt and strengthened. In broad terms, we have described how this can be done. However, this should not be done solely on the backs and at the cost of the people and their industry: it will take a national effort. Our concern, compassion and ingenuity as Canadians will be needed to rescue and reconstruct Atlantic Canada's coastal economy.



Richard Cashin
Chairman
Task Force on Incomes and
Adjustment in the Atlantic
Fishery
November 1993

Part I

THE SETTING



1

C H A P T E R

Making a Living in the Fishery

Who makes a living in Canada's Atlantic fishery, and what kind of living do they make? Much depends on where they fish, what species they harvest, what gear they use, whether they work full time or part time or on a casual basis, and what the processing requirements of their catch may be. However, they all have this in common: the work is hard, often dangerous, and always uncertain.

The harvest is divided conventionally into three types of catches: shellfish, such as shrimp, lobster, crab and scallop, pelagics, such as herring, mackerel and capelin (which are caught near the surface); and groundfish, including haddock, pollock, redfish, flatfish and other commercially less significant species (which feed and are caught near the ocean bottom). The most famous and important groundfish species is the cod.

**The diversity
of the Atlantic
fishery**

In 1991, groundfish made up more than half of the catch by weight, but less than half of the landed value — shellfish yielded the highest dollar, pelagics the lowest.

The Atlantic fishery is characterized by great diversity in structure, a wide range of income distribution, and chronic income instability. Some species are so profitable and susceptible to harvesting by small operations, that a crew of two or three can do well working independently. Other species require different harvesting methods if they are to be worth pursuing.

The Atlantic fishery has three main fleet sectors: the inshore — vessels less than 45 feet operating mainly fixed gear; the midshore — vessels between 45 and 65 feet operating either fixed gear, mobile gear or both; and the offshore, consisting largely of 150-to-170-foot trawlers using mobile fishing gear.

**The Atlantic
fishing fleets**

Generally, inshore vessels operate close to land and only seasonally; they normally return to port each day. Midshore vessels can operate far from land during good weather, but have limited capability to fish in deep water. Offshore vessels can operate year-round at any distance from land.

Inshore vessels comprise a variety of vessels up to 45 feet. Some are open boats; that is, they have no covered deck. They are suited for operations close to land, and day trips. They operate mostly fixed gear, such as traps, nets or long-lines. Thus, they have a shorter fishing season, as their harvesting depends on the fish — notably cod — migrating close to shore.

Crews on inshore vessels number between one and five, depending on the size of boat and the gear used. The skipper of the vessel often shares the returns of the voyage with the crew, or may pay wages. While there have been improvements to inshore vessels and gear, the fleet's harvesting pattern is the most traditional of the three fleet sectors.

Midshore vessels vary considerably in their harvesting capacity and range of operations. Many of the larger ones (the “65 footers”) tow a cone-shaped net called an otter trawl (mobile gear) or set gillnets or lines (two types of fixed gear). These vessels can operate far from shore throughout most of the year, with voyages of up to a week. Smaller, midshore vessels generally will use fixed gear only. In general, these vessels have a more limited range and duration of safe operation.

Crews on midshore vessels number between three and six, depending on the size of the boat and the gear used. These vessels are owner-operated, with the crew on the larger ones often being employees and the crew on the smaller ones usually sharing in the returns of the voyage.

Offshore vessels typically tow an otter trawl along the ocean floor. With a crew of 12 to 16 people, these vessels stay at sea for voyages of up to 10 days. The catch is gutted, iced at sea by trawlermen, and further processed — for example, into fillets — at a processing plant in the vessel's home port.

Trawlermen have two days ashore between voyages. Before recent resource declines reduced the number of voyages, they worked almost year-round. Offshore crews often work on stormy seas, winter and summer, and there is a constant risk of injury from the heavy machinery employed. In return, trawlermen earn good wages compared with other fishery workers.

Fish processing plants

Inshore plants process fish caught by inshore and midshore vessels. These plants vary considerably, from small-scale manual operations that process cod almost exclusively during the inshore fishing season, to medium-sized, mechanized operations that process a variety of species and generally, operate up to half the year, although some may operate longer. Wages in the smaller,

highly seasonal plants tend to be lower than in the medium-sized, multi-species plants.

The nature of the work in these plants is not fundamentally different from that in the offshore plants. However, the product mix from smaller, highly seasonal inshore plants tends to be quite limited, consisting largely of commodity production rather than the more market-sensitive products from the larger processing plants, or those with a broader variety of supply, which produce packaged foods.

Offshore plants are typically large, highly mechanized operations. These plants receive cod, flounder and redfish year-round supplied by a fleet of trawlers owned by the same company as the processing plant. Plant workers take the semi-processed fish that was iced at sea and process it to a finished product, ready for sale. Before recent resource declines reduced the period of operations, offshore plant workers worked almost year-round and earned the highest wages of all plant workers.

The importance of the groundfish resource would be hard to exaggerate. Traditionally, it has been the foundation of the Atlantic fishery, accounting for about two-thirds of the tonnage of the total Atlantic catch and 40 per cent or more of the landed value. Because of its sheer volume and processing requirements, groundfish has always provided the bulk of employment in the fishery — two-thirds or more of all jobs.

The importance of groundfish

Groundfish landings vary greatly from province to province. While they make up to 30 per cent of the catch in New Brunswick and Prince Edward Island, and less than 50 per cent in Quebec, they account for about 50 to 60 per cent of Nova Scotia's catch, and — in normal circumstances — about 80 per cent in Newfoundland.

This resource base has collapsed. Most of the collapse is because of the disappearance of the northern cod, off the northeast coast of Newfoundland and Labrador. It usually made up one-third of the total groundfish and one-half of all cod catches in Atlantic Canada. The reasons for the collapse are complex, and not well understood — but the consequences are all too clear: devastation for those who live by the groundfish.

Groundfish stocks have always been subject to cyclical swings. There are ecological changes and anomalies that affect their reproduction and survival, such as changes in water temperature and salinity. Changes in their food

supply can have a major impact, especially on cod. The impact of predators such as seals is also a major factor. When a forage stock such as capelin declines, cod will prey on less nutritious food, including smaller cod. The effects of this are two-fold: not only do absolute numbers of cod decline, but the weight of a surviving cod is dramatically less under normal conditions.

Numbers alone do not tell the story

Who actually catches and processes fish in Atlantic Canada? The numbers only tell part of the tale, and must be treated with great caution because they can be misleading. In 1990, approximately 64,000 people were registered officially as fishermen, with some 60,000 fish plant workers processing catches in more than 800 plants. That year, about 28,000 fishing vessels of many sizes were registered.

These numbers barely begin to describe the diversity of the fishery. In the inshore sector, incomes range from a few hundred dollars, earned by a casual, marginal participant to the highly successful small-boat operation in the lobster fishery, and in good years in the cod trap fishery as well. Those working on a longliner or gillnetter may earn \$50,000 a year, and the skipper more. However, each of those individuals is one of those registered fishermen. Thus, a registered fisherman may be a full-time professional, someone who works steadily but only part time, a casual fisherman, or someone who never goes fishing at all.

A longliner or gillnetter may be — and often is — a state-of-the-art vessel with the best gear, working every possible day to pay back its cost, while the casual fisherman may use a small, simple boat that has been around for years. Nevertheless, each is one of those 28,000 registered vessels. Vessels may be highly active, only occasionally used or quite inactive.

Processing plants also are not necessarily alike. Some are large, complex operations with sophisticated and versatile equipment that can cope readily with various species as they become seasonally available, and thus can operate year-round — if there is stock to harvest. Others are small, seasonal operations designed for only a few species or often, just for cod, and employ fewer than 20 people. Nevertheless, each operation is one of those 800 processing plants.

Earnings in the Atlantic fishery tend to be low

Individual earnings from the fishery are lower and less stable than from any other industrial sector in the Atlantic region. This was true even in the 1980s when fishery landings, landed values and marketed value averaged over the decade were the highest in history. In the meantime, stocks have declined in many species — some stocks to the point of closure — even as demands on the fishery have grown.

MAKING A LIVING IN THE FISHERY

In 1990, the fishery was midway between the earnings peak year of 1987 and today's disaster. In that year, fishermen and plant workers on average earned slightly more than 40 per cent of the average earnings in the Atlantic economy as a whole. (These averages should be viewed with caution, because we are dealing with the average of all of those who participate in the fishery, including part-time and casual workers — of which there are many. Quite often, professional fishermen make the case that these averages do a disservice to those more fully engaged in the fishery).

On average, a fisherman gained 25 per cent of his total earnings from other work, and a plant worker 15 per cent — and even with these additional earnings, incomes were at about half the average for the region. Their Unemployment Insurance (UI) benefits on average almost equalled their net earnings from fishing or processing. Net annual earnings for a fisherman averaged \$8,100 which with additional work rose to \$10,800. A plant worker averaged \$8,200 yearly from the fishery, and brought earnings to \$9,700 with outside work. For the Atlantic economy as a whole, a person's main job yielded an average \$18,500, which additional work brought to \$19,300. Roughly, a fishery worker on average made about half as much as the average non-fishery worker.

In addition, fishery earnings grow more slowly over time. Between 1981 and 1990, fishermen's earnings rose 33 per cent, plant workers' 43 per cent, while across the Atlantic economy, earnings grew 56 per cent.

Nova Scotia has perhaps the most diversified fishery, taking shellfish, pelagics and groundfish, and making the most use of large, well-equipped vessels. Newfoundland is heavily dependent on groundfish, especially cod. Groundfish make up about 80 per cent of both the catch and the landed value in the province during normal circumstances. In New Brunswick, by contrast, pelagics comprise two-thirds of the tonnage landed, but only about 12 per cent of the landed value, with shellfish landed value accounting for nearly 80 per cent, and groundfish less than 10 per cent.

Regional differences in the resource base and dependence on groundfish

Shellfish are even more important in Prince Edward Island, accounting for more than 80 per cent of landed value. In the Lower North Shore and Gaspé areas of Quebec, the pelagic fishery is relatively minor, with groundfish yielding more than half as much as shellfish in terms of tonnes landed, but with shellfish yielding more than two-thirds of the landed value.

Dependence on groundfish makes for greater employment, especially in processing. Where the economy as a whole is less diversified, the impact of fluctuation in the groundfish industry has a correspondingly higher impact. The fishery as a source of employment is most important in Newfoundland. In 1990, some 16 per cent of the province's employed population was in the industry, compared to about six per cent in Nova Scotia.

Seasonality is a major characteristic of the Atlantic fishery. For the most part, seasonality is a function of species and geography, and thus is most pronounced in Newfoundland and the Gulf of St. Lawrence. In these areas, the June catch is typically more than double the May catch, and four times the January catch. Nova Scotia's peak is a little later, and not so pronounced. The same is true of New Brunswick. Quebec's catch normally peaks in May, whereas Prince Edward Island typically has a double peak in May and August with a brief trough in between.

**Variations in
fishermen's
incomes**

What do fishermen make for their efforts? Given the great variations in the Atlantic fishery, the unsurprising answer is that a few do very well, a few more do moderately well, and some do rather poorly. In 1990, throughout the entire fishery, 3,800 fishermen made more than \$35,000 in total income — their average earnings were more than \$50,000. Another 7,800 fishermen made between \$20,000 and \$35,000. However, two-thirds of Atlantic fishermen made less than \$20,000, and nearly one-quarter of them made less than \$10,000. Within a single province, there can be substantial variation, with Newfoundland providing perhaps the most dramatic example. In 1990, close to one-third of all Newfoundland fishermen had total incomes of less than \$10,000, but more than half of the trawlermen earned more than \$35,000.

**The Atlantic
fishery's labour
force is ageing**

The fishery labour force is ageing. In 1990, 27 per cent of fishermen were 45 years of age or older — significantly higher than in the non-fishing sector. That year's statistics showed that nearly 18 per cent of fishermen and some 10 per cent of plant workers were 50 years of age or older. In general, plant employees tend to be younger. However, between 1981 and 1990, there was a significant shift out of the younger age group. In the 19-and-younger age group, the decline was 42 per cent among plant workers and 34 per cent among fishermen. This decline may reflect the relative prosperity of those years, which allowed young people to pursue higher education and subsequently, employment outside the fishery. Certainly, some of our studies showed that mothers, in particular, preferred that their children not follow them into the plants. This factor of an ageing fishery workforce — particularly the high

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proportion of those more than 50 years of age — has obvious implications for any adjustment program, especially when it comes to retraining.

Fishermen's incomes are not stable. Fishing has the most variable income of any sector in the Atlantic economy, and plant work the second most variable. UI benefits reduce variability to some extent, but they are based on the most recent earnings, which are themselves variable. Even in the best of times, there are major year-to-year fluctuations in prices for fish that cannot be predicted. International demand may shift, so that what was a species without commercial value one year is worth fishing the next. Specific local conditions — ice, or unpredictable migration of fish — may vary to create a pocket of misery in an otherwise generally prosperous season. Illness or a mechanical breakdown in peak season can destroy a fisherman's livelihood. The fishery's reputation for unstable incomes is well deserved.

**Instability of
fishermen's
incomes**

One of the reasons for the instability of incomes is that there is little control on the number of those who make demands on the fishery. Overcrowding, overexpansion and overcapacity are rife. Enterprises tend to work on the narrowest of margins, and the risk of failure is constant. This situation is further complicated by the participation of people who are not, by community standards, professional fishermen.

These are individuals who find their way into the official ranks of the fishery by doing just enough to meet their own objectives of topping up their other income and by qualifying for special Fishermen's UI benefits. These marginal participants have little long-term commitment to the industry, and contribute little to the total catch.

Our longitudinal survey of reported fishery incomes was revealing. For example, between 1981 and 1990, some 80,000 people in Atlantic Canada reported some self-employed fishing income in at least three of those years. However, only 14,000 of them fished in each of those 10 years, and only 36,000 fished in at least five years. For purposes of adjustment, a definition of a regular, professional fisherman is essential.

By any standard, the core group of professional fishermen is a lot smaller than the registered total. Approximately half of those who register and two-thirds of those who actually fish at some point in the year would qualify as professional fishermen. These are the real fishermen who run almost all the boats and enterprises, land almost all of the fish, and support virtually all the plants, jobs and communities. Many of the remaining participants make

only small amounts from fishing, and more from UI. Nevertheless, they contribute significantly to the apparent inefficiency of the industry by distorting costs, especially the cost of public programs directed to the fishing industry.

**Increasing
reliance on
Unemployment
Insurance**

By itself, the fishery cannot provide a good living to all who partake. It could not do so when the resource was at its peak, and emphatically cannot do so today. A consequence is the growing reliance on unemployment insurance. In 1990, UI accounted for 30 per cent of fish plant employees' incomes, and 34 per cent of fishermen's incomes, compared with nine per cent across the region. The UI share of income has increased steadily, and there is little reason to doubt that current figures are higher.

As an income supplement, UI has several drawbacks. These are explored in more detail in Chapter 8. For example, because it is based on most recent earnings, UI inevitably favours those who have been recently employed. It may be seen as something to be shared, so that informal community arrangements will arise for benefit sharing through creative interpretation of the qualification criteria.

In understanding who makes a living within the fishery, the standards of the community cannot be overemphasized. That community has its own distinct mores, and often its own social and economic structures, evolved to meet its own needs. This is especially visible in the smaller, single-fishery communities, but can be adapted and modified as necessary to address more or less urban settings. Where communities are small — as they typically are throughout the region — people know each other through a variety of roles rather than only through the narrow perspective of the more formal, specialized urban life. Knowledge and skills enabling young people to take their place in the fishery are transferred not through formal education, but through informal learning. Tasks that would create regular employment in a city often are done voluntarily or through part-time arrangements.

**Families making
a living in the
Atlantic fishery**

In 1990, some 42,000 families made a living from the fishery in Atlantic Canada: 16,000 from harvesting, and 26,000 from processing. More than half had dependent children aged 18 or less, and about 30 per cent had two or more dependent children. As with other sectors of the Atlantic economy, about half of the families had two or more wage earners. Nearly half of these families lived in Newfoundland — another indicator of that province's dependence on the fishery — and about 30 per cent in Nova Scotia.

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In addition, there were some 30,000 other fishing families whose incomes from the fishery at 10 per cent were small relative to their non-fishing employment income. At \$37,700, they had a higher family income than either fishing or processing families whose main income source is the fishery. On average in Atlantic Canada, families with self-employed fishing as the main source of income made as a total family some \$31,900. Processing families fared less well, averaging \$28,300. In other words, families truly dependent on the fishery for their livelihood made appreciably less money than families who merely used the fishery to supplement their incomes. The latter group was almost three-quarters the size of the group of families most dependent on the fishery.

Again, there are marked regional variations. In Newfoundland, processing families averaging incomes at \$29,100 did better than fishing families, at \$24,900. In all four Atlantic provinces, families in the fishery averaged significantly less than families in other sectors, by margins of \$6,000 to \$11,000. Between 15 per cent and 43 per cent of family incomes came from unemployment insurance benefits, whereas among non-fishing families, UI accounted for anywhere between four per cent and nine per cent.

Of course, if wage earners cannot work even seasonally, they cannot draw wages, and thus cannot qualify for UI benefits. The northern cod moratorium in Newfoundland and the fisheries closures and drastically reduced catches elsewhere mean plant closures, and thus, no wages. In many of the affected areas, processing families had average incomes of \$33,000, and where there were multiple plant workers in a family that increased to \$45,000 or more.

Unless some support system is put in place where plants have closed, this income will disappear and these families literally will be without income or at a bare minimum, supported only by those few fortunate family members who can find work in other sectors. However, often these other sectors are themselves dependent on fishery incomes for survival, and will in turn wind down as fishery workers exhaust their savings and UI benefits.

Within the fishing community, traditional reliance on the sea and deeply ingrained beliefs as to what is a suitable occupation lead to a scepticism about the value of training or retraining for work in anything other than traditional fishery occupations, hard as those jobs may be. And they are hard. Fishing as a way of life is risky. Even aboard a modern, deep-sea vessel, a worker runs twice the risk of a coal miner; and, the smaller boats have their own risks and hardships.

Work ashore in the processing plants is not without its hazards. Plant workers, especially women, are subject to occupational stress because many plants are cold and damp, the work is boring and repetitive, and there is pressure to speed production and heighten quality. While occupational health studies in this area are not prolific, one study suggested that stomach and chest pains, rashes, colds and influenzas, bladder infections and respiratory ailments are among the conditions associated by workers with their working conditions. Repetitive strain injury is common among female workers. However, there is as much diversity among processing plants as there is in most other aspects of the Atlantic fishery, and these conditions should not be considered universal.

Women in the Atlantic fishery

While women have formed an essential part of the Atlantic fishery for 400 years, their role tends to be overlooked by outsiders. Fishing remains largely the preserve of men. Although, in recent years, women have moved into the small-boat sector. Most of the women work in the plants, where they are about half of the labour force. Plant jobs tend to be segregated, and women often earn lower incomes than men, although in many plants their wage rates are the same.

Until recently, women were largely excluded from fishing due to traditional patterns of inheritance of boats and licences. Government policy also played a part. For years, women who worked in the boats with their husbands were ineligible for UI benefits. In addition, women perform many essential services informally, such as keeping accounts for a fishing enterprise. Their community role cannot be overemphasized in a society where men are often away for long hours or days at a time. They provide continuity, and their informal networks are important in setting community standards and shaping public opinion. As well, they are the custodians of succeeding generations in a society where significant choices must be made about adhering to the traditional occupations of the fishery or seeking other employment paths.

Women's role as the binding force in the fishing community will be essential to the adjustment process. Their participation in that process should be recognized specifically and planned.

We began this chapter by asking who makes a living in Canada's Atlantic fishery, and what kind of living do they make? The answers are that they are mostly men, often older men, especially those employed in harvesting. Their incomes vary, with a very few making high incomes, about twice as many making moderate incomes, but the majority making rather low incomes. In

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general, Atlantic fishery workers make quite a bit less than their regional counterparts working outside the fishery. Their incomes are unstable, even when they are skilled, dedicated workers fully committed to the fishery. They suffer the consequences of overcapacity, seasonality and resource and market fluctuations. Those fishing work very hard, often in harsh conditions and always in danger. Those in the plants work hard at boring, repetitive jobs in often uncomfortable conditions. They all deserve a decent income, which they cannot all get. They are increasingly dependent on unemployment insurance, because the resource has declined — and, in the case of the groundfish, collapsed — and because governments have never fully faced up to the challenges that come from the fishery being the employer of last resort.

Those who depend on the groundfish are the majority. Regardless of what their incomes would be under normal circumstances, the collapse of this resource has left them all equally devastated. They share a common culture with unique features, including a capacity to endure disaster through mutual self-help. This will be the key to adjusting to the fishery of the future.

To understand their situation, we must examine the fundamental problems of the fishery, to which we now turn.

2

C H A P T E R

Fundamental Problems of the Fishery

The fundamental problems of the fishery may be summed up as three elements — overdependence on the fishery, pressure on the resource, and industry overcapacity — all interacting in a vicious cycle.

Overdependence on the fishery

Overdependence means simply that there are more people and capacity than the fishery can sustain. This means high levels of employment and generally low levels of income. It stems from three causes:

- a social, historical tradition of “the right to fish” among Atlantic Canadians;
- a lack of economic alternatives; and,
- the use of the fishery as the employer of last resort. Governments have succumbed to pressure which has gone well beyond an understandable objective of maximizing employment, to the extent that overcapacity has diminished the value of employment and the return on investment.

Too much pressure on the resource

Pressure on the resource flows from overdependence, and the fact that while the resource is finite, the human population keeps growing. Ignorance is another factor. This includes our lack of adequate knowledge of the resource, its habitat, the interaction among species, and other ecological factors. In addition, fishing technology keeps improving. Pressure also comes about from mismanagement of the resource — the failure to control, to enforce limits, and the lack of a meaningful partnership with the users of the resource. And it comes from wasteful harvesting practices.

Overcapacity in harvesting and processing

Overcapacity is the logical result of overdependence and pressure on the resource. Too many harvesters use too many boats with too much gear trying to supply too many processing plants by finding and catching too few fish. The results are low and unstable incomes, problems with income assistance, especially unemployment insurance, and a generally unprofitable industry, characterized by persistently underfinanced operations. The net effect exacerbates the problems of overdependence and pressure on the resource. And the cycle continues.

FUNDAMENTAL PROBLEMS OF THE FISHERY

Too much is being demanded of the fishery. This is inescapably obvious today in bad times, but it was just as true when times were good. A basic reason is that a fish swimming free in the ocean belongs to anyone with a legal right to catch it. It is the common property of everyone holding an applicable licence. Everyone wants as much of the resource as possible. So, without adequate controls, the resource declines. And, if more people can put pressure on the resource, average returns decline even faster.

In much of Atlantic Canada, the fishery is the employer of last resort. Governments all too often have assumed that the fishery can absorb, just with the issue of licences, the unemployed from other industries — as if fishing was a totally unskilled occupation for which no training is necessary. In the absence of legal recognition of the fishery's most productive users — the *bona fide* fishing enterprise and the full-time, professional fisherman — the industry is used increasingly by those for whom the fishery is a marginal activity as a lever on UI funds. As the employer of last resort, the fishery is increasingly coupled with unemployment insurance.

Historically, the fishery was the main resource for many areas of the Atlantic region. That has changed as alternative employment has emerged and the economy has diversified. However, in many Newfoundland and Labrador communities and in many parts of the Maritimes and coastal Quebec, the non-fishing sectors of the economy are heavily — and sometimes, entirely — dependent on the fishery for their existence.

However, beyond the economic dimension, there is a societal aspect. For some communities, as on Newfoundland's south coast, the fishery remains the sole industry. The failure of the resource means not only economic ruin, but a threat to a way of life. The society of those who fish is as distinctive as the society of those who farm, with this difference: those in the fishery have no secure claim to the underlying resource.

In understanding the fundamental problems of the fishery, we must take into account the effect of the miscalculation of the abundance of the resource on the expectations of governments and communities with regard to the ability of the fishery to sustain coastal communities. The understandable desire for increased local employment that led to the proliferation of fish plants was fuelled by boundless optimism associated with the implementation of Canada's 200-mile limit.

**Miscalculation
and unfulfilled
expectations**

Northern cod, which yielded barely 34,000 tonnes in 1974, was projected to reach annual catch levels of close to 500,000 tonnes in the mid-1980s. Coincidentally, groundfish market prices were at a record high. There was a boom in the herring fishery and a new, promising market for previously underutilized species such as capelin and squid. This gives at least a partial explanation and justification for governments' attempt to employ more people than the fishery could sustain. Even then, there was an awareness of the danger of oversubscribing the resource, as illustrated by the introduction of management measures such as limited entry licensing.

Limited entry was based on licences for species fished, rather than on fishermen, and never limited the number of people. As a traffic in licences grew — predictably — costs of entry to the fishery increased. This led to a degree of control of the licences by those able to command the capital. For example, up to \$1 million was necessary to get started in the dragger industry, or enter the more profitable shellfish fishery. When entry costs are high — and mortgaged — there is a temptation to highgrade, dump or misreport catches and to overfish. Where so many people are trying to live off a limited resource, there would be, under almost any management system, a temptation to overfish.

But how can we determine whether a stock is overfished? Scientists have depended heavily on fishermen's log books — except in the inshore — and buyers' purchase slips, although today log books are supplemented by research vessel surveys. As confidence in the ability to predict the abundance of harvestable stocks grew in the 1980s, quotas were subdivided into thousands of allocations by area, vessel, gear type, and individual vessels.

Fishermen, particularly those using fixed gear, have their own ways of gauging the state of the fish stocks they are fishing. They know how many days at sea it takes them to catch how many tonnes of fish and with what gear. They also know what the catch has historically been at what time and in what area.

The inshore, fixed-gear fishermen often have differed with scientists, saying the resource was overestimated. They turned out to be right. Government scientists still today have no systematic way of getting accurate information from fishermen, nor were they traditionally inclined to heed them, nor is there a true partnership with them. There is an obvious need for a much better relationship, and much more reliable data. Fixed-gear fishermen were pointing out the decline in certain cod stocks well before this was acknowledged scientifically, and before there was recognition that the models being used by scientists to predict abundance were flawed.

FUNDAMENTAL PROBLEMS OF THE FISHERY

Priority to conservation, even when stocks can be accurately measured, is not by itself effective management of the resource if other concerns are disregarded. The history of the Newfoundland crab fishery is a case in point. Although the total allowable catch may have been correctly set, this has not prevented the catch being taken — at times — in a disorderly, even frenzied manner. This leads to the risk of lower quality, lower prices and a greater flow of harvest than plants readily can process.

This is a specific example of a general problem: the failure of the Department of Fisheries and Oceans to manage the fishery as a whole, considering all its aspects, and the range of social and economic impacts of management decisions. An integrated approach to planning and management is essential, and should be addressed by the department as a matter of urgency.

Paradoxically, concentration on management of the resource rather than on people and enterprises contributed to the collapse of the resource and the plight of the people. About 60 per cent more people are claiming a place in the harvest than in the 1970s, despite limited entry. There is vastly more fishing power, in the offshore, midshore and inshore sectors. Fish plants have nearly doubled in number, plant workers have increased by about 50 per cent. And yet today, there are fewer groundfish than in the 1970s.

In addition, financial rewards generally have not been good. A few fishermen earn high incomes, and a few more can be said to have adequate earnings. Many do not. The work is inherently seasonal, although this varies by province — the Gulf of St. Lawrence and northeast coast of Newfoundland have the most pronounced seasonality, because of climate and the patterns of fish migration. Since most of the catch is exported, the fishery as a whole also is subject to variations in the world market demand, and fluctuations in currency exchange rates. And, of course, there are the variations in the size of the harvest.

Processing plant workers in particular are inclined to take other work when they can get it, due to the instability and low income associated with their work. Some, no doubt, hope for enough work to secure UI benefits, as is also the case with marginal fishermen.

One of the chronic problems of the fishing industry has been the multiplicity of underfinanced commodity exporters. Unlike agriculture, there has been neither the political will nor the industry consensus to organize the export of commodities. The exception was the establishment of the Canadian Saltfish

Multiplicity of underfinanced commodity exporters

CHAPTER 2

Corporation in 1970. This came about with the strong support of the Government of Newfoundland and Labrador in the aftermath of the 1968-69 fisheries crisis. The Corporation, whose mandate included Newfoundland, Labrador and Quebec's Lower North Shore, maintained price stability for processors and fishermen alike through the cyclical market crisis of 1974-75 as well as that of 1981-82.

In 1983-84, a restructuring of the major fishing companies was carried out on the recommendation of the Task Force on Atlantic Fisheries. In part, this was an attempt to deal with marketing problems by creating large, vertically integrated companies which could market their own production and that of others more effectively. However, there was no consensus among industry to develop a co-ordinated market approach, for example, for cod blocks and capelin.

Nothing in this discussion of the fundamental problems of the Atlantic fishery suggests they are insurmountable. A renewed fishery based on a core of professional workers drawn from a society dedicated to fishing is possible once stocks are restored. In a ironic way, the collapse of the fishery provides the time and the incentive to plan for a renewed fishing industry based on true and effective partnership among fishermen, processors and governments.

3

C H A P T E R

The Collapse of the Resource Base

Groundfish, especially cod, is the foundation of the Atlantic fishery. Europeans settled in what is now Atlantic Canada because of the abundant cod and other groundfish, which afforded them simultaneously an assured food supply and a profitable export. Other species came to be significant, but groundfish, until very recently, still accounted for two-thirds of the tonnage of the total Atlantic catch, nearly half the landed value, and almost two-thirds of the jobs.

Groundfish: the foundation of the Atlantic fishery

In the early 1980s, Canadian catches of Atlantic groundfish peaked at 775,000 tonnes, gradually declining to 688,000 tonnes by 1988 (see Table 3.1 and Figure 3.1). This decline then continued rapidly, dropping to 418,000 tonnes in 1992, and to what likely will be about 250,000 tonnes in 1993. The 10 principal cod and flatfish stocks (see Table 3.2) went from 500,000 tonnes in 1988 to what will probably be considerably less than 100,000 tonnes in 1993 and a potential catch — at best — of 50,000 tonnes in 1994. This means a decline in catch of 90 per cent in five years.

Drastic declines in groundfish catches

What does this mean for people? On average, 1,000 tonnes of groundfish generate 30 full-time jobs in a year. However, given seasonality and other factors such as the number of plants, those thousand tonnes in fact provide employment for about 75 people in any given year. In communities that are highly dependent on groundfish — and there are communities where the fishery supplies directly more than 90 per cent of jobs — collapse of the resource means ruin.

However, it is important to note that groundfish as a proportion of the total catch varies greatly from region to region. In Nova Scotia, which has the most diversified fishery, groundfish represents about 50 to 60 per cent of the catch in a normal year. In Newfoundland, under normal conditions, it would be about 80 per cent for the province, although in some parts, it is effectively 100 per cent. In the other Atlantic provinces, where the fishery is more diverse and relies more on shellfish and aquaculture, groundfish makes up about

30 per cent of the catch during an average year. Consequently, the impact of groundfish reductions in terms of fish production and employment loss varies greatly among provinces and regions.

As we noted earlier in this report, Canada's Atlantic fishery is extensive and diverse, from the Gulf of St. Lawrence out to the 200-mile economic limit, and from Davis Strait to the Bay of Fundy. Within this vast area are many species yielding, in average years, an annual harvest of about 1.2 million tonnes, with a landed value of about \$1 billion and a production value of about \$2 billion. Within these fisheries, groundfish traditionally have accounted for about two-thirds of the landed volume and about 40 per cent of the landed value.

Given the greatly reduced groundfish quotas, fisheries closures and poor catch performance to date, the projected 1993 groundfish catch will be no more than 250,000 tonnes. Compared with 1982, this means that the groundfish base of the Atlantic Canada fishery will have shrunk by more than 500,000 tonnes. This is equivalent to some 15,000 full-time, year-round jobs in harvesting and processing, which normally would mean employment for some 35,000 people. While the impact of this massive collapse affects almost all of the Atlantic fishery, it falls heavily on Nova Scotia, and more particularly, on Newfoundland (see Figure 3.2).

In 1993, the groundfish resource collapse is spreading. In the Maritime provinces, there are closures or quota cuts in many fisheries. Most of the Atlantic industry is made up of people working in small boats and small plants, and living in small and often very isolated communities. About a thousand such communities depend in whole or in large part upon the fishery for jobs in plants, boat building, equipment supplying, transport provisioning, and general support services. The groundfish resource failure means a total or at least major economic collapse for hundreds of communities in Atlantic Canada.

**Newfoundland's
resource base has
collapsed**

The resource base of the Newfoundland fishery — namely, cod stocks adjacent to Newfoundland, and cod and flatfish stocks on the southern Grand Banks (see Figure 3.3) — has virtually collapsed. In four years, the catches of these stocks went from close to 400,000 tonnes in 1988 down to less than 100,000 tonnes in 1992. This represents a reduction in the annual catch of some 75 per cent. The projected total 1993 catch from these stocks is about 50,000 tonnes or one-eighth of what it was only five years prior. Other areas also have experienced substantial declines in groundfish catches on which

fishermen and processors rely. Catches of cod stocks in the Gulf of St. Lawrence have dropped significantly, as have catches of cod and haddock on the Scotian Shelf (see Table 3.3).

The outlook for the Atlantic fishery is bleak. Current scientific projections for cod and flatfish stocks are extremely negative. The prospect for northern cod actually has worsened since the moratorium on commercial fishing was established in July 1992, suggesting that a closure will have to be maintained for years to come. The other prime groundfish stocks — cod stocks adjacent to the rest of Newfoundland, and cod and flatfish on the southern Grand Banks, in the southern Gulf of St. Lawrence and on the Scotian Shelf — are also deteriorating rapidly. Total allowable catches in fisheries that remain open in 1994 will likely be considerably lower than in 1993. The spawning biomass of most of these stocks is at a historically low level. In the case of northern cod, there are no indications of any recovery before the end of the 1990s.

What has caused or contributed to this unprecedented and widespread resource collapse? There is no definitive evidence, but there are a number of factors which, in varying degrees and combinations, have had a role in this decline. Among the more important are:

- overly high Total Allowable Catch (TAC) levels for many stocks, set too high because of overoptimistic scientific projections, inadequate understanding of stock dynamics and inaccurate data on commercial fishing activity;
- under-reporting of actual catches, which caused harvesting overruns, and misleading data for management and scientific assessments;
- destructive fishing practices such as highgrading, discarding and dumping of immature fish or non-target species;
- foreign overfishing of straddling stocks on the Nose and Tail of the Grand Banks;
- failure to control expansion of fishing effort, which in part has been in response to the demands of a processing sector plagued by overcapacity, and failure to minimize the possible adverse impact of various fishing gear technologies; and,
- unforeseen and possibly long-lasting ecological changes, including cooling water temperatures since the mid-1980s, changes in water salinity, and shifting predator-prey relationships, particularly among seals, capelin and cod, which have affected adversely the growth, abundance and distribution of various species.

The impact on the inshore industry

The overall effect of these factors is that 90 per cent of the Newfoundland groundfish base has been wiped out and will not recover for years. The impact on the people, communities and economy of that province will be staggering. The northeast coast of Newfoundland was devastated by the 1992 northern cod moratorium which meant the loss of employment and income for some 12,000 fishermen and 15,000 plant workers. With their resource supplies almost non-existent, many groundfish plants have closed. For many, the prospects for reopening in the foreseeable future are very bleak. Among these plants are many small fish plants. However, there are also some very major inshore operations that are affected and that have had a long history in the cod fishery, including St. Anthony, La Scie, Twillingate, Valleyfield, Carbonear, Old Perlican and Fogo Island.

The northern cod moratorium has been devastating for plant workers, fishermen and crew members. Government programs help address their short-term problems. However, in the long term, the reality is that perhaps half of these individuals will never work in the fishery again. Fishermen who own vessels and gear, and processors who own plants and equipment are just as devastated. Many operations are family-owned businesses with long attachment in the fishery going back decades. They have come through previous industry crises, but now find themselves without the weaponry to withstand this latest, greatest onslaught. They prepared themselves for the 1992 fishing season, expended resources in good faith, were assured that it would proceed, and today find themselves with assets that are close to worthless, if they have any value at all.

The impact on the offshore industry

The case of Fishery Products International (FPI), Canada's largest fishing company and the predominant operator in Newfoundland's offshore fishery also illustrates the devastating impact of the resource collapse. Its source of supply has been overwhelmingly reduced and, in the case of cod, has almost been wiped out. In four years, the company's total groundfish catch dropped from 139,000 tonnes in 1988 to 56,000 tonnes in 1992. The catch of cod alone has decreased from 85,000 tonnes in 1988 to 17,000 tonnes in 1992 — a drop of 80 per cent in the catch of its most valuable species (see Table 3.4). For 1993, FPI's total groundfish catch is estimated at 37,000 tonnes. In 1994, its catch may reach no more than 25,000 tonnes — most of which will be groundfish of lesser value, such as redfish, rather than cod.

All of this has dramatic consequences for the people and communities in Atlantic Canada whose livelihood depends on FPI. In 1986 and 1987, FPI operated eight trawler-based offshore plants — seven of them on

THE COLLAPSE OF THE RESOURCE BASE

Newfoundland's south coast — as well as seven inshore plants, three secondary processing plants, a scallop operation and a fleet of nearly 70 trawlers. The company employed some 8,200 people — 7,200 plant workers and managers, and 1,000 trawlermen. FPI also bought fish for processing from about 2,500 inshore fishermen from across Newfoundland. In all, FPI provided income to some 12,000 people.

This is no longer the case. Operations, employment and incomes have shrunk drastically. Only two of FPI's offshore plants — Marystown and Fortune — are operating, with Fortune strictly on a highly seasonal basis. Plant employment is down to 1,500 jobs and trawlermen at work numbering 335. Groundfish purchases on the northeast coast of Newfoundland have ceased. Total employment is down to about 2,500. Given further projected fisheries closures and quota reductions for FPI in 1994, next year will be even more bleak.

Similar is the situation of Atlantic Canada's other major fishery employer, National Sea Products (NSP). NSP has seen its groundfish catch go from nearly 122,000 tonnes in 1988 to just more than 51,000 tonnes in 1992 — a decline of 58 per cent. Its cod catch since 1988 is down even further at 67 per cent (see Table 3.4). Its total 1993 catch is projected at 24,000 tonnes — a drop of 53 per cent in a single year. In 1988, NSP provided employment for nearly 6,000 people, almost all of them full time. Last year, the company's payroll was down to about 3,500 workers, almost 40 per cent of them part time. In 1988, it had 32 active trawlers and nine plants. Today it has four plants, all closed, and 21 vessels, all tied up.

Bleakest is the outlook for Newfoundland's south coast, which has been the traditional base for offshore fishing for more than a century. It has the highest dependence on the fishery, and the highest reliance on groundfish — especially cod — in Atlantic Canada. In the mid-1980s, groundfish accounted for 94 per cent of the value of fish production on the south coast — the highest such dependence in Atlantic Canada.

**The uncertain
future of the
south coast
of Newfoundland**

Now, its people have nowhere else to turn. Farming does not exist. Mining has long since been played out, with only the most nominal activity still going, and forestry barely exists. Yet, Newfoundland's south coast has a proud tradition in the fishery. Since it is not ice-bound for part of the year, it suits offshore fishing, rising to prominence in the 1860s with the development of the famous Banker fleet of 100-foot vessels fishing for cod on the Grand Banks.

The fishing centres of Burgeo, Ramea, Gaultois, Harbour Breton, Grand Bank, Fortune, Burin, Marystown, Trepassey, including all the way around to Catalina on the northeast coast, are historic communities going back to the 18th Century and before. Their way of life is now under the most severe pressure. The list goes on. It includes Lockeport, Louisbourg, Petit de Grat, Lamèque, Newport and La Tabatière in other parts of Atlantic Canada.

These communities were created because of work in the fishery. Now, there is no fishery. Many are relatively isolated, especially those in Newfoundland, often with no more than 2,000 to 3,000 residents, many of them resettled there from even smaller outports a generation ago. Often, they are single-industry communities. Where this is so, the fishery provides 70 per cent or more of the direct employment, and almost all of the real employment, because the other sectors — educational, social services, retail and wholesale trade — would not be there without the fishing community.

In these areas, the fishing community exists very often chiefly because of groundfish. South coast Newfoundland communities get their fish from the offshore and process groundfish almost exclusively. Until the mid-1980s, these were year-round operations, providing 40 to 50 weeks of employment a year and the best wage rates in the industry. Now, these plants are mostly closed, and the boats tied up. Collapse of the groundfish stocks means that a whole society, a whole region, are at stake.

Looking beyond the impact in human terms and focusing on markets, Canada's resource crisis is going virtually unnoticed. In our traditional stronghold, the United States, Atlantic cod reigned supreme among groundfish and Canada supplied more than half of all cod. Yet demand and hence prices, have dropped notwithstanding the collapse of Canada's Atlantic groundfish fishery.

Several factors account for this:

- Demand for seafood in the U.S. is declining, led by a reduction in groundfish consumption;
- At least in part, this is because during the past 10 years, prices for traditional sources of competing protein (chicken, pork and beef) have declined relative to seafood;

THE COLLAPSE OF THE RESOURCE BASE

- As well, supply of low-cost substitute “wild” groundfish species — including Alaskan pollock, New Zealand hoki and South American hake — has increased dramatically, especially to serve the volume-driven, commodity seafood market;
- In addition, aquaculture is making major progress in whitefish markets, with catfish sales now equal to cod sales and sales of tilapia increasing as fast as sales of catfish in the U.S. market; and,
- Cod production by Norway and Russia from the Barents Sea has recovered substantially, largely displacing the decline in Northwest Atlantic stocks in our traditional European and American markets.

Against this competitive backdrop, it is evident that Canada’s groundfish sector will require a market recovery as well as a resource recovery.

In a few years — perhaps, five, seven, or 10 — the stocks may regenerate and the fishery will be revived. Will the people be there to work it? How will they adjust in the meantime? How will they ensure that the special knowledge and skills of the fishery will be passed on? How will they survive in the interim?

TABLE 3.1
Canadian Catch of Atlantic Groundfish:
1978-1993
('000 tonnes)

Species	1978	1982	1986	1988	1990	1992	1993 (as of Sept. 15)
1. Cod (northern cod)	271 (102)	508 (211)	475 (207)	461 (245)	384 (188)	183 (21)	59 (moratorium)
2. Haddock	41	45	44	30	22	21	10
3. Pollock	27	38	49	43	38	32	16
4. Redfish	76	65	80	76	82	98	59
5. Flatfish (Southern Grand Banks ¹)	95 (66)	86 (63)	75 (65)	59 (39)	55 (30)	37 (21)	20 (14)
6. Gr. Halibut	25	25	18	13	19	19	6
7. Others	—	8	7	6	4	28	27
Total²	535	775	748	688	604	418	197

NOTES: ¹ 3LNO American plaice, 3LNO yellowtail, 3NO witch

² All regulated groundfish fish species managed under the Atlantic Groundfish Management Plan (i.e., excluding non-regulated, generally commercially marginal species such as cusk and catfish)

SOURCE: Atlantic Fisheries Quota and Allocation Reports, Department of Fisheries and Oceans.

FIGURE 3.1
Canadian Catch of Atlantic Groundfish
1978-1993

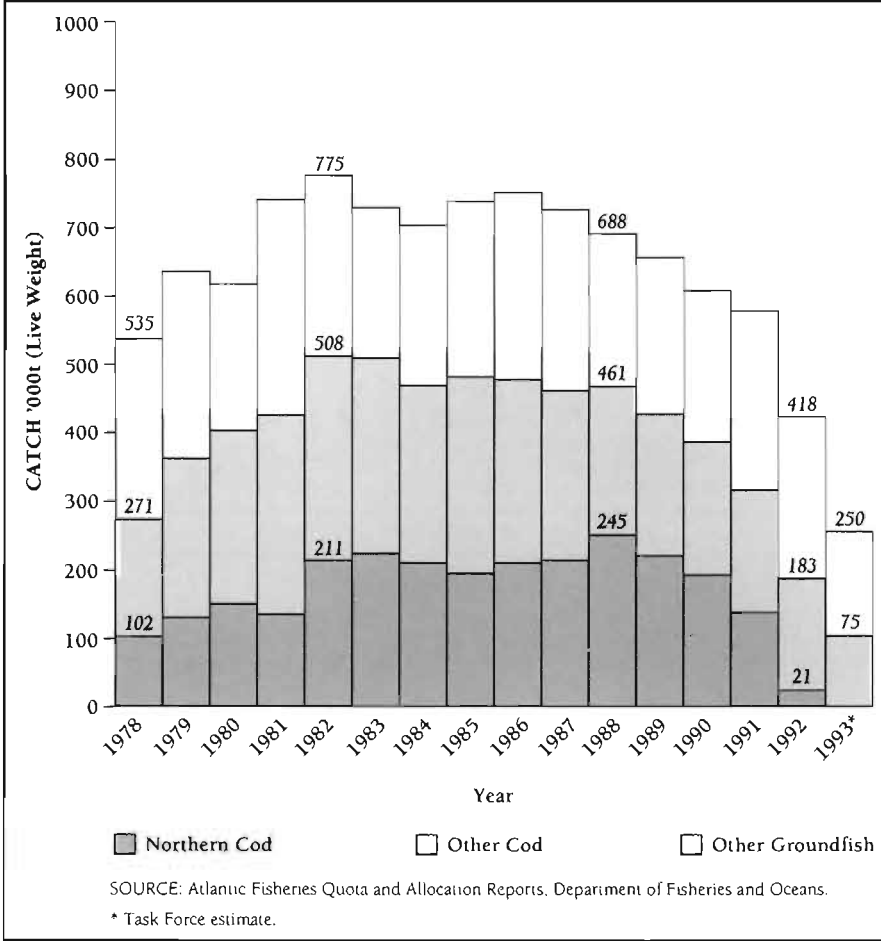
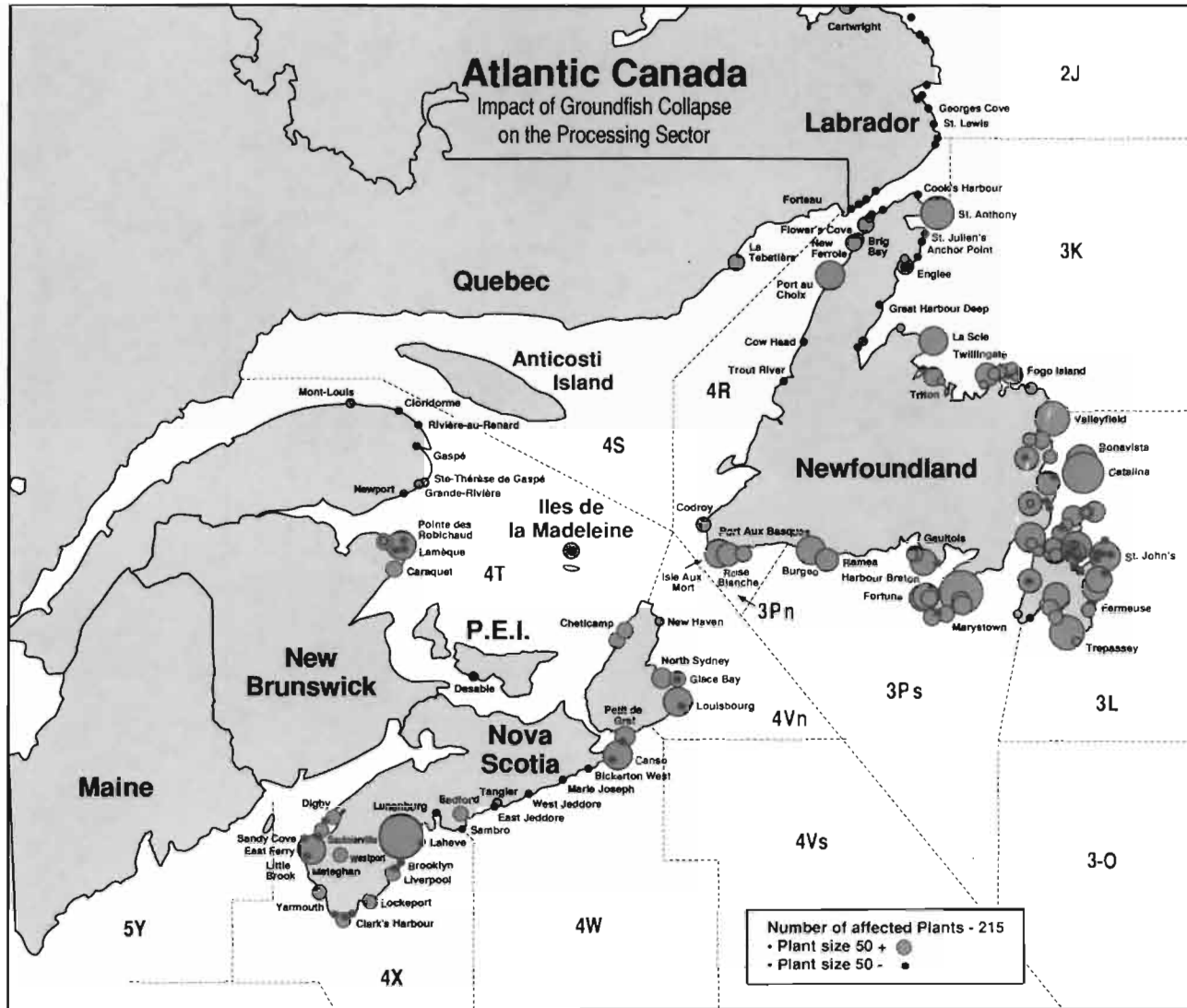


TABLE 3.2
10 Principal Cod and Flatfish Stocks
Canadian Catches: 1988, 1992 and 1993
(tonnes)

Stock/Species	Canadian Catch		
	1988	1992	1993 (as of Sept. 15)
1. 2J, 3KL cod	245,081	20,732	—
2. 4RS, 3Pn cod	44,251	27,719	14,492
3. 3Ps cod	20,921	22,621	13,570
4. 3NO cod	19,677	7,790	4,020
5. 4T cod	51,613	32,955	2,559
6. 4VsW cod	38,067	29,740	3,125
7. 4X cod	19,131	24,885	12,187
8. 5Z cod	12,643	11,794	7,142
9. 3LNO Am. plaice	26,127	10,170	6,155
10. 3LNO Y. flounder	10,654	6,912	5,503
Total	488,165	195,318	68,753

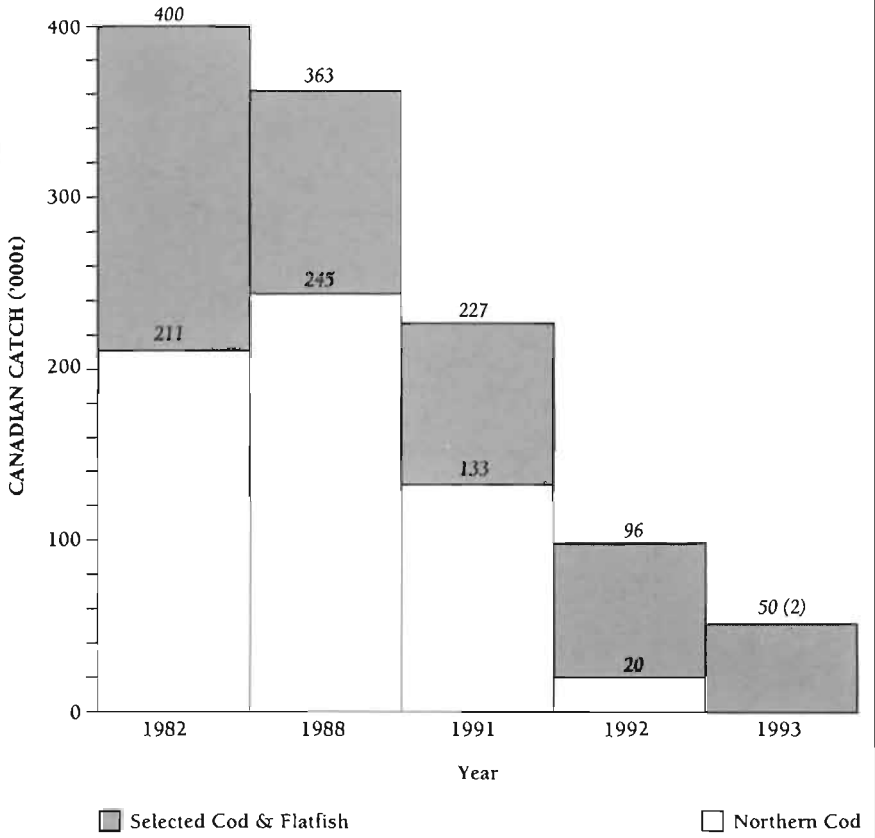
SOURCE: Department of Fisheries and Oceans' Catch and Effort Data.

Figure 3.2



Source: Department of Fisheries and Oceans.

FIGURE 3.3
Collapse of Newfoundland “Groundfish Base:”
Decline in Catch from Major Stocks¹



NOTE: ¹ Canadian catch of six major groundfish stocks: 2J3KL cod, 4RS, 3Pn cod, 3Ps cod, 3NO cod, 3LNO American plaice, 3LNO yellowtail flounder.

² Based on 1993 quotas and catch to date (31, 527t as of September 15, 1993)

SOURCE: Atlantic Fisheries Quota and Allocation Reports, Department of Fisheries and Oceans.

TABLE 3.3
Decline of Canadian Catches from Major Groundfish Stocks
Other than Northern Cod and Flatfish
1983-1993
(tonnes)

Region/ Fish Stock	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Change 1983- 1992/93	1993 (as of Sept. 15)
Northern Gulf • 4RS 3Pn cod	93,595	79,513	78,056	68,917	65,149	43,686	42,199	35,098	29,088	27,946	-65,649	14,492
Southern Gulf • 4T cod	47,923	42,045	48,697	47,862	43,228	44,251	42,717	40,206	31,571	27,391	-20,532	2,559
Scotian Shelf • 4VsW cod	51,570	52,239	56,975	51,721	45,411	38,067	37,055	34,107	32,780	29,741	-21,829	3,125
• 4X haddock	24,893	19,709	15,313	15,184	13,692	10,946	6,925	7,407	9,991	10,191	-14,702	5,168
Total	217,981	193,506	199,041	183,684	167,480	136,950	128,896	116,818	103,430	95,269	-122,712	25,344

SOURCE: Atlantic Fisheries Quota and Allocation Reports, Department of Fisheries and Oceans.

TABLE 3.4
COLLAPSE OF THE RESOURCE BASE:
Fishery Products International (FPI) and
National Sea Products (NSP)
Total Harvest in 1988 and 1992
(tonnes)

Species	FPI		NSP	
	1988	1992	1988	1992
1. Cod	84,848	17,326	66,891	21,970
2. Haddock	4,092	741	7,006	2,455
3. Pollock	457	484	17,308	9,256
4. Flatfish	39,863	22,217	3,617	2,777
5. Redfish	8,708	13,135	26,503	14,379
6. Other	636	2,132	300	543
Total	138,604	56,035	121,625	51,380

SOURCE: Atlantic Fisheries Quota and Allocation Reports, Department of Fisheries and Oceans.

Part II

THE CHALLENGE



4

C H A P T E R

Adjustments Towards the Future Fishery

The Atlantic fishery as it existed traditionally is gone, swept away by a combination of forces. We believe that the challenge now is to shape the fishery of the future. How can this best be done? Clearly, we must consolidate the assets, human and material, that remain, and seek to apply them in the best and most efficient way. And in determining the nature and method of this consolidation and application, we must make the most of the knowledge and skills of the people affected, through genuine and detailed consultation. We believe the elements of this process must include:

- providing a reasonable balance between resource supply and industry capacity;
- providing for an appropriate adjustment to a smaller, stronger industry, with due consideration for the people and communities involved, and the prospects for alternative employment;
- providing transitional assistance, including training and financial support;
- recognizing the professional fishermen, fostering their professional skills; and acknowledging their primacy in the process of adjustment;
- controlling access to the resource, for conservation and commercial efficiency;
- tying together the licensing and income support systems, to target their benefits to professionals in the fishery; and,
- creating an effective partnership of government and industry in the management of the fishery resource.

Carrying out this process of adjustment will require a blend of new mechanisms and existing organizations and people, which we discuss in this chapter.

In 1982, the Canadian catch of Atlantic groundfish reached 775,000 tonnes, the largest catch since the extension of fisheries jurisdiction to the 200-mile limit in 1977. At that time, the Atlantic groundfish industry was experiencing a serious financial crisis. The 1982 Task Force on Atlantic Fisheries, headed by Michael Kirby, noted the serious overcapacity in both the harvesting and processing sectors. The 1982 Task Force suggested that part of

**Shaping the
fishery of the
future**

**Catches and
capacity**

this problem could be solved by the projected rapid growth in the Canadian catch — the forecast was that by 1987, the groundfish catch would reach 1,100,000 tonnes. Of course, the expected growth did not take place. Instead of an increase of some 350,000 tonnes, the annual catch has declined by more than that amount (see Figure 4.1). If previously there was serious overcapacity in the industry, by 1992 it had dramatically worsened.

Even before the current resource crisis, the groundfish fishery was characterized by overcapacity in harvesting and processing. In the current crisis, most of the groundfish plants in the Atlantic Canada are in peril. Few fishermen reliant on groundfish will be able to make a living for a number of years. In ecological and societal terms, those dependent on the fishery, particularly the groundfish fishery, face the equivalent of the prairie dust bowl of the 1930s or the Irish potato famine of the 1840s.

What needs to be done

Beyond taking the measures to protect and rebuild groundfish stocks, the challenge we face is whether this ecological calamity will give rise to equally calamitous economic and social consequences.

- In responding to the current resource crisis, governments must address the immediate needs of fishermen and plant workers, especially the need for income assistance.
- Having done this, federal and provincial governments must act together to create an Atlantic groundfish fishery that is ecologically and commercially sustainable.

Reducing overcapacity

To do so, chronic problems must be overcome, problems that existed before the current resource crisis, and will exist after it unless they are resolved. A first step is to bring harvesting and processing capacity into balance with the sustainable limits of the resource.

For the future well-being of the coastal areas dependent on groundfish, this reduction in capacity must be balanced and fair. Balance in capacity in both harvesting and processing among coastal areas is essential. Balance among fleet sectors is equally essential. Capacity reduction based on one coastal area or one fleet sector taking fish from another would be divisive and totally unacceptable.

While maximizing employment is a legitimate goal of government, this must be done within the limits of the resource. Profitability of enterprises and the quality of work and incomes generated — that the pay and working conditions are decent — also should be considered.

ADJUSTMENTS TOWARDS THE FUTURE FISHERY

Without fundamental change, the fishing industry will come out of the resource crisis in even worse shape than when it went in. There will still be far too many vessels and processing plants, with a great many of these enterprises being even weaker financially than in the past.

**The need for
fundamental
change**

Lacking an orderly, planned change, the fishery following the current resource crisis risks consisting of no more than many of the existing vessels and fish plants, however deteriorated. This would be an industry financially incapable of adapting new technologies or responding to new marketing opportunities. Probably, it would provide only short-term employment and generally low and unstable incomes. It also might be an industry where some coastal areas would have no processing capacity at all.

Thus, the fishing industry of the future — at least the groundfish sector — would be little more than a run-down version of the industry that entered the present crisis. Parts of that industry — particularly where it is more diversified such as into shellfish and other species — might remain relatively unchanged. This would only cause resentment from those dependent on groundfish; that is, they also would want access to the more profitable species. In turn, they would put pressure on government to extend access, thus weakening the value of these fisheries and further perpetuating the notion of the fishery as employer of last resort. Dealing effectively with the groundfish crisis extends beyond helping those directly involved to considering those currently participating in more lucrative fisheries.

Therefore, both levels of government must decide to take positive action to provide a credible vision of hope and, for an orderly adjustment from the over-capacity in today's fishery to a future that brings harvesting and processing capacity into balance with the sustainable limits of the fishery resource.

Two basic challenges to achieving this adjustment must be addressed. First, capacity must be reduced to match the limits of a rebuilt resource. Second, the necessary infrastructure and core group of professional fishermen and skilled workers must be sustained until the stocks recover. Our success in meeting these challenges will shape the future of the Atlantic fishery.

**Reducing capacity
while sustaining
the necessary
infrastructure**

Meaningful industry participation in this process is mandatory. Such participation is essential to both levels of government developing a comprehensive strategy to deal with the dilemma of balancing resource and capacity.

Undertakings of this magnitude and far-reaching social and economic consequences will require more than a conventional approach to industry adjustment. Governments have recognized this in the past, where industries have undergone fundamental changes as, for example, in the Canadian textile industry.

**Fishing Industry
Renewal Boards**

The Task Force believes that while government, in partnership with the affected industry has a responsibility to develop an overall policy for capacity reduction and consolidation, the implementation of such a policy is best left to an independent body or bodies outside of government. For this purpose, we propose the establishment of one or more fishing industry renewal boards, which would be composed of experienced, knowledgeable persons, including people from the industry. These boards would implement capacity reduction regionally, operating at arm's length from both government and industry.

These boards, which should have lifespans restricted to the implementation of specified capacity reduction plans, could combine the tasks of dealing with capacity in both the harvesting and processing sectors. This integrated approach to dealing with the question of overcapacity is most desirable. Otherwise, significant imbalances in harvesting and processing capacity may continue to exist. What we are proposing is a mechanism that will assist in the implementation of a long-term policy of renewal in the fishery — a renewal that would go a long way to achieving objectives of an ecologically sustainable yield and a decent living for the people in the fishing industry.

Obviously, the greatest single crisis in the groundfish sector exists in Newfoundland. A single board dealing with processing and harvesting in that province is thus warranted. Capacity reduction in the Maritimes and Quebec, which will be on a smaller scale, could best be handled by a separate board.

***Ad hoc* measures
will not work**

To believe that governments can rely on an *ad hoc* approach to the problem of overcapacity is naive. To deal with capacity reduction on an *ad hoc* basis is to invite pressures from communities where fish plants are affected. Politicians and governments will face harsh criticism for the permanent closure of a plant in one community while allowing — even assisting — a plant in another community to continue operating. The same will be true with regard to reducing harvesting capacity. A planned and orderly approach to capacity reduction also will permit introducing other significant adjustment policies for the affected people and communities.

ADJUSTMENTS TOWARDS THE FUTURE FISHERY

Any meaningful adjustment in terms of capacity reduction and related measures demands full co-operation of the federal and provincial governments. Nothing less than the future of the fishery — and those who have relied on it — hangs in the balance. Too often the failure of federal and provincial governments has led to inaction when action was needed. This crisis absolutely requires concerted and co-ordinated action by both levels of government.

The role of governments in adjustment

A key ingredient to the success of implementing a policy of fishing industry renewal is a real partnership between government and industry. We speak here of a partnership with industry that can give a credible vision of hope for the future. Those in the industry know there are problems. In almost every fleet sector, particularly in the groundfish fishery, it is known that unless the resource rebounds dramatically and almost immediately — which is not expected — many will be in dire straits.

The need for adjustment is well known. Thus, the notion of industry adjustment committees is vital to the success of any renewal plan. Committees comprised of fishermen should be encouraged to develop adjustment plans for the harvesting sector. Committees of processors should be encouraged to develop similar adjustment plans for the processing sector.

Industry adjustment committees

As an example, such an approach might be used with the midshore mobile-gear fleet and possibly, the fixed-gear fleet in the northern and southern Gulf of St. Lawrence. The fishing industry renewal boards should define the geographic areas within which harvesting capacity reductions would take place. Within these areas, groups of fishermen, organized by fleet sector and gear type, should be assisted financially to design their own plans for consolidating operations in a manner similar to what the processing industry has already done in Newfoundland. In either case, the plans submitted by groups of fishermen or processors within a given area would be decided upon by the renewal boards. Through these means, the boards would engage in what is essentially a process involving fishing enterprises and processors on a geographic basis to achieve balanced capacity reduction in harvesting and processing.

Maintaining the links between coastal areas and the resources upon which they have traditionally relied should be an express policy to be given effect by the renewal boards. As well, it is important to ensure a balance among fleet sectors in achieving capacity reduction. A balanced inshore, midshore and offshore fleet is required for the fishery of the future.

Balance among fleet sectors

Given the likelihood of lower catches than in the 1980s — even when the groundfish resource recovers — the need for an offshore fleet has been

The need for an offshore fleet

questioned. We see three reasons to continue the offshore fleet. First, some species can only be harvested with offshore fishing technology. Second, major coastal areas have been historically dependent on stocks fished offshore. Finally, there is a market requirement for some year-round supplies that can only be met by an offshore fleet. The question of the appropriate technology for the harvesting of the resource is different from the question of access to the resource by different fleet sectors.

Linking capacity reduction to the traditional resource base

Capacity reduction should be based on the principle that coastal areas would maintain priority access to resources upon which they have traditionally relied. For example, for northern cod there was a traditional inshore allowance (for vessels less than 65 feet) of 115,000 tonnes. Principally, the harvesters for this were from along northeast coast of Newfoundland and the coast of Labrador. It is unlikely that there will be a directed offshore fishery for northern cod in the future until the total allowable catch approaches or exceeds the traditional inshore allowance. The same is true of other groundfish stocks including for example, cod, flounder and redfish on the southern Grand Banks, which have been the traditional resource base for communities on the south coast of Newfoundland and elsewhere. Offshore fleets and the communities dependent on them should have priority of access to these resources, whatever harvesting technology is used.

The fishing industry renewal boards should not be in the business of deciding appropriate harvesting technology or resolving fleet sector conflicts. These are policy matters to be decided by government, not issues for an arm's-length board charged with capacity reduction.

Regional balance in processing

In the processing sector, regional balance in capacity reduction is extremely important. For example, it would make no sense to have no processing capacity in Labrador or inadequate capacity in eastern Nova Scotia or Cape Breton, or to have low capacity on the south coast of Newfoundland and overcapacity on the Avalon Peninsula. A balance must exist between harvesting capacity and processing capacity for each major coastal area. A particular responsibility of the renewal boards would be to define areas appropriate for consolidation of processing capacity.

Consolidating processing capacity in coastal areas

An obvious example is the Bonavista Peninsula in Newfoundland, where the plants are located close together and owned by the same company, Fishery Products International. Port Union has a large offshore plant, and there are inshore plants at Charleston and Bonavista. Bonavista also has a crab processing plant which currently is the only plant that operates. There is no

ADJUSTMENTS TOWARDS THE FUTURE FISHERY

prospect of all four plants operating ever again. People should not be left with the hope that their plant will reopen. Rather, a decision to consolidate processing on the Bonavista Peninsula should be made now. The end result likely will be a single, multi-species operation.

Similar plant consolidations could be undertaken on a regional basis in other coastal areas. In some of these areas, there also are multi-plant operations owned by a single owner. It was necessary to do this in the past in order to get fish to process. Over the years, small processing facilities, such as community stages, have been expanded into small fish plants, providing local employment. Operators of established fish plants who ignored the proliferation of these types of facilities also were vulnerable to losing the fish. Of course there also are many examples where, on a regional basis, there is a surplus of individually owned plants, the consolidation of which will be more difficult than where plants are owned by the same operator.

Certain regional fishing centres should be designated as places where fish processing capacity would be maintained and some people continue to be employed. The economic viability of these plants would be enhanced by consolidation with or buy-out of other plants. Capelin, crab, lumpfish, turbot, herring and other available resources would be thus targeted to a smaller number of plants. As with harvesters, owners of processing enterprises along relevant coastal areas should be involved in studies undertaken for the renewal boards. With some financial assistance from government and industry, harvesting and processing sectors could prepare their own analyses on how to consolidate, and therefore provide input to the renewal boards. In this manner, consolidations and licence buy-outs through public funds would be done with maximum co-operation and greatest likelihood of achieving the desired pattern of regionally centred plants.

While resources are rebuilding, some means should be found to maintain the infrastructure and skills of the workforce for plants and vessels which are not decommissioned and are expected to continue in the fishery. If programs of assistance for this are required, as will be the case for areas hardest hit by the groundfish resource crisis, consideration should be given to having these administered via the fishing industry renewal boards.

**Assistance
to maintain
necessary
infrastructure**

This would ensure proper maintenance of processing equipment, continuity in the workforce and some economic activity for the community. As resources rebuild and more fish is available for processing, these plants and fishing vessels should operate at increasing levels of capacity utilization. The essential

capacity determined for the viable future fishery should be utilized during the intervening years as the resource rebuilds. Unless core plants and fishing vessels — which will be needed in future — are maintained appropriately now, they will deteriorate, skilled workforces will be lost, and these communities will have no economic base. However, reopening of plants would be better achieved through a plan of consolidation, rather than by chance. As with harvesting enterprises, processing capacity needs to be reduced in a balanced way, regionally and sectorally.

One area where this approach is clearly needed is the south coast of Newfoundland. Communities there have a long history in the deep-sea fishery. Fishermen from the south coast have for many decades harvested cod, flounder and redfish on the southern Grand Banks and in the Gulf of St. Lawrence. However, the resources on the southern Grand Banks are now badly depleted by foreign overfishing and access to stocks in the Gulf has become increasingly limited.

**Effects of the
resource crisis on
offshore plants**

Already, major plants in the offshore fishery have been permanently closed: Lockport, St. John's, Trepassey, Grand Bank and Burin (since re-opened as a secondary processing plant). Only some of the others — Louisbourg, Petit de Grat, Canso, Lunenburg, Newport, Burgeo, Ramea, Catalina, Gaultois, Harbour Breton, Fortune, Marystown and Arnold's Cove — will operate in future. Most are closed now, or operating at greatly reduced capacity. In 1994, the prospects are that as few as two of the Newfoundland offshore plants will operate. As with inshore processing, decisions should be made now as to which offshore plants will operate in future. Similarly, designated offshore plants would operate at lower levels of capacity utilization during this period of resource recovery, rising as the resource rebuilds. It is better to provide a vision of hope for some that can be fulfilled for several communities, than leave an illusion of hope for all that cannot be fulfilled for many communities.

**Multi-species,
regionally centred
inshore plants**

What is needed is relatively fewer regionally supplied plants to process the full variety of species harvested in that area. Small, inefficient and under-financed facilities processing only groundfish and producing commodities, like cod blocks, cannot be the basis of a viable processing sector. The aim should be to achieve a minimum of 20 weeks operation annually in multi-species, regionally centred plants, that can produce value-added products for specialized markets.

ADJUSTMENTS TOWARDS THE FUTURE FISHERY

An effective program of capacity reduction and consolidation in the processing sector will require co-operation and financial support from both levels of government.

The inevitable consequence of reducing capacity to achieve future viability is the reduction in the number of jobs and enterprises in the future fishery. Many have been lost already. However, the inevitable consequence of failing to reduce capacity is a future of dependence and very likely destitution.

Capacity reduction in harvesting and processing must be accompanied by parallel measures for social and economic adjustment of the affected people and communities. Without this, the pressures to once more make the fishery the employer of last resort would be overwhelming. This would be propelled by the thousands of displaced people with nowhere else to turn — those already out of work would see themselves being denied the chance to return to work when the resources rebuild. There could well be social unrest. Calamities in the fishery have given rise to this in the past.

Adjustment for people and communities

The kinds of adjustment measures needed for people are well known. Income assistance for a transitional period is unquestionably necessary, given the collapse of the resource base. However, continuing income assistance for all cannot be the answer. People will have to adjust to new and, for many, unexpected realities. They must make decisions about their own futures. The role of government must be to help give them the support to make and act on those decisions.

As part of any adjustment program, older workers should be offered early retirement, as is being done for some under the Plant Workers' Adjustment Program. This should be available to all fishermen and plant workers aged 50 years and older who have a long history in the fishery, but who now have little opportunity to remain in it.

Early retirement

Training for new opportunities is critical for other workers. Many in the fishing industry have few transferable skills. Basic literacy and numeracy skills are the first steps for many. Community-based adult education, using wherever possible existing institutions such as trade unions and co-operatives, is an important means to achieve this. As people acquire new skills, some will need mobility assistance, so they can go where other jobs exist.

Training is essential, but not a panacea

Suggesting that "training is the answer" to adjustment is no more useful than stating that "markets will decide" for capacity reduction. Training is part of

the answer, but it will do little for older workers, who need an opportunity to retire with dignity. Nor will it fulfil the needs of enterprise owners who need reasonable licence buy-outs to help them retire their debts. Where training will be of greatest importance will be for those who have the chance to start over again.

**Options for
plant workers**

While a combination of early retirement, vessel buy-backs and licence retirement should go a long way to reducing the number of participants in the harvesting sector, the only comparable measure for plant workers is early retirement. Even this will be less effective, as plant workers tend to be younger. For some, upgrading in literacy and numeracy must be a first step. They ought to be encouraged to acquire appropriate skills to seek alternative employment, whether this can be found in their own communities or elsewhere.

**Decisions should
be made now**

Critical to all these decisions is the need for a sense of certainty about the future. Plant workers cannot be left hanging onto the illusion that their fish plant will reopen rather than the plant in the next community. Similarly, fishermen cannot be led to believe that their gear sector will have enough fish because the fish will be taken away from another gear sector. If that happens, then a great many people will simply stay where they are and suffer disappointment. Decisions concerning harvesting and processing capacity should be made now, and not when the resource rebuilds. Individuals cannot be expected to make choices as to their future, until governments make critical decisions about the fishery. This means work should commence immediately on a joint strategy to address fishing industry renewal and related social and economic adjustment. At the same time, people must be given something to live on until governments have made their decisions. Simply put, governments must decide now, not later.

**Industry-led
adjustment**

Even when governments have fulfilled their responsibilities, individuals will face difficult choices. They will need information and counselling, and they will need to feel that something is being done for them rather than to them. In this, fishermen's organizations, trade unions and processor associations can and must play a leading role.

It would be far better to make use of existing industry organizations in delivering adjustment services, rather than it being done strictly by government or third parties. Such an approach has been used successfully for a number of years in the steel industry. We looked at the example of the Canadian Steel Trade and Employment Congress, and noted that certain innovative features of the program had contributed to its being superior to more

ADJUSTMENTS TOWARDS THE FUTURE FISHERY

conventional approaches. These included an industry-led adjustment process, peer counselling to encourage all workers to assess options and develop a plan, and, early consideration of adjustment measures.

Several communities that exist because of the fishery face an uncertain future. Efforts by both levels of government must be directed at exploring all possibilities for viable new enterprises for these communities. These are matters beyond the scope of this report. However, social and economic adjustment for people and communities is vital for the capacity reductions needed to achieve a viable fishing industry in future.

The need for social and economic adjustment

The resource crisis has displaced thousands of workers and severely affected dozens of communities. A plan for social and economic adjustment must involve adjustment not only for people, but also for communities. It must include targeted training that will contribute towards the profitability of the future fishery, as well as training for jobs outside the fishery. In addition, there must be consolidation of harvesting and processing enterprises which will provide a core of professional fishermen and plant workers for the future. There also must be some government assistance for maintenance of infrastructure, so that the reopening of the industry can be an orderly, planned revitalization with consolidated operations for the fishery of the future.

From time to time, we will again face crises in the fishery, just as we do in agriculture. A renewed fishing industry that is ecologically and commercially sustainable can provide a more stable future for communities and adequate incomes for fishery workers. A failure to renew the fishing industry would lead to instability, increased dependence and — almost certainly — widespread destitution.

The transition from where we are today to where we want to be — with a viable industry, harvesting and processing rebuilt resources on a sustainable basis — will be long and painful. However, unless that transition is successfully carried forward, we will end up where we do not want to be: a run-down industry, widespread destitution and the fishery that is once again treated as the employer of last resort. Then, the cycle of overdependence, overcapacity and excessive pressure on the resource would simply repeat itself.

Making the transition

Transitional assistance should combine enterprise and income support with the appropriate adjustment programs. This would achieve a sustainable core fishery for those who remain, and allow people who leave the

The need for transitional assistance

fishery to move to new employment. Thus, such assistance must integrate two elements:

- enterprise assistance to reduce fleet and processing sectors to their core number, and help maintain the enterprises that remain until recovery occurs; and,
- income assistance for those who are training for new employment outside the fishery.

Choices for individuals

Leaving the fishery — where a long career's worth of skills and capital have been built up — for an uncertain future of trying to acquire new skills and then suitable employment, simply will not be practical for many. For others considering employment outside the fishery, there must be reasonable licence buy-outs, meaningful training and job opportunities related to that training.

People are every society's key resource. Atlantic Canadians have a tradition of being independent and highly motivated, often self-employed, and with a practical and solid knowledge base related to the harvesting of natural resources. Their communities are often small and cohesive. These characteristics should be seen as advantages to be capitalized upon in the opening of new employment opportunities.

May 15, 1994: a critical date

A critical date for fishermen and plant workers affected by the resource crisis is May 15, 1994. This is when both the Northern Cod Adjustment and Recovery Program (NCARP) and the Transitional Fisheries Adjustment Allowance (TFAA) expire. However, it is not realistic to expect that by then decisions will have been made regarding the future of the fishing industry, including which plants and fishing enterprises will be consolidated and which will continue as part of the core infrastructure needed for the fishery of the future.

For certain, some fishermen and plant workers will have taken early retirement. Others will be in training toward employment outside the fishery. Some fishermen will have had their licences bought out. All of these things should be happening. Yet many fishermen and plant workers will be waiting in hope that their fishing enterprise or their plant will operate again in future. Many will be mistaken in this, given the need to reduce significantly both harvesting and processing capacity.

Income assistance until decisions are made

The people and their families will need to know which fishing enterprises and which plants will continue before deciding whether to pursue other opportunities. Decisions on plants and enterprises should be taken by fishing

ADJUSTMENTS TOWARDS THE FUTURE FISHERY

industry renewal boards applying policies and criteria established by the federal and provincial governments. However, until those decisions are taken, governments must continue to provide income assistance to individuals along the lines of NCARP and TFAA. Given the complexity of the work of the renewal boards, many of these decisions probably cannot be taken and implemented before January 1, 1995. Income assistance must be provided until these decisions have been made.

During this period, other measures of social and economic adjustment that provide new productive employment opportunities outside the fishery should be actively pursued. The extent to which this is achieved will profoundly affect fishing industry renewal and adjustment.

Many of those remaining in harvesting or processing enterprises that will continue following capacity reduction will face a difficult period. Where resources have rebuilt so that cod or other groundfish can be harvested, albeit at low quota levels, this will supplement income from harvesting other species, like lumpfish or turbot. In some areas, cod may still be subject to a moratorium. In any case, there will be a period of reduced harvesting and processing while stocks are rebuilding.

Governments will have to establish policies and criteria to assist enterprises and individuals so that they can make it through this period of rebuilding. The fishing industry renewal boards should administer this. Maintaining the core fishery — to keep up infrastructure, safeguard skills and provide some income — is vital. Incentives, to earn as much as possible from the fishery and to rely as little as possible on assistance to enterprises and individuals, are essential.

**Assisting the
core fishery**

However, assistance of this kind should not be available until harvesting and processing enterprises are consolidated to achieve needed capacity reduction. If such assistance was provided before capacity reduction occurred, then this would be no more than a subsidy on overcapacity. That would defeat the purpose of this assistance; that is, to maintain the essential core of the future fishery during the years while the resource is rebuilding.

**Assistance
contingent on
capacity reduction**

To minimize this kind of assistance, all efforts should be made to develop alternative employment opportunities in non-traditional fishery activities. Jobs can be created for the core group of fishermen and plants through projects that were neglected in the past. For example, there are opportunities for technology and skill transfers to fishing communities elsewhere in the world.

**New alternatives
in the fishery**

Many developing countries have fish, but do not have boats, plants, and harvesting and processing technologies.

The India project currently being undertaken by Newfoundland and Quebec fishermen is a good example. Under this project, Canadian fishermen will train Indian fishermen in inshore and offshore harvesting technologies. Other examples include the exploration of the potential for using marine resources for new products, especially for bio-medical uses, and the development of aquaculture projects for different species and fisheries. Governments should support those initiatives that explore new paths and add diversity and vitality to the future Canadian fishing industry.

**Reclaiming
markets**

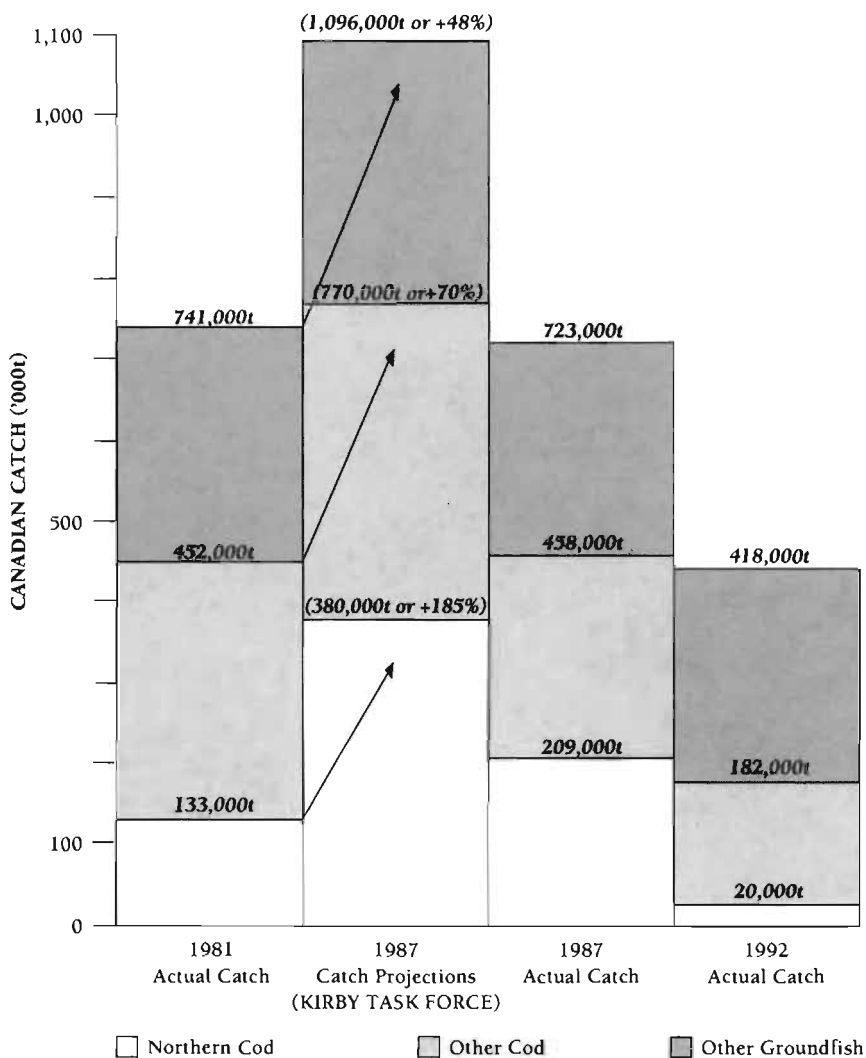
As resources rebuild, markets also must be reclaimed. In the fishery of the future, certain market realities must be faced: new sources of supply, competition from other food sources, and changing consumption patterns. Canada's strong position in U.S. groundfish markets may be difficult to reclaim. However, we may be able to reposition our groundfish towards the prime quality, upscale markets. This market niche is not volume driven and therefore, less price sensitive.

This will require a change in the industry's traditional approach to marketing. It will necessitate consolidating the processing sector, moving toward increasing the use of new technology, developing highly professional, competent and committed workforce, and pursuing market development strategies for premium groundfish products. However, the opportunity represented by value-added production while real is not a panacea. The market niche is limited and will not be able to absorb the full quantity of increased production. There will continue to be a significant dependence on commodity markets.

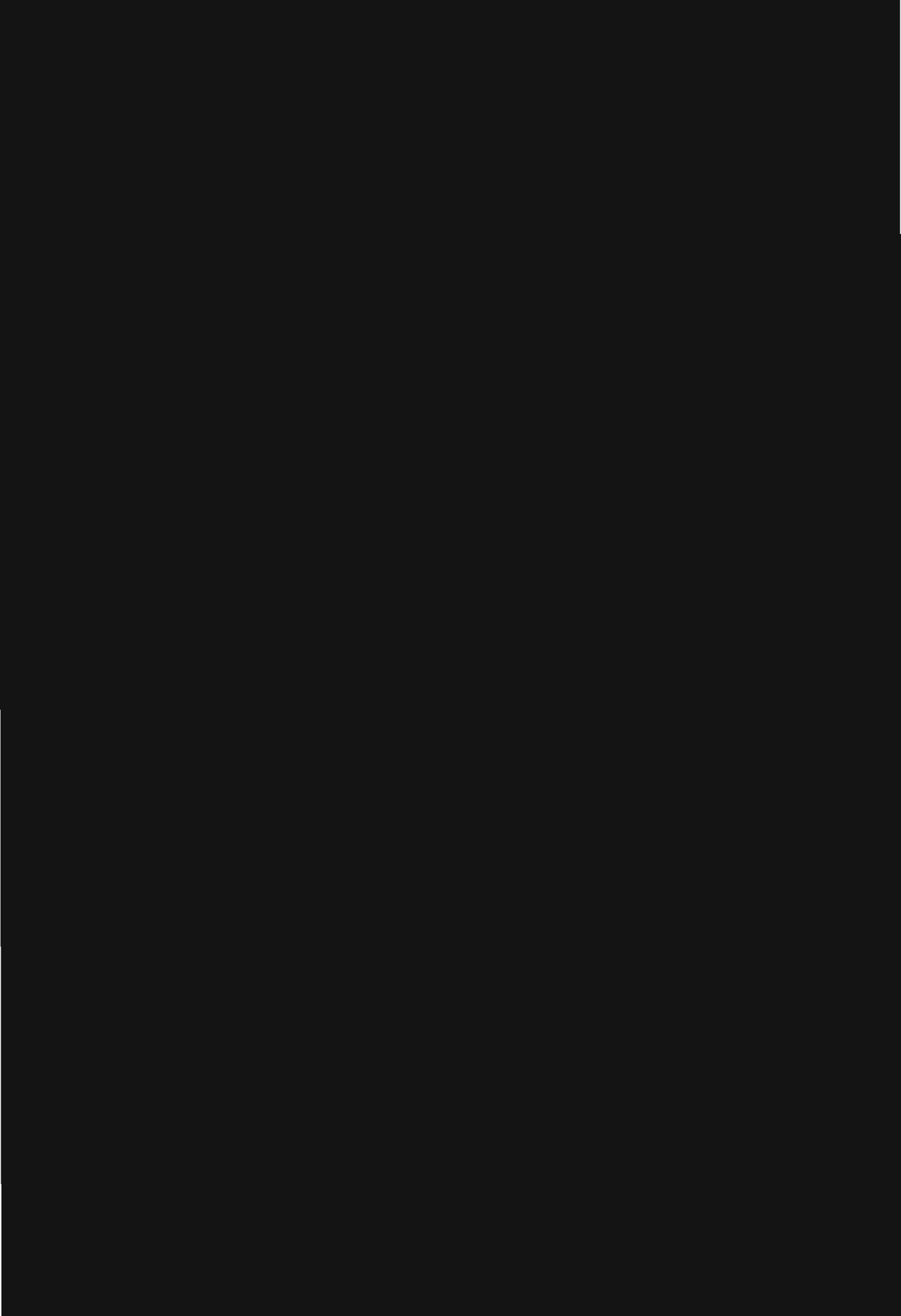
**Different fisheries
will rebuild at
different rates**

Different parts of Atlantic Canada will emerge at different times from the resource crisis. Resources on the Scotian Shelf may rebuild more rapidly than those off the coast of Newfoundland or circumstances may surprise us again. However this turns out, policies and criteria established by governments must be flexible enough to allow renewal boards to administer these in response to local circumstances, with the view to completing the transition to the future fishery as quickly and directly as possible.

FIGURE 4.1
Expectations Versus Reality:
Expected Growth and Actual Catches

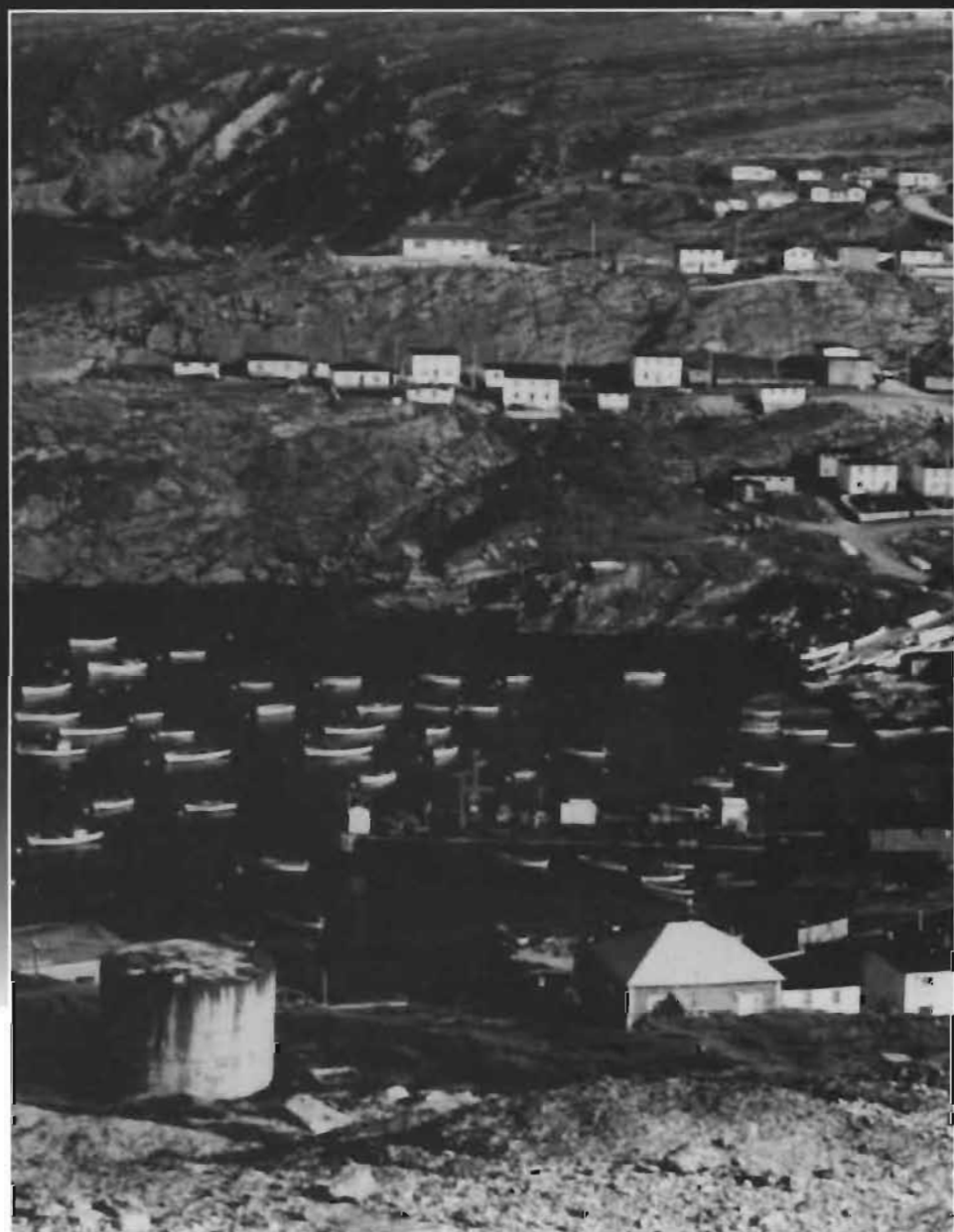


SOURCE: Department of Fisheries and Oceans



Part III

FISHING INDUSTRY RENEWAL



5

C H A P T E R

Resource Supply and Industry Capacity

We were asked to advise on the continued supply of the groundfish resource and the major factors contributing towards a viable future fishing industry. We therefore had to consider the appropriate balance between resource availability and the capacity of the industry to harvest, process and sell.

Striking a balance between supply and capacity

Any sustained imbalance between resource availability and industry capacity is detrimental. If we can catch and process more fish than the ocean can sustainably yield, the fishery suffers because:

- workers' incomes and industry profitability go down because of the capital and overhead costs of fleets and plants; and,
- pressures to exceed sustainable harvests increase, leading to overfishing or setting of catch levels above biologically sustainable levels.

As earlier noted, Canada's Atlantic fishery has a highly diversified resource of shellfish, pelagics and groundfish, yielding — under normal circumstances — a total annual harvest of about 1,200,000 tonnes (see Table 5.1). Before the recent collapse, groundfish usually made up two-thirds of the total annual catch. Because of the sheer volume and the labour intensity of harvesting and processing, the groundfish resource has been the foundation of the industry, and the key factor in determining the industry's harvesting and processing capacity. Before the collapse, cod made up about two-thirds of the groundfish catch. Shellfish — principally lobster, scallops, shrimp, crab and clams — were 13.5 per cent of the landed volume (in tonnes), but nearly 50 per cent of the landed value. Herring and other pelagic fish were nearly one-quarter of the landed volume, but 8.4 per cent of landed value, as these are relatively low-value species.

The volume of shellfish landings has increased during the last decade, partly in response to shifts in consumer demand. By landed value, the most important shellfish species to the fishery are lobster, scallop, shrimp and snow crab. The total Atlantic catch of shellfish has grown from 170,000 tonnes in 1982 to 230,000 tonnes in 1992, with catches of lobster almost doubling in that time.

Shellfish and pelagic catches in the Atlantic fishery

The current status and immediate prospects for shellfish stocks are relatively good. However, we must note that our capacity to predict is always low, given the uncertainties of what happens beneath the ocean surface. Nevertheless, the biomass of most shellfish stocks is above their historical averages. Assuming average levels of future recruitment — that is, the rate at which immature creatures grow to a commercially desirable age — current levels of shellfish catches may be sustained in the next few years. Achieving this will require prudent, responsible management in which fishermen themselves must play an important role. Regarding the major commercial success among shellfish — the lobster fishery — we must note that predictions of future stock status and catches are almost impossible, because so much depends on future spawning success.

Pelagic stocks are generally healthy. They make up about one-quarter of the total volume of the Atlantic catch under normal conditions, but less than 10 per cent of the total landed value. Between 1980 and 1990, annual landings averaged some 280,000 tonnes, reaching a peak of 423,000 tonnes in 1990. They dropped back to 269,000 tonnes in 1992. Catches of these pelagic species — namely, herring, mackerel and capelin — depend largely on global market demand.

**The decline
in groundfish
catches**

That leaves groundfish. We have already described the collapse of this resource, contrary to earlier predictions. As described in chapter 3, the Canadian catch of the 10 principal cod and groundfish stocks traditionally accounted for about 60 per cent of the total groundfish harvest. This catch has dropped from almost 500,000 tonnes in 1988 to what probably will be less than 100,000 tonnes in 1993 and a potential catch of 50,000 tonnes or less in 1994.

The current status and future outlook of these stocks is extremely poor. Biomass levels are at an historical low and recruitment of juveniles into the commercial fishery has been very poor. There is no evidence of any foreseeable improvement in the status of most of these stocks, particularly northern cod.

Two questions face us. How long will it take for these stocks to recover? And, what harvest levels can be expected in the future?

**Groundfish
recovery will
be a long and
uncertain process**

We have neither the information nor the expertise to make detailed projections. However, based on what scientists, fishermen and others have told us this much is clear:

- recovery will take a long time — most of these stocks, especially northern cod, will require at least five to seven years; and,

RESOURCE SUPPLY AND INDUSTRY CAPACITY

- after recovery, catches generally will be substantially lower than those experienced in the 1980s.

There are two main reasons for this:

- Substantial recovery will take up to seven years because of the current biomass and age structure of these stocks. Previously, the age structure was reasonably evenly distributed. Now, there are gaps and anomalies. As the nature of cod's sexual maturation necessitates that females be between five to seven years of age before they can reproduce, we can anticipate a new pattern of very short-term fertility cycles; and
- We will not see in the near future high productivity of most groundfish stocks, because current ecological trends all mitigate against rapid recovery and above-average productivity.

Recent scientific surveys and analyses of the major groundfish stocks indicate a number of factors pointing to slow stock recovery and towards future catch levels. Among these are:

- the spawning biomass of these stocks — that is, sexually mature fish of six or seven years of age and older — are either at their lowest-ever observed level or very close to it;
- recent year-classes — the fish that hatch in any given year — have been very poor numerically, and thus, will contribute little to stock rebuilding;
- poor recruitment to the fishery — that is, very low numbers of fish surviving to the age of four years, at which they are commercially harvestable;
- slower growth of fish — the average weight of fish at a given age has declined substantially since the late 1970s — some 30 to 50 per cent among the various stocks — meaning that in future, significantly greater numbers of fish will be required to catch the same tonnage of fish as in the past. The fact that the fish are smaller also limits their marketability;
- current ecological trends — including, changes in water temperature and salinity, and predator/prey relationships — mitigate against early stock recovery and a return to the high levels of productivity experienced in the early 1980s.

Therefore, we estimate that the total groundfish catch, after the stocks recover, will be at least one-third lower than those experienced in the 1980s. Of course, there will be differences in the potential recovery and catches of individual stocks and fishing areas.

Future groundfish catches will be lower

The total groundfish catch, five to 10 years from now, is likely to be about 550,000 tonnes, of which cod may make up some 300,000 tonnes. However, it must be acknowledged that unforeseeable things may happen. In the fishery, nothing is certain.

The need for a plan to reduce overcapacity

We must therefore plan and adjust for future levels in the groundfish catch that will be considerably lower — at least one-third lower — than those experienced in the 1980s. This will have significant implications for the harvesting and processing capacity of the industry, and in general for the industry's future viability. We therefore must plan for a reduction in both harvesting and processing capacity of about 40 to 50 per cent.

The resulting challenge of adjustment will be most severe in the processing sector, which employs most of the people in the Atlantic fishing industry. Reducing processing capacity means reducing the number of people in a more or less proportionate manner. However, reducing harvesting capacity is largely a matter of reducing fishing power across all fleet sectors. This is a question of technology rather than people.

Overcapacity: a long-standing and widely recognized problem

Overcapacity in the industry has long been recognized. The 1982 Task Force on Atlantic Fisheries commented on the considerable overcapacity in both the harvesting and processing sectors. It attributed this to “undisciplined expansion” following the 1977 extension of the limit of Canadian fisheries jurisdiction to 200 miles. The Kirby Task Force identified excess processing capacity as a major factor in the deep crisis of the processing sector. And this was during a time when the total groundfish catch was about 750,000 tonnes, of which cod made up some 420,000 tonnes — compared with only 400,000 tonnes of groundfish including 180,000 tonnes of cod in 1992.

There was already significant overcapacity when the groundfish resource base was about 90 per cent higher than it is today.

Capacity has increased

We noted in chapter 4 that the 1982 Task Force thought the overcapacity problem could be solved in part by the expanding projected harvest between 1982 and 1987. It foresaw a 50 per cent increase in total groundfish catch, mostly through a 75 per cent increase in cod. It was wrong. Groundfish catches, especially cod, have declined by roughly the proportions they were projected to grow. At the same time, both harvesting and processing capacity have further expanded.

This increase in overcapacity was partly masked by the buoyant market between 1986 and 1988, but it is now the most fundamental structural problem of the Atlantic fishing industry. A 1990 study by the Department of Fisheries and Oceans concluded that regardless of how capacity was measured, “massive overcapacity exists in both the harvesting and processing sector in Atlantic Canada”. While there were variations between different industry sectors and provinces, excess capacities of 50 per cent and more were found to be common in all sectors and regions.

As part of our work, we commissioned a comprehensive review and analysis of the structure and performance of the Atlantic processing sector from 1981 to 1990. Measuring overcapacity in terms of non-producing fixed assets — that is, buildings, machinery and equipment exceeding that required to handle normal production — this study estimated overcapacity at almost \$200 million in 1991, or almost one-third of the industry’s total fixed assets. It also concluded that the industry was reasonably profitable in only two years during the last decade. Our observation is that this is symptomatic of an industry that is oversupplied with a multiplicity of poorly financed commodity producers.

The fishing industry itself has long recognized this overcapacity. In 1989, an industry-led committee in Nova Scotia reported that the Scotia-Fundy inshore groundfish fleet — some 2,300 longliners and gillnetters, and 400 draggers — had twice the capacity needed to harvest available groundfish resources. At that time there were another 1,000 inshore vessels licensed for groundfish, but harvesting other species, such as lobster. Were they to return to groundfish harvesting, the entire fleet would have four times the fishing power needed to harvest available groundfish.

Following the northern cod moratorium in 1992, a Newfoundland tripartite committee of industry, provincial and federal representatives concluded that even after a projected stock recovery in the late 1990s, the existing processing capacity would be far too great. (Current capacity includes some 240 plants, 163 of them inshore groundfish plants, and 11 offshore plants.) The committee recommended a permanent reduction of the Newfoundland inshore processing capacity by at least 40 per cent. It was estimated that it would cost about \$50 million to retire permanently 65 processing licences and plants.

Clearly, harvesting and processing overcapacity within the Atlantic fishery must be reduced. This must be done in a way that brings better balance between resource availability and industry capacity.

Planned capacity
reduction

While, we did not consider detailed policies or programs to achieve this, we made the following observations:

- Overcapacity is one of the fishery's most fundamental problems, which left unrectified will be fatal to the industry's viability;
- Reduction of itself is insufficient — it must be strategic reduction to achieve an appropriate balance of harvesting and processing capacity; and,
- Co-ordinated, collective action by industry and the two levels of government will be essential to effectively rationalize capacity.

A method of harvesting capacity reduction proposed to us is the expanded use of individual quotas (IQs) and more specifically, individually transferable quotas (ITQs) where such management systems do not now exist.

ITQs are harvesting entitlements to predetermined shares or quantities of a given stock quota, and can be traded for cash. Such a management regime means dividing the common gear sector or fleet quota into individual quotas assigned to specific boats or operators. In turn, these operators could assign them to others.

Today, all fisheries in the Canadian offshore are managed under some form of individual quota system. However, these are allocations to individual enterprises or companies, referred to as enterprise allocations (EAs), rather than individual boat quotas. Such allocations can be transferred on a temporary basis, but not permanently. Individual quota systems — some involving permanent transferability, some not — also have been introduced in recent years in certain inshore fleets in the Gulf of St. Lawrence and on the Scotian Shelf.

Regarding ITQs, we observed that:

- individual quotas provide security of access to the resource, and are intended to offset the negative consequences of all-out competition for the stocks resulting in overcapitalization, poor quality, and glut landings;
- certain economic benefits do accrue to individual operators or companies under such management systems in terms of savings in capital and operating costs, market advantages and planning;
- no social consensus exists in their support; indeed, inshore groundfish fishermen often blame those operating under individual quotas for destroying the resource, claiming they under-report, highgrade, discard and dump catches;

- wider use of unfettered ITQs may lead to dislocation of harvesting and processing activities, as quotas are transferred, thereby transferring work across communities and coastal areas; and,
- under this system, quota enforcement may become complex, and therefore, more costly.

Inevitably, ITQs are tied up with the question of open entry. That will be considered in the next chapter: Access to the Resource. Before turning to that, however, we should note the impact of resource supply and industry capacity on markets.

Markets have been lost because of the resource crisis, the decrease in seafood consumption, the increase in substitute species and more favourable prices of other food sources. These markets can be regained only through a coherent, comprehensive and aggressive market development program. This must be based on continuity of supply, consistent quality and better “value for money” than competing seafood and other food sources. This will require a dual strategy of cost reduction and value-added production.

Effects on Markets

Value-added production can be achieved by increasing the volume of processing directed to individually quick frozen portions. Prices are higher for these products than, for example, cod blocks.

Cost reductions are possible through better use of technology and lower unit processing costs. Knowledgeable and technologically competent workers will not want to work in an industry offering only subsistence incomes. Therefore, wage reductions are not the answer. However, industry consolidation can reduce unit overhead costs by increasing utilization rates.

TABLE 5.1
Atlantic Coast
Average Annual Landings
1984-1988

Species	Volume		Value	
	Tonnes	%	\$000	%
Groundfish	757,835	62.1	363,315	42.6
Cod	471,077	38.6	227,037	26.6
Other groundfish	286,758	23.5	136,278	16.0
Shellfish	164,943	13.5	418,913	49.0
Lobster	35,869	2.9	227,250	26.6
Other shellfish	129,074	10.6	191,663	22.4
Pelagic	297,009	24.4	71,970	8.4
Herring	206,083	16.9	34,274	4.0
Other pelagic	90,926	7.56	37,696	4.4
Total	1,219,787	100.0	854,198	100.0

Atlantic Coast Landings: 1992

Species	Volume		Value	
	Tonnes	%	\$000	%
Groundfish	455,098	47.7	309,307	32.8
Cod	185,577	19.5	149,535	15.9
Other groundfish	269,521	28.2	159,772	16.9
Shellfish	230,044	24.1	571,292	60.6
Lobster	40,554	4.2	306,632	32.5
Other shellfish	189,490	19.9	264,660	28.1
Pelagic	268,598	28.2	62,294	6.6
Herring	208,827	21.9	26,533	2.8
Other pelagic	59,771	6.3	35,761	3.8
Total	953,740	100.0	942,893	100.0

SOURCE: Department of Fisheries and Oceans' Catch and Effort Data.

NOTE: Landings figures are always greater than quota catch figures as they also include harvest of non-regulated species.

6

C H A P T E R

Access to the Resource

Controlling access to the resource is fundamental to a soundly managed, renewed fishery. Conservation, viability of fishing enterprises, and adequate and stable incomes for individuals are all related to it. It may seem to fly in the face of the traditional “right to fish”, but the current state of the Atlantic fishery is all too powerful a witness to the fact that the fishery requires careful, knowledgeable management, and that such management is impossible if the right to fish is absolute.

Controlling access is fundamental

Current control of access to the resource, especially groundfish, is not particularly effective, although elements of the machinery of control — personal registration of fishermen, species licensing, vessel registration — are in place. Existing provisions fail, especially in the inshore and midshore fisheries. While they control, to some extent, the number of fishing enterprises, they cannot control the number of vessels or fishermen entering the industry. Nor can they limit the actual harvesting power brought to bear on the resource. Fishing enterprises can, at will, increase a vessel’s harvesting capacity through superior equipment, and the number and capacity of fishing gear used.

We should note that the concern of the Task Force is primarily with access, rather than allocation. Controlling access means control over the total fishing effort or total impact on the resource. This involves the regulation and control of who can fish, the gear and vessels used, and the species or stocks fished by area and season. Allocation refers to who gets how much.

Access not allocation

Under the current system of commercial fisheries licensing, the most basic form of access is conferred by the personal fisherman’s registration — an annual licence. Registration as a part-time fisherman is open to almost anyone who wants it. Anyone who works as crew or as a part-time fisherman during two consecutive years can seek registration as a full-time fisherman, and will receive that status almost automatically. An individual may be similarly qualified for a species licence if one is available.

Current licensing system

A species licence confers the right to fish for one of the “limited entry” species harvested under federal jurisdiction, of which the 14 major ones are: cod, flounder, redfish, herring, mackerel, capelin, lobster, crab, shrimp, scallops, squid, salmon, tuna and swordfish. A species licence is not a permanent privilege, and does not confer a proprietary right to fish. However, in practice, it is often treated this way. In principle, licences are not transferable, although the Minister may reissue a licence from an existing holder to a new one subject to certain conditions. Nevertheless, the fact remains that fishermen like many others in the Canadian economy conduct an unofficial traffic in licences.

Vessel registration requirements are that every vessel used in a commercial fishery must be registered annually in the name of one licence holder. However, registered fishing vessels are not necessarily active in the fishery, although they may enter at any given time.

In sum, the deficiencies of the current system are:

- open entry to the fishery — since anyone 16 years or older can acquire a commercial fisherman’s registration;
- lack of effective differentiation between *bona fide* professional fishermen and those with only a marginal interest, including those who fish primarily to qualify for UI;
- individuals can enter and leave the fishery at will, without regard to impact on the resource or on those who permanently depend on harvesting it;
- a limited entry species licensing system that has operated inconsistently and ineffectively, and therefore failed to limit entry; and,
- the system by which access to full-time status and limited entry species licences may be acquired other than through demonstrated competence and experience in the fishery.

**Overcoming
inadequacies in
the current system**

Dealing with these problems will involve at least three things: controlling access at the enterprise level; removing virtually automatic progression in the licensing system; and revising vessel registration.

Controlling the number of enterprises, especially in the traditional ground-fish sector, would limit individual participation to the level required for the successful operations of duly licensed enterprises active at any given time. People would rotate into and out of the fishery as a function of actual operating requirements, rather than on the basis of more personal objectives only tenuously related to the fishery.

ACCESS TO THE RESOURCE

Removing virtually automatic progression entails setting standards of qualification, and is the point at which professionalization of fishermen can be addressed. At present, two years as a crewman or part-time fisherman qualifies an individual almost automatically for a species licence if one is available, regardless of any other qualification or experience — or lack thereof. Requiring specific qualifications is a step towards ensuring that the resource is professionally, responsibly and knowledgeably harvested and managed.

Revising the vessel registration system would mean ensuring that the real owner/operators of commercial fishing vessels are identified, verified and positioned to receive the benefits and privileges conferred by the licence. Many currently registered vessels clearly do not fish commercially. A revised system would allow inactive vessels, or vessels whose primary function is not commercial fishing, to be culled from the registry. This would help eliminate latent overcapacity. It also would ensure that the registry is a meaningful information base, rather than the current undifferentiated mixture of working vessels, recreational vessels, occasionally used vessels, and those that will probably never be used in the fishery again.

Such an entry control system would go far to reserve the commercial fishery to those whose primary involvement is full-time commercial fishing. Casual or recreational licences might be established in some areas to permit fishing for strictly personal use, with bag limits or other controls, to meet the needs of those whose interest in the fishery is not that of full-time employment. Such licensees would not be eligible for fishery support programs. However, providing them with these licences would meet some of the expectations associated with traditional access to the fishery.

The collapse of the groundfish resource forces us to recognize that the right to fish is not and cannot be absolute. It also forces us to face up to the question of stabilizing the technological assault on the resource. Traditional methods of specifying vessel size and gear type, coupled with quotas and a limit on the number of enterprises, may have been adequate in the past. However, there is no limit on the other technology an enterprise can use to locate and catch fish. In the past, relatively inefficient equipment ensured that more fish got away than were ever caught. Tomorrow's fishery will demand a responsible and professional approach to the harvesting of fish. In turn, that will demand a responsible use of appropriate technology.

**Technological
assault on the
resource**

What we cannot countenance ever again is the kind of decision making that looks on the fishery not as a complex industry based on a finite and

**History should
not repeat itself**

fluctuating resource, but as the employer of last resort. The Task Force is all too aware of the history of the fishery, and the kind of thinking exemplified by — to take just one example — the granting of lobster licences to miners thrown onto the job market because a mine had closed. This is an inappropriate use of the resource, defying any logic in access or allocation.

We have noted that historic access to or participation in harvesting fish stocks has long been an underlying principle in the allocation of Atlantic fishery resources among different user groups. Some recognition of this historic access — once the stocks have recovered — is essential.

Priority access to those who have an historic attachment

The Task Force believes that coastal regions and communities with a strong historic role in the development and exploitation of certain fish stocks should have some form of priority access to those stocks once they have recovered. For example, this would mean that the traditional fixed-gear, inshore sector, long dependent on northern cod, should continue to have priority access to this stock once that resource has recovered. However, there will still need to be an adjustment in the number of people and fishing enterprises.

Priority access to cod, flounder and redfish stocks on the southern Grand Banks should be accorded to the offshore sector that has historically had access to these resources. The same general principle — recognizing historic access in future allocations — should also be applied to groundfish stocks on the Scotian Shelf and in the Gulf of St. Lawrence. The question of access to the resource is quite separate from the harvesting technology employed. The communities on the south coast of Newfoundland as well as many of those in Nova Scotia traditionally fished these stocks in times before modern technology. This history should be recognized in allocations in the future.

Reallocation is not the answer

Reallocation of the resource has been a constant theme among those seeking to redress the problems of the Atlantic fishery. Too often it has been seen as the answer to resource declines, industry overcapacity or both. The Newfoundland government in its consultation document “Changing Tides” stated the case against reallocation among fleet sectors as:

“...Those resources on which the small boat sector has traditionally depended should continue to be allocated on a priority basis to this fleet sector. Similarly the large vessel sector should continue to have priority access to those stocks in which it has historically been the principal participant.”

ACCESS TO THE RESOURCE

The current resource crisis will not be solved, nor will the chronic over-capacity in the harvesting sector, by taking one fleet sector's allocation and giving it to another fleet sector.

Beyond the issues of allocation among fleet sectors, there is the linkage between coastal areas and the resources upon which they have traditionally relied. Sometimes, what are presented as fleet sector or gear technology issues are really demands from one coastal area to have resources reallocated to them from another. This is no way to decide the future of coastal areas and the resources upon which they have traditionally relied.

Governments must establish and properly administer fair and equitable public policies. That responsibility includes explaining why some measure is not being taken even though it might command public support, like the possible reallocations of groundfish resources among coastal areas. In any case, governments must maintain the link between coastal communities and the resources upon which they have traditionally relied.

Meaningful steps towards industry-government co-management of the resource would be welcome. For example, in the past fishermen and processors have asked for trip limits on crab, to extend the season and avoid a race for the fish. The result would have been better quality, and a better pack mix, instead of excessive overtime and a reduced calendar period of employment. If opening and closing dates could be set by agreement between the Department of Fisheries and Oceans and a consensus of harvesters and processors on a regional basis, with particular attention to the seasonal aspects of marketing, the benefits would include higher quality product, improved catch rates and a better operating season for harvesters as well as processors.

**Shared
responsibility**

Such an approach also would contribute towards providing better "continuity of supply" to the processing sector. Having access to a continuous supply of high quality raw material is fundamental to the long-term success of any manufacturing enterprise. It allows assets to be used effectively, a reliable workforce to be retained, markets to be served, debt service requirements to be met, and adequate returns on investment to be realized.

**Continuity of
supply**

Discontinuity of raw material supply is a long-standing problem for the processing sector of the Atlantic fishing industry, and particularly for processors depending largely or entirely on inshore supplies. This problem has been greatly exacerbated by the widespread collapse of the groundfish resource. At this time, many plants, whether they depend on inshore or offshore supplies of fish, face severe problems of access to raw material supplies.

The main factors contributing towards continuity or discontinuity of supply are nature, economics and government regulation. Nature — biological and climatic factors — plays a major role in the seasonality of fish landings, although there also is considerable seasonality caused by fisheries management and regulation. The major economic factors include overcapacity and the resulting intensive competition among fish buyers which have led to a supply-driven processing sector. All these factors are reinforced by government regulation such as the relatively open entry to the processing sector, management of individual fishing seasons, and regulatory constraints on the industry.

Improving supply continuity in the processing sector would involve some fundamental changes in the way the industry is structured and managed. Chiefly among these are reduction in the excess capacity of the processing sector; restriction on entry into the processing sector, including strict control on so-called 'suitcase buyers' which adversely affect established processors in parts of the Maritimes; and changes in certain management practices and regulations.

7

C H A P T E R

Professionalization of Fishermen

Fishermen have taken the lead in moving forward to professional status; that is, the recognition by society as well as fishermen that they represent a body of skill and knowledge that can be shared, developed and passed on. Where organizations of full-time, experienced fishermen exist in the Atlantic fishery, they have recognized and advanced the cause of professionalization in discussions over several years.

**Fishermen have
taken the lead**

Fishermen's groups realize that in a modern fishery, there must be controlled access to the resource and efficient management of the fishery. They know that this can only happen when fishermen have equal status with any other professional groups in society as experienced, knowledgeable professionals whose standing is recognized. They also realize that, without this status, the tendency will remain to look upon the fishery as the employer of last resort, open to anyone, valued not for its productive contribution but as a gateway to UI benefits.

Many elements are common to most professional groups in Canada. These usually include:

**Professional
groups in Canada**

- an organization representing members' interests, liaising with governments or the market, undertaking marketing and promotion, and developing training programs for new entrants and for members wanting to upgrade their skills and knowledge;
- input to establishing certification standards and entrance requirements;
- influence on the prices received for their products or services, and in many cases, their own income security programs;
- formal involvement in the formulation of policy and in management and regulation of their industry or sector; and,
- a corresponding degree of social respect or status in acknowledgement of their membership in a professional group with recognized skills, expertise, standards and responsibilities.

**Professionalization
of the fishing
industry
internationally**

Throughout the industrialized world, fishing is becoming more professionalized. Fishermen are increasingly recognized as professionals with specific skills and expertise. Modern equipment for navigation, fish finding and harvesting has made fishing a technically sophisticated industry, both inshore and offshore. Consumer demand continues to grow for a high quality product, and standards for food handling and quality control are becoming more and more stringent. Fish is no longer a food but a valuable commodity, and fishermen and fish plant workers must work to correspondingly high standards.

Against this background, we are faced with the reality that in Canada's Atlantic fishery, there are effectively no professional standards or training requirements. Any 16-year-old can become certified as a part-time fisherman upon payment of a nominal fee. It is entirely possible to go from being a complete novice to owner/operator of a fishing vessel without ever taking a course or passing a competency test. It is possible such an owner/operator could sail — if sufficiently foolhardy — with a crew who were duly registered fishermen, but were neither competent mariners nor fishermen, nor had ever been on board a boat.

In pointing out the need for professional status in their industry, fishermen see as benefits: improved levels of income; improved stability of income and employment; stronger fishermen's organizations; greater involvement in the management of the fishery; and more generally, the benefits flowing from improved status in society.

These benefits are not at the expense of the society at large. The wider public interest also may be served by other benefits of professionalization and organization. These include: enhanced information exchange between fishermen and government; greater compliance with industry standards and regulations; and a better balance between the resource and the harvesting capacity. Fishermen are aware that their counterparts in agriculture have benefitted not just from publicly subsidized agricultural colleges and other educational programs going back many decades, but from the collective strength that is based in their industry organizations.

**The definition
of a professional
fisherman**

What is a professional fisherman? Broadly speaking, a professional fisherman is someone who is experienced, highly skilled and well trained in the fishing sector. This individual is a vessel owner/operator or is a steady crew member who fishes for the full season, and depends on fishing for his livelihood and future. The professional fisherman is involved in the management

and development of the fishery through fishermen's organizations. He is respected by his peers and the general public as an accredited member of a professional group.

The advantages of a professional fishing workforce have not eluded Canada's main fish exporting rivals and trade partners. Our review of the industry in Iceland, Norway, the United Kingdom and New Zealand shows that they are undertaking professionalization initiatives for their fishermen and plant workers. Their primary focus is to improve the quality of their products and the efficiency of their operations. They see professionalization as a major factor in remaining competitive.

**Professionalization
in other countries**

For example, the Norwegian Fishermen's Association is the recognized, legal representative of the harvesting sector, independently funded by a levy on the sale of members' fish. No significant policies or regulations affecting the industry are considered by government without the Association's knowledge and approval. It negotiates important employment and income benefits for Norwegian fishermen.

The United Kingdom also has established fishermen's organizations in its fishery, resulting in an innovative system of co-management and market development. This system optimizes distribution of available quota within a given region, facilitates distribution of resources among communities and provides opportunities for involvement in regulation and enforcement. Such a management regime increases awareness and accountability among fishermen; and involves them in quality assurance.

The productive core of Canada's Atlantic fishing community are *de facto* professionals already, and should be recognized as such. These individuals are the full-time fishermen who catch and land most of the fish, and take stewardship of the resource most seriously. However, in an increasingly technically complex and economically competitive world, there is a limit to what can be done through self-training and self-education, and to conveying skills only through on-the-job instruction. And, self-training, even when most conscientiously undertaken, inevitably means uneven training across the workforce. This is what our partners and competitors have realized.

Among the identified results of professionalization are significant improvements in the conservation, management, enforcement, data acquisition, quality control, health and safety, and marketing aspects of the industry. Furthermore, with professionalization, fishermen assume greater responsibility

**Common threads of
professionalization**

for the protection of the resource. Self regulation or co-management through professional organizations represents a shift in management responsibility and control. Professionalization is essential if our proposed changes to registration and licensing are to go into effect. Ultimately, it contributes to the creation of a self-sustaining, viable fishery that benefits fishermen, coastal communities and the society at large.

What Atlantic fishermen's organizations have already achieved

As previously noted, fishermen's organizations in various regions of Atlantic Canada already have begun work on professionalization, and discussions with government on the development of professionalization criteria and standards have been ongoing for some time. In Québec, a number of regional fishing associations have formed the Alliance des pêcheurs professionnels du Québec (APPQ). Following two years of consultations, APPQ has proposed a certification system as part of professionalization and training. Also, the Alliance was instrumental in the establishment of new provincial legislation permitting fishermen's groups to form marketing boards that manage the interface between fishermen and processors.

In Newfoundland, the Fishermen, Food, and Allied Workers union (FFAW) has developed a comprehensive certification and training system. It was based on consultations in more than 100 community meetings, involving more than 4,000 fishermen and the majority of enterprises. This system was ratified by some 4,400 fishermen. It proposes four levels of accreditation: New Entrant, Level I, Level II, and Master Fisherman. Existing *bona fide* fishermen would be "grandfathered", but encouraged to upgrade their skills, as many have already done. New entrants would have to meet required standards of competency before participating in the fishery. Training for inshore fishermen would meet Coast Guard Standards.

From the work done by Atlantic fishermen's organizations and from looking at what has been done in other countries, it seems clear that a professionalization program has four major elements: organization; education and training program; certification and registration requirements; and a co-ordination function.

Organization

Where a province-wide certified fishermen's organization exists — as in Newfoundland — it should be recognized as the appropriate focal point for professionalization. Where none exists, the creation of self-directed, financially independent fishermen's organizations should be a priority. In those provinces

where there are more than one regional or separate gear sector organization, these groups should be assisted in the formation of provincial umbrella organizations to act as the main body dealing with professionalization.

Fishermen's organizations should develop and implement programs for training new entrants. These programs should upgrade the knowledge and skills of *bona fide* fishermen, provide continuing education for fishermen, and train staff to educate and train fishermen.

Education and training

Education and training programs for fishermen must be linked to certification and registration requirements based on criteria for professional competence and experience. Such certification and registration ultimately should determine access to fishery resources through licensing and allocations. As well, it should limit access to government services and programs by targeting them to certified fishermen and fishing enterprises.

Certification and Registration

Fishermen's organizations also may co-ordinate income and benefit programs for fishermen. This will ensure that these programs are properly designed and administered to meet the needs of fishermen.

Co-ordination

Professionalization cannot be imposed. It requires the full understanding of and broadly based acceptance by fishermen. For this reason, fishermen's organizations ought to play the lead role in any program of professionalization, while governments' role should be to facilitate and support such programs. Fishermen's organizations could be especially important in countering the factors working against professionalization. Among these are: a tradition of open access to the fishery; a lack of familiarity with conservation and environmental issues; the perceived threat of any educational or training requirements; and, in some places, a distrust of collective action or opposition to the establishment of professional organizations. In fact, the lack of organization among fishermen is probably a significant obstacle to the establishment of any professionalization program.

Goals of professionalization

Professionalization will mean restricting access to the fishery: this must be explicitly acknowledged from the beginning. As we mentioned in the previous chapter, there must be provisions to look after the legitimate interests of part-time and marginal participants. These may include special classes of licences for casual or recreational use, where and when appropriate.

With strong professional organizations, it will be possible for fishermen to participate actively in conservation policies and programs that will reduce and remove excessive pressure on the resource. Also, it will be possible for them to be central players in any program to reduce excess capacity in the various fleets affected by the groundfish crisis. In general, professionalization will enhance the dignity of fishermen. Through organizations, fishermen will be empowered: they will have a voice, a status, and a recognized strategic role in all aspects of the management and development of this important industry. The search for an equilibrium between the people and the resource requires well-organized professional fishermen.

8

C H A P T E R

Reforming the Income Support System

Reviewing the income support system for those who fish the Atlantic resource is at the heart of the Task Force's mandate. Our objectives were twofold: to propose a more effective supplementation of income; and, to propose a means of greater income stabilization. To this end, we reviewed a wide range of policy and program options. Our conclusion is that the best way to reform the income support system for the fishery is through improvements to the current unemployment insurance system, complemented by certain stabilization options. Improvements to UI should include a more precisely targeted system, better incentives both to encourage productive activity and discourage distortions or misuse, and a reporting system that will lead to a credible, consistent data base as part of better management of the fishery.

The need to reform the existing system

Unemployment insurance is an important fact of life for many workers in the Atlantic fishery. However, the system is confused and inappropriate; that is, it sometimes penalizes those who put the most effort into the fishery, while rewarding others whose relationship with the fishery barely exists. In large measure, this has arisen because the program — both in general form and as Fishermen's UI — has failed to meet the special and changing needs of the fishery workers themselves. Reform is long overdue.

A fisherman has access to three forms of UI: regular, seasonal Fishermen's UI and year-round Fishermen's UI. Regular UI is available to wage-earning fishermen, and Fishermen's UI to owner/operators, skippers, and co-adventurers.

Types of UI available to fishermen

Regular UI is the kind available to most wage-earning Canadians. It is available to those fishery workers who are paid wages, such as plant workers and trawlermen on offshore trawlers. Traditionally, fishermen have been co-adventurers; that is, they provide their labour in exchange for a share in both the catch and the risk, rather than for a wage. However, this is changing. As the capital cost for vessels and equipment rises, or the ability to pay wages increases, the tendency is for vessel owners to hire crew rather than take on sharemen.

Seasonal Fishermen's UI is the most commonly used benefit. Usually, the owner/operator, partners and others sharing in the catch will receive benefits between November 1 and May 15 for work done during the previous March 31 to November 1 qualifying period. To qualify, a recipient must have had at least 10 weeks of insured employment, six of them from fishing; and there are various ways of calculating the benefit depending on a number of factors. The most a recipient can obtain is 27 weeks at 57 per cent of insured earnings.

Year-round Fishermen's UI is rarely used because most activity in the Atlantic fishery is seasonal, and regular UI provides more flexible coverage for the year-round worker. In 1990, benefits under year-round Fishermen's UI amounted to about .5 per cent of total fishing benefit payments.

The evolution of Fishermen's UI

The separate UI program for self-employed fishermen was created in 1956 to provide for the special circumstances of fishermen that set them apart from most Canadian workers. First, co-adventurers are considered to be self-employed because they are paid a share of the catch instead of a wage; and as self-employed they are not eligible for Regular UI. Yet the reasons for excluding the self-employed from Regular UI do not apply to co-adventurers. They do not decide how long or how often the enterprise operates, nor can they lay themselves off. Second, fishermen's earnings are interrupted by factors over which they have no control: the length of the fishing season, and vagaries of weather, ice conditions or catch failure. Third, fishermen tend to work in areas where alternative employment opportunities are few and incomes are low.

Unfortunately, the uniqueness of the fisherman's situation is not reflected in Fishermen's UI. The program is not specifically targeted to fishermen, nor tailored to how they work. Fishermen's UI defines a fisherman as a self-employed person engaged in making or handling a catch, rather than as an employee or sportsman. It defines a catch as "any natural product or by-product of the sea or any other body of water, caught or taken by a crew".

Handling or making the catch, besides the obvious elements, also may include loading, unloading, transporting, or curing the catch. In addition, it may involve preparing, repairing, dismantling or laying up the vessel or gear and, vessel construction. The catch is measured as the value paid by the buyer. The catch and its participants are recorded at the time of delivery, based on an oral or written declaration by whoever makes the delivery to the buyer or his agent. Thus, a "fisherman", for the purposes of Fishermen's UI, need not

be a registered fisherman. He need never have been on a boat, let alone have been a professional fisherman. Such provisions attract the participation in the fishery of some whose attachment is marginal, and who participate only to receive benefits.

One of the features that Regular UI and Fishermen's UI have in common is the concept of the insurable week. This is based on the peculiar notion that fishermen work a regular work week. Above all, fishermen's incomes are affected by the quantity and price of the resource. Even when fishermen are attempting to fish full time, the concept of insurable weeks does not take into account the way fishermen have to work given the constraints on their harvesting activity. Therefore, the patterns of work may be distorted in an effort to conform to the insurable week concept and maximize potential benefits. Fishermen may elect to go out fishing even when they know it will not profit their enterprise, just to ensure the crew can claim insurable earnings for that week. Alternatively, they may report the timing or value of a catch so as to maximize insurable earnings in a given week

There is also the matter of the seasons. Benefits are normally paid on the basis of a winter or a summer fishing season. In either case, there is a qualifying period — the fishing season — and a benefit period, during which the recipient receives benefits based on earnings from the fishing season. The qualifying period begins six weeks before the end of the benefit period, and during this overlap the fisherman can fish (and accumulate insurable earnings) or not fish (and go on collecting benefits). During the benefit period, fishermen can earn up to 25 per cent of benefits on a weekly basis without penalty. Beyond that, the earnings are deducted from benefits, on a dollar-for-dollar basis.

However, it is noteworthy that seasons as specified under Fishermen's UI do not necessarily correspond closely with the actual fishing seasons. These vary considerably by region, depending on species and gear type, and may change from year to year. There may be long gaps between the end of the fisherman's actual season and the beginning of the benefit period, and during this time, the fisherman may have no income at all. As well, a fisherman may be discouraged from fishing during the benefit period, since he risks losing benefits and cannot claim the earnings as insurable. Therefore, the benefit period and the qualifying period should be adjusted to accommodate the fishing seasons that fishermen actually work, and to encourage them to work during these seasons.

Finally, Fishermen's UI lacks a key stabilization feature, in that it provides a stabilizing element during the off-season, but not for poor seasons.

**Why some
fishermen use
Regular UI**

The lack of fit between statute and reality is no doubt a factor in fishermen's increasing use of Regular UI. In 1981, about 10 per cent of harvesters in the Atlantic fishery worked for wages. This had risen to about 25 per cent in 1990. The composition of UI benefits has followed a similar pattern. This shift to wage-earning has been generally true in all provinces except Newfoundland where by 1990, the figure remained at about 10 per cent, not including offshore trawlermen. Nova Scotia was at about 20 per cent, Prince Edward Island and Quebec at 34 per cent, and New Brunswick — largely because of its aquaculture industry — at 52 per cent.

From a vessel owner's point of view, it may be advantageous to pay a wage if he:

- is in a relatively well-paying fishery such as lobster, where sharing the risk is less to his benefit;
- owns an enterprise in which he alone has a considerable investment, so he alone receives the return on the investment; or,
- is part of a family business, so that wages paid to family members will offset potential losses if the catch is of low value.

From the point of view of the crew member, a wage reduces his risk — he will be paid regardless of the catch — and provides access to Regular UI benefits.

Another factor favouring wages is that actual fishing seasons have been short in recent years. When the season is very short, a fisherman may receive from Regular UI benefits that are both more timely — the recipient is eligible as soon as that employment is interrupted — and probably last longer. Therefore, some fishermen have changed their working arrangements through incorporations or leases to qualify for better coverage, at least temporarily, from Regular UI.

**The need to
restructure
Fishermen's UI**

What all this tells us is that Fishermen's UI, as currently structured, no longer meets the needs of fishermen in a significant number of cases. Its reform is long overdue. It has no meaningful definition of a professional fisherman and it is not flexible enough to meet the reality of the constraints facing the way the fishermen have to operate, and cannot deal with stabilization in any substantive way. As it cannot meet changing circumstances, and Fishermen's UI needs to be changed.

The shortcomings of Fishermen's UI have not escaped the attention of those who have previously examined the Atlantic fishery. Various task forces and commissions have examined this question during the past 24 years. Essentially, they have all recommended that Fishermen's UI be phased out or simply abolished, and replaced with some other program or combination of programs. Nevertheless, none of them established clearly that the alternatives they proposed would in fact overcome the problems of the existing system.

For example, an earned income supplement or a production bonus have been suggested as ways to encourage more fishing effort for low income fishermen. However, such programs could end up forcing smaller enterprises to make unnecessary capital investments or pressuring governments for boat and gear subsidies so that fishermen could have a better chance of receiving maximum benefits. On the other hand, removing Fishermen's UI in favour of an untested substitute seems a dubious strategy. That previous recommendations have not been implemented suggests what the Task Force believes: a renewed, invigorated Fishermen's UI, suitably supplemented by other programs, is the most effective solution.

- We believe that the fundamental concept of Fishermen's UI — to provide income support during seasonal interruptions of work — is sound. Further, we think it can be modified to improve its capacity to provide stabilization. Much can be done within the existing program, and we have some recommendations.

A renewed Fishermen's UI would address two major objectives: to target the program to full-time, professional fishermen; and, to tailor program design to the manner in which fishermen actually work. At present, UI criteria for eligibility are in no way co-ordinated with the Department of Fisheries and Oceans' registration and licensing system. For this reason, benefits may go to people for whom Fishermen's UI was never intended. Furthermore, as we have earlier discussed, the definition of sufficient fishing effort during the season is very imprecise and therefore, must be re-examined.

**The objectives
of a new system**

Thus, eligibility for Fishermen's UI should be tied to status as a registered, professional fisherman. This status is determined at the start of the season through the licensing and registration system and through a calculation of significant effort made during the fishing season, based on actual participation.

This approach would restrict Fishermen's UI to professionals registered to fish, either as a skipper with an active species or vessel licence — who also would be the designated seller of the catch — or as a partner or shareman, with

where necessary adequate provision for replacement workers. Under this system, crew working for wages would continue to be eligible for Regular UI. These benefits also may be available to some of those on the margins of the fishery including land-based workers such as baiters, on-shore harvesters such as clam diggers, and aquaculture workers.

The concept of the designated seller is new. It reflects our belief that the point at which the catch is sold is critical to recording accurately what was caught when and by whom, and to whom it was sold and for what. The existing system is inadequate and cannot meet the needs of the fishery of the future.

**Eligibility under
the new system**

When it comes to eligibility based on fishing effort, this might be determined based on two factors — minimum seasonal income, and minimum time spent fishing in the season. Minimum seasonal income could be set quite low, in the \$2,500 to \$5,000 range, in line with the reality that fishermen (especially young ones and women) deal with daily.

An analysis of the distribution of gross fishing income by age group and gender across the fishery suggests that an initial minimum income requirement of \$2,500 to \$5,000 would affect a substantial number of people. We considered recommending a higher minimum, but then realized that even at \$2,500, it puts fishermen at a relative disadvantage as compared with other workers in low-paid, minimum wage occupations and seasonal work. If the lower minimum was adopted, it could be increased gradually, from time to time as circumstances warrant, in pre-established \$500 increments.

Minimum time spent fishing in season would make certain that a low season income was not for want of trying. In addition, it would ensure that those who harvest a catch of particularly high value also face a meaningful standard of fishing effort. The standard might best be determined as a minimum number of landings of a certain minimum value over a period of 10 weeks, rather than the current six. Balancing these two factors would help ensure that genuine effort and commitment would secure a suitable income supplement, while eliminating at least some of the problems that have crept into the existing system.

Creating a more stringent effort requirement must go hand-in-hand with a system allowing fishermen to be eligible for UI if their season is cut short due to catch failure.

We propose that the “insurable week” be replaced with a measure of fishing effort based on the fisherman’s season. To do this:

Replacing the
“insurable week”

- Insurable earnings would be calculated over the entire season, rather than from week to week.
- Every dollar earned, up to a maximum equivalent to the maximum in the current program, would count toward insurable earnings.
- Fishermen would no longer be penalized if their earnings fluctuated from week to week, nor would they have to distort their activities to fit a weekly pattern.
- Maximum benefit would not exceed the maximum under the current program.
- Fishermen would not have to shorten their season to preserve average insurable earnings.
- Benefits would be based on insured earnings up to the present Fishermen’s UI maximum, divided by 10 and multiplied by .57.

Currently, the fixed qualifying and benefit periods mean fishermen may not receive benefits when their season has really ended. Those continuing to fish are penalized: they cannot count earnings as insurable, but lose benefits if they earn income from fishing. Therefore, we propose flexible qualifying and benefit periods, patterned after fishermen’s actual seasons under which:

- the benefit period would be extended by four weeks at each end, and each fisherman given the option to receive off-season benefits earlier or later, or spread over a longer period;
- any income from fishing during the benefit period would count as insurable towards the next season in order to encourage off-season fishing; and,
- fishermen could earn up to 25 per cent of total seasonal benefits from off-season fishing before their benefits were reduced.

Fishermen’s UI has never recognized the problems posed by the variability of incomes in the industry. There is more variability in fishery income than in any other sector of the Canadian economy. This is true across all fisheries and all incomes. And it hits fishermen hard; because often their incomes are low, and because more than one family member may be affected.

Difficulties posed
by variable fishery
incomes

Fishermen’s UI provides stabilization when work is interrupted for seasonal reasons, but not for other reasons, such as ice or catch failure during the fishing season.

Income
Stabilization

A remedy for this would be to add to Fishermen's UI a system of credits reflecting fishing effort. Under this system:

- full-time, professional fishermen eligible for seasonal fishing benefits could accumulate credits based on their earnings from the past several seasons;
- these credits could then be counted towards their insurable earnings when catch failure occurred, or when the season was shortened because of ice conditions or weather;
- each year, fishermen could accumulate credits equal to a portion of their season's earnings (for example, one-tenth), up to a yearly maximum. To illustrate, if a season's earnings were \$17,000 in a year, then the credits accumulated might be 1,700. After five years of earning \$17,000 in each year, a fisherman could have accumulated 8,500 credits;
- each credit would count as a dollar of insurable earnings if catch failure was deemed to have occurred. The shortfall in the fisherman's actual insurable earnings during a bad year could be made up by drawing on the credits earned from previous years;
- there would be a cap set on the total number of credits accumulated. This would be enough to make up the shortfall in insurable earnings for about three consecutive years of poor earnings due to catch failure. It would take fishermen at least five good years of fishing — probably more — to achieve this maximum;
- a catch failure would be announced when landings in a certain area declined significantly below their long-run average;
- those who worked on enterprises that relied on the failed species could draw on their past credits to increase their season's insurable earnings; and,
- those who worked on enterprises with multi-species licences could draw a portion of their past credits, depending on how important the failed species had been in previous years' catches.

This would provide an incentive to fish beyond the minimum needed to qualify for off-season benefits. Also, there would be an incentive to report accurately all insurable earnings. Program savings would occur because current *ad hoc* programs used to overcome catch failure — which are numerous, costly, and of little benefit to professional fishermen — would be replaced by this stabilization measure applying only to full-time, professional fishermen.

**A Fisherman's
Enterprise Savings
Account**

As noted earlier, enterprises often operate on the most slender of margins. When revenues fluctuate from season to season, owners may not cover their costs and thus, lose their enterprises entirely. In fact, fishermen face many

of the same problems as farmers, yet do not have anything like the programs that provide stability to the Canadian agricultural sector. After all, farmers and fishermen both harvest a natural resource to provide food. They both face fluctuations in prices and out-put that result from changes in international markets, climate and other natural forces. Cyclical patterns for both vary considerably, depending on what they harvest, where they work and what technology they use. Yet where farmers have for years benefitted from such programs as crop insurance, dairy subsidies, various stabilization acts, the Gross Revenue Insurance Program (GRIP) and so on, the fishery has been left to a combination of UI and a succession of unsatisfactory *ad hoc* programs.

We have benefitted by considering the recent improvements in government income stabilization plans that have long strengthened the agricultural sector, particularly the farmers' Net Income Stabilization Account (NISA) and GRIP. Under NISA, a personal account is created for each farmer where a portion of his net sales is deposited (and matched by government contributions) when his gross margins are above average. The farmer can draw on this account when his gross margins are below average. GRIP provides farmers with a guaranteed minimum revenue for the crops they insure, based on the long-run price and yield for each crop they plant. Governments contribute the lion's share of the premiums.

In addition to the amendments suggested to the UI programs, we propose here, that there be further discussion with the fishing industry regarding two stabilization programs that are similar to the farmers' NISA and GRIP programs: a Fisherman's Enterprise Savings Account, and an Enterprise Catch Insurance Program. Like the farmer's programs, the fishermen's programs would deliver assistance to individual enterprises.

A Fisherman's Enterprise Savings Account would be created for individual enterprise owners. It could be drawn on when an enterprise's net income fell below a long-term average. The account would have a tax treatment similar to a Registered Retirement Savings Plan (RRSP) and might have special savings-incentive features. In relatively good times, an enterprise owner would build up savings reflecting the size and success of the enterprise. These would be drawn upon in time of need, up to the difference between current and long-run average net income.

Under the account, contributions would be subject to an annual maximum, with each enterprise's account having a maximum total amount. This maximum total should be sufficient to stabilize incomes for about three consecutive

years of catch failure. Income drawn from the fund would be taxable. The enterprise owner would have the option to draw less than the maximum. The future balance would be his upon retirement, and so he would be likely to draw on the fund only in times of genuine necessity.

Crew members also might benefit from individual savings accounts, each in the member's own name. Similarly, their accounts would have tax advantages and savings incentive features, enabling them to draw on the accounts when their income fell below a long-term average, and allowing them to draw the accumulated accounts at retirement. In savings plans for crew members, the maximum contributions and payouts would be based on individual income, rather than the cost and earnings make-up of enterprises.

**An Enterprise
Catch Insurance
Program**

An Enterprise Catch Insurance Program would be analogous to the GRIP. To this end, insurance would vary by species, depending on long-term average landings and the historic moving average price for each species. As well, owners would pay premiums based on the landings they wished to insure, and government would contribute, as it does to crop insurance.

This program would have to be phased in over a number of years, so that information on an enterprise's long-term performance could be established. Agricultural programs were based on many years of solid data — on yields, pay-outs, income levels and income variability — crucial to the development of a realistic cost and pay-out structure.

The success of this insurance program will depend on the long-term participation of enterprise owners, and the willingness and ability to pay premiums. However, just as crop insurance has helped to stabilize Canadian farming, this program will provide a measure of stability to the even more risky occupation of fishing. We feel a pilot project would make an effective start for this program.

**Changing UI for
fish plant workers**

Much of this chapter of our report has dealt with the special needs of those in the harvesting side of the fishery. However, fish plant employees face similar problems, in that their work is seasonal, and their earnings are typically low and uncertain. They fall under the Regular UI system, to which we propose a change, to be evaluated through a three-year pilot project.

The major problem with UI for fish plant workers is that the insurable week system creates disincentives for employees to work the full season and accept all work offered to them. The reason is that employees have no incentive to

work for more than 15 hours a week (the “small” week) unless they can be sure of working a full 40-hour week (the “big” week), because they risk lowering their potential UI benefit. This leads to high absenteeism and high turnover, with inevitable loss of productivity.

- Our proposal, which is consistent with our proposal for Fishermen’s UI, is that employees be insured on the basis of hours worked during the season, rather than the insured week.

By eliminating the penalty associated with small weeks, this approach would encourage employees to work longer, and to accept brief work assignments when supply is intermittent. Plants will be able to better organize the workforce, and thus achieve higher productivity. With a more committed workforce, employers would have more incentive to invest in training schemes. With a more productive workforce, the UI paid out for each plant would probably decline.

This change for plant workers within the Regular UI system should be evaluated with a three-year pilot project within a designated Atlantic fish plant or plants. Such a pilot project would not only lay the groundwork for improvements to income support for fish plant workers, it may indicate improvements for all seasonal workers covered under the regular UI system.

Central to the improvements proposed in this and previous chapters of our report is the creation of a single, verifiable information source on the fishery. Our work as a Task Force has been greatly frustrated by the absence of such an information base. It is very obvious that our problems have been no more than a minor reflection of the daily difficulty of managing the fishery when the agencies responsible cannot even agree on something as basic as how many fishermen are active in the fishery. Besides considerable data gaps, the current situation is characterized by anomalies and inconsistencies arising from the multiplicity of data and reporting systems used by different agencies for different purposes. An integrated registration and reporting system is essential if our other proposals are to succeed in their objectives. It would serve:

**Creating a central
information
source**

- fishermen — for their financial, employment and transaction records;
- buyers — for their records of input costs and source deductions;
- the Department of Fisheries and Oceans, — to manage the resource, license fishermen and develop professionalization programs;
- Employment and Immigration Canada, to determine UI eligibility, estimate program costs and develop new programs; and,

- the Department of National Revenue, for taxation and to determine for UI purposes what is insurable work.

A fish landings registry

This central information source could be a fish landings registry. This would record all transactions between fishermen and buyers: landings, fish prices, income and employment. The process for recording information would link the registration at the beginning of the season and the transactions between registered fishermen and buyers as the season progresses.

1. Fishermen would register at the beginning of the season as part of an enterprise, including the name of the designated seller for each enterprise.
2. During the season, the names of replacement workers would be registered as part of an enterprise, and the names of those leaving the fishery also recorded.
3. Skippers would record sharing arrangements at the beginning of the season, and make any changes as they occurred.
4. Landings would be recorded by volume and value for each enterprise, the record of transaction to be signed by the person responsible for direct payments to crew.
5. At the end of the season, a summary of income and activity for each enterprise would be completed by the Registry, to form the basis for determining insurable income and for taxation purposes. This information would be held on a strictly confidential basis.

Our recommendations and their impacts are summed up in the table that follows.

Finally, we must repeat: nothing less than full co-operation between both levels of government, and among departments of government at both levels, will make this long-term strategy work.

These proposals will go far to provide income stability and support for those who work in the Atlantic fishery. They will be better for professional fishermen and for those with a long-term commitment to the processing industry. They will make for a better, less expensive system.

However, they will not deal with the social and economic consequences of the resource collapse now devastating Newfoundland, and certain areas in the Maritimes and Quebec. And to that we must now turn.

Recommended Changes in Fishermen's UI

PROGRAM CHANGES	IMPACTS
<p>1. Target to full-time professional</p> <p>a) register at beginning of the season with a licensed vessel</p> <p>b) base eligibility on fishing effort</p> <ul style="list-style-type: none"> • minimum income requirement • minimum time requirement 	<ul style="list-style-type: none"> • eliminates those who do not actually participate in the fishery • eliminates those who do not actually participate in the fishery • eliminates those who have only marginal output • eliminates those who make only a marginal effort
<p>2. Tailor the program the way fishermen work</p> <p>a) base earnings on the entire fishing season</p> <p>b) extend benefit period</p> <p>c) count earnings during entire year as insurable</p> <ul style="list-style-type: none"> • allow fishermen to earn up to 25 per cent of <i>total</i> benefits before benefits reduced 	<ul style="list-style-type: none"> • insurable earnings and benefits, a better reflection of income • encourages productive fishing effort • eliminates design features that encourage misuse • parallels the fishing season more closely, without increasing program cost • encourages fishing in the off-season when it is profitable, without increasing program cost
<p>3. Stabilize through UI by allowing fishermen to accumulate credits</p>	<ul style="list-style-type: none"> • stabilizes income during catch failure • targets catch failure programs to the professional fisherman • replaces <i>ad hoc</i> programs with a systematic one (program savings)
<p>4. Integrate the registration and reporting systems</p>	<ul style="list-style-type: none"> • helps to target programs to professional fishermen • eliminates cost and duplication of reporting • defines a target population for stabilization programs and the data for their effective administration • helps to coordinate policies among departments • ensures consistency and accuracy of data

For Further Discussion with Industry

<i>PROGRAM CHANGES</i>	<i>IMPACTS</i>
<p>1. Stabilize outside UI</p> <p>a) Fisherman's Enterprise Saving Account</p> <p>b) Enterprise Catch Insurance Program</p>	<ul style="list-style-type: none"> • helps fishermen to “manage” their own stabilization programs, with the added incentives that the program savings would be their own • addresses the problems of variability in individual enterprise landings • can be patterned after existing agricultural programs

Part IV

SOCIETAL ADJUSTMENT



9

C H A P T E R

A Great Destruction

The last resort has failed. The fishery can no longer carry its traditional burden. This reality is faced daily by the hundreds of communities. Overwhelmingly, they are small, remote and isolated and depend on Canada's Atlantic groundfish fishery.

No more the employer of last resort

If you are an unemployed fishery worker anywhere in Atlantic Canada, you have a serious problem. If you live in a community anywhere in Atlantic Canada that is partially dependent on the groundfish fishery, such as southwestern Nova Scotia or northeastern New Brunswick, your community has a serious problem. If you live in a coastal area such as Quebec's lower north shore or the eastern shore of Nova Scotia, where the whole coastal region is primarily dependent on groundfish, there is a real crisis. This crisis is really compounded, more serious and more threatening, if you live in a province like Newfoundland, where virtually all of the fishing communities are almost entirely dependent on the groundfish fishery.

Governments have a responsibility towards affected individuals to help them adjust to the calamity of losing their livelihood. Governments have a responsibility towards fishery-dependent communities to help them adjust. This is true throughout Atlantic Canada, but particularly in those coastal regions primarily dependent on groundfish. There is a further responsibility to the people of Newfoundland and Labrador to help them — as the society most dramatically affected — to adjust to the disastrous economic and social consequences to their province of the resource crisis.

The responsibilities of governments

For those coastal areas so affected in Atlantic Canada, the Task Force is making recommendations that will help shape the fishery of the future. However, as we have noted elsewhere in this report, it will take a minimum of five to seven years, perhaps longer in the case of Newfoundland and Labrador, for this resource to be rebuilt. In the interim, the vast majority of fishermen and plant workers in these coastal communities will have very little opportunity for continuing work.

Collapse of coastal areas throughout Atlantic Canada

The full impact of what is happening, while it is being felt by those individuals and communities directly affected, is not yet fully understood by the society. It is not just the people in the industry who will grieve for the loss of the fishery, but the whole community — be it Canso, La Tabatiere, or Burgeo. It is more than the loss of jobs. It is more than the closure of single-industry towns. It is a fear that whole coastal areas will be wiped out.

Devastation in Newfoundland

Aside from a few larger centres, in most of these groundfish-dependent coastal regions, every community depends on the fishery. In Newfoundland, the dependence is staggering. Virtually every community depends on the fishery. There are three pulp and paper towns: Corner Brook, Grand Falls and Stephenville. There is one mining town: Labrador City. There is one town based on hydroelectricity: Churchill Falls. There are a handful of small farming communities, like Codroy, and there are several administrative and business centres, like St. John's and Gander. Almost all of the other 700 communities in the province depend directly on the fishery. Indirectly, even the administrative and business centres depend on the fishery, as they exist in large measure to provide services to the fishery-dependent communities. The loss of the groundfish fishery, for a period of years, can trigger the collapse of whole coastal areas in Atlantic Canada. For Newfoundland, this could threaten the whole economic and social structure of the province.

The significance of the fishery for Newfoundland can be highlighted by the following:

- almost every fourth person in the goods producing sector relied on the fishery for employment;
- when viewed from the manufacturing sector, every second person was engaged in fish processing — which is now virtually wiped out;
- if a calamity of similar magnitude befell Ontario's manufacturing industries, some 800,000 people would lose their jobs. In Newfoundland, almost 16 per cent of the total workforce depends on the fishery for some or all of its income, compared with 2.6 per cent of the total workforce in Ontario working in the auto industry;
- in 1988, harvesting and processing in the fishery provided some or all employment income to about 48,000 people — which generated a total income (including UI) of approximately \$700 million;
- in 1994, 1995 and beyond, much of this purchasing power — sustaining thousands of families in several hundred communities along coastal areas — will be severely reduced;

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- as a result, the majority of these people and their families will suffer substantial income losses;
- the cumulative effects should not be taken lightly — the multiplier effect will reverberate through an already weak economy where the official unemployment rate hovers around 20 per cent;
- Hibernia cannot be viewed as a significant offset to these devastating problems in the fishery — it cannot absorb those currently unemployed, nor those confronting unemployment in the fishery;
- if no compensatory measures are taken, large and small fishery-dependent communities face economic and social collapse;
- the precipitous decline in fishery-related investment and expenditures (processing equipment, new trawlers, boats, repairs and maintenance) already is being felt in the province's service sector;
- the substantial direct loss in income also will affect consumption expenditures and therefore retail trade's financial viability and employment in this sector;
- government revenues will decline in response to the direct and indirect effects emanating from the fishery collapse;
- concurrently, expenditures will rise as people who exhaust UI receive social assistance. These expenditures have reached an estimated \$180 million in fiscal year 1992/1993 for the province as a whole; and,
- clearly, net population loss will occur as people seek jobs elsewhere resulting in negative effects on the provincial economy and the government revenue base.

The magnitude of the devastation of the collapse of the resource is clearly most pronounced in Newfoundland. While this will require a very special approach to Newfoundland's society as a whole, it should in no way distract attention from what is, in many parts of Atlantic Canada, a similar crisis for those individuals and communities involved. What is true of Newfoundland and the assistance it needs also applies in varying degrees to the other provinces.

**Atlantic-wide
fisheries crisis**

Provincial revenues will fall, with the impact varying according to the dependence on groundfish. Provincial governments will face greater demands with fewer resources. In the case of Newfoundland, this will be even more significant. In these circumstances, governments which have already accepted severe budget cuts will be faced with the prospect of also reducing the most fundamental services. Under such conditions, even the basic health and education of the people will be in jeopardy.

**Special support
needed for
education**

Of particular concern will be the varying ability of the provincial governments to maintain the necessary social infrastructure such as schools that will provide adequate opportunities for the people in coastal regions to achieve the appropriate levels of education. Young people, and others seeking to upgrade their skills, will lose hope if they are unable to prepare themselves for whatever employment there may be in their own region or elsewhere. Nothing is more important to the future of the region — let alone the fishery — than the ability to educate people. Yet that is precisely what provincial governments may be less able to do.

Already, educational achievement varies widely throughout the region. The crisis in the fishery will worsen this. People in coastal regions often live in small, remote communities and already have high levels of unemployment coupled with generally low levels of educational achievement. These people and these communities will be hardest hit. There has to be special assistance to enable provincial governments to provide educational opportunities in order to break the cycle of high unemployment and low incomes. Otherwise, historic problems will be exacerbated.

We should not tolerate the myth that people who are chronically unemployed need little education. Fewer jobs are open today to the unskilled. Using the fishery once more as the employer of last resort will just accelerate this futile, vicious cycle of unemployment and low incomes. We are surely beyond the stage of believing that those who live in remote communities somehow need less than urban dwellers.

We must develop a different attitude to the value of education. If people are out of work, if they have low skills, low educational values, they will see little point in upgrading skills in the absence of alternative employment. “Retraining for what?” has been a constant refrain in our work, and we have not heard a satisfactory answer. However, globally, the economic history of the past half century has shown that those economies which do best are those that invest in their people, and regard them as their most valuable resource. This is just as true in Canada’s Atlantic region as elsewhere. Nevertheless, if people upgrade their skills and are still jobless, if they cannot get work despite their willingness to move to get it, the impact on others will be crushing. Unless rewarded, improving literacy and numeracy, training for new employment, willingness to seek work elsewhere will be seen as meaningless, and add despair to the cycle.

Many people in the fishing industry today question the need for training. Many are attending literacy and numeracy training in an environment which

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they find sometimes hostile and threatening. There is a resentment already building among fishermen and plant workers towards those from outside their ranks who often appear to be preaching or talking down to them.

We feel it worth noting that special emphasis must be given to community-based adult education. There must be meaningful participation by the plant workers and fishermen in this process. Professionals, whether they be deliverers of government programs or instructors and teachers in conventional institutions, should not feel threatened by a new emphasis on community-based adult education. They should respect that where people have their own organizations, such as fishermen's organizations, trade unions and co-operatives, that these may be more suitable vehicles for introducing the relatively new concept of peer training. They should perceive that people will respect education more where it is practical, and comes from those they trust. And, where education is respected, the society as a whole benefits.

This has already been done in some parts of Atlantic Canada and elsewhere in the country, by organizations accountable to their own members. This type of approach involves local people in similar circumstances taking a leadership role. It is the kind of creativity and ingenuity needed if we are to make a quantum leap in bringing about a change in the level of education in the adult population. More importantly, it is intrinsic to bringing about a lasting, long-term change in the society's value of education.

We also note the importance of the people of the coastal regions having adequate opportunities for higher education, either at universities or community colleges. Historically, this has varied among individuals, communities and provinces. However, people of lower income and less historic attachment to education generally will face greater obstacles, particularly when they live in small or remote communities.

**Educational
opportunities
for people from
coastal regions**

Higher education in Newfoundland has relatively shallow roots. The province did not have a degree-granting institution until the late 1940s. While Memorial University of Newfoundland is now the largest university in Atlantic Canada, it has the smallest endowment. In contrast, Nova Scotia has a long history of post-secondary education, with many distinguished colleges and universities.

Partly as a result of insufficient funding, admission standards and fees have been raised throughout Atlantic Canada. For those in smaller communities and those returning to school hoping to pursue new career opportunities, this could not happen at a worse time. When admission needs to be more

open, it is becoming more closed. When those with disadvantages most need opportunities to overcome them, those opportunities will increasingly be denied to them. The same can be said for community colleges. Special assistance is needed to arrest and reverse this.

The Task Force believes that the federal government's effort to increase economic opportunities for Atlantic Canadians requires targeting certain sectors for special attention. Post-secondary education and the opportunity to get that education are fundamental requirements in building a long-term strategy of social and economic adjustment. This is a requirement generally for all coastal regions affected by the fishery crisis. It is of even greater significance in Newfoundland and Labrador because of the tremendous numbers of people and communities affected. Such a plan of assistance would mean that universities or institutions benefitting from such help would have a special responsibility to develop and implement an affirmative action plan for the educationally and economically less advantaged. Such a program would continue beyond the entry level

Education is critically important, but it is not the only fundamental service provided by provincial governments. The same is true of health and social welfare. As with education, the scale of the problem is vastly beyond the financial ability of the provincial authorities to meet. They need national help. In an important sense, the crisis in the Atlantic fishery is a graphic demonstration of the stresses to which Canada is subject. The job of rebuilding Canada's Atlantic coastal economy and society goes well beyond the terms of reference of our Task Force. However, our recommendations must be seen within and must contribute to this vastly larger goal.

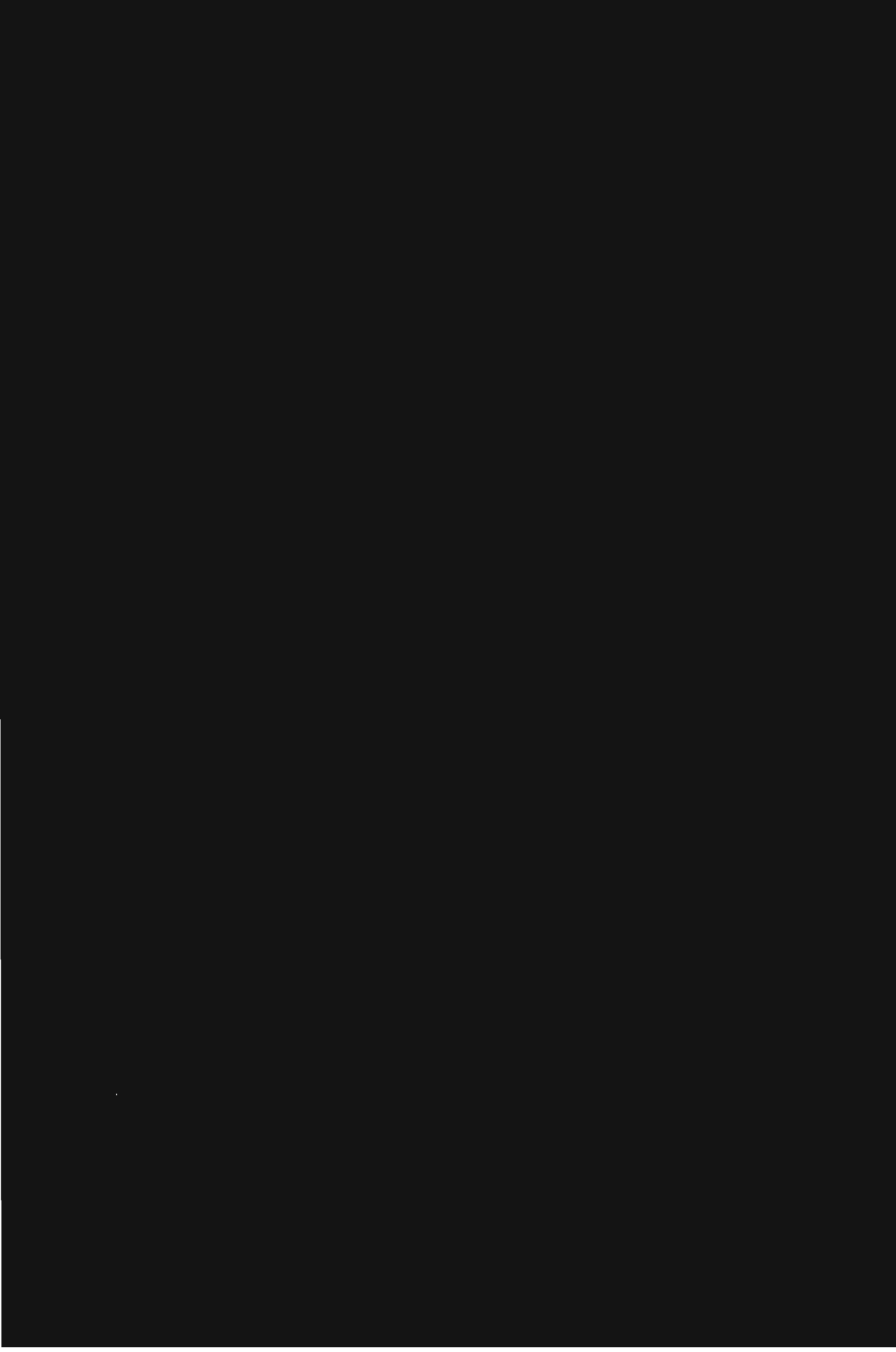
This much is clear: the social and economic consequences of the groundfish failure are a challenge to be met, a burden to be borne, for the entire nation: not merely by the victims. Our concern, compassion and ingenuity will be needed to rescue and reconstruct the economy of Canada's Atlantic coastal regions, especially in Newfoundland. Whether we speak of Bonavista or Canso, we must face up to the need for special assistance to communities facing very bleak prospects.

What is happening to Atlantic Canada's coastal communities is much more than the loss of some manufacturing plants or the closure of some mines. The extraordinary and in some ways unprecedented resource collapse constitutes a potentially fatal threat to the whole fabric of coastal society, especially those dependent on groundfish.

Coping with this is a challenge that will test the strength of the Atlantic fishing community. More than that, it will take the political will and help of the nation as a whole to rescue and reconstruct the economy of the Atlantic fishery. In Newfoundland, the threat is greater than just to coastal communities: it is to the province and the society as a whole. We need concerted action. We need today's equivalent of a Marshall Plan.

**Meeting the
challenge: a new
"Marshall Plan"**

Prospects in the Atlantic region have not always been bleak. Newfoundland's entrance into Confederation was a time of great hope. The 200-mile economic limit in 1977 gave great hope to the fishery, albeit perhaps unrealistic optimism. However, the 200-mile limit or even the accession to Confederation were not enough in themselves: they needed further action. The talented and resilient citizens of the coastal communities deserve to be a productive part of Canada's future. In the end, the result will be not merely a healthy, sustainable Atlantic fishery providing a decent living to those working in it, but an important step towards completing Confederation.



Part V
CONCLUSIONS AND
RECOMMENDATIONS



10

C H A P T E R

Conclusions and Recommendations

As a Task Force, we have intensively studied the problems and potential of the Atlantic fishery to provide decent, more stable and secure incomes to fishermen and plant workers, and to support commercially viable harvesting and processing enterprises. We have commissioned research where needed and we have consulted with fishermen's and processors' organizations, and provincial governments, throughout Atlantic Canada and Quebec. Based on this, we make the following recommendations:

1. **A renewed fishing industry must be sustainable both ecologically and commercially.** Harvesting and processing capacity should be balanced within the sustainable limits of the rebuilt resources.
2. **The Department of Fisheries and Oceans should set for the Atlantic fishery clear policy objectives and institute management measures that give explicit priority to ecological and commercial sustainability for both the harvesting and processing sectors.** This means recognizing that the department's mandate extends beyond conservation.
3. **Social and economic adjustment must accompany renewal of the fishing industry, both for affected individuals and communities.** As well, special measures will be needed for Newfoundland and Labrador, given the more widespread, serious impact of the groundfish resource crisis in that province.
4. **Federal and provincial governments must provide immediate income assistance to fishermen and plant workers who have lost a significant part of their incomes as a result of the resource crisis in the Atlantic groundfish fishery.** This should continue until adequate measures are in place for fishing industry renewal and related social and economic adjustment.
5. **Federal and provincial governments should agree on a joint, comprehensive strategy by no later than May 15, 1994, to address fishing industry renewal and related social and economic adjustment.** This

strategy should be an integral part of a broad plan of concerted action to reconstruct Canada's Atlantic coastal economy. If, on the renewal of the fishing industry, agreement on a joint strategy cannot be reached, then each government should act within its jurisdiction.

6. **Federal and provincial governments should reduce and balance harvesting and processing capacity through an integrated plan.** Reliance solely on existing *ad hoc* measures would have serious negative consequences.
7. **After consultation with the industry, policies and criteria for reduction in harvesting and processing capacity should be established by the federal and provincial governments. Fishing industry renewal boards should be established jointly by the federal and provincial governments to apply these policies and criteria in individual cases.** These boards should be composed of experienced, knowledgeable persons, including people from the fishing industry. They should operate at arm's length from governments and industry. Given the dimensions of the fishery crisis in Newfoundland, it should have a separate board from the Maritimes and Quebec.
8. **Renewal boards should make their decisions concerning capacity reduction in 1994. This will allow affected individuals and communities the earliest opportunity to make decisions for their future.** Interim income assistance will have to continue for many persons until these decisions are made. Decisions on capacity reduction must not be delayed until resources rebuild.
9. **Harvesting and processing capacity should be matched for each coastal area to the sustainable limit of the rebuilt resources upon which that coastal area has traditionally relied.** Examples of this are the reliance of the northeast coast of Newfoundland and the coast of Labrador on northern cod and the reliance of the Gaspé, northeastern New Brunswick and other areas on the groundfish stocks.
10. **Reduction in harvesting capacity should be balanced among fleet sectors.** A mixed fishery should be maintained involving inshore, mid-shore and offshore fleets. Resource reallocation among fleet sectors should not be seen as a solution to overcapacity in any given fleet sector.

CONCLUSIONS AND RECOMMENDATIONS

11. **Reduction in harvesting capacity should be through licence retirement and licence buy-outs for inshore and midshore fleets.** Where appropriate, these should involve both fixed-gear and mobile-gear operators. To the extent possible, they should be agreed upon through local adjustment committees organized by individual fleet sectors.
12. **A scientific and technical review of harvesting technology should be an urgent priority.** It should pay particular attention to current and emerging techniques, and their probable impacts on the resource and on enterprise viability.
13. **Reduction in processing capacity should be through plant consolidations and licence buy-outs.** When possible, consolidations and buy-outs should be agreed upon regionally among plant owners.
14. **The future fishery should include both year-round and seasonal plants.** Seasonal plants should be regionally centred, ideally operating at least 20 weeks a year once the resource is rebuilt, processing a variety of species, and able to produce for specialized markets.
15. **While resources are rebuilding, some means should be found to maintain the infrastructure and skills of the workforce for plants and vessels which are not decommissioned and are expected to continue in the fishery.** If programs of assistance for this are required, as will be the case for areas hardest hit by the groundfish crisis, consideration should be given to having these administered through the fishing industry renewal boards.
16. **As resources rebuild, harvesting and processing capacity should not be increased. Utilization rates of designated operations should be increased instead.**
17. **Federal and provincial governments, using the Plant Workers' Adjustment Program as a model, should provide for early retirement of plant workers aged 50 years and older who have a long work history in the fishery but who have little opportunity to remain in it.** This program also should apply to those eligible plant workers in plants that may remain open as part of the consolidation of capacity in a given area.

18. Federal and provincial governments, using the Northern Cod Adjustment and Recovery Program (NCARP) as a model, should provide for the early retirement of fishermen aged 50 years and older who have a long work history in the fishery.
19. Federal and provincial governments should ensure that training opportunities are available to affected fishermen and plant workers. This training should accompany income and mobility assistance and include professional skills for those continuing in the fishing industry and skills for alternative employment. Participating in such training must be mandatory for all workers receiving income support, subject to appropriate and limited “grandfathering”.
20. The Task Force recognizes that basic literacy and numeracy training is essential to the long-term adjustment process. We recommend that wherever possible, this training should be community based, using existing institutions such as fishermen’s organizations, co-operatives and trade unions.
21. Fishermen’s organizations, unions representing plant workers, and processors’ organizations should be full partners in the delivery of adjustment services, based on the experience in the Canadian Steel Trade and Employment Congress.
22. Both levels of government should give priority to the development of an affirmative action program to provide greater opportunities for the people of small, coastal communities and those with low incomes to have better access to post-secondary education. Such an initiative would be a recognition that these people have fewer opportunities to gain access to post-secondary education than Canadians living in larger centres and having higher incomes.
23. Women’s role as the binding force in the fishing community will be essential to the adjustment process. Their participation in that process should be specifically recognized and planned in any adjustment program, using existing fisheries organizations wherever possible.
24. Governments should explore vigorously various possibilities for the creation of new economic opportunities for the fishing industry. Among these are diversification through aquaculture development and joint venture arrangements by fishermen’s groups and

CONCLUSIONS AND RECOMMENDATIONS

other industry organizations in the transfer of Canadian fishing technology and expertise to developing countries.

25. **Planning for a renewed fishery should be based upon groundfish catches of a rebuilt resource that will be considerably lower — overall at least one-third lower — than those in the 1980s.**
26. **Harvesting and processing capacity, reduced to sustainable levels, should be maintained at those levels to prevent the repeated growth of overcapacity.** Governments should set in place a suitable management mechanism to keep capacity at a level consistent with sustainable fishery practices.
27. **The number of fishing enterprises in any given fishery should be strictly limited to sustainable levels and should not increase.** No additional limited entry licences should be issued. If exploratory or developmental permits are issued, they should be given only to established enterprises licensed to harvest fish.
28. **All gear types should be put under limited entry licences.** This should include handlining and jigging. Provisions should be made for a very limited recreational fishery.
29. **Access to fishermen-targeted programs should be limited to those actively engaged in the harvesting sector or established fishing enterprises.** This would include, among other things, Fishermen's UI. New entrants to the fishery, if properly registered, would be deemed professional fishermen.
30. **Only vessels actively engaged in the fishery should be registered as commercial fishing vessels.** Latent overcapacity should be eliminated.
31. **Professionalization of fishermen is essential to the fishery of the future.** The federal government should proceed to implement an appropriate professionalization policy, recognizing the primary role of fishermen's organizations in leading this exercise.
32. **Professionalization should provide for certification and registration of professional fishermen according to standards that will be established relating to competence, experience and attachment to the fishery.** This program also should require training for new entrants to the fishery.

33. **Fishermen's UI must be maintained and improved.** It is an important income stabilization and supplementation measure that will continue to be needed.
34. **Fishermen's UI must target benefits only to those actively working in the harvesting sector who meet minimum requirements of income and effort.**
35. **The "insurable week" should be replaced by a measure of fishing effort based on the fishing season.** Insurable earnings should be calculated over the entire season, rather than week to week. This will encourage fishing on the shoulders of the season, which the insurable week system now discourages.
36. **Fishermen should have the option to spread benefits over a period starting up to four weeks earlier and ending up to four weeks later than at present, or some combination of the two.** However, the maximum benefit obtained would not exceed the current maximum. The purpose of this feature is to parallel the actual fishing season more closely without increasing program costs.
37. **Fishermen should be able to earn up to 25 per cent of total benefits from off-season fishing.** This will avoid discouraging fishermen from fishing during off-seasons.
38. **Fishermen's income from off-season fishing should be counted as insurable benefits up to a maximum of 25 per cent.** This is intended to encourage productive fishing effort.
39. **Fishermen should be able to accumulate benefit credits in good years, to increase the income stabilization effect of Fishermen's UI.** Benefit credits could be drawn on to increase that season's insurable earnings when a catch failure is declared by the Department of Fisheries and Oceans. This would encourage productive fishing activity and accurate reporting of all insurable earnings. It also would obviate the need for *ad hoc* programs currently in place to address catch failures.
40. **Two programs for income stabilization, outside Fishermen's UI but complementing it, should be put forward by government for discussion with the industry.**

- (a) The first — which we recommend be established immediately — should be a **Fisherman's Enterprise Savings Account**. This would be similar to a farmer's Net Income Stabilization Account, with rules for contributions and withdrawals tailored to the incomes of fishing enterprises. An enterprise owner could contribute to his fund from the season's earnings. These contributions would earn interest in the account, which might have special savings-incentive features. The accumulated contributions and interest could be drawn on when income fell below an average level, based on the needs of each enterprise. Tax treatment of contributions to, accumulation in, and withdrawals from the account would be similar to that for a Registered Retirement Savings Plan. Individual fishermen could set up similar accounts for themselves, with contribution levels reflecting their income.
- (b) The second program would be an **Enterprise Catch Insurance Program**, similar to the farmer's Gross Revenue Insurance Program. This could be introduced after further consultations with fishermen's organizations, and would take some years to introduce. Insurance would vary by species, depend on long-term average landings of an enterprise, and take into account the historic moving average price for the species. Alternatively, benchmarks by type of enterprise could be used to phase in the program. Enterprise owners would pay premiums based on the landings they want to insure. The federal government would contribute, as it does for crop insurance. Introducing this by way of a pilot project should be considered.

41. **Changes should be made to unemployment insurance to eliminate disincentives that now exist for fish plant workers covered by Regular UI.** Plant workers should be insured based on hours worked during the season, rather than insurable weeks. This will encourage work effort during short weeks and in the shoulders of the season, and encourage plant productivity. A pilot project could be tried within an appropriate Atlantic fish plant.

42. **An integrated registration and reporting system for landings, income and employment should be established.** It would serve:

- fishermen, for their financial, employment and transaction records;
- buyers, for their records of input costs and source deductions;
- the Department of Fisheries and Oceans, to help manage the resource, licence fishermen and develop professionalization programs;

- Employment and Immigration Canada, to determine UI eligibility, estimate program costs and develop new programs; and
- the Department of National Revenue, for taxation and form the basis for determining insurable income.

The central information source should be a “Fish Landings Registry” which will record in strict confidence all transactions between fishermen and buyers.

We want to conclude our report by noting the need for maximum co-operation and compassion in making the adjustments that are necessary to move towards the Atlantic fishery of the future.

While we believe that our recommendations are not only sound but essential, we also recognize that they will be in many cases painful. Delay or failure to co-operate by governments and others responsible for implementing these recommendations only will make things worse.

Many of those hardest hit in the Atlantic fishery live in remote communities, far from services and without the range of opportunities that most Canadians take for granted. Their living is often sparse, their occupation is always demanding and their work sometimes dangerous. They have contributed much to Canadian society in the past and can do so in future. In their time of extreme need, they should not be remote from our help.

APPENDICES

Appendix A



NEWS RELEASE **COMMUNIQUE**

NR-HQ-92-023E

For Immediate Release
March 23, 1992

Fishery Incomes and Adjustment to be Studied

OTTAWA. John C. Crosbie, Minister of Fisheries and Oceans and Minister for the Atlantic Canada Opportunities Agency and Bernard Valcourt, Minister of Employment and Immigration, today announced the membership and terms of reference of the Task Force on Incomes and Adjustment in the Atlantic Fishery.

The six-member group, selected for its broad fisheries, legal and business expertise, will be chaired by Richard Cashin, President of the Newfoundland Fishermen, Food and Allied Workers Union. Other members are:

Bruce Chapman, President of the Fisheries Association of Newfoundland and Labrador;

Réal Chiasson, président de l'Association coopérative des pêcheurs de l'Île Limitée;

Peter Darby, Chairman, Labour Relations Board (Nova Scotia) and Professor, Faculty of Law, Dalhousie University;

Donald Savoie, who holds the Clément-Cormier Chair at the Université de Moncton;

François Poulin, directeur général de l'Alliance des pêcheurs commerciaux du Québec.

The task force will report to both Ministers. The Government of Canada has set aside \$45 million to test task force proposals for pilot projects in selected Atlantic communities.

"We are asking the task force to advise on the continued supply of the resource, the future stability and profitability of the industry, the achievement of stable and adequate incomes for those who make a living in the fishery, and alternative training, employment and other adjustment possibilities," Mr. Crosbie said.

.../2



Fisheries
and Oceans

Pêches
et Océans



Canada

- 2 -

“This follows work which the federal government began in 1990 with the \$584 million Atlantic Fisheries Adjustment Program,” added Mr. Valcourt. “It expresses our continued commitment to the long-term competitiveness and viability of the Atlantic fishery.”

The group will do its work in two stages. In phase one, it will be expected to provide and interim assessment on the state of the resource, the industry and those employed in it.

In the second phase, it will prepare a set of final recommendations for an adjustment strategy, and propose communities in Atlantic Canada in which to test this strategy through pilot projects.

The government will seek the cooperation of all the Atlantic provinces in support of this initiative. “We will be asking the task force to consult fully with the provinces throughout,” Mr. Crosbie said.

Today’s announcement is a follow-up to a federal commitment made last October. At that time, Mr. Crosbie announced that a task force would be established to develop a comprehensive incomes and adjustment strategy for the east coast fishing industry.

Terms of Reference

Task Force on Incomes and Adjustment in the Atlantic Fishery

BACKGROUND

The 1991 Atlantic catch failure highlighted the need to address the problem of overcapacity and unstable incomes that the fishing industry has faced for several years. It is clear that there is a need for a more comprehensive strategy for income adequacy and adjustment for the fisheries.

A long-term strategy for the fishery must take into account five things:

1. the management of the resource
2. the state of the industry
3. the situation of individuals and communities currently engaged in the fishery
4. adjustment to current and long-term resource availability
5. fiscal neutrality

PURPOSE OF THE TASK FORCE ON INCOMES AND ADJUSTMENT

The purpose of the Task Force on Incomes and Adjustment is to develop a comprehensive, long-term strategy for the industry. This long-term strategy would have as its goals:

- to advise on the continued supply of the fishery resource;
- to work towards stability and profitability in the industry;
- to ensure stable, adequate incomes for those whose employment is sustainable by the industry; and,
- to find alternative training, employment and other adjustment possibilities for displaced fishermen, plant workers and affected communities.

The task force would report to the Ministers of Fisheries and Oceans and Employment and Immigration. Its work would be conducted in two stages. In view of the fact that a major change in the income support mechanism for fishermen is being contemplated, any proposal would be tested on a pilot basis.

The first stage of the task force would examine the industry, and the needs of Canadians whose incomes depend on it. This phase would develop a long-term strategy for the industry, for those who need to find alternative employment and work towards recommendations. At this point, the Task Force would provide an interim report.

TERMS OF REFERENCE

The second phase would work to finalize the report and, if feasible, select communities to test the operationalizing of a comprehensive strategy in pilot projects to be conducted in selected communities throughout Atlantic Canada. Pilot projects would be undertaken under existing programs or within current financial authorities of the participating departments.

FACTORS TO BE CONSIDERED:

1. Definition of industry: the industry is to be defined broadly as both the harvesting (full and part-time) and processing sectors.
2. Protection/enhancement of the resource.
3. Profitability and stability of the industry, including fuller utilization of the resource, increasing value-added and developing new markets.
4. Income adequacy and stability.
5. Training for those in industry and training and adjustment for those leaving the industry.
6. Employment possibilities outside the industry.
7. Fiscally neutral over a period of years.
8. Costs associated with implementing pilot projects should be essentially through re-allocation within current expenditure levels.

TIME FRAME

The first stage would report back by early fall, while the second stage would report back by the end of 1992.

Task Force on Incomes and Adjustment in the Atlantic Fishery

Members of the Task Force on Incomes and Adjustment

- Richard Cashin:** Currently Mr. Cashin is the President of the Newfoundland Fishermen, Food and Allied Workers Union. Previously he was Member of Parliament for St. John's West and Parliamentary Secretary to the Minister of Fisheries. His experience also includes two terms with the Commission for the Northwest Atlantic Fisheries and membership on the Board of Governors of the Atlantic Provinces Economic Council.
- Bruce Chapman:** Mr. Chapman is currently President of the Fisheries Association of Newfoundland and Labrador. His previous experience with the fishery includes a term as Vice-President of the Fisheries Council of Canada, General Manager of the Canadian Association of Fish Exporters, and as Deputy Executive Director with Seafood Producers Association of Nova Scotia.
- Réal Chiasson:** Monsieur Chiasson is currently président de L'Association coopérative des pêcheurs de l'Île Limitée. He has previously been président de la société "M.V. Osprey Ltée", Administrateur de la Commission d'Expansion Économique de la Péninsule Acadienne and Administrateur du Conseil de Recherches et Développements des Produits Marins.
- Peter Darby:** Professor Darby has been with the Faculty of Law at Dalhousie University since 1968. From Prince Edward Island, he practised law in Saint John, N.B. for eight years. He is currently serving as Chairman of the Labour Relations Board of Nova Scotia. Professor Darby brings a wealth of labour/management experience to the Task Force.
- François Poulin:** Monsieur Poulin is currently directeur général de l'Alliance des pêcheurs commerciaux du Québec. Among his many accomplishments Monsieur Poulin has been directeur de projets de L'École nationale d'administration publique and Conseiller en management public et en développement international du Québec.
- Donald Savoie:** Monsieur Savoie was appointed to the Chair of Economic Development at l'Université de Moncton in 1990. Previously he held several senior positions in government and is the author of such books as "The Politics of Public Spending in Canada" and "Regional Economic Development: Canada's Search for Solutions."

Appendix B

MAJOR BACKGROUND STUDIES

ACCESS TO THE RESOURCE

1. “Fisheries Access: Licensing and Registrations — Policy and Statistical Review 1977-1992”,
Task Force Secretariat
2. “Fishermen’s Registration and Species Licences — A Longitudinal Perspective 1986-1991”,
Task Force Secretariat
3. “Access and Allocation — Issues and Principles: An Industry Perspective”,
Canning and Pitt Associates
4. “Resource Access and Supply Continuity in the Atlantic Fisheries”,
Gardner Pinfold Consulting Economists
5. “Individual Transferable Quotas and the Groundfish Fisheries of Atlantic Canada”,
Quentin Grafton

INCOMES IN THE ATLANTIC FISHERY

1. “Income Experience of Individuals and Families in the Atlantic Fishery”,
Task Force Secretariat
2. “Measures of Income Instability in the Fishery”,
Task Force Secretariat
3. “Task Force Data Compendium — Data Sources, Verification and Selected Data”,
Task Force Secretariat and Statistics Canada

INCOME SUPPORT PROGRAMS

1. “Fishermen, Plant Employees and UI: Program Review and Experience”,
Task Force Secretariat
2. “Income Support for Atlantic Fishermen: Approaches and Options”,
Global Economics
3. “An Income Support System for Atlantic Fishermen”,
Task Force Consultation Paper
4. “Feasibility Analysis of An Integrated Registration and Reporting System”,
Price Waterhouse

ATLANTIC FISH PROCESSING SECTOR

1. “The Fish Processing Sector in Atlantic Canada: Financial Performance and Sustainable Core”,
Coopers & Lybrand
2. “The Fish Processing Sector in Atlantic Canada: Industry Trends and Dynamics”,
Coopers & Lybrand
3. “The Fish Processing Sector in Atlantic Canada — Summary Report”,
Coopers & Lybrand

FISHERMEN’S PROFESSIONALIZATION

1. “Fishermen’s Professionalization — Foreign Experience”,
GTA Consultants
2. “Fishermen’s Professionalization — Options and Strategies for the Atlantic Fishery”,
GTA Consultants
3. “Professionalization, Certification and Training of Fishermen”,
Meltzer Research and Consulting

OTHER SUBJECTS

1. "Women in the Newfoundland Fishery",
Mildred Cahill
2. "Market Perspectives: Canadian Seafood Products",
Alastair O'Rielly

For copies of the background studies, you may call (613) 993-0999, or write to the Department of Fisheries and Oceans, Communications Directorate, Ottawa, Canada, K1A 0E6.

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Introduction

This appendix provides supporting data to the Task Force report. It contains selected statistics on the fishing industry and the income experience of individuals and families in the Atlantic fishery, with comparative data for those who earn their incomes from the non-fishing sectors. The first part of the appendix explains data sources and definitions which is essential to understanding fully the data presented later in the tables.

The Task Force Secretariat worked with Statistics Canada to develop much of the data used in this report. The data on individuals were produced by the Business and Labour Market Analysis Group, while the family data were provided by the Small Area and Administrative Data Division of Statistics Canada. The analyses required the use of a number of files which reside at Statistics Canada, including the Revenue Canada tax files and the Status Vector files of Employment and Immigration Canada (EIC). Various administrative files of the Department of Fisheries and Oceans were also linked with the relevant data files at Statistics Canada.

Data specifications were developed by the Task Force Secretariat with the invaluable assistance and expertise of Statistics Canada personnel who provided the essential structure of the files and the types of information to be derived. All data supplied by Statistics Canada were subject to strict confidentiality rules.

Data Sources and Definitions

Incomes, Earnings, Transfer Payments and UI Experience

Statistics Canada obtained sources of incomes such as earnings, UI benefits and transfer payments from Revenue Canada's T1 files consisting of the tax information reported by taxfilers. The employer information on the T4 supplementary records was used to identify the industry of employment for each job held in the taxation year and the associated income. These T4 files were then merged with the T1 information so that wages and salaries could be allocated to the appropriate industry sectors. This process was essential in identifying the source of employment income by standard industrial classification (SIC).

In addition to the UI benefits reported on the tax returns, further information on the UI experience was required. For this reason, Statistics Canada merged the T1 and T4 tax files with the Status Vector files of EIC. The Status Vector files provide detailed information on UI claims and payment experience for a 10-percent claimant population. This merge yielded information on the types of benefits paid to claimants, duration of the benefit period, the duration of insured employment associated with the claims and the types of benefits received (i.e. fishing benefits, regular benefits, etc.).

Allocations, Catches and Landings Data, Registration of Fishermen, Species Licences and Vessels

Several DFO data sources were used. Allocation and quota catches by species were provided by the Resource Allocation Branch. These data deal only with regulated species. In addition, catch and effort data provided information on the volume of fish landings and landed values by species and by inshore/offshore sectors. Landings data cover catches from all stocks, including both regulated and non-regulated species. The main source of the landings data were the purchase slips supplied by fish buyers in their transactions with fishermen and submitted to DFO. In the case of offshore processing companies with enterprise allocations, prices reported on the purchase slips in most cases are non-arms-length transfer prices between the companies and vessel crews. These transfer prices do not reflect market values of offshore landings.

The DFO licensing and registration files provided information on fishermen's registration status, vessel ownership and species licences. By law, all persons and vessels engaged in commercial fishing are required to be registered. In addition, for most of the commercially fished species, a licence is required for a person or fishing enterprise to prosecute a specific fishery. Although the majority of licence and registration holders are individuals, fishing companies and incorporated fishing enterprises can also be vessel owners and species licence-holders. Many registered fishermen work as crew members on registered vessels that fish under a limited-species licence. Further, registered fishermen are classified by DFO as either full- or part-time fishermen based on their participation in the fishery. In the southern Gulf (NAFO Area 4T), fishermen using vessels under 50 feet are classified as *bona fide* and commercial.

Definition of Individuals — Fishing and Non-Fishing Sectors

Individuals were categorized based on the sources of earnings reported on their tax returns. **Self-employed fishermen** are individuals who reported self-employed fishing income on their T1 tax returns. In addition, there are business entities engaged primarily in commercial fishing (including aquaculture) which Statistics Canada captures under SIC 041. Individuals earning wages and salaries in this sector were categorized as **wage-earning harvesters** to distinguish them from self-employed fishermen.

Individuals who earned wages and salaries from the fish processing firms falling under SIC 102 are classified as **plant employees**. They include production and non-production employees, as well as trawlermen employed by offshore processing companies.

Some fishermen and plant employees earn income from both fishing and processing in the same year. To avoid double-counting, these individuals were allocated to the fishing sector with the highest employment income. For example, an individual with \$1,000 of net fishing income is classified as a plant employee if income earned from fish processing is greater. The level of income earned in non-fishing sectors was not considered in categorizing fishermen and plant employees.

Non-fishing individuals are those who reported employment income from sources other than self-employed fishing or plant employment. For some of the analysis, non-fishing sectors were broken down into eight major industry groups.

Definition of Families — Fishing and Non-Fishing Sectors

The income profiles of families were obtained by Statistics Canada using data from the tax returns. Information on individuals such as mailing addresses, surnames, marital status and supporting children were used to match individuals to families. All individuals who filed tax returns were allocated into families, including those who were single and lived alone.

To classify families into sectors, the T4 files were matched with the family files to identify the sector in which employment incomes were earned and the dollar amounts of income associated with each sector of employment. Only three broad sectors of employment were used — self-employed fishing, fish processing and the non-fishing sectors.

Like individuals, families were categorized according to the sources contributing to family income. *Self-employed fishing families* are defined as families whose net fishing income is greater than plant or non-fishing employment income. Similarly, *processing families* earn most of their employment income from plant employment. *Other fishing families* earn income from the fishery but receive most of their employment income from non-fishing sectors.

Families that did not earn employment income from the fishery are classified as *non-fishing families*. For most of the analysis, this category includes families with no employment income. Explanatory notes are provided where they are excluded.

Sources of Income and Definitions

The sources contributing to the income of individuals and families were grouped into four major categories:

- (1) **Employment Income or Earnings:** Includes income earned from net self-employed fishing, and wages and salaries earned in fish processing and in the non-fishing sectors. Fishermen and plant employees may earn employment income from all of these sources. These earnings were broken down to identify sector income as follows:
 - (i) **Net fishing income after all deductions of expenses including C.C.A., etc. (may be negative if expenses exceed revenues);**
 - (ii) Plant employment income;
 - (iii) Other employment income earned from work in the non-fishing sectors or from self-employment other than fishing (may be negative if income from self-employment is less than expenses);
 - (iv) Wages and salaries from employment in fish harvesting including aquaculture.

- (2) **Other Income:** Includes income from one or more of the following sources: alimony; investments; limited partnerships; dividends; rental units; other sources; and, RRSPs.
- (3) **Unemployment Insurance (UI) Benefits:** Includes regular benefits, sickness, maternity, retirement, fishing, work sharing, job creation, parental and training benefits.
- (4) **Other Transfers:** Includes the income reported from one or more of the following sources: family allowance; federal sales tax credit (for 1988, 1989 and 1990 only); goods and services tax credit (1990 only); child tax credit; old age security pension; Canada/Quebec pension plan; private pension; guaranteed income supplements and spouses allowances (non-taxable); workers compensation payments (non-taxable); social assistance payments (non-taxable); and, provincial tax credits (1990 only).
- (5) **Total Income:** The sum of the above categories.

Definitions of Geographic Areas

Income analyses from taxfiler data were carried out at different geographic levels, namely, provinces, analytical areas, community clusters and special geographic areas. They were based on the postal codes of the mailing addresses on individuals' T1 returns. Only data at the provincial level are used in this appendix. Provinces were defined by the first character of the six-digit postal code. **All data for the Province of Quebec is limited to postal codes starting with G0, G4 and G5 which represent the Atlantic coastal areas and adjacent geographic regions.**

Statistics Canada Confidentiality and Rounding Rules

To preserve confidentiality of individuals and families, data cells have been suppressed when:

- areas comprise fewer than 100 individuals or families;
- cells represent fewer than 15 individuals or families;
- medians represent fewer than 30 individuals or families; and,
- cells were dominated by a single individuals or family.

To avoid residual disclosure by subtraction, a second cell is always suppressed when one cell within a category or class has been suppressed.

Cells with suppressed data contain "0" for the family data and blanks for the individual data.

In addition, all counts are rounded to the nearest multiple of 10. All aggregate dollar amounts are rounded to the nearest \$1,000, and means and medians to the nearest \$100. Totals are rounded independently and may not equal the sum of their components.

Resource Utilization

TABLE 1 — Atlantic Groundfish — Canadian Allocations and Catches, 1978-1993

This table presents a historical overview of the Canadian allocations and corresponding catches of Atlantic groundfish with specific reference to Atlantic cod, and in particular northern cod, for the period 1978-1993. The figures do not include catches from non-regulated species without quotas (i.e. commercially marginal species such as cusk and catfish, etc.).

TABLE 2 — Landed Volumes and Values by Major Species, 1981-1991

Total landings and landed values for the three major species groups — groundfish, pelagic fish and shellfish, from 1981 to 1991 — are presented for each province and the Atlantic as a whole. Miscellaneous products such as marine plants, seals and roe are not included in the total landings and values. Landed values are based on the prices reported on purchase slips submitted to DFO and these include transfer prices reported by the offshore groundfish vessels.

FIGURE A — Seasonality of Landings and Employment

Average monthly landings by province, with average monthly distribution of plant employment over 1987-1991, illustrate the seasonality of the Atlantic fishery.

TABLE 1
Atlantic Groundfish
Canadian Allocations and Catches¹
Thousand Tonnes
1978-1993

Year	All Groundfish		All Cod		Northern Cod	
	Allocations	Catches	Allocations	Catches	Allocations	Catches
1978	472	535	204	271	100	102
1979	562	634	270	359	130	131
1980	705	615	353	400	155	147
1981	790	741	400	422	185	133
1982	924	775	490	508	215	211
1983	997	728	561	505	240	214
1984	1,005	700	553	466	246	208
1985	1,003	738	576	477	250	193
1986	973	748	530	475	250	207
1987	969	723	512	458	247	209
1988	985	688	523	461	266	245
1989	942	652	478	422	235	215
1990	812	604	408	384	197	188
1991	812	572	399	311	188	133
1992	808	418	333	182	120	21
1993	512	N/A	121	N/A	Moratorium	

SOURCE: DFO Resource Allocation.

NOTE: ¹All groundfish species and stocks regulated and managed under the annual Atlantic Groundfish Management Plan (i.e., excluding non-regulated and commercially marginal species such as cusk and catfish).

TABLE 2-1
All Atlantic
Landed Volumes and Values by Major Species
1981-1991

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Landed Volumes — Thousand Tonnes											
Total Landings											
Groundfish	779.6	820.3	766.1	735.0	768.1	785.5	767.1	733.4	683.3	648.1	627.1
Cod	439.6	517.4	509.1	474.9	480.5	474.5	458.2	467.3	425.4	396.5	308.5
Pelagics	224.0	207.2	200.3	199.2	271.4	293.8	320.0	400.7	359.4	423.4	305.3
Shellfish	191.0	170.2	142.0	130.9	148.5	165.6	179.4	200.3	227.8	226.7	225.4
Total	1,194.6	1,197.6	1,108.4	1,065.2	1,187.9	1,245.0	1,266.4	1,334.4	1,270.4	1,298.2	1,157.7
Offshore Landings											
Groundfish	333.6	350.7	309.8	307.7	342.6	365.6	346.8	337.8	296.8	261.3	306.4
Cod	138.8	179.1	175.5	169.4	178.9	194.4	184.7	193.5	158.7	121.3	97.8
Pelagics	40.3	31.7	29.5	28.1	46.6	38.1	44.9	62.0	57.2	98.7	63.7
Shellfish	62.7	46.2	30.6	19.8	28.8	38.6	55.2	61.8	77.6	82.5	80.4
Offshore Total	436.5	428.6	370.0	355.6	418.0	442.4	446.9	461.5	431.6	442.5	450.5
Inshore Landings											
Groundfish	446.0	469.6	456.3	427.4	425.5	420.0	420.3	395.6	386.5	386.8	320.7
Cod	300.8	338.3	333.6	305.6	301.6	280.0	273.5	273.8	266.7	275.2	210.6
Pelagics	183.7	175.4	170.8	171.2	224.8	255.7	275.1	338.7	302.2	324.7	241.6
Shellfish	128.3	124.0	111.4	111.1	119.7	127.0	124.1	138.5	150.1	144.2	144.9
Inshore Total	758.0	769.0	738.5	709.7	769.9	802.6	819.5	872.9	838.9	855.7	707.2
Landed Values — Million Dollars											
Total Landings											
Groundfish	264.0	291.1	276.6	264.8	297.0	367.4	514.8	372.5	357.9	389.3	397.0
Cod	162.9	193.3	187.5	171.3	185.8	214.9	324.1	239.1	218.6	245.3	226.7
Pelagics	50.7	52.7	46.3	44.3	54.5	81.2	80.2	99.6	85.4	87.8	69.8
Shellfish	244.4	237.8	294.5	286.3	331.5	424.8	517.6	534.3	503.4	469.0	531.8
Total	559.2	581.6	617.4	595.5	683.0	873.4	1,112.6	1,006.5	946.6	946.1	998.6
Offshore Landings											
Groundfish	86.2	96.3	87.4	88.9	98.7	120.9	127.7	127.9	115.4	109.9	112.6
Cod	39.8	54.2	53.9	53.6	56.4	68.0	77.0	80.6	68.0	57.5	41.5
Pelagics	5.9	5.6	4.6	4.3	6.8	6.9	8.0	10.6	8.8	13.2	10.4
Shellfish	72.2	44.3	42.0	30.4	40.0	54.6	73.0	88.5	100.0	116.5	117.0
Offshore Total	164.3	146.2	134.1	123.6	145.5	182.4	208.7	227.0	224.1	239.6	240.0
Inshore Landings											
Groundfish	177.8	194.9	189.2	175.9	198.3	246.4	387.1	244.6	242.5	279.4	284.4
Cod	123.1	139.1	133.6	117.7	129.4	146.9	247.2	158.5	150.6	187.8	185.2
Pelagics	44.8	47.1	41.7	40.0	47.7	74.3	72.2	89.0	76.6	74.6	59.4
Shellfish	172.2	193.5	252.5	256.0	291.6	370.2	444.5	445.8	403.3	352.6	414.8
Inshore Total	394.9	435.4	483.3	471.9	537.6	691.0	903.9	779.4	722.5	706.6	758.6

SOURCE: DFO Catch and Effort Data

TABLE 2-2
Newfoundland
Landed Volumes and Values by Major Species
1981-1991

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Landed Volumes — Thousand Tonnes											
Total Landings											
Groundfish	392.8	425.6	388.7	371.5	386.3	398.6	394.6	383.2	347.7	336.6	269.7
Cod	245.4	301.6	295.0	275.7	270.7	282.6	280.5	296.3	262.0	245.7	178.7
Pelagics	64.2	47.7	48.8	60.0	64.0	98.7	82.5	135.4	128.3	160.0	104.1
Shellfish	41.7	31.1	18.3	17.8	17.9	18.2	21.9	39.7	43.2	47.3	48.8
Total	498.7	504.5	455.8	449.3	468.2	515.5	499.1	558.4	519.1	543.9	422.6
Offshore Landings											
Groundfish	194.0	203.4	166.1	163.1	200.6	219.0	208.8	203.8	162.5	148.1	131.5
Cod	81.8	103.4	96.0	89.4	104.6	129.5	124.0	137.8	102.4	81.1	64.0
Pelagics	5.6	2.8	2.9	3.1	4.7	8.0	7.5	10.1	12.8	49.3	25.1
Shellfish	3.7	2.1	2.1	1.9	2.4	2.8	8.8	22.2	24.5	25.5	22.5
Offshore Total	203.2	208.4	171.1	168.1	207.7	229.7	225.1	236.1	199.8	222.9	179.1
Inshore Landings											
Groundfish	198.9	222.2	222.6	208.4	185.7	179.7	185.8	179.4	185.2	188.5	138.2
Cod	163.6	198.2	199.1	186.4	166.1	153.1	156.5	158.5	159.7	164.6	114.8
Pelagics	58.6	44.9	46.0	56.9	59.3	90.7	75.0	125.3	115.5	110.6	79.0
Shellfish	38.0	29.0	16.2	16.0	15.5	15.4	13.1	17.5	18.6	21.8	26.3
Inshore Total	295.5	296.1	284.8	281.2	260.5	285.8	274.0	322.2	319.3	321.0	243.6
Landed Values — Million Dollars											
Total Landings											
Groundfish	118.9	132.5	124.5	118.8	121.5	143.6	215.0	167.2	155.5	175.2	147.5
Cod	83.5	101.2	100.3	94.0	91.6	107.2	169.5	136.4	119.9	134.6	110.6
Pelagics	18.3	14.9	13.2	15.9	13.4	29.2	20.4	37.0	30.1	29.8	20.2
Shellfish	28.7	24.9	28.0	27.9	32.5	33.3	43.3	82.8	75.5	78.3	88.7
Total	165.9	172.4	165.7	162.5	167.3	206.0	278.6	287.0	261.1	283.3	256.5
Offshore Landings											
Groundfish	48.6	54.5	45.2	45.0	53.7	65.1	69.0	73.9	62.8	63.2	49.8
Cod	23.4	30.3	27.9	26.9	30.7	40.2	43.9	53.5	41.5	35.5	25.4
Pelagics	1.0	0.6	0.8	0.7	0.7	1.2	1.3	2.1	2.2	5.8	4.2
Shellfish	4.0	2.2	2.5	2.3	2.7	2.8	9.2	38.6	41.2	47.8	46.4
Offshore Total	53.5	57.3	48.4	48.1	57.1	69.1	79.4	114.7	106.2	116.8	100.4
Inshore Landings											
Groundfish	70.3	78.0	79.3	73.8	67.8	78.5	146.1	93.3	92.7	112.0	97.7
Cod	60.1	70.8	72.4	67.1	60.9	67.0	125.5	82.9	78.4	99.1	85.2
Pelagics	17.3	14.3	12.4	15.1	12.7	28.0	19.1	34.9	27.9	24.0	16.1
Shellfish	24.7	22.7	25.6	25.6	29.8	30.5	34.1	44.2	34.3	30.4	42.3
Inshore Total	112.4	115.0	117.3	114.5	110.3	136.9	199.3	172.4	154.9	166.5	156.1

SOURCE: DFO Catch and Effort Data.

TABLE 2-3
Prince Edward Island
Landed Volumes and Values by Major Species
1981-1991

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Landed Volumes — Thousand Tonnes											
Total Landings											
Groundfish	23.3	18.9	20.3	20.2	15.9	14.8	13.3	14.4	17.4	21.6	19.2
Cod	6.9	5.2	7.1	5.7	5.7	5.0	4.0	4.5	4.7	4.1	3.1
Pelagics	6.2	8.4	9.2	7.8	8.8	15.5	15.3	13.0	7.6	17.4	11.7
Shellfish	9.0	9.4	11.0	10.4	12.4	15.4	14.3	15.4	17.1	14.9	18.0
Total	38.5	36.8	40.4	38.5	37.1	45.8	42.8	42.8	42.1	53.9	48.9
Offshore Landings											
Groundfish	2.9	2.6	3.6	3.8	2.4	2.1	2.1	3.6	8.0	13.7	12.4
Cod	0.5	0.2	1.0	0.5	0.7	0.1	0.0	0.0	0.2	0.2	0.0
Pelagics	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shellfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Offshore Total	2.9	2.6	3.6	3.8	2.4	2.1	2.1	3.6	8.0	13.7	12.4
Inshore Landings											
Groundfish	20.4	16.3	16.6	16.4	13.5	12.7	11.2	10.7	9.4	7.9	6.8
Cod	6.5	4.9	6.0	5.2	5.0	4.8	4.0	4.5	4.6	3.9	3.1
Pelagics	6.2	8.4	9.2	7.8	8.8	15.5	15.3	13.0	7.6	17.4	11.7
Shellfish	9.0	9.4	11.0	10.4	12.4	15.4	14.3	15.4	17.1	14.9	18.0
Inshore Total	35.6	34.2	36.8	34.7	34.7	43.7	40.7	39.2	34.1	40.2	36.5
Landed Values — Million Dollars											
Total Landings											
Groundfish	6.0	5.0	5.3	5.4	4.8	5.6	6.8	4.9	6.1	7.6	7.8
Cod	2.2	1.7	2.1	1.8	1.8	2.1	2.6	1.7	2.1	2.3	2.4
Pelagics	2.1	2.6	3.4	2.4	2.5	4.9	4.4	3.5	2.1	3.3	2.6
Shellfish	21.7	26.3	32.6	28.7	36.2	49.5	55.6	57.9	58.4	40.5	56.6
Total	29.9	33.9	41.3	36.6	43.6	60.1	66.8	66.4	66.5	51.4	67.0
Offshore Landings											
Groundfish	0.7	0.6	0.9	0.9	0.6	0.5	0.5	1.0	2.1	3.6	3.6
Cod	0.1	0.1	0.3	0.1	0.2	0.0	0.0	0.0	0.1	0.1	0.0
Pelagics	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shellfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Offshore Total	0.7	0.6	0.9	0.9	0.6	0.5	0.5	1.0	2.1	3.6	3.6
Inshore Landings											
Groundfish	5.4	4.4	4.4	4.6	4.3	5.1	6.3	4.0	4.0	4.0	4.2
Cod	2.0	1.6	1.8	1.6	1.6	2.1	2.6	1.7	2.0	2.2	2.4
Pelagics	2.1	2.6	3.4	2.4	2.5	4.9	4.4	3.5	2.1	3.3	2.6
Shellfish	21.7	26.3	32.6	28.7	36.2	49.5	55.6	57.9	58.4	40.5	56.6
Inshore Total	29.2	33.3	40.4	35.7	43.0	59.6	66.3	65.4	64.5	47.8	63.4

SOURCE: DFO Catch and Effort Data

TABLE 2-4
Nova Scotia
Landed Volumes and Values by Major Species
1981-1991

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Landed Volumes — Thousand Tonnes											
Total Landings											
Groundfish	278.0	293.5	282.0	269.9	288.0	293.9	275.1	259.9	248.4	232.7	283.4
Cod	128.3	154.4	151.3	144.6	149.5	139.2	132.5	129.2	122.2	114.0	100.8
Pelagics	94.5	91.5	82.1	77.2	110.2	82.7	108.1	136.6	96.5	126.5	104.5
Shellfish	95.0	75.8	61.7	47.4	58.4	74.1	92.8	97.1	117.2	111.0	108.6
Total	467.5	460.8	425.9	394.5	456.5	450.7	476.0	493.6	462.1	470.2	496.5
Offshore Landings											
Groundfish	127.9	133.3	130.3	127.8	128.8	131.8	119.5	110.9	110.4	87.1	146.0
Cod	56.0	74.3	77.6	79.5	73.2	63.9	60.1	55.2	56.1	40.0	33.8
Pelagics	30.3	26.3	23.4	21.5	35.1	24.5	30.7	43.9	35.7	41.7	34.5
Shellfish	57.7	43.4	28.2	17.6	26.2	35.6	46.3	39.6	53.1	57.0	57.9
Offshore Total	215.9	203.1	181.9	166.9	190.1	192.0	196.5	194.4	199.1	185.8	238.4
Inshore Landings											
Groundfish	150.1	160.2	151.7	142.1	159.2	162.0	155.5	149.0	138.1	145.6	137.3
Cod	72.2	80.1	73.6	65.1	76.2	75.3	72.4	74.0	66.2	74.0	67.0
Pelagics	64.2	65.2	58.7	55.7	75.0	58.2	77.4	92.8	60.8	84.8	70.1
Shellfish	37.3	32.4	33.5	29.8	32.2	38.5	46.5	57.5	64.1	54.0	50.7
Inshore Total	251.6	257.7	243.9	227.6	266.4	258.8	279.5	299.2	263.0	284.4	258.1
Landed Values — Million Dollars											
Total Landings											
Groundfish	108.5	124.2	119.5	114.7	139.2	180.2	232.0	164.3	160.5	174.7	208.3
Cod	53.9	68.3	63.2	56.9	69.0	82.1	120.7	81.6	76.8	88.6	93.4
Pelagics	16.5	21.5	17.5	15.3	20.9	24.9	29.4	34.5	29.9	31.2	29.8
Shellfish	137.7	112.8	138.3	134.4	160.2	216.8	261.6	237.1	243.7	238.8	255.8
Total	262.6	258.5	275.4	264.4	320.2	421.9	523.1	435.9	434.1	444.7	493.9
Offshore Landings											
Groundfish	34.8	38.7	38.9	40.1	41.9	52.1	53.8	48.2	46.2	40.2	55.3
Cod	16.1	23.6	25.2	26.5	25.3	27.4	32.7	26.8	26.4	21.9	16.0
Pelagics	4.0	4.7	3.4	3.1	5.3	4.9	5.8	7.4	5.4	6.4	5.6
Shellfish	65.5	41.0	39.4	27.6	37.0	51.2	63.6	49.9	58.8	68.6	70.6
Offshore Total	104.3	84.4	81.7	70.8	84.2	108.1	123.1	105.6	110.5	115.3	131.5
Inshore Landings											
Groundfish	73.6	85.5	80.6	74.6	97.2	128.1	178.2	116.0	114.2	134.5	153.1
Cod	37.8	44.7	37.9	30.3	43.7	54.7	88.1	54.8	50.5	66.7	77.4
Pelagics	12.5	16.9	14.1	12.2	15.6	20.0	23.7	27.1	24.5	24.8	24.1
Shellfish	72.2	71.8	99.0	106.8	123.2	165.6	198.1	187.2	184.9	170.2	185.2
Inshore Total	158.3	174.2	193.7	193.6	236.0	313.7	400.0	330.3	323.6	329.4	362.4

SOURCE: DFO Catch and Effort Data

TABLE 2-5
New Brunswick
Landed Volumes and Values by Major Species
1981-1991

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Landed Volumes — Thousand Tonnes											
Total Landings											
Groundfish	22.6	23.4	21.6	17.2	20.6	22.4	20.4	20.1	18.6	17.1	14.3
Cod	13.9	14.6	15.9	11.3	12.8	13.4	10.0	10.4	10.5	10.4	6.7
Pelagics	50.1	51.3	54.6	48.5	81.9	89.2	105.0	105.9	119.4	110.2	76.6
Shellfish	29.6	34.3	31.7	33.3	33.4	31.4	26.0	25.4	27.8	28.7	24.9
Total	102.3	109.0	107.9	99.0	135.9	143.0	151.4	151.4	165.8	155.9	115.8
Offshore Landings											
Groundfish	0.6	0.1	1.1	1.1	2.4	3.5	3.5	3.4	2.3	1.7	3.3
Cod	0.2	0.0	0.9	0.0	0.4	0.5	0.1	0.0	0.0	0.0	0.0
Pelagics	4.4	2.5	3.2	3.5	6.8	5.7	6.7	8.0	8.7	7.7	4.1
Shellfish	1.4	0.7	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Offshore Total	6.4	3.3	4.7	4.8	9.4	9.2	10.2	11.4	11.0	9.4	7.5
Inshore Landings											
Groundfish	21.9	23.3	20.5	16.1	18.2	18.9	16.9	16.8	16.3	15.4	11.0
Cod	13.6	14.6	15.1	11.3	12.4	13.0	10.0	10.4	10.5	10.4	6.7
Pelagics	45.7	48.7	51.3	45.0	75.1	83.6	98.3	97.9	110.7	102.5	72.4
Shellfish	28.2	33.6	31.4	33.1	33.2	31.4	26.0	25.4	27.8	28.7	24.9
Inshore Total	95.9	105.7	103.2	94.2	126.5	133.9	141.2	140.0	154.8	146.5	108.4
Landed Values — Million Dollars											
Total Landings											
Groundfish	7.1	8.1	8.0	5.5	7.7	9.9	13.9	9.2	9.3	10.2	9.1
Cod	4.7	5.5	6.4	3.7	5.0	6.3	7.9	4.7	5.4	6.6	5.3
Pelagics	9.8	10.4	9.6	8.1	14.1	18.0	21.0	19.7	19.5	18.4	12.3
Shellfish	37.5	48.3	61.5	61.6	62.5	71.6	83.4	89.2	73.9	64.0	74.4
Total	54.5	66.8	79.2	75.2	84.2	99.5	118.3	118.0	102.7	92.6	95.8
Offshore Landings											
Groundfish	0.1	0.0	0.5	0.3	0.7	1.1	1.2	1.1	0.7	0.4	0.9
Cod	0.1	0.0	0.5	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Pelagics	1.0	0.4	0.4	0.5	0.8	0.8	1.0	1.1	1.1	1.0	0.6
Shellfish	2.8	1.1	0.2	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Offshore Total	3.9	1.5	1.2	1.0	1.8	1.8	2.2	2.2	1.9	1.4	1.4
Inshore Landings											
Groundfish	7.0	8.0	7.5	5.2	7.0	8.9	12.7	8.1	8.6	9.8	8.3
Cod	4.7	5.5	5.9	3.7	4.8	6.1	7.8	4.7	5.4	6.6	5.3
Pelagics	8.8	10.1	9.2	7.6	13.2	17.2	20.0	18.6	18.4	17.4	11.7
Shellfish	34.7	47.2	61.3	61.4	62.2	71.6	83.4	89.2	73.9	64.0	74.4
Inshore Total	50.6	65.3	78.0	74.2	82.5	97.7	116.1	115.9	100.9	91.2	94.4

SOURCE: DFO Catch and Effort Data

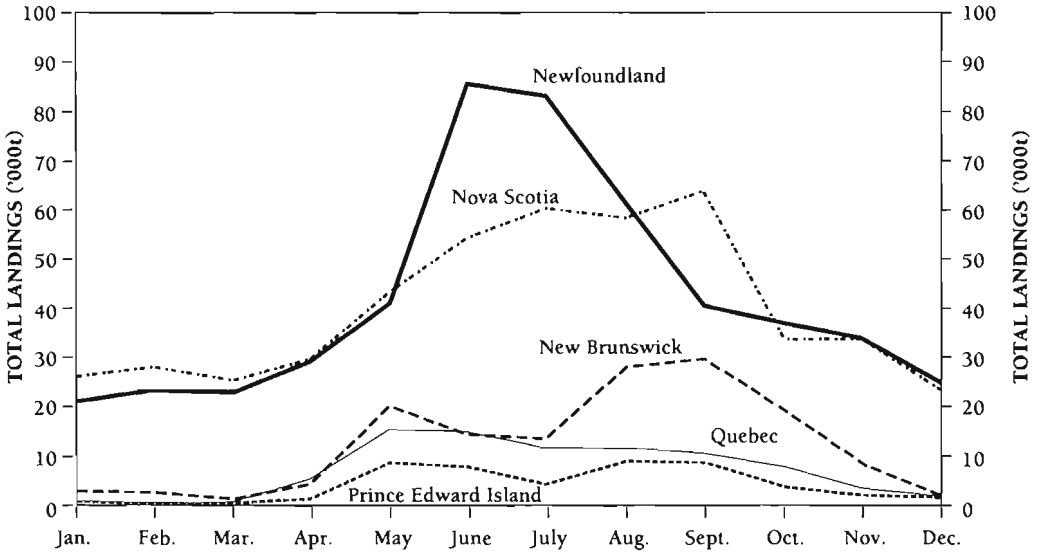
TABLE 2-6
Quebec
Landed Volumes and Values by Major Species
1981-1991

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Landed Volumes — Thousand Tonnes											
Total Landings											
Groundfish	62.9	58.9	53.5	56.2	57.3	55.9	63.8	55.7	51.3	40.1	40.4
Cod	45.2	41.6	39.7	37.6	41.9	34.3	31.2	26.9	25.9	22.3	19.1
Pelagics	9.0	8.2	5.6	5.7	6.4	7.6	9.0	9.7	7.7	9.4	8.4
Shellfish	15.8	19.5	19.3	21.9	26.5	26.4	24.4	22.8	22.5	24.8	25.0
Total	87.6	86.6	78.4	83.9	90.2	89.9	97.2	88.2	81.4	74.3	73.8
Offshore Landings											
Groundfish	8.1	11.2	8.7	11.9	8.4	9.2	12.9	15.9	13.7	10.7	13.2
Cod	0.4	1.1	0.0	0.0	0.0	0.4	0.5	0.5	0.1	0.0	0.0
Pelagics	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shellfish	0.0	0.0	0.0	0.1	0.0	0.3	0.2	0.0	0.0	0.0	0.0
Offshore Total	8.1	11.2	8.7	12.0	8.4	9.5	13.1	15.9	13.7	10.7	13.2
Inshore Landings											
Groundfish	54.8	47.7	44.9	44.3	48.9	46.7	50.9	39.8	37.6	29.4	27.3
Cod	44.9	40.4	39.7	37.6	41.9	33.8	30.7	26.4	25.8	22.3	19.1
Pelagics	9.0	8.2	5.6	5.7	6.4	7.6	9.0	9.7	7.7	9.4	8.4
Shellfish	15.8	19.5	19.3	21.8	26.5	26.2	24.2	22.8	22.5	24.8	25.0
Inshore Total	79.5	75.4	69.7	71.9	81.8	80.5	84.1	72.2	67.7	63.6	60.7
Landed Values — Million Dollars											
Total Landings											
Groundfish	23.5	21.4	19.2	20.4	23.8	28.1	47.1	26.9	26.6	21.6	24.3
Cod	18.6	16.7	15.4	15.0	18.3	17.2	23.5	14.7	14.4	13.2	15.0
Pelagics	4.0	3.2	2.5	2.6	3.6	4.2	5.0	4.9	3.7	5.1	4.9
Shellfish	18.9	25.4	34.1	33.8	40.2	53.6	73.7	67.3	51.8	47.5	56.3
Total	46.4	50.0	55.8	56.8	67.7	85.9	125.8	99.1	82.1	74.1	85.5
Offshore Landings											
Groundfish	1.9	2.4	1.9	2.6	1.8	2.2	3.3	3.7	3.6	2.5	3.1
Cod	0.1	0.3	0.0	0.0	0.0	0.2	0.3	0.2	0.0	0.0	0.0
Pelagics	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shellfish	0.0	0.0	0.0	0.2	0.0	0.5	0.3	0.0	0.0	0.0	0.0
Offshore Total	1.9	2.4	1.9	2.9	1.8	2.7	3.6	3.7	3.6	2.5	3.1
Inshore Landings											
Groundfish	21.6	19.0	17.3	17.8	22.0	25.9	43.8	23.2	23.0	19.1	21.2
Cod	18.5	16.4	15.4	15.0	18.3	17.0	23.2	14.5	14.4	13.2	15.0
Pelagics	4.0	3.2	2.5	2.6	3.6	4.2	5.0	4.9	3.7	5.1	4.9
Shellfish	18.9	25.4	34.1	33.6	40.2	53.0	73.3	67.3	51.8	47.5	56.3
Inshore Total	44.4	47.6	53.8	54.0	65.8	83.1	122.2	95.4	78.6	71.6	82.4

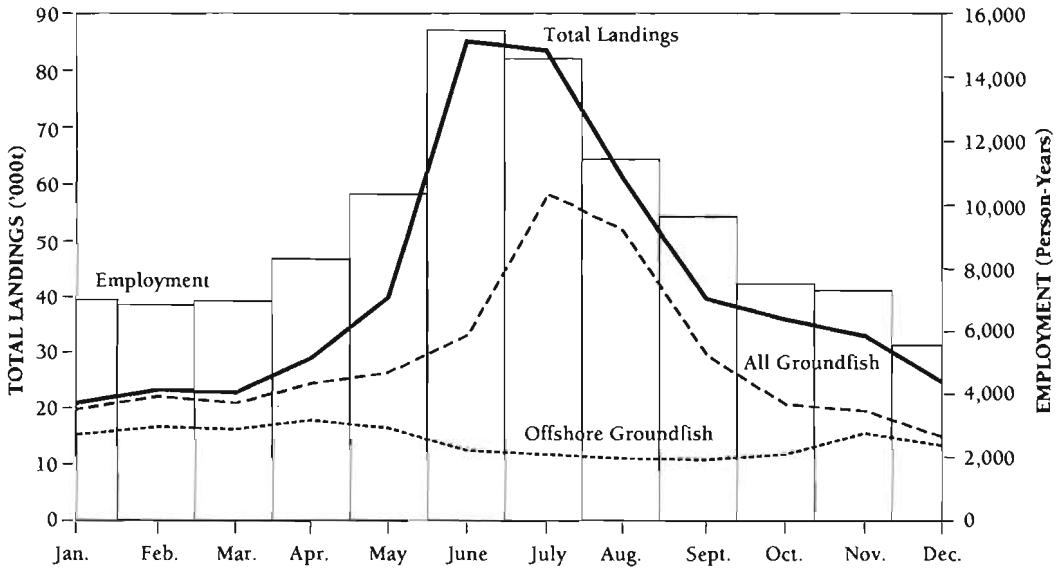
SOURCE: DFO Catch and Effort Data

FIGURE A-1 Seasonality of Landings and Employment

**Average Monthly Total Landings by Volume
1987-1991
Thousand Tonnes**



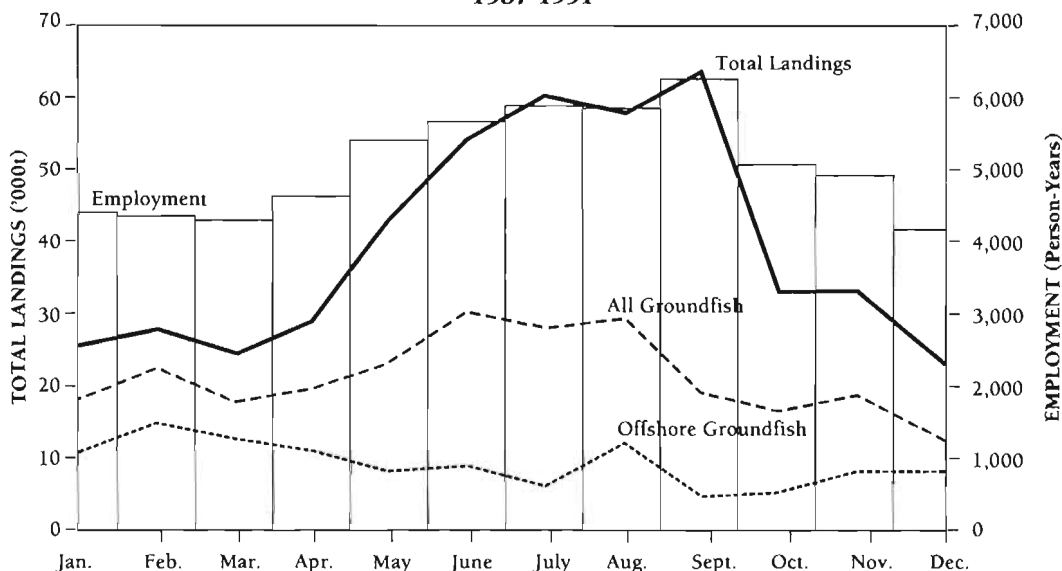
**Newfoundland
Average Monthly Total Landings and Processing Employment
1987-1991**



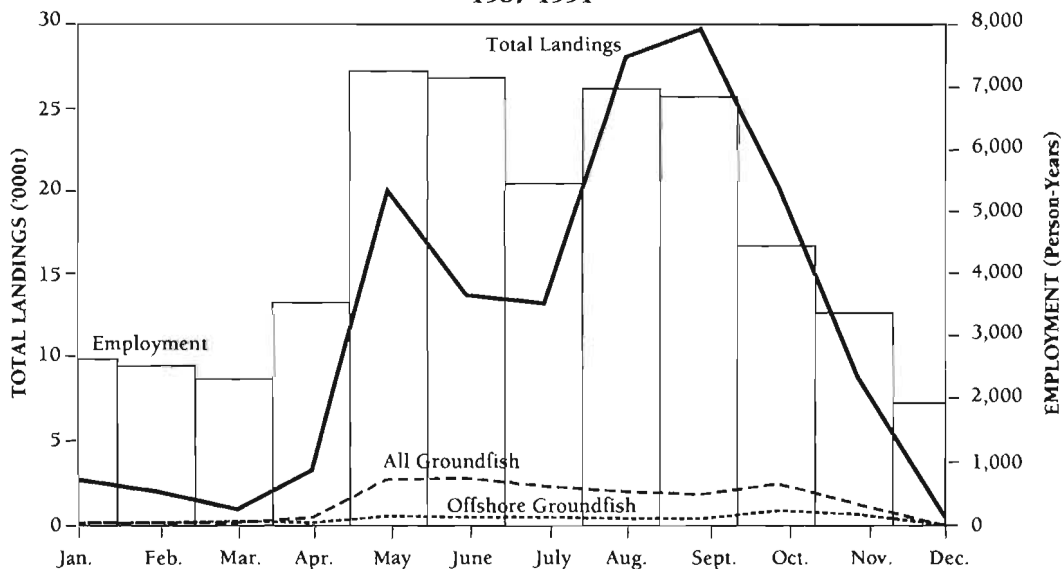
SOURCE: DFO Catch and Effort Data; Statistics Canada Cat. 72-002.

FIGURE A-2 Seasonality of Landings and Employment

Nova Scotia Monthly Total Landings and Processing Employment 1987-1991



New Brunswick Monthly Total Landings and Processing Employment 1987-1991



SOURCE: DFO Catch and Effort Data; Statistics Canada Cat. 72-002.

*Resource Access***TABLE 3 — Access to the Resource: DFO Number of Species Licence Holders by Major Species, 1986-1991**

This table shows the distribution of licence holders with limited-entry fisheries licences by major species. These figures do not represent the total number of licences issued as some people have multiple-species licences or multiple single-species licences. For the years 1989 to 1991 inclusive, the figures do not include groundfish licences for mobile vessels of 65 feet and over.

TABLE 4 — DFO Registered Fishermen by Category, 1981-1991

This table presents the distributions of registered fishermen according to four DFO-designated categories, (i.e. full-time, part-time, bona fide and commercial). Full implementation of DFO fishermen categorization across Atlantic Canada started in 1986.

TABLE 5 — DFO Registered Fishermen and Taxfilers Reporting Fishing Income, Selected Years

Comparison is made between registered fishermen and taxfilers reporting self-employed fishing income and harvesting income. Separate entries are shown for those who earned income only from self-employed fishing and through employment with commercial fishing establishments (SIC 041) respectively. This comparison shows that a significant portion of registered fishermen do not report fishing income. This is expected because registered fishermen include both active and inactive fishermen. It should be also noted that 90 percent of all taxfilers reporting fishing income could be matched with registered fishermen.

TABLE 6 — DFO Registered Fishermen/Vessel Owners and All Registered Vessels by Vessel Size, Selected Years

By merging DFO registration and taxfiler data, it was possible to classify a taxfiler in terms of vessel ownership according to the size (<35' or 35'+) of the primary (i.e. largest) vessel owned. Comparing taxfilers/owners and registered owners provides an indication of participation of fishing enterprises by vessel size. In addition, numbers of all non-company-owned vessels by size are also presented to show the effect of multiple-vessel ownership.

TABLE 7 — Attachment to the Harvesting Sector — A Longitudinal Perspective Individuals Reporting Self-Employed Fishing Income Over the Period 1981-1990

These distributions were obtained by tracking individuals who reported employment income for three or more years to see how many years they reported income from self-employed fishing. The counts show that the largest distributions are for individuals with just a few years of income from the fishery or with long-term attachment of 10 years.

TABLE 3-1
Access to the Resource
Number of Species Licence Holders by Major Species¹
1986-1991

All Atlantic						
	Number of Licence Holders					
Major Species	1986	1987	1988	1989	1990	1991
Groundfish	15,671	15,737	15,890	15,949	15,876	16,565
Lobster	11,579	11,597	11,612	11,593	11,562	11,385
Herring	7,397	9,660	9,261	9,109	8,921	8,690
Mackerel	4,814	4,874	4,968	5,016	5,067	5,080
Capelin	2,009	2,400	2,798	3,157	3,108	3,077
Salmon	3,419	3,260	3,137	3,103	3,057	2,955
Scallop	1,891	1,913	1,966	2,070	2,094	2,069
Squid	49	136	308	398	1,120	1,905
Swordfish	856	869	1,210	1,361	1,294	1,223
Crab	723	789	1,098	1,165	1,180	1,189
Tuna	700	704	721	700	702	694
Shrimp	145	151	153	156	164	163
Total Major Species	49,253	52,090	53,122	53,777	54,145	54,995
Miscellaneous and Other Categories ²						
Other Pelagic	1,932	1,926	1,882	1,895	1,900	1,929
Other Shellfish	4,242	4,321	4,326	4,195	4,141	4,122
Miscellaneous	2,283	2,221	2,178	2,700	3,162	7,807
Total Miscellaneous + Other	8,457	8,468	8,386	8,790	9,203	13,858

SOURCE: DFO Licensing Data.

NOTES: ¹ Refers to individuals and companies holding licences. Differs from total licences issued as some hold more than one licence for the same species or multiple species.

² Miscellaneous and Other Categories include:

- a) Other Pelagic: Alewife, Eel, Shad, Smelt, Striped Bass, Silversides and unspecified other fish
- b) Other Shellfish: Bar Clams, Quahaugs, Clams, unspecified, Mussels, Oyster and Winkles (Whelk)
- c) Miscellaneous: Fish for bait (gillnet, Que.), other seaweeds, Harp/White Coat Seal, Unspecified Seal; Herring (exploratory, Que.), Mackerel (exploratory, Que.), Scallop (exploratory, Que.), Lobster (exploratory, Que.), Capelin (exploratory, Que.), Crab (exploratory, Que.), Transport (Herring Carrier, Scotia Fundy) and unspecified items.

TABLE 3-2
Access to the Resource
Number of Species Licence Holders by Major Species¹
1986-1991

Newfoundland						
Major Species	Number of Licence Holders					
	1986	1987	1988	1989	1990	1991
Groundfish	9,472	9,579	9,762	9,832	9,831	9,361
Lobster	4,476	4,505	4,508	4,506	4,492	4,357
Herring	1,604	3,861	3,461	3,301	3,173	3,035
Mackerel	621	683	758	775	774	783
Capelin	1,995	2,384	2,785	3,144	3,092	3,062
Salmon	3,240	3,209	3,137	3,103	3,057	2,955
Scallop	534	554	609	700	723	713
Squid ³					704	1,481
Swordfish		2	2	2	2	3
Crab	274	321	627	688	705	721
Tuna ³						
Shrimp	49	54	54	56	56	57
Total Major Species	22,265	25,152	25,703	26,107	26,609	26,528
Miscellaneous and Other Categories ²						
Other Pelagic ³				82	111	135
Other Shellfish						3
Miscellaneous ³				574	1,097	5,781
Total Miscellaneous + Other				656	1,208	5,919

SOURCE: DFO Licensing Data.

NOTES: ¹ Refers to individuals and companies holding licences. Differs from total licences issued as some hold more than one licence for the same species or multiple species.

² Refer to the "All Atlantic" table for a detailed listing of these items.

³ Squid (prior to 1990), seals (prior to 1991) and tuna licences were not in the Newfoundland Region licensing database, whereas the Gulf Region's licensing database did not include eel, smelt and seals licences issued prior to 1989 on the west coast of Newfoundland.

TABLE 3-3
Access to the Resource
Number of Species Licence Holders by Major Species¹
1986-1991

Prince Edward Island

Major Species	Number of Licence Holders					
	1986	1987	1988	1989	1990	1991
Groundfish	933	928	928	926	926	924
Lobster	1,309	1,309	1,308	1,308	1,307	1,306
Herring	866	865	865	866	869	867
Mackerel	830	823	823	822	823	824
Capelin						
Salmon	4					
Scallop	395	399	401	401	401	401
Squid		2	63	93	94	105
Swordfish	1		107	146	170	180
Crab		16	16	16	16	16
Tuna	360	361	361	361	361	361
Shrimp						
Total Major Species	4,698	4,703	4,872	4,939	4,967	4,984
Miscellaneous and Other Categories²						
Other Pelagic	513	524	513	476	465	470
Other Shellfish	1,333	1,180	1,143	1,119	1,112	1,207
Miscellaneous	311	314	315	313	314	314
Total Miscellaneous + Other	2,157	2,018	1,971	1,908	1,891	1,991

SOURCE: DFO Licensing Data.

NOTES: ¹ Refers to individuals and companies holding licences. Differs from total licences issued as some hold more than one licence for the same species or multiple species.

² Refer to the "All Atlantic" table for a detailed listing of these items.

TABLE 3-4
Access to the Resource
Number of Species Licence Holders by Major Species¹
1986-1991

Nova Scotia

Major Species	Number of Licence Holders					
	1986	1987	1988	1989	1990	1991
Groundfish	2,839	2,835	2,840	2,850	2,830	3,834
Lobster	3,446	3,442	3,465	3,456	3,442	3,407
Herring	2,256	2,254	2,240	2,252	2,223	2,147
Mackerel	1,870	1,868	1,886	1,920	1,961	1,907
Capelin						
Salmon	53	1				
Scallop	410	409	413	413	425	418
Squid	45	130	240	300	316	313
Swordfish	844	854	1,090	1,198	1,106	1,032
Crab	194	195	199	204	203	195
Tuna	170	170	188	168	170	163
Shrimp	7	7	8	8	11	8
Total Major Species	12,134	12,165	12,569	12,769	12,687	13,424
Miscellaneous and Other Categories²						
Other Pelagic	289	296	293	284	285	296
Other Shellfish	107	105	150	174	189	207
Miscellaneous	76	74	72	71	77	72
Total Miscellaneous + Other	472	475	515	529	551	575

SOURCE: DFO Licensing Data.

NOTES: ¹ Refers to individuals and companies holding licences. Differs from total licences issued as some hold more than one licence for the same species or multiple species.

² Refer to the "All Atlantic" table for a detailed listing of these items.

TABLE 3-5
Access to the Resource
Number of Species Licence Holders by Major Species¹
1986-1991

New Brunswick

Major Species	Number of Licence Holders					
	1986	1987	1988	1989	1990	1991
Groundfish	1,029	1,021	1,011	1,000	986	1,155
Lobster	1,699	1,696	1,690	1,680	1,682	1,666
Herring	1,366	1,366	1,366	1,361	1,356	1,352
Mackerel	1,087	1,082	1,081	1,078	1,072	1,070
Capelin	2	1	2	2	3	3
Salmon	121	49				
Scallop	478	476	471	483	473	465
Squid	4	4	5	5	6	6
Swordfish	8	10	9	13	13	8
Crab	80	82	82	82	82	82
Tuna	120	120	119	118	118	117
Shrimp	44	43	41	38	38	37
Total Major Species	6,038	5,950	5,877	5,860	5,829	5,961
Miscellaneous and Other Categories²						
Other Pelagic	1,013	977	948	909	899	881
Other Shellfish	2,551	2,783	2,731	2,591	2,530	2,343
Miscellaneous	69	68	62	57	58	58
Total Miscellaneous + Other	3,633	3,828	3,741	3,557	3,487	3,282

SOURCE: DFO Licensing Data.

NOTES: ¹ Refers to individuals and companies holding licences. Differs from total licences issued as some hold more than one licence for the same species or multiple species.

² Refer to the "All Atlantic" table for a detailed listing of these items.

TABLE 3-6
Access to the Resource
Number of Species Licence Holders by Major Species¹
1986-1991

Quebec						
Major Species	Number of Licence Holders					
	1986	1987	1988	1989	1990	1991
Groundfish	1,365	1,340	1,322	1,315	1,278	1,268
Lobster	648	644	641	643	639	649
Herring	1,300	1,309	1,323	1,320	1,293	1,284
Mackerel	402	414	419	419	436	496
Capelin	12	15	11	11	13	12
Salmon	1	1				
Scallop	74	75	71	72	72	72
Squid						
Swordfish				1		
Crab	175	175	174	175	174	175
Tuna	50	53	53	53	53	53
Shrimp	45	47	50	54	59	61
Total Major Species	4,072	4,073	4,064	4,063	4,017	4,070
Miscellaneous and Other Categories ²						
Other Pelagic	17	15	15	14	14	12
Other Shellfish	250	252	301	310	309	308
Miscellaneous	1,822	1,760	1,725	1,681	1,613	1,579
Total Miscellaneous + Other	2,089	2,027	2,041	2,005	1,936	1,899

SOURCE: DFO Licensing Data.

NOTES: ¹ Refers to individuals and companies holding licences. Differs from total licences issued as some hold more than one licence for the same species or multiple species.

² Refer to the "All Atlantic" table for a detailed listing of these items.

TABLE 4
DFO Registered Fishermen
Full-Time, Part-Time, Bona Fide and Commercial
1981-1991

Number of Registered Fishermen											
Category	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
All Atlantic											
Full-Time	—	—	—	—	—	24,454	24,789	25,133	25,703	25,740	25,447
Part-Time	—	—	—	—	—	23,730	26,896	27,310	25,532	23,262	20,252
Bona fide	—	—	—	—	—	3,460	3,469	3,481	3,482	3,479	3,481
Commercial	—	—	—	—	—	10,935	11,689	12,033	12,034	11,765	11,897
Total	53,894	53,078	57,042	59,152	58,402	62,579	66,843	67,957	66,751	64,246	61,077
Newfoundland											
Full-Time	—	—	—	—	—	13,345	13,395	13,627	14,183	14,355	14,216
Part-Time	—	—	—	—	—	14,474	16,407	16,946	15,885	14,475	10,699
Bona fide	—	—	—	—	—	0	0	0	0	0	0
Commercial	—	—	—	—	—	0	0	0	0	0	0
Total	28,587	27,379	28,074	27,618	26,564	27,819	29,802	30,573	30,068	28,830	24,915
Prince Edward Island											
Full-Time	—	—	—	—	—	0	0	0	2	2	2
Part-Time	—	—	—	—	—	0	0	0	1	3	0
Bona fide	—	—	—	—	—	1,385	1,388	1,385	1,385	1,385	1,387
Commercial	—	—	—	—	—	3,458	3,804	4,020	4,175	4,156	4,310
Total	2,749	3,013	3,182	3,402	3,719	4,843	5,192	5,405	5,563	5,546	5,699
Nova Scotia											
Full-Time	—	—	—	—	—	7,050	7,417	7,554	7,613	7,494	7,465
Part-Time	—	—	—	—	—	5,524	6,129	6,280	5,955	5,662	6,297
Bona fide	—	—	—	—	—	690	694	695	695	695	695
Commercial	—	—	—	—	—	1,920	2,006	2,125	2,151	2,100	2,116
Total	11,388	10,965	12,543	13,253	13,958	15,184	16,246	16,654	16,414	15,951	16,573
New Brunswick											
Full-Time	—	—	—	—	—	824	822	831	924	907	921
Part-Time	—	—	—	—	—	731	701	658	678	679	719
Bona fide	—	—	—	—	—	1,385	1,387	1,401	1,402	1,399	1,399
Commercial	—	—	—	—	—	5,557	5,879	5,888	5,708	5,509	5,471
Total	5,929	5,805	6,567	6,672	7,466	8,497	8,789	8,778	8,712	8,494	8,510
Quebec											
Full-Time	—	—	—	—	—	3,235	3,155	3,121	2,981	2,982	2,843
Part-Time	—	—	—	—	—	3,001	3,659	3,426	3,013	2,443	2,537
Bona fide	—	—	—	—	—	0	0	0	0	0	0
Commercial	—	—	—	—	—	0	0	0	0	0	0
Total	5,241	5,916	6,676	8,207	6,695	6,236	6,814	6,547	5,994	5,425	5,380

SOURCE: DFO Licensing Data.

NOTE: Full implementation of DFO fishermen categorization across Atlantic region commenced in 1986.

TABLE 5
DFO Registered Fishermen and Taxfilers
Reporting Fishing Income
Selected Years

Province	DFO Registered Fishermen	Taxfilers Reporting Fishing Income ¹				
		Self-Employed Fishermen		Wage-Earning Harvesters		Total
		Net Fishing Income Only	Fishing and Other Earnings	Harvesting Income Only	Harvesting and Other Earnings	
1990						
All Atlantic*	64,246	21,620	12,790	6,080	5,570	46,060
Newfoundland	28,830	9,630	5,310	1,130	870	16,940
Prince Edward Island	5,546	1,800	1,210	540	880	4,430
Nova Scotia	15,951	6,780	3,990	2,070	1,760	14,600
New Brunswick	8,494	1,990	1,360	1,690	1,540	6,580
Quebec*	5,425	1,420	920	650	520	3,510
1988						
All Atlantic*	67,957	23,390	14,790	5,840	4,310	48,330
Newfoundland	30,573	10,190	6,370	900	710	18,170
Prince Edward Island	5,405	1,910	1,290	780	600	4,580
Nova Scotia	16,654	6,740	4,570	1,570	1,450	14,330
New Brunswick	8,778	2,340	1,530	1,840	1,060	6,770
Quebec*	6,547	2,210	1,040	750	500	4,500
1986						
All Atlantic*	62,579	23,620	13,610	5,970	3,900	47,100
Newfoundland	27,819	10,230	5,460	710	650	17,050
Prince Edward Island	4,843	1,890	1,260	590	530	4,270
Nova Scotia	15,184	7,000	4,360	1,360	1,150	13,870
New Brunswick	8,497	2,540	1,620	2,110	940	7,210
Quebec*	6,236	1,960	910	1,200	630	4,700
1981						
All Atlantic*	53,894	20,970	14,880	2,500	2,050	40,400
Newfoundland	28,587	9,400	6,960	600	420	17,380
Prince Edward Island	2,749	1,690	1,120	230	320	3,360
Nova Scotia	11,388	5,900	4,110	640	650	11,300
New Brunswick	5,929	2,120	1,520	820	560	5,020
Quebec*	5,241	1,860	1,180	200	120	3,360

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations; DFO Licensing Data.

NOTE: ¹ The above Taxfiler figures include those individuals with self-employed fishing income greater than plant employment income and those who earn wages or salaries through employment with commercial fishing establishments but not from self-employed fishing or plant employment.

*Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 6
DFO Registered Fishermen/Vessel Owners and
All Registered Vessels
by Vessel Size
Selected Years

Year/Province	Registered Fishermen/Vessel Owners				All Non-Company Owned Registered Vessels	
	Reporting Self-Employed Fishing Income		All Registered Fishermen/Vessel Owners			
	< 35'	35' +	< 35'	35' +	< 35'	35' +
	1990					
All Atlantic*	11,620	6,320	17,359	7,019	21,778	7,451
Newfoundland	8,200	1,010	12,143	1,177	15,623	1,201
Prince Edward Island	30	1,330	41	1,446	53	1,562
Nova Scotia	2,180	1,970	2,839	2,146	3,318	2,325
New Brunswick	370	1,540	679	1,693	919	1,796
Quebec*	840	460	1,657	557	1,865	567
	1988					
All Atlantic*	12,430	6,250	18,239	6,978	22,847	7,521
Newfoundland	8,700	1,030	12,585	1,191	16,024	1,213
Prince Edward Island	20	1,280	26	1,403	37	1,542
Nova Scotia	2,180	1,900	2,906	2,091	3,530	2,352
New Brunswick	440	1,540	787	1,698	1,054	1,800
Quebec*	1,090	500	1,935	595	2,202	614
	1986					
All Atlantic*	11,990	6,240	17,641	6,862	21,732	7,264
Newfoundland	8,160	1,090	11,741	1,226	14,776	1,255
Prince Edward Island	40	1,310	47	1,409	56	1,514
Nova Scotia	2,270	1,860	3,016	2,040	3,609	2,214
New Brunswick	530	1,480	931	1,619	1,176	1,697
Quebec*	1,000	500	1,906	568	2,115	584

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations; DFO Licensing Data.

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 7
Attachment to the Harvesting Sector — Longitudinal Perspective
Individuals Reporting Self-Employed Fishing Income¹
Over the Period 1981 to 1990

Province	Number of Years the Individual Has Reported Income From Self-Employed Fishing Over the 10-Year Period										All 10 Yrs
	1	2	3	4	5	6	7	8	9	10	
All Atlantic	20,220	10,040	7,740	6,240	5,020	4,280	3,770	3,660	4,710	13,650	79,330
Nfld.	8,130	4,320	3,370	2,770	2,140	1,740	1,650	1,620	2,080	6,150	33,970
PEI	1,700	860	640	500	420	310	290	280	360	1,140	6,500
NS	5,530	2,720	2,180	1,720	1,570	1,450	1,130	1,050	1,440	4,010	22,800
NB	2,710	1,160	810	670	490	400	370	350	440	1,530	8,930
Quebec	2,160	970	740	580	390	380	330	360	400	820	7,130

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

NOTE: ¹ Individuals who reported earnings for three or more years and who reported self-employed fishing income for at least one year.

Fish Processing

TABLE 8 — DFO Registered Fish Processing Plants, 1981-1991

This information is based on the DFO Inspection list. Although onshore processing falls under provincial jurisdiction, plants involved in interprovincial or export trade are required to be registered with DFO and are subject to federal sanitary and product inspection. However, some provinces also require local processing facilities to be registered with and inspected by DFO. Processing activities include icing, packing, filleting, freezing, canning, salting, etc. Live lobster operations and fishermen packers are not required to be registered. Not all registered plants are active and operational.

TABLE 9 — Fish Processing Sector, Employment by Plant Size, 1990

This information is based on the 1991 DFO plant survey. Plant employment is defined by the average number of plant people on payroll including both core and casual employees. The distribution shows the number of plants, total employment and average employment for the following plant size categories: less than 50 employees, 50 to 99, 100 to 249, 250 or more.

TABLE 10 — Fish Processing Sector, Employment by Firm Size, 1989

The employment distribution by firm size was obtained by identifying individuals from the tax files who reported fish processing income, to the processing firms in which the income was earned. The firm size categories are based on the average labour units (ALUs) per firm, which provides an estimate of the number of person years (PYs) of employment, in the following categories: less than 100, 100 to 249, 250 or more. To obtain ALUs Statistics Canada divides annual total payroll by average earnings per employee.

This table shows the frequency and percent distributions of plant employees by firm size as well as percent distribution in term of ALUs (or PYs). The comparison between PY and payroll distributions provides an indicator of "labour turnover" across firm sizes.

TABLE 11 — Average Employment Income and UI Benefits of Processing Employees by Firm Size, 1989

This table presents average employment income and UI benefits by firm size. These figures show major differences in the level of earned income as well as the reliance on UI benefits when individuals in the smaller firms are compared with those in the larger firms.

TABLE 12 — Attachment to the Processing Sector — A Longitudinal Perspective Individuals Reporting Plant Employment Income Over the Period 1981-1990

These distributions were obtained by tracking individuals who reported employment income for three or more years to see how many years they reported income from plant employment. The counts show that the largest distributions are for individuals with just a few years of income from the fishery or with long-term attachment of 10 years.

TABLE 13 — Fish Processing Sector — Financial Performance

These tables provide combined industry balance sheet, income statement and financial ratios for the Atlantic fish processing sector over the 11-year period 1981 to 1991. The estimates were prepared by Coopers & Lybrand in a background study for the Task Force. The figures provided for the period 1981 to 1987 are based on detailed aggregated financial statement data provided by Statistics Canada. For the period 1988 to 1991, comparable data were not available from Statistics Canada and the financial profiles have been generated using data from several sources.

TABLE 14 — Total Fishery Exports and Exports to the United States, by Atlantic Provinces and Canada Total

Total fishery exports and those destined to U.S. markets are shown for all of Canada and individual Atlantic provinces. The export figures cover all product forms including fresh products. Provincial exports may include products originating from other provinces.

TABLE 8
DFO Registered Fish Processing Plants
1981-1991

Province	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
All Atlantic	700	685	670	724	788	840	890	991	975	1,018	1,063
Nfld.	225	215	205	212	213	228	244	252	256	268	281
PEI	42	42	43	48	55	60	56	65	76	75	75
NS	213	225	237	256	278	327	307	343	345	347	348
NB	101	114	127	140	163	135	177	207	187	190	194
Quebec	119	89	58	68	79	90	106	124	111	138	165

SOURCE: DFO Inspection Data.

NOTE: 1982 and 1990 numbers are estimated.

TABLE 9
Fish Processing Sector Employment by Plant Size
1990

Plant Size	All Atlantic					Newfoundland				
	Number of Plants		Employment			Number of Plants		Employment		
	Number	Percent	Average	Total	Percent	Number	Percent	Average	Total	Percent
1-49	390	56	17	6,485	11	101	44	19	1,919	7
50-99	109	16	67	7,273	13	40	17	65	2,600	9
100-249	134	19	145	19,437	34	52	23	148	7,696	28
250+	61	9	400	24,384	42	38	16	404	15,352	56
Total	694	100	83	57,579	100	231	100	119	27,567	100

Plant Size	Prince Edward Island					Nova Scotia				
	Number of Plants		Employment			Number of Plants		Employment		
	Number	Percent	Average	Total	Percent	Number	Percent	Average	Total	Percent
1-49	32	70	12	384	16	156	66	16	2,496	19
50-99	5	11	65	325	14	37	16	70	2,590	19
100-249	8	17	176	1,408	59	36	15	133	4,788	36
250+	1	2	265	265	11	9	4	399	3,591	27
Total	46	100	52	2,382	100	238	100	57	13,465	100

Plant Size	New Brunswick					Quebec				
	Number of Plants		Employment			Number of Plants		Employment		
	Number	Percent	Average	Total	Percent	Number	Percent	Average	Total	Percent
1-49	70	59	17	1,190	12	31	51	16	496	13
50-99	10	8	67	670	6	17	28	64	1,088	29
100-249	27	23	152	4,104	40	11	18	131	1,441	38
250+	11	9	400	4,400	43	2	3	388	776	20
Total	118	100	88	10,329	100	61	100	62	3,811	100

SOURCE: DFO Plant Survey, 1991.

NOTE: Only "operational" plants were selected.

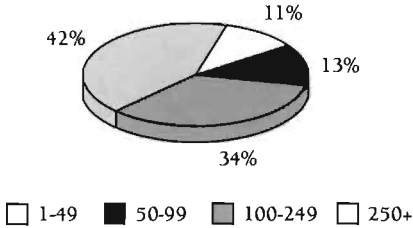
FIGURE B

Fish Processing Sector

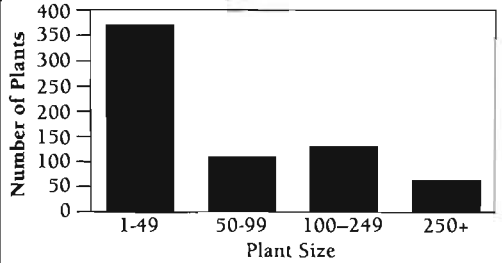
Employment by Plant Size, Selected Provinces

1990

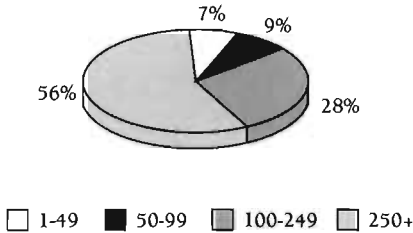
**All Atlantic
Employment by Plant Size**



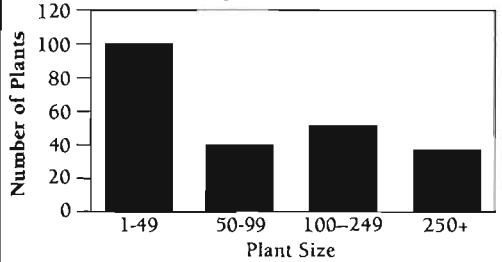
**All Atlantic
Number of Plants by Plant Size**



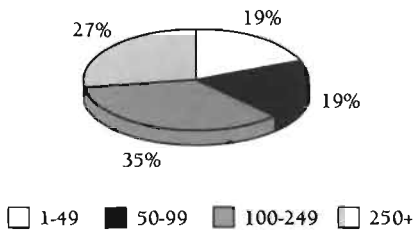
**Newfoundland
Employment by Plant Size**



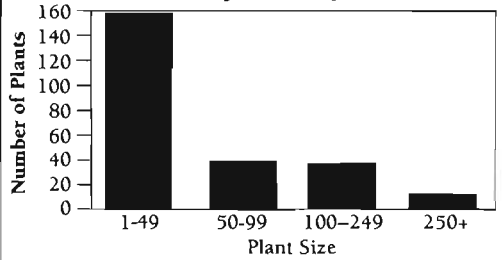
**Newfoundland
Number of Plants by Plant Size**



**Nova Scotia
Employment by Plant Size**



**Nova Scotia
Number of Plants by Plant Size**



SOURCE: DFO Plant Survey, 1991.

NOTE: Only "operational" plants were selected.

TABLE 10
Fish Processing Sector
Employment by Firm Size
1989

Firm Size (ALU)	Number of Employees	Percentage Distribution of Employees	Percentage Distribution of ALU's
All Atlantic*			
< 100	28,630	45.2	28.2
100-249	11,260	17.8	14.9
250 +	23,480	37.1	56.9
Total	63,370	100.0	100.0
Newfoundland			
< 100	9,210	32.2	15.9
100-249	5,890	20.6	13.7
250 +	13,480	47.2	70.4
Total	28,580	100.0	100.0
Prince Edward Island			
< 100	2,070	64.9	52.0
100-249	1,120	35.1	48.0
250 +	**	**	**
Total	3,190	100.0	100.0
Nova Scotia			
< 100	7,750	51.2	30.7
100-249	1,870	12.3	11.4
250 +	5,540	36.6	57.9
Total	15,150	100.0	100.0
New Brunswick			
< 100	6,590	56.0	37.7
100-249	720	6.1	5.6
250 +	4,460	37.9	56.7
Total	11,770	100.0	100.0
Quebec*			
< 100	3,010	64.2	59.5
100-249	1,670	35.6	40.5
250 +	**	**	**
Total	4,690	100.0	100.0

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

NOTE: Processing employees include all individuals reporting plant employment income regardless of major source of employment income.

*Quebec includes postal codes "G0", "G4" and "G5" only

**Due to confidentiality, regrouped in firm size 100-249.

TABLE 11
Average Employment Income and UI Benefits
of Processing Employees
by Firm Size
1989

Firm Size (ALU)	Number of Individuals	Plant Employment Income \$	Total Employment Income \$	UI Benefits \$	Ratio of UI to Total Employment Income
All Atlantic					
< 100	28,630	4,800	7,000	4,800	0.7
100-249	11,260	6,600	7,900	5,400	0.7
250 +	23,480	12,600	14,000	3,600	0.3
Total	63,370	8,000	9,700	4,500	0.5
Newfoundland					
< 100	9,210	3,900	5,200	5,200	1.0
100-249	5,890	5,400	6,500	5,700	0.9
250 +	13,480	12,100	13,100	4,100	0.3
Total	28,580	8,100	9,300	4,800	0.5
Prince Edward Island					
< 100	2,070	4,800	6,700	4,400	0.7
100-249	1,120	8,300	9,900	6,400	0.6
250 +	*	*	*	*	*
Total	3,190	6,000	7,900	5,100	0.6
Nova Scotia					
< 100	7,750	6,500	10,200	3,000	0.3
100-249	1,870	9,300	11,800	2,500	0.2
250 +	5,540	16,600	18,700	2,300	0.1
Total	15,150	10,500	13,500	2,700	0.2
New Brunswick					
< 100	6,590	4,200	5,800	5,500	0.9
100-249	720	5,800		6,200	
250 +	4,460	9,100	10,500	3,700	0.4
Total	11,770	6,200	7,800	4,800	0.6
Quebec					
< 100	3,010	4,500	6,500	6,500	1.0
100-249	1,670	6,600	7,500	6,900	0.9
250 +	*	*	*	*	*
Total	4,690	5,200	6,800	6,700	1.0

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

NOTE: * Due to confidentiality, regrouped in firm size 100-249.

TABLE 12
Attachment to the Processing Sector — Longitudinal Perspective
Individuals Reporting Plant Employment Income¹
Over the Period 1981 to 1990

Province	Number of Years the Individual Has Reported Income From Processing Over the 10-Year Period										All 10 Yrs
	1	2	3	4	5	6	7	8	9	10	
All Atlantic	40,190	22,660	18,150	13,390	10,130	8,010	6,640	6,600	6,950	14,850	147,570
Nfld.	14,850	8,620	6,950	5,340	4,100	3,210	2,700	2,990	3,240	8,100	60,100
PEI	2,770	1,430	940	650	470	390	270	300	330	380	7,930
NS	11,330	6,690	5,350	3,730	2,670	1,960	1,560	1,140	1,120	2,600	38,150
NB	6,970	3,720	3,200	2,510	1,920	1,660	1,460	1,500	1,610	3,190	27,740
Quebec	4,310	2,220	1,730	1,180	990	820	660	680	660	320	13,570

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

NOTE: ¹ Individuals who reported earnings for three or more years and who reported plant employment income for at least one year.

TABLE 13-1
Fish Processing Sector — Financial Performance
Estimated Industry Statement of Income, Millions of Dollars, 1981-1991

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Revenues											
Sales	1,278	1,437	1,415	1,385	1,610	2,162	2,337	2,270	1,903	2,118	2,013
Other	50	44	68	34	48	43	48	46	47	47	47
Total Revenues	1,328	1,480	1,483	1,419	1,658	2,205	2,386	2,316	1,950	2,165	2,060
Expenses											
Materials	779	841	929	791	958	1,304	1,405	1,452	1,260	1,356	1,271
Salaries and Wages	331	393	319	394	391	462	438	478	434	463	436
Interest	86	95	72	52	42	36	39	37	54	44	49
Depreciation and Amortization	36	42	37	40	45	56	63	60	51	56	53
Other	145	211	159	191	204	190	281	255	214	240	221
Total Operating Expenses	1,377	1,583	1,516	1,468	1,640	2,049	2,227	2,283	2,013	2,158	2,031
Income from Operations	(49)	(102)	(33)	(49)	18	156	159	33	(63)	6	29
Non-recurring items	3	17	6	40	12	28	28	0	(9)	14	(25)
Income before Income Taxes	(46)	(85)	(27)	(10)	29	184	187	33	(73)	21	3
Income taxes	(2)	8	(1)	3	7	53	55	10	(18)	2	8
Net Income	(44)	(93)	(25)	(12)	22	131	133	24	(54)	19	(5)
	ESTIMATED RETURN ON EQUITY, PROFIT MARGIN AND COMPARISONS										
	Return on Equity (%)										
Fish Processing	-41.3	-325.2	-25.1	-8.6	7.9	26.4	24.6	4.5	-11.0	4.1	-1.2
Food Manufacturing	13.2	11.0	13.8	13.7	12.9	13.1	16.0	14.0	11.5	10.4	6.5
Total Manufacturing	11.4	4.5	8.9	12.0	10.2	10.0	13.1	16.1	11.0	N/A	N/A
	Profit Margin (%)										
Fish Processing	-3.5	-5.8	-1.8	-0.7	0.0	8.3	7.9	1.4	-3.7	1.0	0.2
Food Manufacturing	3.5	3.2	3.8	3.8	4.2	4.5	4.7	4.0	3.7	2.2	2.3
Total Manufacturing	7.2	3.8	5.8	7.2	7.0	6.8	8.5	9.3	7.1	N/A	N/A

SOURCE: Task Force Background Study, Coopers & Lybrand.

TABLE 13-2
Fish Processing Sector — Financial Performance
Estimated Balance Sheet, Millions of Dollars, 1981-1991

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Current Assets											
Cash and Marketable Securities	27	32	64	17	55	123	111	108	101	103	101
Accounts Receivable	109	81	97	127	108	156	185	168	151	163	156
Inventories	207	221	180	211	189	219	260	249	216	234	227
Other	27	28	18	28	48	39	36	46	36	38	37
Total Current Assets	370	363	359	382	400	538	592	571	504	538	521
Fixed Assets											
Land and Buildings	111	83	83	116	129	187	200	240	243	232	230
Equipment and Other	279	232	260	272	283	470	577	620	684	671	706
Unspecified	176	318	220	233	241	179	134	188	202	197	204
Total Fixed Assets	566	634	564	621	654	837	910	1,048	1,129	1,101	1,141
Accumulated Depreciation	(204)	(239)	(223)	(256)	(260)	(315)	(340)	(407)	(439)	(428)	(444)
Fixed Assets Less Depreciation	361	394	341	365	394	522	570	640	690	673	698
Other Assets	19	13	11	32	28	24	28	37	33	27	22
Net Advances to Affiliates	95	145	100	10	(36)	(31)	112	145	140	93	64
Total Assets	845	915	811	789	786	1,052	1,303	1,393	1,367	1,331	1,305
Current Liabilities											
Short-Term Debt	337	411	304	242	132	86	140	268	291	280	301
Accounts Payable	104	99	83	119	104	170	182	166	189	173	179
Long-Term Debt due within year	19	16	20	16	30	25	33	32	33	31	33
Other	13	48	43	34	11	34	42	32	27	30	30
Total Current Liabilities	473	573	450	411	277	315	397	498	539	514	543
Long-Term Liabilities											
Long-Term Debt (Net)	240	275	241	205	179	195	268	268	257	264	260
Other	26	38	19	29	52	47	98	99	75	89	82
Total Long-Term Liabilities	266	313	260	233	231	243	366	367	332	353	343
Total Liabilities	738	886	710	645	508	557	763	866	871	867	885
Shareholders' Equity	107	29	100	145	278	495	540	527	496	464	420
Liabilities + Shareholders' Equity	845	915	811	789	786	1,052	1,303	1,393	1,367	1,331	1,305

SOURCE: Task Force Background Study, Coopers & Lybrand.

TABLE 14
Total Fishery Exports and Exports to the United States
By Atlantic Provinces and Canada Total
Millions of Dollars

Province	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Canada											
Total Exports	1,518	1,612	1,569	1,597	1,881	2,459	2,773	2,701	2,401	2,626	2,460
to U.S.	815	894	965	972	1,144	1,439	1,624	1,418	1,306	1,411	1,451
All Atlantic											
Total Exports	1,054	1,152	1,123	1,124	1,312	1,736	1,918	1,839	1,541	1,716	1,631
to U.S.	698	771	841	823	973	1,236	1,400	1,175	1,067	1,115	1,125
Newfoundland											
Total Exports	344	380	350	349	367	569	613	598	477	487	428
to U.S.	253	273	290	283	318	423	501	407	340	352	328
PEI											
Total Exports	28	31	36	40	45	61	67	59	59	72	78
to U.S.	19	24	29	32	35	48	49	41	40	49	45
NS											
Total Exports	428	430	441	430	526	648	743	760	649	771	732
to U.S.	282	281	320	313	383	472	540	463	443	442	451
NB											
Total Exports	158	205	206	215	264	311	352	258	238	258	270
to U.S.	99	134	149	133	162	195	216	191	182	192	215
Quebec											
Total Exports	97	106	90	90	110	147	144	164	118	128	123
to U.S.	44	59	54	63	75	97	94	72	62	80	85

SOURCE: Statistics Canada International Trade Division

NOTE: Total fishery exports cover all product forms including fresh products. Provincial exports may include products originating from other provinces.

Incomes in the Fishery

A. INDIVIDUALS

Fishing Sector

Self-employed fishermen are those individuals whose net income from self-employed fishing is greater than plant employment income. Similarly, plant employees are people who earn more from plant work than from self-employed fishing. This allocation to the sectors is done to avoid duplications. Exceptions to this definition will be noted.

Wage-earning harvesters are individuals who earn wages and salaries through employment with fishing establishments (i.e., SIC 041), but not from self-employed fishing or plant employment.

Non-Fishing Sectors

Individuals who did not earn income from self-employed fishing or fish processing employment are identified in this category.

TABLE 15 — Employment in the Fishery by Gender and Province, 1981 and 1990

Based on the taxfiler data, the distributions of self-employed fishermen, wage-earning harvesters and plant employees by gender are shown for each province and all Atlantic for 1981 and 1990.

TABLE 16 — Self-Employed Fishermen and Processing Employees by Age Group, 1981 and 1990

These age distributions of fishermen and plant employees are compared to that of individuals in the non-fishing sectors. The distributions for 1981 and 1990 allow comparisons of changes that have taken place over time.

TABLE 17 — Distribution of Fishermen and Processing Employees by Total Income, Gender and Average Income, 1990

These tables show the distributions of fishermen and plant employees by income range with mean and median incomes for the total population. The mean income represents the average total income from all sources. The median income is the level that divides the population so that half of all individuals earn incomes above the median and half earn incomes below the median.

TABLE 18 — Average Income of Individuals by Source, Major Sector Comparison, 1981 and 1990

These tables compare the income experience of self-employed fishermen, wage-earning harvesters and plant employees with that of individuals in the other non-fishing sectors which are broken down into eight major sector groups. The comparison highlights the relative importance of earned income and transfers such as UI benefits.

TABLE 19 — Average Income of Self-Employed Fishermen, Processing Employees and Non-Fishing Individuals by Source and Income Range, 1990

These income profiles highlight the importance of earned income relative to transfers in the different income ranges.

TABLE 20 — Variability of Employment and Total Incomes of Fishing and Non-fishing Individuals Over the Period 1981 and 1990

The distributions shown in this table were obtained by tracking individuals over the 1981 to 1990 period and selecting those who reported income from the fishery or from the non-fishing sectors in each year. Self-employed fishermen are therefore those individuals who reported income from self-employed fishing every year from 1981 to 1990. Plant employees are similarly defined.

Non-fishing individuals are those who reported employment income in each year of the 10-year period, but not from self-employed fishing or plant employment. Only a 10-percent sample of the non-fishing individuals was used for analysis.

The "coefficient of variation" measures the relative variation of income around the mean. These measures were obtained by tracking each individual over the 10-year period to measure the dispersion around the trend line. The data shows that fishermen's incomes are much more variable than that of plant employees or individuals in the non-fishing sectors.

The level of variability is reduced significantly however when total income which includes UI benefits are considered. The high coefficient of variation over net incomes for fishermen is due the higher fluctuations in income over time.

TABLE 15
Employment in the Fishery by Gender, Sector and Province
1981 and 1990

1990						
Fisheries Sector	Total	Male	Female	Total	Male	Female
	All Atlantic*			Newfoundland		
Self-Employed Fishermen	34,420	29,970	4,440	14,950	12,670	2,260
Wage-Earning Harvesters	11,650	7,570	4,090	2,000	1,210	790
Processing Employees	58,720	29,500	29,220	26,960	14,110	12,850
Total	104,790	67,040	37,750	43,910	27,990	15,900
	Prince Edward Island			Nova Scotia		
Self-Employed Fishermen	3,000	2,220	790	10,770	9,920	860
Wage-Earning Harvesters	1,420	980	440	3,830	2,230	1,600
Processing Employees	2,840	1,250	1,580	13,140	7,140	6,000
Total	7,260	4,450	2,810	27,740	19,290	8,460
	New Brunswick			Quebec*		
Self-Employed Fishermen	3,350	3,000	350	2,340	2,170	180
Wage-Earning Harvesters	3,230	2,400	840	1,170	750	420
Processing Employees	11,650	4,830	6,820	4,130	2,180	1,950
Total	18,230	10,230	8,010	7,640	5,100	2,550
1981						
Fisheries Sector	Total	Male	Female	Total	Male	Female
	All Atlantic*			Newfoundland		
Self-Employed Fishermen	35,670	33,360	2,330	16,360	15,310	1,060
Wage-Earning Harvesters	4,550	3,340	1,210	1,020	590	420
Processing Employees	57,080	29,720	27,360	25,280	14,490	10,800
Total	97,300	66,420	30,900	42,660	30,390	12,280
	Prince Edward Island			Nova Scotia		
Self-Employed Fishermen	2,640	2,090	540	10,000	9,680	330
Wage-Earning Harvesters	550	460	90	1,290	980	310
Processing Employees	2,330	1,010	1,330	13,050	7,270	5,780
Total	5,520	3,560	1,960	24,340	17,930	6,420
	New Brunswick			Quebec*		
Self-Employed Fishermen	3,630	3,450	180	3,040	2,840	220
Wage-Earning Harvesters	1,380	1,070	300	320	240	90
Processing Employees	11,600	4,500	7,120	4,800	2,450	2,330
Total	16,610	9,020	7,600	8,160	5,530	2,640

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 16-1
Self-Employed Fishermen and Processing Employees
By Age Group
1990

Province/ Sector	Number of Individuals						
	Age Groups						
	Less than 19	20 to 24	25 to 34	35 to 44	45 to 49	50+	Total
	Self-Employed Fishermen						
All Atlantic*	2,790	3,940	9,730	8,520	3,121	6,309	34,410
Newfoundland	1,300	1,660	4,190	3,800	1,346	2,644	14,940
Prince Edward Island	190	320	900	810	260	530	3,010
Nova Scotia	980	1,460	3,090	2,440	901	1,909	10,770
New Brunswick	190	260	840	860	369	831	3,350
Quebec*	120	240	710	620	243	407	2,340
	Processing Employees						
All Atlantic*	8,380	8,390	18,500	13,420	4,010	6,020	58,710
Newfoundland	3,640	3,610	8,710	6,620	1,895	2,485	26,960
Prince Edward Island	560	450	730	550	200	350	2,840
Nova Scotia	1,950	2,020	4,110	2,770	812	1,478	13,140
New Brunswick	1,750	1,650	3,590	2,540	818	1,312	11,650
Quebec*	480	660	1,370	940	290	400	4,130
	Percentage Distribution						
	Age Groups						
Province/ Sector	Less than 19	20 to 24	25 to 34	35 to 44	45 to 49	50+	Total
	Self-Employed Fishermen						
All Atlantic*	8.1	11.5	28.3	24.8	9.1	18.3	100.0
Newfoundland	8.7	11.1	28.0	25.4	9.0	17.7	100.0
Prince Edward Island	6.3	10.6	29.9	26.9	8.6	17.6	100.0
Nova Scotia	9.1	13.6	28.7	22.7	8.4	17.7	100.0
New Brunswick	5.7	7.8	25.1	25.7	11.0	24.8	100.0
Quebec*	5.1	10.3	30.3	26.5	10.4	17.4	100.0
	Processing Employees						
All Atlantic*	14.3	14.3	31.5	22.9	6.8	10.3	100.0
Newfoundland	13.5	13.4	32.3	24.6	7.0	9.2	100.0
Prince Edward Island	19.7	15.8	25.7	19.4	7.0	12.3	100.0
Nova Scotia	14.8	15.4	31.3	21.1	6.2	11.3	100.0
New Brunswick	15.0	14.2	30.8	21.8	7.0	11.3	100.0
Quebec*	11.6	16.0	33.2	22.8	7.0	9.7	100.0

SOURCE: Statistics Canada Taxfiler Data and Task Force Computations.

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 16-2
Self-Employed Fishermen and Processing Employees
By Age Group
1981

Province/ Sector	Number of Individuals						
	Age Groups						
	Less than 19	20 to 24	25 to 34	35 to 44	45 to 49	50+	Total
	Self-Employed Fishermen						
All Atlantic*	4,230	4,830	10,050	7,070	3,027	6,633	35,850
Newfoundland	2,180	2,160	4,490	3,120	1,345	3,065	16,360
Prince Edward Island	280	370	840	590	263	477	2,810
Nova Scotia	1,120	1,440	2,900	2,000	824	1,726	10,010
New Brunswick	310	420	970	770	329	831	3,640
Quebec*	350	450	840	600	277	533	3,040
	Processing Employees						
All Atlantic*	14,560	10,980	14,690	8,140	3,174	5,666	57,210
Newfoundland	5,960	4,860	7,140	3,700	1,343	2,277	25,280
Prince Edward Island	710	410	550	360	137	313	2,470
Nova Scotia	3,680	2,450	2,950	1,820	723	1,427	13,050
New Brunswick	3,080	2,250	2,820	1,590	659	1,221	11,610
Quebec*	1,130	1,010	1,240	670	312	448	4,800
	Percentage Distribution						
	Age Groups						
Province/ Sector	Less than 19	20 to 24	25 to 34	35 to 44	45 to 49	50+	Total
	Self-Employed Fishermen						
All Atlantic*	11.8	13.5	28.0	19.7	8.4	18.5	100.0
Newfoundland	13.3	13.2	27.4	19.1	8.2	18.7	100.0
Prince Edward Island	10.0	13.2	29.9	21.0	9.4	17.0	100.0
Nova Scotia	11.2	14.4	29.0	20.0	8.2	17.2	100.0
New Brunswick	8.5	11.5	26.6	21.2	9.0	22.8	100.0
Quebec*	11.5	14.8	27.6	19.7	9.1	17.5	100.0
	Processing Employees						
All Atlantic*	25.5	19.2	25.7	14.2	5.5	9.9	100.0
Newfoundland	23.6	19.2	28.2	14.6	5.3	9.0	100.0
Prince Edward Island	28.7	16.6	22.3	14.6	5.5	12.7	100.0
Nova Scotia	28.2	18.8	22.6	13.9	5.5	10.9	100.0
New Brunswick	26.5	19.4	24.3	13.7	5.7	10.5	100.0
Quebec*	23.5	21.0	25.8	14.0	6.5	9.3	100.0

SOURCE: Statistics Canada Taxfiler Data and Task Force Computations.

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 17-1
Distribution of Fishermen and Processing Employees
by Total Income, Gender and Average Income
1990

Total Income Range (\$)	Self-Employed Fishermen			Fish Processing Employees		
	Total	Male	Female	Total	Male	Female
	All Atlantic*					
Less than 10,000	7,790	6,270	1,520	16,780	6,290	10,490
10,000-14,999	8,390	6,930	1,460	15,940	5,130	10,800
15,000-19,999	6,650	5,690	960	12,470	6,830	5,640
20,000-24,999	3,870	3,530	340	6,620	5,050	1,570
25,000-34,999	3,910	3,800	120	4,380	3,820	560
35,000 +	3,800	3,770	30	2,540	2,370	160
All Income Ranges	34,420	29,980	4,440	58,710	29,490	29,220
Mean (\$)	19,300	20,300	12,900	15,900	19,500	12,200
Median (\$)	15,700	16,400	12,300	13,900	17,400	11,700
	Newfoundland					
Less than 10,000	4,720	3,690	1,030	6,860	3,010	3,840
10,000-14,999	4,720	3,940	780	7,330	2,470	4,860
15,000-19,999	2,910	2,550	360	6,540	3,460	3,090
20,000-24,999	1,160	1,080	80	3,050	2,270	780
25,000-34,999	850	830	20	2,050	1,810	240
35,000 +	580			1,120	1,080	50
All Income Ranges	14,940	12,670	2,270	26,960	14,100	12,860
Mean (\$)	14,700	15,400	11,000	16,000	18,900	12,800
Median (\$)	12,800	13,300	10,600	14,600	17,200	12,600
	Prince Edward Island					
Less than 10,000	530	450	80	960	310	650
10,000-14,999	860	580	280	880	230	650
15,000-19,999	810	520	280	490	310	180
20,000-24,999	410	300	110	370	300	80
25,000-34,999	280	240	40	90	60	30
35,000 +	130			60		
All Income Ranges	3,010	2,220	790	2,840	1,250	1,590
Mean (\$)	17,000	17,300	16,000	14,300	17,800	11,500
Median (\$)	15,600	15,700	15,600	12,000	16,800	10,700

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations (empty cells suppressed by Statistics Canada due to confidentiality).

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 17-2
Distribution of Fishermen and Processing Employees
by Total Income, Gender and Average Income
1990

Total Income Range (\$)	Self-Employed Fishermen			Fish Processing Employees		
	Total	Male	Female	Total	Male	Female
Nova Scotia						
Less than 10,000	1,330	1,090	240	3,820	1,490	2,340
10,000-14,999	1,500	1,290	220	2,820	1,070	1,760
15,000-19,999	1,780	1,550	220	2,600	1,360	1,240
20,000-24,999	1,590	1,480	110	1,510	1,080	420
25,000-34,999	2,130	2,080	50	1,410	1,250	170
35,000 +	2,450	2,430	20	970	890	80
All Income Ranges	10,780	9,920	860	13,140	7,140	6,000
Mean (\$)	26,200	27,200	14,600	17,800	22,400	12,300
Median (\$)	22,300	23,400	14,300	14,800	18,700	11,900
New Brunswick						
Less than 10,000	630	530	110	4,170	1,150	3,020
10,000-14,999	750	620	130	3,640	940	2,700
15,000-19,999	720	660	60	1,900	1,130	780
20,000-24,999	430	400	30	1,050	840	210
25,000-34,999	410			590	500	90
35,000 +	420			300	270	20
All Income Ranges	3,350	3,000	350	11,650	4,830	6,820
Mean (\$)	20,400	21,200	13,300	14,000	18,100	11,100
Median (\$)	16,900	17,700	12,200	11,900	16,400	10,500
Quebec*						
Less than 10,000	580	520	60	970	330	640
10,000-14,999	570	510	60	1,270	430	840
15,000-19,999	430	400	30	930	570	360
20,000-24,999	280			640	560	80
25,000-34,999	250			240	200	40
35,000 +	230			90		
All Income Ranges	2,340	2,160	180	4,130	2,180	1,960
Mean (\$)	18,700	19,100	13,700	15,400	18,300	12,200
Median (\$)	15,300	15,600	11,800	14,200	17,800	11,800

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations (empty cells suppressed by Statistics Canada due to confidentiality).

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 18-1
All Atlantic*
Average Income of Individuals by Source
Major Sector Comparison — 1981 and 1990

Sector	Number of Individuals	Average Income by Source (\$)					
		Sector Employment Income	Total Employment Income	Other Income	UI Benefits	Other Transfers	Total Income
1990							
Self-Employed Fishing	34,410	8,100	10,800	1,000	6,600	1,000	19,300
Wage-Earning Harvesters	11,650	7,245	9,631	644	6,120	798	17,210
Fish Processing	58,710	8,200	9,700	500	4,700	1,000	15,900
All Primary Sectors excl. Fishing	68,900	17,370	17,620	1,035	3,579	919	23,149
Manufacturing excl. Fish Processing	170,620	22,800	23,400	1,000	1,700	900	27,000
Construction	101,320	17,700	18,600	1,000	4,400	800	24,800
Transp., Comm. and Other Utilities	73,440	24,000	24,700	1,200	1,800	900	28,600
Wholesale and Retail Trade	271,580	16,300	16,700	1,000	1,000	800	19,600
Finance, Insurance and Real Estate	56,440	21,800	22,600	2,000	800	1,100	26,400
Community, Bus. and Personal Services	418,900	16,500	17,000	1,000	1,200	1,100	20,300
Public Administration and Defence	245,930	25,100	25,600	1,100	1,300	1,300	29,300
Industry Unspecified and Undefined	30,610	12,000	13,000	800	2,100	1,100	17,000
All Atlantic	1,627,870	18,610	19,300	1,100	1,800	1,100	23,200
1981							
Self-Employed Fishing	35,850	5,800	8,100	800	2,500	500	11,900
Wage-Earning Harvesters	4,570	3,982	5,777	547	2,473	350	9,147
Fish Processing	57,210	6,100	6,800	300	2,000	400	9,600
All Primary Sectors excl. Fishing	71,180	13,124	13,410	611	1,318	406	15,746
Manufacturing excl. Fish Processing	195,790	14,100	14,400	700	800	400	16,300
Construction	81,940	12,400	12,900	900	2,000	400	16,200
Transp., Comm. and Other Utilities	93,650	17,100	17,400	800	600	600	19,400
Wholesale and Retail Trade	208,710	9,200	9,500	900	500	400	11,300
Finance, Insurance and Real Estate	50,570	13,100	13,400	1,100	400	500	15,400
Community, Bus. and Personal Services	327,560	10,700	11,000	700	600	500	12,700
Public Administration and Defence	204,570	15,700	15,900	700	500	600	17,800
Industry Unspecified and Undefined	8,380	3,600	4,200	500	1,200	300	6,200
All Atlantic	1,419,770	12,120	12,400	800	800	500	14,600

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 18-2
Newfoundland
Average Income of Individuals by Source
Major Sector Comparison — 1981 and 1990

Sector	Number of Individuals	Average Income by Source (\$)					
		Sector Employment Income	Total Employment Income	Other Income	UI Benefits	Other Transfers	Total Income
1990							
Self-Employed Fishing	14,940	4,300	6,500	500	6,900	900	14,700
Wage-Earning Harvesters	2,000	6,100	8,050	450	6,450	800	15,800
Fish Processing	26,960	8,400	9,400	400	5,300	900	16,000
All Primary Sectors excl. Fishing	7,710	24,825	25,071	908	3,917	804	30,700
Manufacturing excl. Fish Processing	14,450	22,500	23,300	900	3,000	900	28,100
Construction	16,300	13,700	14,500	600	5,900	700	21,700
Transp., Comm. and Other Utilities	13,750	23,100	23,800	1,100	2,600	1,000	28,500
Wholesale and Retail Trade	44,170	14,000	14,400	800	1,500	700	17,500
Finance, Insurance and Real Estate	7,130	21,000	21,600	1,800	1,100	1,000	25,400
Community, Bus. and Personal Services	56,340	13,100	13,700	700	1,700	1,000	17,100
Public Administration and Defence	61,460	24,200	24,500	900	1,500	1,100	27,900
Industry Unspecified and Undefined	5,660	10,100	10,800	500	2,900	900	15,100
Newfoundland	278,150	16,500	17,100	800	2,700	1,000	21,600
1981							
Self-Employed Fishing	16,360	2,800	5,000	500	2,700	500	8,800
Wage-Earning Harvesters	1,020	4,510	6,471	294	1,863	392	9,118
Fish Processing	25,280	6,900	7,600	200	2,100	400	10,300
All Primary Sectors excl. Fishing	8,440	20,118	20,403	557	960	427	22,334
Manufacturing excl. Fish Processing	16,810	15,300	15,700	600	1,100	500	17,900
Construction	12,660	11,000	11,500	700	2,400	500	15,000
Transp., Comm. and Other Utilities	16,630	16,600	16,900	700	800	600	19,000
Wholesale and Retail Trade	35,060	8,900	9,200	800	700	400	11,000
Finance, Insurance and Real Estate	6,660	12,100	12,400	900	600	400	14,200
Community, Bus. and Personal Services	45,170	9,600	9,900	500	600	400	11,500
Public Administration and Defence	37,460	16,300	16,600	600	600	600	18,300
Industry Unspecified and Undefined	1,660	3,300	3,800	400	1,400	300	5,900
Newfoundland	230,710	11,290	11,800	600	1,100	500	14,000

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

TABLE 18-3
Prince Edward Island
Average Income of Individuals by Source
Major Sector Comparison — 1981 and 1990

Sector	Number of Individuals	Average Income by Source (\$)					
		Sector Employment Income	Total Employment Income	Other Income	UI Benefits	Other Transfers	Total Income
1990							
Self-Employed Fishing	3,010	5,500	7,400	1,000	7,600	900	17,000
Wage-Earning Harvesters	1,420	5,282	7,887	423	7,113	775	16,197
Fish Processing	2,840	5,400	7,600	500	5,100	1,100	14,300
All Primary Sectors excl. Fishing	3,030	12,178	11,683	1,584	3,069	1,089	17,459
Manufacturing excl. Fish Processing	3,540	17,800	18,500	800	1,500	1,100	22,000
Construction	4,310	15,800	16,400	800	3,600	800	21,700
Transp., Comm. and Other Utilities	2,950	22,800	23,600	1,000	1,700	1,000	27,200
Wholesale and Retail Trade	9,500	15,500	16,100	1,100	1,100	1,000	19,400
Finance, Insurance and Real Estate	2,130	20,800	21,800	2,200	1,100	1,200	26,300
Community, Bus. and Personal Services	16,980	15,100	15,600	1,000	1,200	1,300	19,100
Public Administration and Defence	11,020	22,600	23,100	1,100	1,700	1,400	27,300
Industry Unspecified and Undefined	1,080	11,600	12,600	800	1,700	1,100	16,100
Prince Edward Island	66,200	16,260	17,000	1,200	2,100	1,200	21,400
1981							
Self-Employed Fishing	2,810	5,400	6,700	700	2,800	500	10,800
Wage-Earning Harvesters	570	2,982	4,737	175	2,632	351	7,719
Fish Processing	2,470	4,000	4,800	200	1,900	400	7,400
All Primary Sectors excl. Fishing	2,610	6,743	6,705	958	1,073	345	9,157
Manufacturing excl. Fish Processing	3,940	11,500	11,700	600	700	500	13,500
Construction	3,330	9,500	9,900	800	1,600	500	12,900
Transp., Comm. and Other Utilities	3,280	14,800	15,100	900	700	700	17,400
Wholesale and Retail Trade	8,400	8,500	8,700	1,000	500	400	10,600
Finance, Insurance and Real Estate	1,760	13,100	13,400	1,200	400	700	15,700
Community, Bus. and Personal Services	13,110	9,000	9,300	700	600	500	11,100
Public Administration and Defence	10,000	14,600	14,900	700	600	700	16,800
Industry Unspecified and Undefined	360	3,600	4,100	800	1,300	300	6,500
Prince Edward Island	56,980	10,170	10,600	800	800	600	12,700

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

TABLE 18-4
Nova Scotia
Average Income of Individuals by Source
Major Sector Comparison — 1981 and 1990

Sector	Number of Individuals	Average Income by Source (\$)					
		Sector Employment Income	Total Employment Income	Other Income	UI Benefits	Other Transfers	Total Income
1990							
Self-Employed Fishing	10,770	14,900	18,100	1,400	5,700	1,000	26,200
Wage-Earning Harvesters	3,830	8,460	10,914	862	4,360	809	16,919
Fish Processing	13,140	10,700	13,100	800	2,900	1,000	17,800
All Primary Sectors excl. Fishing	10,720	14,123	14,030	1,073	2,379	998	18,489
Manufacturing excl. Fish Processing	38,490	25,200	25,800	1,200	1,200	1,000	29,200
Construction	26,590	18,400	19,300	1,000	3,300	800	24,400
Transp., Comm. and Other Utilities	18,410	24,900	25,600	1,200	1,200	900	28,900
Wholesale and Retail Trade	82,790	18,700	19,100	1,100	700	800	21,700
Finance, Insurance and Real Estate	17,820	23,600	24,400	2,300	600	1,300	28,600
Community, Bus. and Personal Services	116,860	17,300	17,900	1,100	900	1,300	21,100
Public Administration and Defence	71,750	26,800	27,300	1,300	800	1,500	31,000
Industry Unspecified and Undefined	8,550	12,700	13,600	900	1,300	1,200	17,100
Nova Scotia	441,550	20,230	20,900	1,300	1,200	1,200	24,600
1981							
Self-Employed Fishing	10,010	11,100	13,500	900	2,000	500	16,900
Wage-Earning Harvesters	1,290	5,271	7,597	1,085	1,240	388	10,233
Fish Processing	13,050	7,100	8,200	500	1,100	400	10,200
All Primary Sectors excl. Fishing	14,840	11,503	11,685	633	694	586	13,598
Manufacturing excl. Fish Processing	44,990	14,700	15,000	700	500	500	16,700
Construction	19,660	11,500	12,100	900	1,500	400	14,900
Transp., Comm. and Other Utilities	24,140	17,000	17,400	900	500	600	19,300
Wholesale and Retail Trade	60,350	9,200	9,500	1,000	400	400	11,200
Finance, Insurance and Real Estate	15,650	13,300	13,500	1,300	300	700	15,800
Community, Bus. and Personal Services	92,330	10,700	11,000	800	400	600	12,700
Public Administration and Defence	65,800	15,700	15,900	800	300	700	17,700
Industry Unspecified and Undefined	1,290	3,600	4,200	700	900	400	6,200
Nova Scotia	381,740	12,320	12,700	900	500	600	14,700

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

TABLE 18-5
New Brunswick
Average Income of Individuals by Source
Major Sector Comparison — 1981 and 1990

Sector	Number of Individuals	Average Income by Source (\$)					
		Sector Employment Income	Total Employment Income	Other Income	UI Benefits	Other Transfers	Total Income
1990							
Self-Employed Fishing	3,350	6,800	10,800	1,900	6,500	1,300	20,400
Wage-Earning Harvesters	3,230	7,678	10,279	588	7,492	743	19,102
Fish Processing	11,650	6,400	8,000	500	4,600	1,000	14,000
All Primary Sectors excl. Fishing	16,620	17,563	17,732	921	3,700	897	23,249
Manufacturing excl. Fish Processing	39,630	23,700	24,300	900	1,700	900	27,900
Construction	23,980	16,400	17,200	1,000	4,300	700	23,200
Transp., Comm. and Other Utilities	18,930	25,400	26,000	1,100	1,500	900	29,500
Wholesale and Retail Trade	61,730	16,200	16,700	1,000	1,000	800	19,500
Finance, Insurance and Real Estate	13,050	22,300	23,200	2,400	800	1,100	27,500
Community, Bus. and Personal Services	95,200	16,600	17,100	1,100	1,000	1,200	20,400
Public Administration and Defence	49,990	23,900	24,400	1,200	1,200	1,400	28,100
Industry Unspecified and Undefined	7,000	11,500	12,500	800	1,800	1,100	16,200
New Brunswick	360,550	18,640	19,300	1,200	1,700	1,100	23,200
1981							
Self-Employed Fishing	3,640	5,900	8,800	1,300	2,700	600	13,400
Wage-Earning Harvesters	1,380	2,754	4,130	362	3,986	290	8,768
Fish Processing	11,610	4,400	5,000	300	2,500	400	8,200
All Primary Sectors excl. Fishing	14,050	11,651	11,851	520	1,843	391	14,598
Manufacturing excl. Fish Processing	44,170	14,100	14,400	700	800	400	16,300
Construction	18,880	11,400	12,000	900	2,100	400	15,300
Transp., Comm. and Other Utilities	23,110	17,700	17,900	800	500	600	19,800
Wholesale and Retail Trade	48,600	8,700	8,900	900	500	400	10,800
Finance, Insurance and Real Estate	10,900	12,600	12,900	1,300	400	500	15,000
Community, Bus. and Personal Services	62,740	8,900	9,200	700	500	500	11,000
Public Administration and Defence	51,750	15,800	16,000	800	500	700	18,000
Industry Unspecified and Undefined	1,510	3,600	4,300	600	1,200	400	6,500
New Brunswick	306,780	11,750	12,100	800	800	500	14,200

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

TABLE 18-6
Quebec*
Average Income of Individuals by Source
Major Sector Comparison — 1981 and 1990

Sector	Number of Individuals	Average Income by Source (\$)					
		Sector Employment Income	Total Employment Income	Other Income	UI Benefits	Other Transfers	Total Income
1990							
Self-Employed Fishing	2,340	6,700	9,200	1,400	7,300	800	18,700
Wage-Earning Harvesters	1,170	6,325	8,462	769	6,410	940	16,581
Fish Processing	4,130	6,100	7,600	300	6,600	900	15,400
All Primary Sectors excl. Fishing	30,830	17,042	17,522	1,054	3,889	915	23,380
Manufacturing excl. Fish Processing	74,520	21,400	21,900	900	1,800	800	25,400
Construction	30,150	20,600	21,700	1,300	4,600	900	28,500
Transp., Comm. and Other Utilities	19,400	22,500	23,300	1,500	2,100	900	27,700
Wholesale and Retail Trade	73,390	15,200	15,600	1,100	1,200	700	18,600
Finance, Insurance and Real Estate	16,310	20,000	20,600	1,400	800	900	23,700
Community, Bus. and Personal Services	133,530	17,400	17,700	1,000	1,300	1,000	21,100
Public Administration and Defence	51,710	25,600	26,200	1,000	1,600	1,300	30,000
Industry Unspecified and Undefined	8,310	13,000	14,300	800	2,700	1,000	18,900
Quebec	481,410	18,640	19,200	1,100	1,800	1,000	23,100
1981							
Self-Employed Fishing	3,040	5,200	7,200	600	2,900	500	11,300
Wage-Earning Harvesters	320	4,063	5,313	625	2,500	313	8,438
Fish Processing	4,800	4,600	5,200	200	3,000	300	8,700
All Primary Sectors excl. Fishing	31,230	13,205	13,602	628	1,499	330	16,061
Manufacturing excl. Fish Processing	85,890	13,600	14,000	600	1,000	300	15,900
Construction	27,420	14,700	15,200	900	2,300	400	18,800
Transp., Comm. and Other Utilities	26,500	17,200	17,600	800	800	400	19,700
Wholesale and Retail Trade	56,310	10,000	10,300	800	700	300	12,000
Finance, Insurance and Real Estate	15,600	13,600	14,000	800	500	300	15,600
Community, Bus. and Personal Services	114,220	12,400	12,600	600	700	400	14,200
Public Administration and Defence	39,560	15,400	15,600	600	800	500	17,400
Industry Unspecified and Undefined	3,560	3,700	4,300	500	1,200	200	6,200
Quebec	443,570	12,890	13,100	800	900	400	15,300

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 19-1
Average Income of Self-Employed Fishermen
by Source and Income Range
1990

Total Income Range (\$)	Number of Individuals	Net Fishing Income	Plant Employment Income	Other Employment Income	Other Income	UI Benefits	Other Transfers	Total Income
All Atlantic*								
Less than 10,000	7,790	77	39	655	257	4,763	578	6,367
10,000-24,999	18,910	5,389	63	1,655	587	7,483	999	16,171
25,000 +	7,710	22,840	169	6,874	2,918	6,096	1,258	40,117
All Income Ranges	34,410	8,096	81	2,598	1,032	6,553	956	19,320
Newfoundland								
Less than 10,000	4,720	339	21	572	169	5,021	572	6,716
10,000-24,999	8,790	4,425	46	1,445	432	7,952	944	15,267
25,000 +	1,430	16,154	140	11,119	2,238	6,503	1,469	37,552
All Income Ranges	14,940	4,257	54	2,102	529	6,888	877	14,699
Prince Edward Island								
Less than 10,000	530	-1,132		0	566	6,226		6,038
10,000-24,999	2,080	4,760		1,923	625	8,077		16,298
25,000 +	410	17,073		4,390	3,659	6,829		34,146
All Income Ranges	3,020	5,449	33	1,927	1,030	7,608	930	16,977
Nova Scotia								
Less than 10,000	1,330	1,128	75	1,053	301	2,632	526	5,865
10,000-24,999	4,870	7,639	123	1,807	637	6,366	1,027	17,577
25,000 +	4,580	26,608	153	5,098	2,495	5,821	1,094	41,269
All Income Ranges	10,780	14,884	139	3,101	1,393	5,673	994	26,175
New Brunswick								
Less than 10,000	630	-1,746	0	952	635	4,921	794	5,397
10,000-24,999	1,900	5,105	53	1,947	947	7,263	1,263	16,526
25,000 +	830	17,195	122	10,732	4,878	5,976	1,829	40,854
All Income Ranges	3,360	6,806	90	3,910	1,881	6,448	1,284	20,418
Quebec*								
Less than 10,000	580	-1,379		690	172	6,207		6,207
10,000-24,999	1,280	4,844		1,719	859	7,891		16,094
25,000 +	480	21,458		6,250	4,583	7,292		40,833
All Income Ranges	2,340	6,667		2,393	1,453	7,265		18,718

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations (empty cells suppressed by Statistics Canada due to confidentiality).

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 19-2
Average Income of Processing Employees
by Source and Income Range
1990

Total Income Range (\$)	Number of Individuals	Net Fishing Income	Plant Employment Income	Other Employment Income	Other Income	UI Benefits	Other Transfers	Total Income
All Atlantic*								
Less than 10,000	16,780	-18	1,889	1,031	119	2,181	673	5,870
10,000-24,999	35,030	23	7,357	1,216	243	6,140	1,016	16,001
25,000 +	6,920	145	27,572	3,945	2,645	3,526	1,561	39,393
All Income Ranges	58,730	26	8,179	1,485	492	4,703	983	15,868
Newfoundland								
Less than 10,000	6,860	-15	1,647	875	102	2,259	612	5,466
10,000-24,999	16,920	12	7,500	721	195	6,785	928	16,135
25,000 +	3,170	63	27,603	2,839	1,767	3,817	1,703	37,760
All Income Ranges	26,950	11	8,368	1,009	352	5,282	931	15,957
Prince Edward Island								
Less than 10,000	960	0	2,188	1,250	104	2,396	625	6,667
10,000-24,999	1,740	0	5,230	2,069	230	6,724	1,322	15,632
25,000 +	150	0	28,000	7,333	6,667	3,333	2,000	46,667
All Income Ranges	2,850	70	5,387	2,077	528	5,141	1,092	14,296
Nova Scotia								
Less than 10,000	3,820	0	1,911	1,257	183	1,283	681	5,340
10,000-24,999	6,930	72	8,932	1,962	332	3,997	1,140	16,436
25,000 +	2,380	252	29,790	4,832	3,235	2,521	1,303	41,849
All Income Ranges	13,130	76	10,662	2,275	814	2,938	1,035	17,801
New Brunswick								
Less than 10,000	4,170	-48	2,158	983	120	2,662	743	6,595
10,000-24,999	6,590	0	6,464	1,472	319	5,903	1,093	15,266
25,000 +	890		25,169	4,719	3,820	3,708		39,326
All Income Ranges	11,650	-26	6,352	1,562	506	4,584	1,013	13,991
Quebec*								
Less than 10,000	970	-103	2,062	1,237	103	2,887	825	6,907
10,000-24,999	2,840		6,092	1,232	176	7,746		16,127
25,000 +	330	909	17,879	4,242	2,424	7,576	1,818	34,242
All Income Ranges	4,140	48	6,077	1,453	315	6,586	993	15,448

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations (empty cells suppressed by Statistics Canada due to confidentiality).

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 19-3
Average Income of Non-Fishing Individuals
by Source and Income Range
1990

Total Income Range (\$)	Number of Individuals	Employment Income	Other Income	UI Benefits	Other Transfers	Total Income
All Atlantic*						
Less than 10,000	367,290	3,661	320	904	645	5,531
10,000-24,999	615,480	12,899	620	2,517	1,150	17,185
25,000 +	571,340	37,005	2,356	903	1,426	41,690
All Income Ranges	1,554,110	19,578	1,187	1,542	1,132	23,440
Newfoundland						
Less than 10,000	64,940	3,426	191	1,381	579	5,579
10,000-24,999	92,020	12,259	427	3,442	963	17,089
25,000 +	81,440	37,808	1,974	1,135	1,416	42,333
All Income Ranges	238,400	18,582	891	2,092	1,013	22,578
Prince Edward Island						
Less than 10,000	14,050	3,701	399	911	641	5,644
10,000-24,999	28,660	12,456	611	2,673	1,284	17,024
25,000 +	18,710	35,842	2,972	636	1,871	41,320
All Income Ranges	61,420	17,581	1,280	1,650	1,318	21,831
Nova Scotia						
Less than 10,000	99,550	3,799	310	704	587	5,399
10,000-24,999	157,180	13,541	650	1,816	1,223	17,231
25,000 +	166,650	38,256	2,635	551	1,708	43,152
All Income Ranges	423,380	20,978	1,352	1,057	1,265	24,651
New Brunswick						
Less than 10,000	83,620	3,707	311	863	660	5,542
10,000-24,999	139,960	12,915	566	2,559	1,155	17,194
25,000 +	126,700	37,204	2,533	739	1,441	41,917
All Income Ranges	350,280	19,502	1,216	1,496	1,141	23,355
Quebec*						
Less than 10,000	105,130	3,635	408	828	731	5,603
10,000-24,999	197,680	12,740	726	2,592	1,154	17,211
25,000 +	177,840	35,446	2,078	1,272	1,106	39,903
All Income Ranges	480,650	19,149	1,157	1,718	1,044	23,068

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations (empty cells suppressed by Statistics Canada due to confidentiality).

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 20
Variability of Employment and Total Incomes
of Fishing and Non-Fishing Individuals¹
Over the 1981-1990 Period

Province/Sector	Number of Individuals	Coefficient of Variation (%)	
		Employment Income	Total Income
All Atlantic*			
Self-Employed Fishermen	12,600	49.6	30.9
Fish Processing	14,300	25.0	15.5
Non-Fishing	635,500	17.9	15.0
Total	662,400	18.3	15.3
Newfoundland			
Self-Employed Fishermen	5,600	60.1	28.8
Fish Processing	8,000	23.7	13.5
Non-Fishing	86,100	17.2	14.4
Total	99,600	18.1	14.8
Prince Edward Island			
Self-Employed Fishermen	1,100	48.5	30.8
Fish Processing	400	28.1	15.9
Non-Fishing	23,200	18.8	16.1
Total	24,700	19.7	16.7
Nova Scotia			
Self-Employed Fishermen	3,800	42.8	30.4
Fish Processing	2,500	28.1	22.2
Non-Fishing	173,900	17.2	14.9
Total	180,200	17.8	15.4
New Brunswick			
Self-Employed Fishermen	1,400	55.6	34.4
Fish Processing	3,100	23.8	14.0
Non-Fishing	153,200	17.7	14.8
Total	157,800	18.0	15.0
Quebec*			
Self-Employed Fishermen	800	60.5	38.0
Fish Processing	300	26.7	14.1
Non-Fishing	199,000	19.0	15.5
Total	200,100	19.1	15.6

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

NOTE: ¹Individuals reported employment income from respective sector in each year between 1981 and 1990.

*Quebec includes postal codes "G0", "G4" and "G5" only.

Incomes in the Fishery

B. FAMILIES

Fishing Families

Fishing families are broken down into three categories based on the level of earnings from self-employed fishing, plant employment and other non-fishing sectors.

Self-employed fishing families: Income from self-employed fishing is greater than that from plant employment or other non-fishing employment.

Processing families: Income from plant employment is greater than that from self-employed fishing or plant employment.

Other fishing families: Income from the non-fishing sectors is greater than that from self-employed fishing or plant employment. All of these families have incomes from self-employed fishing and/or plant work.

Non-Fishing Families

These families earn all of their income from sources other than self-employed fishing or plant employment. Unless specified otherwise, families with no employment income are included in this category.

TABLE 21 — Average Income of Families by Source and Number of Earners, 1990

Families are grouped according to those with one earner (or employed member), two earners, or three or more earners. Any family member who reported employment income is considered an earner.

The non-fishing sectors in this analysis include only those families with income from employment.

TABLE 22 — Average Family Income by Source and Income Range, 1990

These income profiles allow comparison of the importance of the different sources of income for families with low incomes relative to those with medium or high incomes for the fishing and non-fishing sectors.

TABLE 23 — Incomes of Families with Dependent Children, 1990

Families have been grouped to allow comparison of income and the average family size for families with and without children under the age of 18. Within each sector group, families according to the number of children can be compared to all families.

The number of families and average family size according to the number of children allows comparisons between sectors and provinces.

TABLE 21-1
All Atlantic *
Average Income of Families by Source and Number of Earners
1990

Source of Income/Sector	Average Income by Number of Earners							
	One Earner		Two Earners		Three or More Earners		All Families	
	No.	Income (\$)	No.	Income (\$)	No.	Income (\$)	No.	Income (\$)
Fishing								
Net Fishing Income	8,070	11,491	6,460	16,815	1,710	25,398	16,250	15,064
Processing Employment Income	490	126	1,780	1,043	800	2,481	3,060	738
Other Employment Income	1,480	289	4,280	3,432	1,460	7,273	7,210	2,273
Other Income	3,500	1,699	3,500	1,646	1,180	2,887	8,180	1,802
UI Benefits	7,040	6,484	6,340	11,617	1,690	16,554	15,080	9,580
Other Transfers	7,220	2,844	6,130	2,090	1,700	1,925	15,040	2,446
Total Income	8,070	22,932	6,460	36,643	1,710	56,518	16,250	31,903
Processing								
Net Fishing Income	570	31	1,640	279	660	873	2,870	205
Processing Employment Income	13,780	10,351	9,720	18,187	2,510	25,245	26,010	14,716
Other Employment Income	3,130	336	6,040	3,147	2,080	6,252	11,250	1,957
Other Income	3,990	797	3,960	1,190	1,330	1,819	9,280	1,043
UI Benefits	11,120	4,870	9,130	10,211	2,370	14,554	22,620	7,801
Other Transfers	12,650	2,798	9,190	2,387	2,490	2,444	24,340	2,610
Total Income	13,780	19,184	9,720	35,401	2,510	51,188	26,010	28,333
Other Fishing								
Net Fishing Income	1,970	255	6,250	887	3,400	1,711	11,630	996
Processing Employment Income	3,760	887	11,010	3,133	5,960	3,916	20,730	2,934
Other Employment Income	5,550	8,082	16,320	19,264	8,220	31,384	30,080	20,519
Other Income	1,560	977	7,810	1,174	5,230	2,171	14,610	1,411
UI Benefits	4,070	4,398	15,020	9,269	7,630	13,061	26,720	9,410
Other Transfers	5,070	2,369	15,320	2,317	8,150	2,540	28,550	2,388
Total Income	5,550	16,968	16,320	36,044	8,220	54,783	30,080	37,657
Non-Fishing								
Employment Income	529,440	19,019	353,580	42,616	82,400	57,775	965,410	30,970
Other Income	256,640	1,881	239,070	2,293	66,130	4,153	561,840	2,226
UI Benefits	191,750	1,839	183,080	3,038	47,600	3,991	422,430	2,462
Other Transfers	448,860	3,012	307,680	2,220	81,030	2,673	837,570	2,693
Total Income	529,440	25,751	353,580	50,167	82,400	68,592	965,410	38,350

SOURCE: Statistics Canada, Family Files, Special Task Force Tabulations.

NOTE: * Quebec includes postal codes G0, G4 and G5 only.

TABLE 21-2
Newfoundland
Average Income of Families by Source and Number of Earners
1990

Source of Income/Sector	Average Income by Number of Earners							
	One Earner		Two Earners		Three or More Earners		All Families	
	No.	Income (\$)	No.	Income (\$)	No.	Income (\$)	No.	Income (\$)
Fishing								
Net Fishing Income	2,910	6,073	2,560	9,755	680	15,344	6,140	8,645
Processing Employment Income	150	96	790	1,116	340	2,378	1,280	774
Other Employment Income	480	215	1,360	1,654	530	3,894	2,360	1,223
Other Income	1,030	873	1,070	795	390	1,422	2,490	903
UI Benefits	2,660	6,889	2,550	12,905	680	18,891	5,890	10,738
Other Transfers	2,730	2,800	2,500	2,441	670	2,204	5,910	2,589
Total Income	2,910	16,946	2,560	28,666	680	44,134	6,140	24,871
Processing								
Net Fishing Income	230	3	1,050	264	400	754	1,670	200
Processing Employment Income	5,810	10,704	5,450	16,863	1,420	22,918	12,670	14,731
Other Employment Income	1,040	278	3,060	2,542	1,140	5,204	5,240	1,804
Other Income	1,600	543	1,940	812	670	1,065	4,220	718
UI Benefits	5,000	5,636	5,280	11,227	1,370	15,510	11,650	9,152
Other Transfers	5,360	2,672	5,240	2,307	1,410	2,293	12,020	2,474
Total Income	5,810	19,836	5,450	34,016	1,420	47,744	12,670	29,079
Other Fishing								
Net Fishing Income	770	119	2,730	532	1,500	1,297	5,000	692
Processing Employment Income	1,110	693	4,420	3,059	2,560	3,799	8,090	2,918
Other Employment Income	1,820	7,051	6,700	17,671	3,490	29,060	12,000	19,387
Other Income	440	857	2,900	864	1,990	1,585	5,330	1,073
UI Benefits	1,440	5,037	6,380	10,004	3,310	13,936	11,140	10,403
Other Transfers	1,690	2,184	6,350	2,275	3,470	2,446	11,500	2,313
Total Income	1,820	15,941	6,700	34,405	3,490	52,124	12,000	36,787
Non-Fishing								
Employment Income	73,050	17,244	51,380	42,403	13,470	58,416	137,890	30,642
Other Income	28,790	1,363	31,590	1,932	9,810	3,202	70,200	1,755
UI Benefits	33,890	2,613	30,070	4,116	8,660	5,246	72,620	3,431
Other Transfers	63,180	2,829	45,560	2,217	13,310	2,870	122,050	2,605
Total Income	73,050	24,049	51,380	50,668	13,470	69,733	137,890	38,432

SOURCE: Statistics Canada, Family Files, Special Task Force Tabulations.

TABLE 21-3
Prince Edward Island
Average Income of Families by Source and Number of Earners
1990

Source of Income/Sector	Average Income by Number of Earners							
	One Earner		Two Earners		Three or More Earners		All Families	
	No.	Income (\$)	No.	Income (\$)	No.	Income (\$)	No.	Income (\$)
Fishing								
Net Fishing Income	460	7,085	550	13,455	120	20,283	1,120	11,689
Processing Employment Income	0	0	70	509	50	1,875	130	460
Other Employment Income	100	100	330	2,562	110	7,417	540	2,094
Other Income	230	2,328	330	2,113	90	3,000	650	2,314
UI Benefits	410	7,398	540	14,944	120	20,592	1,070	12,582
Other Transfers	420	2,750	510	2,104	120	1,858	1,050	2,362
Total Income	460	19,678	550	35,685	120	55,017	1,120	31,501
Processing								
Net Fishing Income	40	33	120	388	40	757	190	208
Processing Employment Income	570	5,665	340	14,600	70	23,043	980	10,006
Other Employment Income	200	537	230	2,632	60	6,029	500	1,656
Other Income	150	856	170	1,603	50	3,057	360	1,273
UI Benefits	480	5,130	320	13,018	70	19,814	870	8,916
Other Transfers	530	2,981	320	2,659	70	2,286	920	2,819
Total Income	570	15,204	340	34,900	70	54,986	980	24,879
Other Fishing								
Net Fishing Income	140	335	740	1,294	330	2,073	1,210	1,341
Processing Employment Income	280	953	760	1,966	400	3,059	1,440	2,086
Other Employment Income	400	6,073	1,410	16,397	640	29,502	2,450	18,135
Other Income	100	590	680	987	420	2,314	1,210	1,268
UI Benefits	300	4,593	1,350	10,758	610	14,331	2,260	10,685
Other Transfers	380	2,468	1,340	2,170	640	2,372	2,360	2,271
Total Income	400	15,013	1,410	33,571	640	53,650	2,450	35,786
Non-Fishing								
Employment Income	18,070	16,357	13,760	39,046	3,760	55,860	35,590	29,303
Other Income	8,780	2,108	9,210	2,421	3,130	4,604	21,110	2,493
UI Benefits	6,670	1,792	7,510	3,348	2,130	3,884	16,310	2,615
Other Transfers	15,670	3,501	12,020	2,413	3,720	2,827	31,400	3,009
Total Income	18,070	23,758	13,760	47,228	3,760	67,176	35,590	37,419

SOURCE: Statistics Canada, Family Files, Special Task Force Tabulations.

TABLE 21-4
Nova Scotia
Average Income of Families by Source and Number of Earners
1990

Source of Income/Sector	Average Income by Number of Earners							
	One Earner		Two Earners		Three or More Earners		All Families	
	No.	Income (\$)	No.	Income (\$)	No.	Income (\$)	No.	Income (\$)
Fishing								
Net Fishing Income	3,250	17,886	2,460	24,809	690	36,661	6,400	22,571
Processing Employment Income	250	179	670	1,061	300	2,506	1,220	769
Other Employment Income	620	340	1,900	5,317	620	10,259	3,130	3,322
Other Income	1,550	2,022	1,520	2,222	530	3,809	3,600	2,291
UI Benefits	2,720	5,821	2,390	9,469	680	13,680	5,790	8,071
Other Transfers	2,740	2,763	2,250	1,729	680	1,657	5,670	2,246
Total Income	3,250	29,010	2,460	44,605	690	68,572	6,400	39,270
Processing								
Net Fishing Income	180	106	230	493	110	2,000	520	379
Processing Employment Income	3,690	13,704	1,970	24,357	480	33,465	6,140	18,667
Other Employment Income	940	366	1,490	4,999	430	10,079	2,860	2,612
Other Income	1,310	1,216	1,010	1,853	330	3,406	2,650	1,591
UI Benefits	2,590	3,248	1,670	6,032	420	8,110	4,670	4,521
Other Transfers	3,310	2,859	1,790	2,253	480	2,706	5,570	2,653
Total Income	3,690	21,499	1,970	39,988	480	59,771	6,140	30,423
Other Fishing								
Net Fishing Income	610	578	1,530	2,084	810	3,498	2,940	2,087
Processing Employment Income	1,130	955	2,200	3,627	1,170	4,319	4,510	3,167
Other Employment Income	1,660	10,519	3,520	23,954	1,780	38,969	6,960	24,590
Other Income	560	1,242	1,980	1,753	1,330	3,239	3,870	2,011
UI Benefits	1,010	3,108	2,890	5,961	1,510	8,373	5,410	5,898
Other Transfers	1,490	2,322	3,180	2,475	1,750	2,644	6,420	2,482
Total Income	1,660	18,725	3,520	39,854	1,780	61,042	6,960	40,233
Non-Fishing								
Employment Income	147,650	20,179	95,840	45,808	21,990	62,182	265,480	32,910
Other Income	73,590	2,157	65,620	2,545	17,970	4,752	157,170	2,512
UI Benefits	41,290	1,262	41,420	2,159	10,660	2,702	93,380	1,705
Other Transfers	123,580	3,241	81,170	2,361	21,620	2,947	226,370	2,899
Total Income	147,650	26,840	95,840	52,872	21,990	72,583	265,480	40,027

SOURCE: Statistics Canada, Family Files, Special Task Force Tabulations.

TABLE 21-5
New Brunswick
Average Income of Families by Source and Number of Earners
1990

Source of Income/Sector	Average Income by Number of Earners							
	One Earner		Two Earners		Three or More Earners		All Families	
	No.	Income (\$)	No.	Income (\$)	No.	Income (\$)	No.	Income (\$)
Fishing								
Net Fishing Income	770	8,681	560	17,161	160	25,606	1,490	13,685
Processing Employment Income	50	100	180	1,121	80	2,669	300	759
Other Employment Income	140	335	420	3,538	150	8,575	720	2,423
Other Income	390	2,699	370	2,000	130	4,450	890	2,624
UI Benefits	610	6,123	530	11,457	160	14,806	1,300	9,060
Other Transfers	720	3,787	540	2,036	160	1,906	1,420	2,927
Total Income	770	21,725	560	37,311	160	58,013	1,490	31,479
Processing								
Net Fishing Income	80	24	160	12	70	118	300	0
Processing Employment Income	2,550	7,220	1,380	17,725	390	27,449	4,330	12,373
Other Employment Income	670	369	880	3,123	320	5,990	1,860	1,752
Other Income	660	642	620	1,717	210	2,703	1,490	1,169
UI Benefits	2,030	4,527	1,280	9,962	370	14,456	3,680	7,143
Other Transfers	2,370	3,050	1,290	2,601	390	2,623	4,050	2,861
Total Income	2,550	15,784	1,380	35,141	390	53,341	4,330	25,300
Other Fishing								
Net Fishing Income	260	53	760	214	490	758	1,520	334
Processing Employment Income	880	1,030	2,800	3,296	1,420	4,209	5,100	3,134
Other Employment Income	1,120	7,645	3,410	18,393	1,710	29,243	6,250	19,406
Other Income	320	1,143	1,630	1,283	1,130	2,303	3,080	1,535
UI Benefits	850	4,647	3,170	10,162	1,620	14,448	5,640	10,330
Other Transfers	1,030	2,757	3,240	2,333	1,700	2,539	5,980	2,461
Total Income	1,120	17,275	3,410	35,680	1,710	53,500	6,250	37,200
Non-Fishing								
Employment Income	115,380	18,767	79,650	42,605	20,190	58,027	215,210	31,274
Other Income	54,270	1,989	53,110	2,287	16,160	4,117	123,550	2,299
UI Benefits	39,820	1,748	40,360	2,962	11,150	3,868	91,330	2,396
Other Transfers	98,130	3,200	68,730	2,202	19,840	2,426	186,690	2,758
Total Income	115,380	25,703	79,650	50,055	20,190	68,438	215,210	38,727

SOURCE: Statistics Canada. Family Files, Special Task Force Tabulations.

TABLE 21-6
Quebec*
Average Income of Families by Source and Number of Earners
1990

Source of Income/Sector	Average Income by Number of Earners							
	One Earner		Two Earners		Three or More Earners		All Families	
	No.	Income (\$)	No.	Income (\$)	No.	Income (\$)	No.	Income (\$)
Fishing								
Net Fishing Income	690	10,123	330	17,021	70	16,700	1,090	12,634
Processing Employment Income	30	99	70	1,094	30	3,500	130	618
Other Employment Income	140	430	270	4,448	60	6,386	470	2,028
Other Income	290	2,097	220	2,579	40	3,843	550	2,355
UI Benefits	640	7,601	330	12,361	60	16,900	1,030	9,639
Other Transfers	610	2,381	320	2,124	60	1,743	990	2,262
Total Income	690	22,732	330	39,627	70	49,057	1,090	29,539
Processing								
Net Fishing Income	50	57	90	261	50	413	190	148
Processing Employment Income	1,150	7,165	590	12,647	150	16,253	1,890	9,598
Other Employment Income	280	361	380	2,851	130	4,720	790	1,484
Other Income	260	1,063	230	978	70	993	570	1,031
UI Benefits	1,030	6,882	570	13,576	150	23,920	1,750	10,324
Other Transfers	1,080	2,615	560	2,868	150	2,647	1,780	2,697
Total Income	1,150	18,142	590	33,181	150	48,953	1,890	25,282
Other Fishing								
Net Fishing Income	200	83	500	797	260	1,138	960	722
Processing Employment Income	360	1,000	830	3,010	400	3,478	1,590	2,678
Other Employment Income	540	6,613	1,280	20,180	600	30,517	2,420	19,715
Other Income	140	528	620	1,124	370	1,883	1,130	1,179
UI Benefits	460	5,631	1,230	10,495	580	16,575	2,270	10,917
Other Transfers	490	2,304	1,200	2,227	600	2,955	2,290	2,424
Total Income	540	16,157	1,280	37,833	600	56,547	2,420	37,636
Non-Fishing								
Employment Income	175,300	19,221	112,950	40,448	22,980	53,301	311,230	29,441
Other Income	91,200	1,770	79,540	2,231	19,070	4,096	189,810	2,109
UI Benefits	70,080	2,067	63,720	3,310	15,000	4,616	148,790	2,706
Other Transfers	148,310	2,720	100,200	2,090	22,550	2,489	271,060	2,474
Total Income	175,300	25,778	112,950	48,080	22,980	64,502	311,230	36,731

SOURCE: Statistics Canada, Family Files, Special Task Force Tabulations.

NOTE: * Quebec includes postal codes G0, G4 and G5 only.

TABLE 22-1
Average Income of Fishing Families
by Source and Income Range
1990

Total Income Range (\$)	Number of Families	Net Fishing Income	Plant Employment Income	Other Employment Income	Other Income	UI Benefits	Other Transfers	Total Income
All Atlantic*								
Less than 15,000	2,980	2,261	65	84	429	5,525	1,504	9,867
15,000-34,999	7,920	9,200	469	1,000	968	9,830	2,884	24,351
35,000 +	5,340	30,934	1,515	5,387	3,807	11,491	2,327	55,460
All Income Ranges	16,250	15,064	738	2,273	1,802	9,580	2,446	31,903
Newfoundland								
Less than 15,000	1,590	1,973	57	139	321	5,936	1,481	9,906
15,000-34,999	3,470	7,116	589	877	678	11,278	3,061	23,600
35,000 +	1,080	23,378	2,427	3,931	2,481	16,069	2,705	50,989
All Income Ranges	6,140	8,645	774	1,223	903	10,738	2,589	24,871
Prince Edward Island								
Less than 15,000	190	2,342	0	-542	0	6,816	1,211	10,289
15,000-34,999	550	8,164	204	887	704	12,224	2,685	25,262
35,000 +	380	21,463	979	5,158	5,082	15,987	2,471	51,139
All Income Ranges	1,120	11,689	460	2,094	2,314	12,582	2,362	31,501
Nova Scotia								
Less than 15,000	680	3,416	104	129	618	3,838	1,544	9,651
15,000-34,999	2,610	12,287	397	1,092	1,079	7,588	2,631	25,074
35,000 +	3,120	35,276	1,223	5,873	3,663	9,371	2,070	57,475
All Income Ranges	6,400	22,571	769	3,322	2,291	8,071	2,246	39,270
New Brunswick								
Less than 15,000	290	1,693	0	128	0	5,355	1,714	9,479
15,000-34,999	750	8,712	461	1,299	1,679	9,244	3,217	24,615
35,000 +	460	29,057	1,672	5,650	5,426	10,898	3,152	55,854
All Income Ranges	1,490	13,685	759	2,423	2,624	9,060	2,927	31,479
Quebec*								
Less than 15,000	240	1,417	0	29	0	6,533	1,463	9,950
15,000-34,999	550	9,231	211	1,029	625	9,556	2,651	23,949
35,000 +	300	27,843	1,703	5,460	5,983	12,277	2,190	55,463
All Income Ranges	1,090	12,634	618	2,028	2,355	9,639	2,262	29,539

SOURCE: Statistics Canada, Family Files, Special Task Force Tabulations.

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 22-2
Average Income of Processing Families
by Source and Income Range
1990

Total Income Range (\$)	Number of Families	Net Fishing Income	Plant Employment Income	Other Employment Income	Other Income	UI Benefits	Other Transfers	Total Income
All Atlantic*								
Less than 15,000	6,070	-46	3,697	250	196	3,737	1,614	9,448
15,000-34,999	12,980	139	11,288	1,156	494	8,669	2,815	24,561
35,000 +	6,960	548	30,722	4,941	2,805	9,725	3,096	51,837
All Income Ranges	26,010	205	14,716	1,957	1,043	7,801	2,610	28,333
Newfoundland								
Less than 15,000	2,310	-44	3,469	209	169	4,454	1,232	9,489
15,000-34,999	6,720	184	10,804	1,071	374	9,805	2,640	24,878
35,000 +	3,650	382	29,046	4,159	1,696	10,898	2,950	49,131
Total	12,670	200	14,731	1,804	718	9,152	2,474	29,079
Prince Edward Island								
Less than 15,000	350	0	3,817	229	0	3,663	1,611	9,600
15,000-34,999	460	20	8,030	1,335	522	10,591	3,211	23,861
35,000 +	180	1,000	26,533	5,161	4,744	14,356	4,006	55,800
Total	980	208	10,006	1,656	1,273	8,916	2,819	24,879
Nova Scotia								
Less than 15,000	1,410	32	4,035	265	261	2,552	1,866	9,011
15,000-34,999	2,870	182	14,296	1,294	661	5,002	2,858	24,293
35,000 +	1,870	940	36,308	6,390	4,013	5,245	2,916	55,814
Total	6,140	379	18,667	2,612	1,591	4,521	2,653	30,423
New Brunswick								
Less than 15,000	1,480	-96	3,672	277	180	3,551	1,984	9,568
15,000-34,999	1,940	-23	10,440	1,213	674	8,387	3,253	23,944
35,000 +	900	209	30,987	5,360	3,872	10,449	3,493	54,372
Total	4,330	0	12,373	1,752	1,169	7,143	2,861	25,300
Quebec*								
Less than 15,000	520	0	3,781	329	0	4,346	1,581	10,004
15,000-34,999	1,010	83	8,842	1,118	337	11,028	2,784	24,231
35,000 +	360	825	20,122	4,178	4,128	16,983	4,067	50,300
Total	1,890	148	9,598	1,484	1,031	10,324	2,697	25,282

SOURCE: Statistics Canada, Family Files, Special Task Force Tabulations.

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 22-3
Average Income of Other Fishing Families
by Source and Income Range
1990

Total Income Range (\$)	Number of Families	Net Fishing Income	Plant Employment Income	Other Employment Income	Other Income	UI Benefits	Other Transfers	Total Income
All Atlantic*								
Less than 15,000	3,820	-421	645	3,744	224	3,617	1,367	9,175
15,000-34,999	11,820	366	1,786	11,259	570	9,539	2,540	26,060
35,000 +	14,440	1,886	4,478	32,537	2,412	10,836	2,534	54,684
All Income Ranges	30,080	996	2,934	20,519	1,411	9,410	2,388	37,657
Newfoundland								
Less than 15,000	1,460	-471	485	3,321	177	4,297	1,411	9,220
15,000-34,999	4,890	330	1,605	10,162	478	10,503	2,549	25,628
35,000 +	5,650	1,307	4,684	31,524	1,819	11,894	2,341	53,568
All Income Ranges	12,000	692	2,918	19,387	1,073	10,403	2,313	36,787
Prince Edward Island								
Less than 15,000	270	15	748	3,852	170	3,378	1,074	9,233
15,000-34,999	1,140	492	1,603	11,278	545	10,526	2,332	26,776
35,000 +	1,060	2,565	2,908	28,806	2,303	12,515	2,466	51,563
All Income Ranges	2,450	1,341	2,086	18,135	1,268	10,685	2,271	35,786
Nova Scotia								
Less than 15,000	1,030	-80	698	4,401	284	2,363	1,179	8,846
15,000-34,999	2,340	853	1,785	13,691	729	5,903	2,693	25,653
35,000 +	3,590	3,513	4,776	37,486	3,342	6,908	2,718	58,743
All Income Ranges	6,960	2,087	3,167	24,590	2,011	5,898	2,482	40,233
New Brunswick								
Less than 15,000	720	-739	821	3,718	258	3,608	1,731	9,397
15,000-34,999	2,570	-4	2,254	11,484	585	10,199	2,444	26,961
35,000 +	2,950	891	4,477	30,201	2,679	12,120	2,663	53,032
All Income Ranges	6,250	334	3,134	19,406	1,535	10,330	2,461	37,200
Quebec*								
Less than 15,000	350	-891	694	3,440	209	4,569	1,171	9,194
15,000-34,999	880	184	1,667	10,208	647	10,640	2,641	25,988
35,000 +	1,190	1,595	4,008	31,534	1,858	12,989	2,633	54,615
All Income Ranges	2,420	722	2,678	19,715	1,179	10,917	2,424	37,636

SOURCE: Statistics Canada, Family Files, Special Task Force Tabulations.

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 22-4
Average Income of Non-Fishing Families
by Source and Income Range
1990

Total Income Range (\$)	Number of Families	Other Employ- ment Income	Other Income	UI Benefits	Other Transfers	Total Income
All Atlantic*						
Less than 15,000	416,370	2,197	584	822	5,136	8,739
15,000-34,999	421,480	14,196	1,850	2,576	5,631	24,253
35,000 +	472,140	48,715	4,725	2,228	4,009	59,677
All Income Ranges	1,309,990	22,823	2,484	1,893	4,889	32,089
Newfoundland						
Less than 15,000	66,490	2,036	389	1,291	4,735	8,451
15,000-34,999	56,340	13,265	1,304	3,889	5,604	24,062
35,000 +	65,490	51,037	3,725	3,008	3,724	61,494
All Income Ranges	188,310	22,437	1,823	2,666	4,644	31,569
Prince Edward Island						
Less than 15,000	14,570	2,448	663	944	5,037	9,092
15,000-34,999	16,050	13,802	2,001	2,636	5,725	24,165
35,000 +	16,720	46,991	5,627	2,376	4,559	59,553
All Income Ranges	47,340	22,030	2,870	2,023	5,102	32,025
Nova Scotia						
Less than 15,000	109,110	2,396	613	666	5,024	8,699
15,000-34,999	114,150	14,266	2,064	1,705	6,171	24,206
35,000 +	138,460	49,453	5,702	1,491	4,893	61,539
All Income Ranges	361,710	24,155	3,019	1,310	5,336	33,820
New Brunswick						
Less than 15,000	93,260	2,202	526	789	5,248	8,764
15,000-34,999	93,220	14,149	1,819	2,542	5,824	24,334
35,000 +	107,210	48,559	5,103	2,113	4,343	60,119
All Income Ranges	293,690	22,917	2,607	1,829	5,100	32,453
Quebec*						
Less than 15,000	132,950	2,084	692	724	5,359	8,858
15,000-34,999	141,740	14,584	1,896	2,770	5,069	24,319
35,000 +	144,250	47,271	3,857	2,649	2,978	56,756
All Income Ranges	418,950	21,871	2,189	2,079	4,441	30,581

SOURCE: Statistics Canada, Family Files, Special Task Force Tabulations.

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 23-1
Incomes of Families with Dependent Children
Self-Employed Fishing Families
1990

Province/Income Distribution	All Families	Families by Number of Dependent Children ¹			
		0	1	2	3 +
All Atlantic*					
Mean (\$)	31,900	28,100	34,600	36,400	34,900
Median (\$)	27,000	21,900	28,800	31,500	30,800
Number of Families	16,250	7,730	3,410	3,270	1,850
Average Number per Family	2.9	1.8	3.1	4.1	5.4
Newfoundland					
Mean (\$)	24,900	20,700	27,500	28,500	28,500
Median (\$)	21,900	16,900	23,300	25,600	26,800
Number of Families	6,140	2,680	1,340	1,310	810
Average Number per Family	3.1	1.8	3.1	4.1	5.5
Prince Edward Island					
Mean (\$)	31,400	26,400	31,900	38,800	36,400
Median (\$)	28,800	21,800	28,400	34,500	35,000
Number of Families	1,120	520	210	220	180
Average Number per Family	3.0	1.7	3.0	4.1	5.5
Nova Scotia					
Mean (\$)	39,300	35,000	42,600	45,000	42,100
Median (\$)	34,300	28,900	37,500	40,900	37,400
Number of Families	6,400	3,150	1,390	1,250	620
Average Number per Family	2.9	1.8	3.1	4.1	5.4
New Brunswick					
Mean (\$)	31,400	28,700	32,200	35,100	37,600
Median (\$)	26,500	22,400	27,200	31,200	32,200
Number of Families	1,490	810	250	290	140
Average Number per Family	2.8	1.8	2.9	4.0	5.4
Quebec*					
Mean (\$)	29,500	25,400	32,700	34,500	35,700
Median (\$)	24,300	19,200	27,900	29,900	31,500
Number of Families	1,090	570	220	200	100
Average Number per Family	2.6	1.6	2.9	4.0	5.4

SOURCE: Statistics Canada, Family Files, Task Force Special Tabulations.

*Quebec includes postal codes "G0", "G4" and "G5" only.

¹ Includes dependent children aged 18 and under.

TABLE 23-2
Incomes of Families with Dependent Children
Processing Families
1990

Province/Income Distribution	All Families	Families by Number of Dependent Children ¹			
		0	1	2	3 +
All Atlantic*					
Mean (\$)	28,300	25,100	29,100	36,400	33,900
Median (\$)	25,100	20,500	25,700	30,000	30,800
Number of Families	26,010	11,940	6,200	5,300	2,570
Average Number per Family	2.8	1.7	2.9	4.0	5.4
Newfoundland					
Mean (\$)	29,100	25,100	29,600	32,100	34,000
Median (\$)	26,900	21,300	26,900	30,400	31,400
Number of Families	12,670	4,800	3,150	3,070	1,650
Average Number per Family	3.1	1.8	3.0	4.0	5.4
Prince Edward Island					
Mean (\$)	25,000	20,800	26,500	34,300	27,300
Median (\$)	20,100	16,800	17,800	29,200	26,500
Number of Families	980	500	200	160	130
Average Number per Family	2.7	1.6	2.7	3.9	5.3
Nova Scotia					
Mean (\$)	30,400	27,700	31,400	34,300	38,300
Median (\$)	25,700	22,200	26,100	31,500	31,500
Number of Families	6,140	3,260	1,400	1,050	440
Average Number per Family	2.6	1.7	2.8	3.9	5.3
New Brunswick					
Mean (\$)	25,300	23,300	25,900	29,400	30,500
Median (\$)	20,600	18,000	21,300	27,300	28,700
Number of Families	4,330	2,350	1,010	710	260
Average Number per Family	2.5	1.7	2.7	3.8	5.2
Quebec*					
Mean (\$)	25,200	23,300	26,400	28,700	29,200
Median (\$)	22,100	19,500	25,200	26,900	27,800
Number of Families	1,890	1,040	440	310	100
Average Number per Family	2.5	1.6	2.9	3.9	5.1

SOURCE: Statistics Canada, Family Files, Task Force Special Tabulations.

*Quebec includes postal codes "G0", "G4" and "G5" only.

¹ Includes dependent children aged 18 and under.

TABLE 23-3
Incomes of Families with Dependent Children
Other Fishing Families
1990

Province/Income Distribution	All Families	Families by Number of Dependent Children ¹			
		0	1	2	3 +
All Atlantic*					
Mean (\$)	37,700	36,600	38,500	36,400	38,300
Median (\$)	34,100	32,200	34,500	35,100	35,300
Number of Families	30,080	11,880	7,580	7,160	3,480
Average Number per Family	3.4	2.4	3.4	4.2	5.5
Newfoundland					
Mean (\$)	36,800	35,300	37,900	37,500	36,800
Median (\$)	33,500	31,400	34,400	34,600	33,600
Number of Families	12,000	4,010	3,090	3,180	1,730
Average Number per Family	3.6	2.4	3.5	4.3	5.6
Prince Edward Island					
Mean (\$)	35,700	33,300	35,700	38,200	38,300
Median (\$)	32,700	29,600	32,300	34,100	36,200
Number of Families	2,450	950	590	560	370
Average Number per Family	3.5	2.2	3.3	4.3	5.6
Nova Scotia					
Mean (\$)	40,300	38,700	41,200	41,900	42,300
Median (\$)	35,800	33,200	36,300	37,800	38,300
Number of Families	6,960	3,280	1,660	1,400	620
Average Number per Family	3.2	2.3	3.4	4.2	5.5
New Brunswick					
Mean (\$)	37,200	37,500	37,200	36,500	37,800
Median (\$)	34,000	33,500	33,700	34,100	35,600
Number of Families	6,250	2,530	1,630	1,510	590
Average Number per Family	3.4	2.4	3.3	4.1	5.4
Quebec*					
Mean (\$)	37,600	35,600	39,800	38,100	40,900
Median (\$)	34,700	32,000	36,000	35,400	36,600
Number of Families	2,420	1,120	610	520	170
Average Number per Family	3.2	2.3	3.4	4.1	5.4

SOURCE: Statistics Canada, Family Files, Task Force Special Tabulations.

*Quebec includes postal codes "G0", "G4" and "G5" only.

¹ Includes dependent children aged 18 and under.

TABLE 23-4
Incomes of Families with Dependent Children
Non-Fishing Families
1990

Province/Income Distribution	All Families	Families by Number of Dependent Children ¹			
		0	1	2	3 +
All Atlantic*					
Mean (\$)	32,100	27,000	37,600	36,400	42,200
Median (\$)	25,200	19,000	32,800	39,700	37,500
Number of Families	1,309,990	825,700	199,490	191,460	93,350
Average Number per Family	2.4	1.6	2.9	3.9	5.3
Newfoundland					
Mean (\$)	31,600	25,600	36,200	43,600	41,600
Median (\$)	23,400	16,600	30,200	39,400	35,900
Number of Families	188,310	110,440	33,540	29,790	14,530
Average Number per Family	2.5	1.6	2.9	4.0	5.3
Prince Edward Island					
Mean (\$)	32,000	26,800	37,500	43,300	44,300
Median (\$)	25,200	18,700	32,200	38,900	39,100
Number of Families	47,340	30,300	6,680	6,240	4,120
Average Number per Family	2.4	1.6	2.9	3.9	5.4
Nova Scotia					
Mean (\$)	33,800	29,300	39,100	45,200	44,700
Median (\$)	26,500	20,900	33,800	41,400	40,000
Number of Families	361,710	238,120	51,980	48,520	23,090
Average Number per Family	2.3	1.6	2.9	3.9	5.3
New Brunswick					
Mean (\$)	32,500	27,800	37,400	43,000	42,200
Median (\$)	25,500	19,600	32,400	39,500	37,300
Number of Families	293,690	186,090	44,970	42,920	19,700
Average Number per Family	2.4	1.6	2.9	3.9	5.2
Quebec*					
Mean (\$)	30,600	25,100	37,200	41,700	40,400
Median (\$)	24,800	18,100	33,400	38,600	36,300
Number of Families	418,950	260,740	62,310	63,980	31,920
Average Number per Family	2.4	1.6	2.9	3.9	5.3

SOURCE: Statistics Canada, Family Files, Task Force Special Tabulations.

*Quebec includes postal codes "G0", "G4" and "G5" only.

¹ Includes dependent children aged 18 and under.

Incomes in the Fishery

C. UNEMPLOYMENT INSURANCE

TABLE 24 — Employment Incomes and UI Benefits, Fishing and Non-fishing Sectors, 1981-1990

The average earnings, UI benefits and ratio of UI to earnings show the contribution to income from UI throughout the period across all provinces for fishermen and plant employees relative to individuals in the non-fishing sectors. This data is based on information from the T1 and T4 merged files.

TABLE 25 — Distribution of Fishing and Non-Fishing Individuals by Duration of UI Benefits and Insured Weeks of Employment, 1981 and 1990

For all claim types, distributions were obtained on the duration of the benefit period and the duration of insured employment associated with the claim by sector of employment.

These tables, based on data from the merged Status Vector files, show the distributions of fishermen and plant employees who made claims and received UI benefits according to the duration of benefits and insured employment. The weeks of benefits have been divided into ranges to show the distributions of individuals with relatively short or long durations of benefits and the changes in the pattern between 1981 and 1990. Similar distributions are shown for the average duration of insured employment.

For this analysis, all individuals with incomes from self-employed fishing are categorized as fishermen, regardless of the level of plant income. Plant employees are similarly defined.

TABLE 26 — Fishing and Non-Fishing Individuals - Distribution by Types of UI Benefits, Duration and Payments, 1981 and 1990

Detailed information associated with the UI claims was obtained to provide information on the types of benefits relied on. The following is a brief description of the information obtained for fishermen, plant employees and non-fishing individuals as provided in Tables 26-1 to 26-6.

For these analyses, individuals classified as fishermen or plant employees include all of those with income from the respective sector, without adjustment for those who earned income from both sectors.

Type of Benefits: Information on the type of benefits was obtained on an individual basis according to sector of employment. The benefit experience relates to all of the claims associated with a particular individual in a calendar year. Claims may start in one calendar year and end in the next. In these cases, the claim was associated with the year in which most of the benefits were received.

Individuals may receive more than one type of benefit either on a single claim or through more than one claim in a calendar year. These benefit payments were categorized into three groups:

Seasonal Fishing Benefits: Benefits paid to self-employed fishermen under the fishermen's UI Regulations.

Regular Benefits: Benefits paid to individuals with insured employment who become unemployed and qualify for payments. Year-round fishing benefits are included in this category.

Other Benefits: Non-regular and non-fishing benefits such as sickness, maternity or parental benefits.

All combinations of payments and associated claims information under these benefit types were obtained for the 1981 to 1990 period. This includes information by benefit type on:

- the distribution of individuals according to the type of benefit received;
- the average total payments for each benefit type;
- average weekly payments; and
- average duration of payments (weeks).

Individuals may receive one or more types of benefit either on a single claim or on more than one claim. These distributions show how many individuals with self-employed fishing income or plant employment income relied on self-employed fishing benefits, regular benefits or some other combination of benefits. The experience for individuals in the non-fishing sectors is also provided. Individuals in this latter group with seasonal fishing benefits would likely have qualified for these benefits through earnings from self-employed fishing in the previous year. Benefit payments are allocated to the calendar year in which most of the payments were received.

Note that the average duration for seasonal fishing benefits is much shorter than that for regular benefits, reflecting the restriction of the benefit period to the off-season period.

TABLE 24-1
Employment Income and UI Benefits
Fishing and Non-Fishing Sectors
1981-1990

Province	Self-Employed Fishermen			Processing Employees			Non-Fishing		
	Total Employment Income (\$)	UI Benefits (\$)	Ratio of UI Benefits to Income	Total Employment Income (\$)	UI Benefits (\$)	Ratio of UI Benefits to Income	Total Employment Income (\$)	UI Benefits (\$)	Ratio of UI Benefits to Income
All Atlantic*									
1981	8,100	2,500	0.31	6,800	2,000	0.29	12,700	700	0.06
1982	8,600	3,000	0.35	7,200	2,500	0.35	13,600	1,000	0.07
1983	9,200	3,600	0.39	6,800	3,000	0.44	14,200	1,100	0.08
1984	8,600	4,200	0.49	6,700	3,300	0.49	15,100	1,200	0.08
1985	9,700	4,600	0.47	7,200	3,300	0.46	15,600	1,200	0.08
1986	12,300	5,100	0.41	7,400	3,500	0.47	16,000	1,300	0.08
1987	14,800	5,200	0.35	8,800	3,600	0.41	16,800	1,300	0.08
1988	12,100	6,300	0.52	9,200	4,000	0.43	17,800	1,400	0.08
1989	11,300	6,400	0.57	9,500	4,400	0.46	18,700	1,400	0.07
1990	10,800	6,600	0.61	9,700	4,700	0.48	19,600	1,500	0.08
Newfoundland									
1981	5,079	2,700	0.53	7,591	2,100	0.28	12,800	800	0.06
1982	5,570	3,100	0.56	7,932	2,600	0.33	13,700	1,100	0.08
1983	5,293	3,800	0.72	7,029	3,200	0.46	14,000	1,300	0.09
1984	5,020	4,300	0.86	6,932	3,300	0.48	14,600	1,400	0.10
1985	4,615	4,800	1.04	7,502	3,500	0.47	14,600	1,600	0.11
1986	5,800	5,300	0.91	7,467	3,500	0.47	15,000	1,700	0.11
1987	8,641	5,500	0.64	9,016	3,700	0.41	15,800	1,700	0.11
1988	6,806	6,700	0.98	9,274	4,300	0.46	16,800	1,900	0.11
1989	5,814	6,900	1.19	9,242	4,800	0.52	17,700	2,100	0.12
1990	6,412	6,900	1.08	9,388	5,300	0.56	18,600	2,100	0.11
Prince Edward Island									
1981	6,726	2,800	0.42	4,858	1,900	0.39	10,700	600	0.06
1982	7,518	3,500	0.47	4,730	2,600	0.55	11,600	900	0.08
1983	9,670	4,100	0.42	5,306	2,800	0.53	12,200	1,000	0.08
1984	7,168	4,700	0.66	5,190	3,400	0.66	12,800	1,200	0.09
1985	8,962	5,000	0.56	5,358	3,500	0.65	13,300	1,300	0.10
1986	12,000	5,900	0.49	5,552	3,800	0.68	14,000	1,400	0.10
1987	13,694	6,000	0.44	6,233	4,100	0.66	14,700	1,400	0.10
1988	13,125	7,100	0.54	7,044	4,500	0.64	15,900	1,500	0.09
1989	10,607	7,400	0.70	7,653	5,100	0.67	16,800	1,600	0.10
1990	7,409	7,600	1.03	7,535	5,100	0.68	17,600	1,600	0.09

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

NOTE: * Quebec includes postal codes G0, G4 and G5 only.

TABLE 24-2
Employment Income and UI Benefits
Fishing and Non-Fishing Sectors
1981-1990

Province	Self-Employed Fishermen			Processing Employees			Non-Fishing		
	Total Employment Income (\$)	UI Benefits (\$)	Ratio of UI Benefits to Income	Total Employment Income (\$)	UI Benefits (\$)	Ratio of UI Benefits to Income	Total Employment Income (\$)	UI Benefits (\$)	Ratio of UI Benefits to Income
Nova Scotia									
1981	13,457	2,000	0.15	8,199	1,100	0.13	12,700	400	0.03
1982	12,879	2,600	0.20	8,929	1,300	0.15	14,100	700	0.05
1983	13,784	3,100	0.22	8,996	1,600	0.18	15,000	800	0.05
1984	13,607	3,700	0.27	8,910	1,900	0.21	16,000	800	0.05
1985	16,318	3,900	0.24	8,944	1,800	0.20	16,700	900	0.05
1986	20,555	4,300	0.21	10,126	1,900	0.19	17,200	900	0.05
1987	23,247	4,500	0.19	12,292	1,900	0.15	18,000	900	0.05
1988	18,647	5,200	0.28	12,587	2,300	0.18	19,100	900	0.05
1989	18,673	5,300	0.28	13,350	2,500	0.19	20,000	1,000	0.05
1990	18,124	5,700	0.31	13,014	2,900	0.22	21,000	1,100	0.05
New Brunswick									
1981	8,764	2,700	0.31	5,013	2,500	0.50	12,200	700	0.06
1982	11,597	3,200	0.28	5,257	3,100	0.59	13,300	1,000	0.08
1983	12,823	3,700	0.29	5,116	3,500	0.68	14,000	1,100	0.08
1984	10,964	4,400	0.40	4,923	4,200	0.85	14,700	1,200	0.08
1985	11,632	4,700	0.40	5,583	4,100	0.73	15,200	1,300	0.09
1986	13,438	5,300	0.39	5,688	4,500	0.79	15,900	1,300	0.08
1987	14,909	5,200	0.35	6,242	4,400	0.70	16,600	1,300	0.08
1988	15,220	6,300	0.41	6,936	4,700	0.68	17,700	1,400	0.08
1989	12,846	6,200	0.48	7,601	4,800	0.63	18,800	1,400	0.07
1990	10,806	6,500	0.60	7,888	4,600	0.58	19,500	1,500	0.08
Quebec*									
1981	7,270	2,900	0.40	5,208	3,000	0.58	13,200	900	0.07
1982	7,484	3,500	0.47	5,040	3,500	0.69	13,700	1,300	0.09
1983	8,660	3,900	0.45	5,257	4,200	0.80	14,000	1,300	0.09
1984	7,994	4,700	0.59	5,467	4,400	0.80	15,000	1,400	0.09
1985	8,972	5,200	0.58	5,839	4,400	0.75	15,500	1,400	0.09
1986	12,648	5,800	0.46	6,233	5,100	0.82	15,700	1,400	0.09
1987	17,143	5,700	0.33	6,594	5,100	0.77	16,600	1,400	0.08
1988	11,508	6,800	0.59	6,245	5,900	0.94	17,500	1,500	0.09
1989	10,816	7,000	0.65	6,660	6,600	0.99	18,300	1,600	0.09
1990	9,145	7,300	0.80	7,579	6,600	0.87	19,100	1,700	0.09

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

NOTE: * Quebec includes postal codes G0, G4 and G5 only.

TABLE 25-1
Distribution of Self-Employed Fishermen
by Duration of UI Benefits and Insured Weeks
1981 and 1990

Province	Number of Individuals	Duration of Benefits (Weeks)					Average Duration of Benefits (Weeks)
		Percentage Distribution					
		< 10	11 to 14	15 to 26	27 to 36	37+	
1990							
All Atlantic*	29,930	1.9	3.2	45.2	39.5	10.2	26.1
Newfoundland	13,950	1.0	1.6	28.0	56.3	13.0	27.8
Prince Edward Island	2,580			48.1	38.0	13.6	27.8
Nova Scotia	8,330	4.0	7.3	66.4	16.7	5.6	22.9
New Brunswick	2,940	2.4	3.4	56.1	29.9	8.2	25.3
Quebec*	2,130			56.8	33.3	8.5	26.4
1981							
All Atlantic*	27,500	5.4	5.8	61.9	20.5	6.4	23.6
Newfoundland	13,080	5.3	3.7	57.1	25.5	8.4	24.9
Prince Edward Island	2,250	1.8	2.7	66.2	25.8	3.6	24.6
Nova Scotia	6,920	9.5	12.9	67.3	7.2	3.0	19.6
New Brunswick	2,860	2.4	3.8	67.1	19.6	7.0	24.3
Quebec*	2,390		2.1	62.3	27.2	7.5	26.2
Province	Number of Individuals	Insured Weeks					Average Insured Weeks
		Percentage Distribution					
		< 10	11 to 14	15 to 26	27 to 36	37+	
1990							
All Atlantic*	29,930	34.3	23.8	36.2	3.5	2.2	15.2
Newfoundland	13,950	44.4	21.7	30.1	2.2	1.6	13.9
Prince Edward Island	2,580	45.0	30.2	21.7		2.3	13.8
Nova Scotia	8,330	12.8	21.0	55.3	7.0	3.8	18.6
New Brunswick	2,940	31.6	33.7	29.6	3.4	1.7	14.6
Quebec*	2,130	43.7	27.2	27.2	1.9		13.3
1981							
All Atlantic*	27,500	10.4	24.5	53.2	7.7	4.3	18.6
Newfoundland	13,080	10.6	27.1	52.0	5.9	4.5	18.3
Prince Edward Island	2,250	14.7	26.7	51.1	5.8	1.8	16.5
Nova Scotia	6,920	3.0	13.6	64.2	14.0	5.2	21.5
New Brunswick	2,860	19.6	36.7	35.7	4.5	3.5	15.9
Quebec*	2,390	15.5	25.5	51.0	4.6	3.3	17.4

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 25-2
Distribution of Processing Employees
by Duration of UI Benefits and Insured Weeks
1981 and 1990

Province	Number of Individuals	Duration of Benefits (Weeks)					Average Duration of Benefits (Weeks)
		Percentage Distribution					
		< 10	11 to 14	15 to 26	27 to 36	37+	
1990							
All Atlantic*	40,940	4.8	3.7	19.4	35.5	36.6	31.5
Newfoundland	20,820	4.4	3.3	17.1	33.0	42.2	32.4
Prince Edward Island	1,800	3.9		15.0	46.1	34.4	32.7
Nova Scotia	7,620	10.0	8.0	33.5	30.4	18.1	26.0
New Brunswick	7,850	2.4	2.4	14.4	44.1	36.7	33.1
Quebec*	2,850	1.4		15.1	37.2	46.0	34.7
1981							
All Atlantic*	33,250	7.8	5.7	25.9	34.3	26.3	29.3
Newfoundland	15,560	10.2	6.9	26.1	32.7	24.1	27.7
Prince Edward Island	1,460		5.5	39.0	30.8	23.3	29.5
Nova Scotia	5,230	13.0	8.4	34.6	26.6	17.4	24.7
New Brunswick	7,470	3.2	3.3	15.5	43.1	34.8	34.3
Quebec*	3,530	2.3	1.7	28.9	35.1	32.0	32.4
Province	Number of Individuals	Insured Weeks					Average Insured Weeks
		Percentage Distribution					
		< 10	11 to 14	15 to 26	27 to 36	37+	
1990							
All Atlantic*	40,940	18.4	21.2	35.3	13.5	11.6	21.1
Newfoundland	20,820	22.4	22.4	32.3	13.7	9.2	19.8
Prince Edward Island	1,800	19.4	36.1	32.8	7.2	4.4	17.8
Nova Scotia	7,620	3.7	5.8	45.0	20.6	24.9	28.6
New Brunswick	7,850	21.9	25.1	33.8	10.1	9.2	19.1
Quebec*	2,850	17.9	34.0	37.2	6.7	4.2	17.4
1981							
All Atlantic*	33,250	8.9	17.3	46.2	13.9	13.7	23.0
Newfoundland	15,560	11.2	19.2	42.5	12.6	14.5	22.7
Prince Edward Island	1,460		4.8	61.6	17.8	15.1	25.1
Nova Scotia	5,230		5.9	46.1	21.6	26.4	29.5
New Brunswick	7,470	10.8	23.3	46.7	11.1	8.0	20.4
Quebec*	3,530	11.3	18.7	55.0	12.2	2.8	19.6

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 25-3
Distribution of Non-Fishing Individuals
by Duration of UI Benefits and Insured Weeks
1981 and 1990

Province	Number of Individuals	Duration of Benefits (Weeks)					Average Duration of Benefits (Weeks)
		Percentage Distribution					
		< 10	11 to 14	15 to 26	27 to 36	37+	
1990							
All Atlantic*	391,140	14.9	6.5	25.4	24.7	28.5	27.1
Newfoundland	72,340	10.2	4.4	18.4	25.7	41.3	31.3
Prince Edward Island	17,020	12.9	5.5	25.3	28.7	27.6	27.8
Nova Scotia	80,290	18.2	7.3	27.9	19.7	26.9	25.5
New Brunswick	84,730	15.1	6.6	24.2	24.5	29.5	27.3
Quebec*	136,760	15.6	7.2	28.5	26.7	22.1	25.6
1981							
All Atlantic*	280,970	16.4	7.2	29.4	21.3	25.6	25.8
Newfoundland	44,220	13.2	6.3	26.9	22.6	31.0	27.9
Prince Edward Island	10,830	15.2	5.8	30.9	24.2	23.8	26.2
Nova Scotia	56,130	22.7	7.7	28.6	17.8	23.2	23.8
New Brunswick	60,480	15.9	6.7	26.4	22.6	28.4	26.8
Quebec*	109,310	14.9	7.8	32.3	21.6	23.4	25.5
Province	Number of Individuals	Insured Weeks					Average Insured Weeks
		Percentage Distribution					
		< 10	11 to 14	15 to 26	27 to 36	37+	
1990							
All Atlantic*	391,140	6.5	10.1	32.0	16.5	34.9	30.4
Newfoundland	72,340	13.4	17.4	32.6	12.3	24.3	25.5
Prince Edward Island	17,020	10.6	13.9	32.5	13.0	29.8	27.9
Nova Scotia	80,290	2.3	5.4	29.5	18.2	44.6	34.3
New Brunswick	84,730	7.9	10.1	31.1	15.5	35.3	30.2
Quebec*	136,760	3.9	8.5	33.5	18.9	35.2	31.1
1981							
All Atlantic*	280,970	3.8	7.9	34.7	18.3	35.2	31.0
Newfoundland	44,220	6.7	12.1	34.0	16.1	31.1	28.9
Prince Edward Island	10,830	1.5	5.6	39.1	22.1	31.8	30.8
Nova Scotia	56,130	1.4	3.9	30.7	19.7	44.3	34.3
New Brunswick	60,480	6.3	10.5	32.5	16.0	34.7	30.3
Quebec*	109,310	2.8	7.2	37.8	19.4	32.9	30.6

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

NOTE: * Quebec includes postal codes "G0", "G4" and "G5" only.

TABLE 26-1
Self-Employed Fishermen
Distribution by Types of UI Benefits and
Average Duration of Payments
1981 and 1990

Province/ Years	Types of Benefits Received					
	Seasonal Fishing Benefits Only	Regular Benefits Only	Fishing and Other Benefits	Regular and Other Benefits	Other Benefits Only	All Benefit Types
Distribution of Individuals by Type of UI Benefits Received						
	1990					
All Atlantic	22,780	5,740	800	480	30	29,930
Newfoundland	10,310	3,030	390	200		13,950
Prince Edward Island	1,880	630		30		2,580
Nova Scotia	6,760	1,190	200	140		8,330
New Brunswick	2,140	610	120	60		2,940
Quebec	1,690	280	70	50		2,130
	1981					
All Atlantic	20,980	6,020	190	160	40	27,500
Newfoundland	9,680	3,180	70	90		13,080
Prince Edward Island	1,770	430				2,250
Nova Scotia	5,490	1,290	80	30		6,920
New Brunswick	2,260	550				2,860
Quebec	1,780	570				2,390
Average Duration of UI Benefit Payments (Weeks)						
	1990					
All Atlantic	24.0	34.1	24.1	31.7	21.7	26.1
Newfoundland	25.6	35.3	25.0	33.6		27.8
Prince Edward Island	24.9	35.5		38.0		27.9
Nova Scotia	21.4	31.0	22.3	27.7		22.9
New Brunswick	23.2	31.8	22.9	32.5		25.3
Quebec	24.5	35.8	24.7	30.4		26.5
	1981					
All Atlantic	21.9	29.1	21.7	27.1	10.8	23.6
Newfoundland	23.1	30.0	23.9	25.8		24.9
Prince Edward Island	23.7	27.4				24.6
Nova Scotia	18.2	25.3	19.2	23.3		19.5
New Brunswick	22.6	30.3				24.4
Quebec	24.0	32.1				26.2

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

TABLE 26-2
Self-Employed Fishermen
Average UI Payments and Average Weekly Payments
1981 and 1990

Province/ Years	Types of Benefits Received					
	Seasonal Fishing Benefits Only	Regular Benefits Only	Fishing and Other Benefits	Regular and Other Benefits	Other Benefits Only	All Benefit Types
Average UI Payments per Individual (\$)						
	1990					
All Atlantic	7,890	8,960	7,870	8,520	7,870	8,120
Newfoundland	7,880	9,120	7,540	8,530		8,150
Prince Edward Island	8,730	9,660		7,140		9,000
Nova Scotia	7,470	8,180	7,900	8,740		7,610
New Brunswick	8,080	8,490	8,230	10,240		8,270
Quebec	8,420	10,030	8,880	6,690		8,730
	1981					
All Atlantic	3,270	3,960	3,280	3,800	1,390	3,440
Newfoundland	3,240	4,020	3,270	3,720		3,440
Prince Edward Island	3,580	3,480				3,570
Nova Scotia	2,870	3,470	3,060	3,560		2,980
New Brunswick	3,730	4,580				3,930
Quebec	3,770	4,520				3,980
Average Weekly UI Payments (\$)						
	1990					
All Atlantic	329	263	327	269	363	311
Newfoundland	308	258	301	254		293
Prince Edward Island	351	272		188		323
Nova Scotia	349	264	354	316		332
New Brunswick	349	267	359	315		327
Quebec	343	280	359	220		330
	1981					
All Atlantic	149	136	151	140	129	146
Newfoundland	140	134	137	144		138
Prince Edward Island	151	127				145
Nova Scotia	158	137	159	153		153
New Brunswick	165	151				161
Quebec	157	141				152

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

TABLE 26-3
Processing Employees
Distribution by Types of UI Benefits and
Average Duration of Payments
1981 and 1990

Province/ Years	Types of Benefits Received					
	Seasonal Fishing Benefits Only	Regular Benefits Only	Fishing and Other Benefits	Regular and Other Benefits	Other Benefits Only	All Benefit Types
Distribution of Individuals by Type of UI Benefits Received						
	1990					
All Atlantic	1,470	35,500	90	3,730	110	40,940
Newfoundland	660	18,330	30	1,750	40	20,820
Prince Edward Island		1,670		90		1,800
Nova Scotia	440	6,270		850		7,620
New Brunswick	230	6,640		930	30	7,850
Quebec	120	2,590		110		2,850
	1981					
All Atlantic	1,840	29,760		1,260	330	33,250
Newfoundland	930	13,980		500	140	15,560
Prince Edward Island	90	1,260		90		1,460
Nova Scotia	470	4,300		330	120	5,230
New Brunswick	200	6,910		280	70	7,470
Quebec	150	3,310		60		3,530
Average Duration of UI Benefit Payments (Weeks)						
	1990					
All Atlantic	22.0	31.9	23.9	32.1	10.9	31.5
Newfoundland	23.6	32.8	25.3	32.9	12.0	32.4
Prince Edward Island		33.1		31.6		32.7
Nova Scotia	18.9	26.3		27.1		26.0
New Brunswick	22.9	33.5		34.9	7.4	33.1
Quebec	23.5	35.1		36.1		34.7
	1981					
All Atlantic	20.5	30.1		27.2	10.4	29.2
Newfoundland	20.7	28.3		23.7	11.4	27.7
Prince Edward Island	19.9	29.6		29.3		29.6
Nova Scotia	18.5	25.4		28.3	11.0	24.8
New Brunswick	22.4	35.2		30.3	7.6	34.3
Quebec	24.6	32.6		33.0		32.3

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

TABLE 26-4
Processing Employees
Average UI Payments and Average Weekly Payments
1981 and 1990

Province/ Years	Types of Benefits Received					
	Seasonal Fishing Benefits Only	Regular Benefits Only	Fishing and Other Benefits	Regular and Other Benefits	Other Benefits Only	All Benefit Types
Average UI Payments per Individual (\$)						
	1990					
All Atlantic	6,510	6,640	7,090	6,540	2,570	6,620
Newfoundland	6,090	7,140	5,520	7,170	3,110	7,100
Prince Edward Island		6,850		6,910		6,810
Nova Scotia	6,360	5,020		5,310		5,150
New Brunswick	7,280	6,390		6,320	1,500	6,390
Quebec	7,880	7,550		7,620		7,610
	1981					
All Atlantic	2,750	3,400		2,910	1,450	3,330
Newfoundland	2,590	3,200		2,610	1,730	3,130
Prince Edward Island	2,370	3,110		2,960		3,140
Nova Scotia	2,680	2,590		2,940	1,480	2,600
New Brunswick	3,300	4,080		3,150	870	4,010
Quebec	3,540	3,940		3,930		3,940
Average Weekly UI Payments (\$)						
	1990					
All Atlantic	296	208	297	204	235	210
Newfoundland	258	218	218	218	259	219
Prince Edward Island		207		219		208
Nova Scotia	336	191		196		198
New Brunswick	318	191		181	204	193
Quebec	335	215		211		219
	1981					
All Atlantic	134	113		107	139	114
Newfoundland	125	113		110	152	113
Prince Edward Island	119	105		101		106
Nova Scotia	145	102		104	134	105
New Brunswick	147	116		104	114	117
Quebec	144	121		119		122

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

TABLE 26-5
Non-Fishing Individuals
Distribution by Types of UI Benefits and
Average Duration of Payments
1981 and 1990

Province/ Years	Types of Benefits Received					
	Seasonal Fishing Benefits Only	Regular Benefits Only	Fishing and Other Benefits	Regular and Other Benefits	Other Benefits Only	All Benefit Types
Distribution of Individuals by Type of UI Benefits Received						
1990						
All Atlantic	1,630	320,560	60	40,730	28,070	391,140
Newfoundland	730	61,880	30	6,600	3,090	72,340
Prince Edward Island	70	13,860		1,950	1,110	17,020
Nova Scotia	400	62,840		8,520	8,520	80,290
New Brunswick	180	66,600		10,710	7,200	84,730
Quebec	250	115,380		12,950	8,150	136,760
1981						
All Atlantic	1,270	246,280		14,050	19,230	280,970
Newfoundland	610	39,340		1,950	2,280	44,220
Prince Edward Island	120	9,290		590	810	10,830
Nova Scotia	260	47,190		3,160	5,490	56,130
New Brunswick	140	53,290		3,040	3,970	60,480
Quebec	140	97,170		5,310	6,680	109,310
Average Duration of UI Benefit Payments (Weeks)						
1990						
All Atlantic	23.6	27.7	23.5	33.1	12.1	27.1
Newfoundland	24.3	31.7	25.4	37.0	12.3	31.3
Prince Edward Island	24.8	28.2		33.0	12.5	27.8
Nova Scotia	22.3	26.4		33.1	11.6	25.5
New Brunswick	22.1	28.4		31.8	11.5	27.4
Quebec	24.5	25.7		32.2	12.9	25.6
1981						
All Atlantic	21.5	26.9		29.5	11.0	25.9
Newfoundland	21.7	28.7		32.0	11.4	27.8
Prince Edward Island	22.2	27.3		29.7	11.4	26.2
Nova Scotia	18.1	25.1		29.6	10.0	23.8
New Brunswick	23.8	27.9		30.6	10.6	26.7
Quebec	23.8	26.2		27.7	12.0	25.4

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.

TABLE 26-6
Non-Fishing Individuals
Average UI Payments and Average Weekly Payments
1981 and 1990

Province/ Years	Types of Benefits Received					
	Seasonal Fishing Benefits Only	Regular Benefits Only	Fishing and Other Benefits	Regular and Other Benefits	Other Benefits Only	All Benefit Types
Average UI Payments per Individual (\$)						
	1990					
All Atlantic	7,190	6,280	7,050	6,720	2,570	6,060
Newfoundland	7,060	7,080	6,240	7,520	3,000	6,950
Prince Edward Island	6,900	6,100		6,330	2,490	5,920
Nova Scotia	7,040	5,680		6,350	2,670	5,440
New Brunswick	7,300	6,390		6,450	2,560	6,080
Quebec	7,830	6,120		6,830	2,340	5,970
	1981					
All Atlantic	2,750	3,420		3,450	1,560	3,290
Newfoundland	2,540	3,590		3,710	1,660	3,480
Prince Edward Island	3,020	3,140		3,510	1,480	3,040
Nova Scotia	2,410	2,960		3,290	1,290	2,810
New Brunswick	3,570	3,510		3,490	1,450	3,370
Quebec	3,240	3,540		3,430	1,830	3,430
Average Weekly UI Payments (\$)						
	1990					
All Atlantic	305	227	300	203	213	224
Newfoundland	291	223	246	203	244	222
Prince Edward Island	278	216		192	200	213
Nova Scotia	316	215		192	230	213
New Brunswick	331	225		203	223	222
Quebec	320	238		212	181	233
	1981					
All Atlantic	128	127		117	142	127
Newfoundland	117	125		116	145	125
Prince Edward Island	136	115		118	130	116
Nova Scotia	133	118		111	129	118
New Brunswick	150	126		114	137	126
Quebec	136	135		124	153	135

SOURCE: Statistics Canada Taxfiler Data, Special Task Force Tabulations.