# Socio-economic Profile of Canada's Fishing Industry Labour Force 1994-2006 

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## Abstract

This report provides a socio-economic profile of the fishing industry in Canada, highlighting important differences among regions. The report is divided into three sections: first, a profile of the fishing industry in 2006; second, its evolution over time, from 1994 to 2006 for self-employed fish harvesters and from 1998 to 2006 for other fishery workers; lastly, the report's methodology, including the concepts, terms and definitions used.

Given the economic and social importance of fishing for thousands of Canadians living in many communities across Canada, this report covers all the provinces and territories, special attention to the Atlantic Provinces and British Columbia, two regions that play a major role in the Canadian fishing industry.

## Résumé

Le présent rapport nous présente un profil démographique de l'industrie de la pêche au Canada et met en évidence les différences importantes observées d'une région à l'autre. Ce rapport est divisé en trois sections. On y analyse d'abord le profil de cette industrie en 2006. Ensuite, on y examine son évolution au fil du temps, soit de 1994 à 2006 pour les pêcheurs autonomes et de 1998 à 2006 pour les autres travailleurs du domaine de la pêche. Enfin, on décrit la méthodologie, les concepts, les termes et les définitions utilisés tout au long de ce rapport.
Compte tenu de l'importance de la pêche sur les plans économique et social pour des milliers de Canadiens qui habitent dans les nombreuses collectivités au pays, ce rapport couvre toutes les provinces et les territoires en portant une attention particulière aux provinces de l'Atlantique et à la Colombie-Britannique, deux régions jouant un rôle majeur dans l'industrie de la pêche canadienne.

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The methodology used in this project was peer reviewed by an anonymous reviewer. The final report was prepared by Marcel Fragé, consulting economist.

## Symbols and abbreviations

The following symbols and abbreviations are used throughout this report:
\$ Canadian dollar
n.a. Not appropriate or not applicable
u.a. Unavailable
n.s. Not significant. The number of individuals who provided information is too low to derive statistically significant estimates.

T1 Personal income tax returns
T4 Statement of the remuneration paid by employers

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## Highlights

## Workers demographic profile

## Men predominate in the fishing industry.

- In 2006, men held $66 \%$ of the jobs in the Canadian fishing industry, compared to $34 \%$ for women. The disparity varied from one category of workers to the next. It was highest among self-employed fish harvesters, where there were four times more men than women.
- The strong representation of men in the fishing industry is reflected across the entire country. In 2006, men held $66 \%$ of jobs in the Atlantic Provinces, $63 \%$ in British Columbia and $70 \%$ in the Central Provinces ${ }^{1}$. In Canada's three territories, the Northern Territories, male workers made up all the employees in both the self-employed fish harvesting and wage-earning fish harvesting sectors.
- The ratio of male to female workers in the fishing industry has remained the same from 1998 to 2006. However, the ratio of men compared to women working as self-employed fish harvesters has decreased significantly during this period. Going from a ratio of approximately six men for every woman in 1998 to a ratio of four men for every woman in 2006.
- In contrast to the reduction in the gender disparity between self-employed male and female fish harvesters, the disparity has actually increased in the aquaculture sector. In 1998 there were two men for every woman working in this category compared to three men for every woman in 2006.


## The fishing industry is characterized by an ageing workforce.

- Workers 40 years and older held $59 \%$ of the jobs in the fishing industry in 2006 , compared to $52 \%$ in other industries in Canada. The workforce was especially senior for self-employed fish harvesters, where $70 \%$ of workers were 40 years and older. It was youngest in the aquaculture sector, where only $40 \%$ of workers were 40 years and older.
- Generally speaking, the age of workers in the fishing industry is comparable from one region to the next, with a few exceptions. Self-employed fish harvesters in Quebec were older than those in the rest of the country, with close to $80 \%$ of workers being 40 years and older. Wage-earning fish harvesters in Newfoundland and Labrador also tend to be older than their counterparts in other regions. Meanwhile, wage-earning fish harvesters in Prince Edward Island were the youngest, as only $38 \%$ of the workers were 40 years and older.
- The growing population of workers 40 years and older, and 60 years and older, highlight the fact that the workforce has aged between 1998 and 2006. During this period, the ratio of workers 40 years and older increased by $12 \%$ among self-employed fish harvesters, by $14 \%$ among wage-earning fish harvesters, and by $16 \%$ among workers in the fish processing sector. The aquaculture sector experienced the slowest aging effect at $8 \%$.
- In 1998, self employed fish harvesters 60 years and older represented $11 \%$ of the sector as compared to $16 \%$ in 2006. This population cohort has also increased in the other sectors. It went from approximately $3 \%$ to approximately $6 \%$ for wage-earning fish harvesters and fish processing workers, and from $2 \%$ to $4 \%$ among aquaculture workers.

[^0]- The ageing of the workforce in the fishing industry is broadbased and can be seen in most regions, with a few exceptions. The fishing workforce in the Quebec-Atlantic region seems to be ageing faster than in other regions. From 1998 to 2006, the population 40 years and older has increased by $29 \%$ among self-employed fish harvesters, by $39 \%$ among wage-earning fish harvesters, and by $34 \%$ among workers in fish processing. Even in the slowest aging sector, aquaculture, this population cohort increased by $22 \%$.
- In the fish processing sector, from 1998 to 2006, the population of workers 40 years and older has increased by $19 \%$ in the Atlantic Provinces compared to $8 \%$ in British Columbia.
- The ageing trend varies widely depending on the province in the aquaculture sector. Between 1998 and 2006, workers 40 years and older increased by $21 \%$ in Newfoundland and Labrador, and by $24 \%$ in Prince Edward Island, as compared to only $5 \%$ in New Brunswick and $11 \%$ in British Columbia.


## The number of jobs has decreased considerably.

- The number of self-employed fish harvesters went from 39,090 in 1994 to 26,120 in 2006, for a decrease of 12,970 . This is approximately a $33 \%$ reduction, with $65 \%$ of the job losses ( 8,460 jobs) occuring from 1994 to 1998.
- An examination of job losses among self-employed fish harvesters from 1994 to 2006 reveals that the greatest losses were recorded in Nova Scotia $(5,030)$, in British Columbia $(3,760)$, and Newfoundland and Labrador $(2,660)$.
- Wage-earning fish harvesters experienced a very large job loss, 4,970 (24\%) from 1999 to 2000. However, the sector also rebounded with job gains of 1,070, 2,190 and 1,390 jobs recorded in 2002, 2003 and 2005 respectively. The total job gains for these three years, 4,650, plus moderate increases in 2004 and 2006 enabled this sector to recuperate most of the jobs lost in 1999.
- Contrary to the experiences of wage-earning fish harvesters, seafood processing jobs increased in 1999 and 2000, by 1,790 and 3,450 respectively. However, the sector then experienced a job loss of $10,550(20 \%)$ from 2000 to 2006, for an annual decrease of $5 \%$ on average.
- From 1998 to 2006 in the fishing industry as a whole, Newfoundland lost the greatest number of jobs, with a decrease of 5,900. This was followed by New Brunswick and Nova Scotia with losses of 2,780 and 1,710 jobs respectively. Conversely, significant job gains were recorded in Ontario $(2,030)$ and in the Quebec-Atlantic region $(1,910)$.


## Atlantic Provinces and British Columbia play a predominant role in terms of jobs.

- Most of the jobs in the fishing industry are located in the Atlantic Provinces and in British Columbia, two regions where marine commercial fishing occupies a predominant role. In 2006, 27\% of the jobs in the fishing industry came from Newfoundland and Labrador, followed by Nova Scotia (20\%). New Brunswick and British Columbia third place with $16 \%$ each.
- In 2006, Newfoundland and Labrador provided the most jobs to self-employed fish harvesters $(9,140)$ and to workers in fish processing $(11,210)$. This represents $38 \%$ and $27 \%$ of the total number of jobs in these sectors. Nova Scotia had the most wage-earning fish harvesting jobs at 7,830, representing $37 \%$ of all workers. In the aquaculture sector, British Columbia had $39 \%$ of the jobs, at 1,820 , followed by New Brunswick which experienced a sharp jump in the number of aquaculture jobs from 310 in 1998 to 1,220 in 2006.


## Fish processing generates the most jobs.

- The fish processing sector provides the most fishing related jobs in all the Canadian provinces and territories, with the exception of Nova Scotia.
- The proportion of wage-earning fish harvesting jobs increased by $6 \%$ between 2002 and 2006 . On the opposite end, the proportion of jobs in fish processing and self employed fish harvesting decreased by $4 \%$ and $2 \%$ respectively.


## Portrait of total employment income

## Total employment income varies from one category of workers to the next.

- A review of trends that occurred between 1998 and 2006 reveals an upward movement in real total employment income in all categories of workers, except self-employed fish harvesters, where it is actually decreasing. The real growth rate of total employment income is highest in the aquaculture sector at $28 \%$, followed by a smaller increase of $12 \%$ for wage-earning fish harvesters, and a minor increase of $6 \%$ for workers in fish processing.
- The real total employment income of self-employed fish harvesters went from \$22,691 in 1995 to $\$ 17,340$ in 1998, which translates to a $25 \%$ reduction in incomes, with especially sharp declines recorded in 1996 and 1997. This decline was followed by a remarkable rebound in incomes of \$4,595 or $26 \%$ fromn 1998 to 1999. Since this period, incomes have been dropping almost every year, reaching $\$ 16,033$ in 2006 , which is the lowest during the reporting period.
- In 1998, wage-earning fish harvesters recorded the highest employment incomes in the fishing industry ( $\$ 20,537$ ), whereas workers in fish processing had the lowest total employment incomes $(\$ 14,664)$. The gap of $\$ 5,874$ represents a difference of $40 \%$ between the two sectors. By 2006, this income gap had almost doubled to $\$ 10,177$ or $66 \%$.
- Aquaculture workers surpassed wage-earning fish harvesters in 2006 with the highest incomes while the shrinking incomes of self-employed fish harvesters has meant that the income gap with the lowest paid workers, those in fish processing has narrowed considerably.


## Total employment income varies from one region to the next.

- With the exception of self-employed fish harvesters, workers in Ontario recorded the highest total employment incomes in 2006, with average earnings of $\$ 33,725$ in the fishing industry. Following Ontario, the next highest total employment incomes are in Nova Scotia at $\$ 24,852$, in Alberta at $\$ 23,818$, and in British Columbia at \$22,319.
- In 2006, workers in British Columbia recorded incomes $32 \%$ higher on average, than in the Atlantic Provinces for the fishing industry as a whole. In fact, British Columbian based workers earned $75 \%$ more compared to their Newfoundland and Labrador counterparts.
- Among self-employed fish harvesters, Nova Scotia recorded the highest total employment incomes between 1995 and 2006, i.e. an average real income of $\$ 28,540$ per worker. In the opposite corner, Newfoundland and Labrador recorded the lowest incomes in the country $(\$ 15,749)$. Compared to British Columbia $(\$ 18,272)$ and the rest of the country, other Atlantic region workers also did comparably well, especially those in Prince Edward Island $(\$ 24,803)$ and in the Quebec-Atlantic region $(\$ 24,559)$.
- In regards to wage-earning fish harvesters, Ontario and British Columbia recorded the highest real employment incomes, namely $\$ 35,342$ and $\$ 32,886$ respectively between 1998 and 2006. Whereas, Newfoundland and Labrador $(\$ 17,763)$ and Prince Edward Island $(\$ 15,373)$ recorded the lowest incomes in Canada between 1998 and 2006.
- Among fish processing workers, the average total employment income remained highest in Ontario $(\$ 28,562)$, Nova Scotia $(\$ 24,406)$, and in British Columbia $(\$ 19,446)$ from 1998 to 2006. Other Atlantic Provinces however, earned below average incomes for this sector.
- In the aquaculture sector from 1998 to 2006, real incomes of workers in British Columbia were estimated at $\$ 28,025$. This is considerably more than their counterparts in the Atlantic Provinces. For example, workers in Newfoundland and Labrador earned on average $\$ 12,715$, the lowest in the aquaculture sector.
- The average total employment income of workers in the aquaculture sector in Prince Edward Island suffered a marked and sustained decrease between 1998 and 2006. Their real average incomes went from \$24,206 in 1998 to $\$ 17,075$ in 2006 , for a decrease of $\$ 6,131$ or $26 \%$ during that period.
- From 1998 to 2006, New Brunswick had the largest aquaculture sector in the Atlantic Provinces both with regards to the number of jobs and the highest total employment - incomes of \$22,321 on average between 1998 and 2006.


## Employment insurance (EI) varies from one category of workers to the next.

- As opposed to total employment incomes, EI for self-employed fish harvesters have decreased by $14 \%$ from 1998 to 2006. Since 2003, EI received by these workers have fallen by $17 \%$ in $2004,4 \%$ in 2005 and $6 \%$ in 2006, to an average of $\$ 8,959$. Despite this significant reduction, self-employed fish harvesters still receive the most EI in the fishing industry.
- On the other hand, EI received by wage-earning fish harvesters have increased by $15 \%$ from 1998 to 2006. Although this category of workers collects less in EI ( $39 \%$ less on average) than their self-employed counterparts.
- Following a similar path as self-employed fish harvesters, EI in the aquaculture sector have also shrunk by $14 \%$ from 1998 to 2006, $\$ 2,929$ in 1998 to $\$ 2,522$ in 2006. This sector receives the least amount of EI per worker in the fishing industry.


## El varies from one region to the next.

- Workers in the Atlantic Provinces, in addition to the province of Quebec, received higher EI than similar workers in Ontario and in the Central Provinces, in all work sectors.
- EI earned by self-employed fish harvesters in Newfoundland and Labrador increased significantly from 1995 to 2003. Average EI increased from $\$ 5,634$ in 1995 to a peak of $\$ 16,254$ in 2003, i.e. an increase of $\$ 10,620$ in eight years. This increase was at a relatively constant rate, i.e. a $12 \%$ rise on average each year from 1995 to 2002, followed by a remarkable jump of $32 \%$ in 2003. Since the peak, EI for self-employed fish harvesters have been decreasing year to year.
- The disparity in EI between self-employed fish harvesters from Newfoundland and Labrador and their counterparts in the Central Provinces and British Columbia have increased over the years. In 1995, workers in British Columbia were receiving $\$ 4,949$ in EI, i.e. $12 \%$ less than those in Newfoundland and Labrador, while eleven years later, they received $\$ 4,233$, i.e. $60 \%$ less than their counterparts in Newfoundland and Labrador.


## Portrait of the total income

## Total income varies by work category and region.

- The real average total income for self-employed fish harvesters has fluctuated considerably between 1995 and 2003. It went from $\$ 34,793$ in 1995 to $\$ 29,214$ in 1997, the lowest level during the period of study. This low point was followed by two years of solid growth that allowed these workers to recuperate the level of total income enjoyed in 1995. Since 1999, however, total income seems to be on a downward trend once again. It has been decreasing at a rate of $2 \%$ per year, reaching $\$ 29,810$ in 2006.
- Wage-earning fish harvesters have higher total incomes than their self-employed counterparts since 2000; on average $4 \%$ more. The largest income gap was recorded in 2005, when wage-earning fish harvesters received $19 \%$ more than self-employed fish harvesters.
- Fish processing workers have the lowest total incomes in the fishing industry according to this study. These workers receive on average $29 \%$ less than wage-earning fish harvesters, the highest earners in the fishing industry.
- In the Atlantic Provinces in 2006, self-employed fish harvesters and wage-earning fish harvesters took home higher total incomes than workers in aquaculture and fish processing. In the Central Provinces and in British Columbia, wage-earning fish harvesters and aquaculture workers brought in the highest incomes.
- In general, the variation in total income follows the same model as the employment incomes. However, total income gaps between different regions are smaller than those observed with the employment income. In 2006, fishing industry workers in British Columbia took home on average a total income before and after tax of $\$ 29,419$ and $\$ 24,939$ respectively. Whereas those in the Atlantic Provinces were collecting $\$ 27,753$ and $\$ 23,333$ respectively before and after tax. This $6 \%$ income gap before tax and $7 \%$ after tax is clearly less than the $32 \%$ income gap in employment incomes between the two sets of workers.


## Women earn less in total income than men in all work categories.

- In 2006, the largest gender income gap was observed among workers in fish processing, where the average total income for female workers was only $66 \%$ of the income received by male workers ${ }^{2}$. Female workers earned $68 \%$ of the total incomes of their male counterparts in self-employed fish harvesting and aquaculture.
- The gender income gap between men and women has decreased during the reporting period for workers in all sectors. However, the decline was uneven among the different sectors. The reduction in the income gap was greater among self-employed fish harvesters and aquaculture workers, where women were catching up on men at the rate of $1.6 \%$ and $1.4 \%$ each year respectively. The average speed of this catch up process was slightly less for women working in fish processing at $1 \%$, while it was only $0.5 \%$ per year in the case of wage-earning fish harvesters.


## Gaps between low income and high income workers persist in all work categories.

- When workers are distributed among same sized groups or centiles ${ }^{3}$, individuals at the 95 th centile were receiving total incomes at least four times higher than those at the 25 th centile for all sectors in the fishing industry in Canada between 1998 and 2006.

[^1]- At the regional level, the income disparity between the lowest and highest paid workers in a sector was smaller in the Atlantic Provinces than anywhere else in Canada. Self-employed fish harvesters at the 95th centile in Ontario had average incomes at least nine times higher than their counterparts at the 25th centile, while the average total income ratio of the 95th compared to the 25 th centile was 6.2 in British Columbia and varied between 3.2 and 4.9 in the Atlantic Provinces.


## The total income composition varies from one worker category to the next.

- For all workers in the fishing industry, employment income is the main component of their total incomes. In $2006,65 \%$ of the total income came from this source, $24 \%$ came from EI, $5 \%$ from investment income, and $6 \%$ from other sources.
- Among self-employed fish harvesters in 2006, employment income represented only $54 \%$ of their total incomes. However, this jumps to $83 \%$ for aquaculture workers. In regards to the two other work sectors, namely wageearning fish harvesting and fish processing, the employment income was equal to $68 \%$ of their total incomes.
- After employment income, EI was the second largest source of income for workers. In 2006, EI provided $30 \%$ of the total income of self-employed fish harvesters, $23 \%$ and $21 \%$ for fish processing workers and wageearning fish harvesters. As opposed to the other sectors, this source of income represented only $8 \%$ of the total income for aquaculture workers.


## The total income composition varies according to the income bracket.

- The employment income share of total income varies according to the total income bracket. In 2006, it represented $51 \%$ of the total income of workers earning less than $\$ 20,000$, and increased to $61 \%$ and $75 \%$ respectively for those earning between $\$ 20,000$ and $\$ 39,999$ and for those reporting an average total income of $\$ 40,000$ or more.
- In contrast to employment incomes, the proportion of the total income represented by EI decreases as the total income increases. In 2006, EI represented $40 \%$ of the income for workers earning less than $\$ 20,000,33 \%$ for those making between $\$ 20,000$ and $\$ 39,999$ and $14 \%$ for those with incomes ranging between $\$ 40,000$ and $\$ 59,999$. It represents only $4 \%$ of the total income for workers earning $\$ 60,000$ or more.
- In 2006, investment income represented only $1 \%$ of the total income of workers earning less than $\$ 40,000$, barely $3 \%$ for those earning between $\$ 40,000$ and $\$ 59,999$, while it reached $16 \%$ and represented the second biggest source of income for workers having a total income of $\$ 60,000$ or more.


## Total income composition varies according to age.

- The employment income share as a proportion of total income decreases as the workers' age increases. In the fishing industry as a whole in 2006, employment income represented $85 \%$ of the total income for workers less than 20 years old, compared to $71 \%$ for workers between the age of 20 and 39 years old. This ratio is $66 \%$ and $44 \%$ respectively for workers between the age of 40 and 59 and those 60 years and older.
- EI represents a smaller share of the total incomes of workers less than 20 years old and those 60 years and older. In the fishing industry in 2006, EI represented $11 \%$ of the total income for workers less than 20 years old and $16 \%$ for those 60 years and older, while this income source represented $25 \%$ of the total income for the other work sectors.
- As opposed to the other age groups where EI represented the second most important source of total income after employment income, workers 60 years and older earned more from investment income and other sources of income than from EI.


## Total income composition varies by worker category and region.

- The importance of employment income and EI as sources of total income varies from one region to the next. In the fishing industry as a whole, the proportion of employment income to total income is higher in British Columbia and in the Northwest Territories than in the rest of the country. In 2006, employment income represented $76 \%$ and $80 \%$ of the total income in these two regions respectively, compared to $61 \%$ and $64 \%$ in the Atlantic Provinces and in the rest of Canada.
- In 2006, EI represented $35 \%$ of the total income of fishing industry workers in the Atlantic Provinces, while this ratio was $9 \%$ in British Columbia, $8 \%$ in the Central Provinces and $6 \%$ in the Northern Territories.
- The significance of investment income to self-employed fish harvesters in 1994 greatly differs from the amounts collected during the later years. More specifically, investment income represented $28 \%$ of the average total income in $1994^{4}$, while this source of income represented only $5 \%$ on average for the following years from 1995 to 2006.
- An analysis of how the total income has evolved for workers other than self-employed fish harvesters does not show any major variations between 1998 and 2006. Rather, it shows a level of general stability.

[^2]
## Introduction and report objectives

The Canadian fishing industry plays a major role in the socio-economic development of thousands of workers. Its relative importance, however, varies by the job, by the region and by the community. This report, divided into five sections, examines the socio-economic profile of workers in the industry.

Section 1 presents a detailed profile of workers based on the type of employment they had in 2006 and on different socio-economic characteristics, such as their gender and their age. This profile is presented for all of Canada and sheds light on important differences that were observed from one region to the next.
Section 2 presents a portrait of the employment income and employment insurance (EI) earned in 2006. The report examined these two sources of income and pointed out similiarites and differences based on employment sector and region. In addition, it compares the employment income of workers in the fishing industry with incomes in other primary industries.

Section 3 focuses on the total income before and after tax for workers in 2006. Similiar to the method used in Section 2, it reviews total incomes from different perspectives. This helps to identify the sectors which received the highest and lowest average incomes on a national and regional basis. In addition, the report pays special attention to the income discrepancies between low-income and high-income workers. It also examines the total income composition in order to get an idea of the importance of each of its components based on the type of employment occupied by workers and on different socio-economic characteristics, including their age, income level, and region.

Although the first three sections of the report are based on a snapshot of the 2006 tax year, a profile of the workers and a portrait of their incomes will have changed throughout the years. In Section 4, the report examines the evolution of workers between 1994 and 2004 for self-employed fish harvesters and between 1998 and 2006 for the other work sectors. More specifically, this section analyzes: 1) changes with employment and income; 2) the disparity between men and women regarding employment and income over time; 3) the proportion of workers 40 years and older and those 60 years and older; and 4) total income composition over time.
Finally, Section 5 discusses the concepts, methodology and quality of data used. It defines the various concepts of income subject to analysis, explains the analytical concepts underlying the analysis and defines terms used throughout this document. This section also presents the methodology used to select the population of workers in the fishing industry and separates the population based on four categories of employment within the framework of this analysis, namely: 1) self-employed fish harvesters; 2) wage-earning fish harvesters; 3) fish processing workers; and 4) aquaculture workers. In addition, this section analyzes the quality of data that was extracted by highlighting their strengths and their limitations while comparing them with other sources of statistics on employment and incomes in Canada.
Regarding the data that was used, all numbers contained in this report (unless otherwise indicated) come from T1 personal income tax returns and statements on the remuneration paid by employers (T4). This data was provided by the Canada Revenue Agency in the form of summary tables, with a level of detail that is necessary to produce the tables found in this document.

In addition, it is important to note that the report takes into account the general level of inflation, as all incomes (unless otherwise noted) comparing at least two years of data are expressed in constant 2005 dollars (i.e. based on the purchasing power of consumers in 2005).

## The fishing industry outlook in Canada

Before considering a profile of workers and drawing a portrait of their incomes, it is important to present a brief overview of the industry to enable a more accurate assessment of its economic importance to Canada. In 2006, the landed value of commercial marine fisheries was estimated at $\$ 1.9$ billion dollars. In addition, the values of fresh-
water fishing ( $\$ 68$ million) and aquaculture production ( $\$ 913$ million) can be added to this value. As for the gross income from the processing of fishery products, it reached $\$ 4.2$ billion in $2006^{5}$. It should be noted, however, that this value includes all production costs, which includes the price paid to fish harvesters for their catch.

In 2006, Canada was ranked 20th worldwide for the volume of landings of fish and seafood ( 1,074 thousand tonnes ${ }^{6}$ ) and 6th in terms of value of world exports of fish products ( $\$ 4,177$ millions ${ }^{7}$ ).

In addition to the statistics mentioned above, this report provides more details on the employment characteristics. For example, in 2006, the number of workers in this industry who reported employment income was 93,840 . This includes self-employed fish harvesters $(26,120)$, wage-earning fish harvesters $(21,070)$, fish processing workers $(41,980)$ and workers in aquaculture $(4,670)$.

[^3]
## Section 1: Workers demographic profile in the fishing industry

### 1.1 Profile based on gender

Since the 1976 census, slightly more than half of Canadians are female. In 2006, females accounted for $51 \%$ of the total population and $52 \%$ of people aged 15 and older ${ }^{8}$. Although women are slightly more numerous in the country, they are a bit underrepresented in the workforce. In 2006, they accounted for $47 \%$ of the labor force and occupied $47 \%$ of the jobs in all industries. In contrast, in the fishing industry, only $34 \%$ of workers were female (Figure 1.1). Their proportion was even lower among self-employed fish harvesters in the industry, representing only $20 \%$ of workers. In other categories of work, with the exception of the fish processing sector in which women held $48 \%$ of the jobs, there were three times more men than women. Thus the Canadian fishing industry is characterized by a strong male presence (Table 1.1).

Figure 1.1 Work Distribution According to Gender, 2006


[^4]Table 1.1 Workers' Distribution According to Gender and Sector, 2006

|  | Men |  | Women |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number of Workers | \% | Number of Workers | \% |
| Self-employed | 20,775 | 80 | 5,345 | 20 |
| Wage-earning | 15,714 | 75 | 5,366 | 25 |
| Fish Processing | 21,812 | 52 | 20,168 | 48 |
| Aquaculture | 3,508 | 75 | 1,162 | 25 |
| Fishing Industry | 61,756 | 66 | 32,084 | 34 |
| Canadian Industries as a Whole | 8,727,100 | 53 | 7,757,200 | 47 |

Source: Statistics on Canadian industries overall, Statistics Canada, table 282-0002 - Labor Force Survey (LFS), yearly estimates based on gender and detailed age groups (individuals, except otherwise indicated), CANSIM table.

The high proportion of male workers in the Canadian fishing industry is reflected at the regional level. However, the large disparity is slightly lower in British Columbia and slightly higher in the Central Provinces and Northern Territories. In 2006, men constituted $66 \%$ of workers in the Atlantic Provinces, $63 \%$ in British Columbia and $70 \%$ in the Central Provinces. It is in the Northern Territories where the percentage of men was highest at $75 \%$. In the Northern Territories, men comprised the entire self-employed and wage-earning fish harvesting workforce. Relatively speaking, there were more women working in fish processing, constituting $39 \%$ of the workforce in the north (Table 1.2).

On the other hand, it is important to note that the majority of workers in fish processing from New Brunswick and Quebec-Atlantic are female, holding $53 \%$ and $56 \%$ of the jobs (Table 1.2). Moreover, Quebec-Atlantic also has the highest proportion of female aquaculture workers. Female workers represent one of every three workers in the region compared to one for every four workers in the rest of the country.

Table 1.2 Workers' Distribution According to Gender, Sector and Region, 2006

|  | Self-employed Fish Harvesters |  | Wage-earning Fish Harvesters |  | Fish Processing Workers |  | Aquaculture Workers |  | Fishing Industry as a Whole |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| Atlantic Provinces | 80\% | 20\% | 75\% | 25\% | 51\% | 49\% | 74\% | 26\% | 66\% | 34\% |
| Newfoundland \& Labrador | 75\% | 25\% | 66\% | 34\% | 50\% | 50\% | $77 \%$ | 23\% | 63\% | 37\% |
| Prince Edward Island | 73\% | 27\% | 78\% | 22\% | 53\% | 47\% | 79\% | 21\% | 66\% | 34\% |
| Nova Scotia | 89\% | 11\% | 79\% | 21\% | 59\% | 41\% | 70\% | 30\% | 75\% | 25\% |
| New Brunswick | 87\% | 13\% | 80\% | 20\% | 47\% | 53\% | 73\% | 27\% | 62\% | 38\% |
| Quebec (Atlantic) | 90\% | 10\% | 68\% | 32\% | 44\% | 56\% | 67\% | 33\% | 59\% | 41\% |
| Quebec (Whole Province) | 87\% | 12\% | 73\% | 27\% | 50\% | 49\% | 72\% | 28\% | 63\% | 36\% |
| Central Provinces | 82\% | 18\% | 80\% | 20\% | 59\% | 41\% | 76\% | 24\% | 70\% | 30\% |
| Ontario | 75\% | 25\% | 76\% | 24\% | 57\% | 43\% | 76\% | 24\% | 64\% | 36\% |
| Manitoba | 83\% | 17\% | 83\% | 17\% | 63\% | 38\% | n.a. | n.a. | n.a. | n.a. |
| Saskatchewan | 88\% | 13\% | 75\% | 25\% | 67\% | 33\% | n.a. | n.a. | n.a. | n.a. |
| Alberta | 76\% | 24\% | 86\% | 14\% | 61\% | 39\% | 78\% | 22\% | 72\% | 28\% |
| British Columbia | 77\% | 23\% | 53\% | 47\% | 51\% | 49\% | 76\% | 24\% | 63\% | 37\% |
| Northern Territories | 100\% | 0\% | 100\% | 0\% | 61\% | 39\% | n.a. | n.a. | 75\% | 25\% |
| Yukon | n.a. | n.a. | n.a. | n.a. | 67\% | 33\% | n.a. | n.a. | n.a. | n.a. |
| Northwest Territories | 100\% | 0\% | n.a. | n.a. | 50\% | 50\% | n.a. | n.a. | n.a. | n.a. |
| Nunavut | 100\% | 0\% | 100\% | 0\% | 62\% | 38\% | n.a. | n.a. | n.a. | n.a. |
| Canada | 80\% | 20\% | 75\% | 25\% | 52\% | 48\% | 75\% | 25\% | 66\% | 34\% |

### 1.2 Profile based on age

The fishing industry, like most Canadian industries', is not excluded from the workforce ageing phenomenon. Babyboomers, who are now between the ages of 41 and 61 , are coming close to retirement and this has made the ageing trend more acute. Workers 40 years and older held $59 \%$ of the jobs in the fishing industry in 2006 compared to $52 \%$ in other industries in Canada (Table 1.3). This ageing phenomenon appears to be more acute among self-employed fish harvesters, as $70 \%$ of them were 40 years and older. In contrast to other sectors in the fishing industry, the aquaculture sector enjoys a younger workforce, as only $40 \%$ of workers are aged 40 or over.

[^5]Table 1.3 Workers' Distribution According to Age Group and Sector, 2006

|  | Self-employed Fish Harvesters |  | Wage-earning Fish Harvesters |  | Fish Processing Workers |  | Aquaculture Workers |  | Fishing Industry as a Whole |  | Canadian Industries as a Whole |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { Workers } \end{aligned}$ | \% | Number of Workers | \% | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { Workers } \end{aligned}$ | \% | Number of Workers | \% | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { Workers } \end{aligned}$ | \% | Number of Workers | \% |
| Less than 20 years | 580 | 2\% | 1,170 | 6\% | 3,720 | 9\% | 370 | 8\% | 5,840 | 6\% | 954 | 6\% |
| 20-39 years | 7,410 | 28\% | 8,290 | 39\% | 14,470 | 34\% | 2,450 | 52\% | 32,621 | 35\% | 7,014 | 43\% |
| 40-59 years | 14,030 | 54\% | 10,060 | 48\% | 21,090 | 50\% | 1,670 | 36\% | 46,852 | 50\% | 7,532 | 46\% |
| 60 years and more | 4,100 | 16\% | 1,550 | 7\% | 2,700 | 6\% | 180 | 4\% | 8,530 | 9\% | 984 | 6\% |
| Total <br> (All Ages) | 26,120 | 100\% | 21,070 | 100\% | 41,980 | 100\% | 4,670 | 100\% | 93,843 | 100\% | 16,484 | 100\% |

Source: Statistics for Canadian industries. Statistics Canada. Table 282-0002 - Labor Force Survey (LFS), yearly estimates based on gender and the detailed age group (individuals, except otherwise indicated), CANSIM table.

In general, the age of workers employed in the fishing industry seems to be fairly comparable from one region to the next. However, it is important to note the differences. First, fish processing and aquaculture workers are generally younger in British Columbia than in the Atlantic Provinces for 2006. Second, there is a younger workforce in the Central Provinces, where freshwater based fishing predominates in all types of employment.
In addition to these regional differences that were observed in 2006, self-employed fish harvesters were older in Quebec than in the rest of the country. In fact, the workforce aged 40 years and over encompasses $84 \%$ of the population in the Quebec-Atlantic region and $80 \%$ overall for the province. Moreover, wage-earning fish harvesters in Quebec-Atlantic and in Newfoundland and Labrador are older than their counterparts in other regions. Wage-earning fish harvesters 40 years and older accounted for $69 \%$ and $65 \%$ of the population in the two provinces, respectively.
In sharp contrast with these two provinces, workers in Prince Edward Island are considerably younger, as only $38 \%$ of workers belong in the same age group.

Another regional difference that was observed from the study was that although the aquaculture sector retained a younger workforce in general, workers in Newfoundland and Labrador and Quebec were still slightly older than the average, with $57 \%$ and $53 \%$ of workers 40 and over respectively (Table 1.4).

Table 1.4 Workers' Distribution According to Age Group, Sector and Region, 2006

|  | Self-employed Fish Harvesters |  |  |  | Wage-earning Fish Harvesters |  |  |  | Fish Processing Workers |  |  |  | Aquaculture Workers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less <br> than <br> 20 <br> years | $\begin{gathered} 20 \\ -39 \\ \text { years } \end{gathered}$ | $\begin{gathered} 40 \\ -59 \\ \text { years } \end{gathered}$ | 60 <br> years and more | Less <br> than <br> 20 <br> years | $\begin{gathered} 20 \\ -39 \\ \text { years } \end{gathered}$ | $\begin{gathered} 40 \\ -59 \\ \text { years } \end{gathered}$ | 60 <br> years and more | Less <br> than <br> 20 <br> years | $\begin{gathered} 20 \\ -39 \\ \text { years } \end{gathered}$ | $\begin{gathered} 40 \\ -59 \\ \text { years } \end{gathered}$ | 60 <br> years and more | Less <br> than 20 years | $\begin{gathered} 20 \\ -39 \\ \text { years } \end{gathered}$ | $\begin{gathered} 40 \\ -59 \\ \text { years } \end{gathered}$ | 60 <br> years and more |
| Atlantic Provinces | 2\% | 28\% | 56\% | 13\% | 5\% | 39\% | 50\% | 7\% | 8\% | 32\% | 54\% | 7\% | 8\% | 49\% | 39\% | 4\% |
| Newfoundland \& Labrador | 2\% | 31\% | 58\% | 9\% | 6\% | 29\% | 57\% | 8\% | 9\% | 29\% | 56\% | 6\% | 6\% | 37\% | 51\% | 6\% |
| Prince Edward Island | 2\% | 26\% | 57\% | 15\% | 9\% | 53\% | 34\% | 3\% | 10\% | 39\% | 43\% | 9\% | 11\% | 57\% | 33\% | 0\% |
| Nova Scotia | 2\% | 28\% | 52\% | 18\% | 5\% | 42\% | 47\% | 6\% | 9\% | 33\% | 50\% | 8\% | 6\% | 52\% | 39\% | 3\% |
| New Brunswick | 1\% | 26\% | 54\% | 20\% | 4\% | 43\% | 46\% | 6\% | 6\% | 34\% | 53\% | 6\% | 9\% | 51\% | 37\% | 3\% |
| Quebec (Atlantic) | 0\% | 12\% | 66\% | 18\% | 2\% | 28\% | 60\% | 9\% | 5\% | 27\% | 62\% | 7\% | n.s. | n.s. | n.s. | n.s. |
| Quebec <br> (Whole Province) | 0\% | 21\% | 61\% | 19\% | 5\% | 38\% | 50\% | 8\% | 9\% | 33\% | 52\% | 7\% | 6\% | 41\% | 47\% | 6\% |
| Central Provinces | 0\% | 24\% | 48\% | 27\% | 7\% | 45\% | 38\% | 10\% | 10\% | 46\% | 38\% | 6\% | 15\% | 56\% | 30\% | 0\% |
| British Columbia | 4\% | 29\% | 46\% | 21\% | 8\% | 35\% | 42\% | 16\% | 11\% | 39\% | 44\% | 6\% | 7\% | 57\% | 33\% | 3\% |
| Northern Territories | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Canada | 2\% | 28\% | 54\% | 16\% | 6\% | 39\% | 48\% | 7\% | 9\% | 34\% | 50\% | 6\% | 8\% | 52\% | 36\% | 4\% |

Note: Because of measures taken to protect the confidentially of data used in this report, the sum of percentages appearing for each age group many not be equal to $100 \%$.

### 1.3 Distribution according to gender and age, Statistics Canada data

This section examines the profile of the labor force by gender and age for fish harvesters and fish processing workers according to the definition provided by the 2006 Population Census of Statistics Canada ${ }^{10}$. A caveat to mention is that the 2006 Population Census data came from year 2005.

As mentioned in Section 1.1, there are approximately 4\% more women than men aged 15 and over in the general Canadian population. This gender gap expands in the higher age groups owing to the longer life expectancy among women. Based on the 2006 Census, there were $12 \%$ more women than men among Canadians 65 years and older in 2005. However, they are less likely to be employed or seeking employment, as they represent only a third of the workforce. However, in the youngest age category, namely people aged 15 to 19 , there were as many men as women making up the population (Table 1.5).

This picture nationally is reflected in the fishing industry. Like in most industries, there are fewer female workers aged 65 and over. In this age category, they account for only $9 \%$ of fish harvesters and $19 \%$ of the workers in fish processing. However, age does not appear to play a decisive role in the decline of women's participation in the workforce. Women under $20(9 \%)$ were not more numerous than women in other age categories among fish harvesters, and neither were they among fish processors (24\%).

[^6]Table 1.5 Active Population Distribution According to Gender and Age, in 2005 ${ }^{1,2}$

| Age | Fish Harvesters (Self-employed and Wage-earning) |  | Fish Processing Workers |  | Fish Harvesters and Fish Processing Workers |  | Canadian Industries as a Whole |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Men | Women | Men | Women | Men | Women | Men | Women |
| 15-19 years | 91\% | 9\% | 76\% | 24\% | 82\% | 18\% | 50\% | 50\% |
| 20-54 years | 82\% | 18\% | 68\% | 32\% | 74\% | 26\% | 52\% | 48\% |
| 55-64 years | 83\% | 17\% | 49\% | 51\% | 66\% | 34\% | 56\% | 44\% |
| 65 years and more | 91\% | 9\% | 81\% | 19\% | 88\% | 12\% | 67\% | 33\% |
| Total ( 15 years plus) | 83\% | 17\% | 66\% | 34\% | 73\% | 27\% | 53\% | 47\% |

Note:

1. The age group of 15 years and more represents the whole active population.
2. All percentages are based on the active population per age group in the 2006 Census.

Source: Statistics Canada, 2006 Population Census, product no. 97-551-XCB2006005 in the Statistics Canada catalog.

### 1.4 Distribution according to work sector

This section analyzes the recent employment trends, namely between 2002 and 2006, in the fishing industry. During this period, employment in all Canadian industries increased on average $1.9 \%$ per year. At the same time, the unemployment rate in Canada decreased each year on average by $0.2 \%$, reaching $6.3 \%$ in 2006 which is the lowest in several decades ${ }^{11}$. However, the fishing industry did not benefit from these good economic conditions in the labour market. In the fishing industry as a whole, the number of jobs has decreased by 12,860 between 2002 and 2006, i.e. an average of $3.1 \%$ per year, reaching 93,840 . Only the wage-earning fish harvesting sector managed to buck the trend, as it grew from 17,210 to 21,080 jobs during this time period, for an annual growth of $5.6 \%$ (Table 1.6).

Table 1.6 Recent Changes in Employment by Sector, 2002-2006

|  | 2002 |  | 2003 |  | 2004 |  | 2005 |  | 2006 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of Workers | \% | Number <br> of <br> Workers | \% | Number of Workers | \% | Number <br> of <br> Workers | \% | Number <br> of <br> Workers | \% |
| Self-employed Fish Harvesters | 31,480 | 30 | 31,370 | 30 | 30,890 | 30 | 28,230 | 29 | 26,120 | 28 |
| Wage-earning Fish Harvesters | 17,210 | 16 | 19,400 | 19 | 19,520 | 19 | 20,910 | 21 | 21,080 | 22 |
| Fish Processing Workers | 52,530 | 49 | 48,870 | 47 | 47,080 | 46 | 43,790 | 45 | 41,980 | 45 |
| Aquaculture Workers | 5,490 | 5 | 5,210 | 5 | 4,820 | 5 | 5,130 | 5 | 4,670 | 5 |
| Fishing Industry Workers as a Whole | 106,700 | 100 | 104,840 | 100 | 102,300 | 100 | $\mathbf{9 8 , 0 7 0}$ | 100 | $\mathbf{9 3 , 8 4 0}$ | 100 |

[^7]This sustained decline in the number of jobs in the fishing industry, in contrast to the generally favourable conditions in the Canadian economy, is caused by several factors. Among these are the programs implemented by the federal government to restructure the Canadian fishing industry in reaction to the collapse of the Atlantic groundfish stocks that occurred at the beginning of the 1990's.

Measures which included the Atlantic Fishing Adaptation Program (1990-1995), the Northern Cod Adjustment and Recovery Program (1992-1994), the Atlantic Groundfish Adjustment Program (1994-1998) and the Canadian Fisheries Adjustment and Restructuring Program (1998-2000). Many of these programs included fishing licence buybacks and early retirement components directly aimed at reducing the number of fish harvesters.

In addition to the impacts of the restructuring programs in the fisheries, there are also demographic and economic considerations that may contribute to the observed decline in jobs in the industry. Better economic prospects in other industries and in the western parts of Canada, especially in Alberta, may have prompted thousands of workers, especially younger ones to leave the Atlantic Provinces, making it more difficult to recruit labour in the fishing industry.

Moreover, in terms of the distribution of workers in the four work sectors, the fish processing sector is the largest, holding $45 \%$ of the jobs. This was followed by self-employed fish harvesting (28\%), wage-earning fish harvesting $(22 \%)$ and aquaculture (5\%). This distribution, shown in Table 1.6 and illustrated in Figure 1.3, has not changed significantly in recent years. The most notable change is an increase of $6 \%$ from 2002 to 2006 in the number of wage-earning fish harvesters. This increase came at the expense of the fish processing and self-employed fish harvesting sectors. The share of jobs in these two sectors fell by $4 \%$ and $2 \%$ respectively.

Figure 1.2 Recent Changes in Employment by Sector, 2002-2006


### 1.5 Geographic distribution

As expected, most of the jobs created in the fishing industry are in the Atlantic Provinces and British Columbia, two regions where the commercial marine fisheries occupy a prominent role. In 2006, Newfoundland and Labrador ranked first in this regard with $27 \%$ of the jobs, followed by Nova Scotia (20\%). New Brunswick and British Columbia shared third with $16 \%$ each. Quebec and Prince Edward Island were next with $9 \%$ and $6 \%$ of the jobs respectively. The other provinces and Northern Territories together accounted for only $7 \%$ of the employment in the industry. This distribution, shown in Figure 1.3, remained unchanged from 2002 to 2006, except for a slight decrease of $1 \%$ for British Columbia.

Figure 1.3 Recent Changes in Employment by Region, 2002-2006


In all provinces except Ontario and Alberta, the number of fishing related jobs decreased from 2002 to 2006. Newfoundland experienced the greatest decline in jobs, with a loss of 3,390 workers, representing $27 \%$ of all jobs lost in the fishing industry. This was followed closely by Nova Scotia and British Columbia, with losses of 3,310 and 2,890 respectively. The loss of jobs was less prominent in New Brunswick (1,770), Quebec (950) and Prince Edward Island (770), although the rate of decline is similar to the average observed throughout Canada. In contrast, fishery employment grew by $17.4 \%$ in Alberta and $3.8 \%$ in Ontario, two provinces where freshwater fishing is very important. These are important gains, although, they represent only 490 and 380 jobs respectively, given the low significance of these two provinces in the fishing industry in Canada.

### 1.6 Employment distribution per sector and region

The fish processing sector ranks first in terms of jobs generated in all Canadian provinces except Nova Scotia and the Northern Territories. The sector's importance is even more pronounced in New Brunswick and Quebec where it provides more than half the jobs in the industry. The regional distribution of employment by worker category is shown in Figure 1.4.

Combining the self-employed and wage-earning fish harvesters into one category of workers produces an entirely different story. According to this grouping, harvesters would make up the majority of jobs in provinces such as Nova Scotia, Newfoundland and Labrador, and New Brunswick, where they represent $66 \%, 55 \%$, and $52 \%$ of the fishing industry jobs respectively. In the Central Provinces, harvesters would represent $48 \%$ of the jobs. The fishing industry in British Columbia is the most diversified in terms of jobs. In this province, fish processing workers hold $46 \%$ of the jobs, while harvesters and aquaculture workers account for $41 \%$ and $13 \%$ of the workforce respectively.

Figure 1.4 Employment Distribution According to Region and Sector, 2006


### 1.7 Contribution of the fishing industry to the workforce in Canada

All industries in Canada together provided just over 16 million jobs in 2006. The relative contribution of the fishing industry in this respect may seem negligible, just $0.5 \%$, but the number of jobs is significant. The fishing industry was the main source of income for 79,000 Canadian residents and provided employment income to 93,840 individuals. This does not include workers earning an income in the transportation and sales of seafood products.

This section examines the contribution of the fishing industry to total employment at the regional level. It must be noted that the job figures do not exactly match those presented in the rest of the report, due to different methodologies used to produce them ${ }^{12}$.

Table 1.7 Contribution of the Fishing Industry to Employment in Canadian Industries, 2006

|  | Fishing Industry Workers as <br> a Whole | Canadian Industries <br> as a Whole |  |
| :--- | ---: | ---: | ---: |
| Atlantic Provinces | Number of Jobs | \% | Number of Jobs |
| Newfoundland \& Labrador | $\mathbf{5 9 , 6 5 0}$ | $\mathbf{4 . 1}$ | $\mathbf{1 , 4 5 4 , 6 5 0}$ |
| Prince Edward Island | 22,630 | 8.8 | 257,080 |
| Nova Scotia | 4,940 | 6.7 | 73,930 |
| New Brunswick | 16,020 | 3.5 | 457,420 |
| Quebec (Atlantic) | 12,190 | 3.2 | 381,010 |
| Quebec (Whole Province) | 3,880 | 1.4 | 285,410 |
| Central Provinces | $\mathbf{6 , 6 2 0}$ | $\mathbf{0 . 2}$ | $\mathbf{3 , 8 3 5 , 7 9 0}$ |
| Ontario | $\mathbf{4 , 4 9 0}$ | $\mathbf{0 . 1}$ | $\mathbf{8 , 9 5 2 , 3 4 0}$ |
| Manitoba | 2,230 | 0.0 | $6,040,540$ |
| Saskatchewan | 1,530 | 0.3 | 561,320 |
| Alberta | 290 | 0.1 | 465,160 |
| British Columbia | 440 | 0.0 | $1,885,320$ |
| Northern Territories | $\mathbf{1 1 , 9 4 0}$ | $\mathbf{0 . 6}$ | $\mathbf{2 , 0 3 8 , 7 5 0}$ |
| Yukon | $\mathbf{1 7 0}$ | $\mathbf{0 . 3}$ | $\mathbf{5 9 , 6 0 0}$ |
| Northwest Territories | 20 | 0.1 | 19,190 |
| Nunavut | $\mathbf{7 9 , 0 0 0}$ | $\mathbf{0 . 5}$ | $\mathbf{2 5 , 5}$ |
| Canada | 120 | 0.8 | 14,660 |

The contribution of the fishing industry to jobs at the regional level, presented in Table 1.7, shows that this industry played a major role in 2006 in Newfoundland and Labrador and Prince Edward Island. The industry contributed about $9 \%$ and $7 \%$ of the jobs in these two provinces. It also played a significant role in Nova Scotia (3.5\%) and New Brunswick (3.2\%). It also provided a significant number of jobs in British Columbia, 13,880, despite its small contribution to total employment in the province at $0.6 \%$.

[^8]The importance of the fishing industry becomes more apparent in comparison to other industries that form the primary sector (Figure 1.5). Fishery related jobs accounted for $14 \%$ of the total number of jobs generated in the primary sector in Canada. The largest industries in the primary sector include the oil and gas industry which accounted for $22 \%$ of the workforce, the forestry industry at $17 \%$ and mining at $13 \%$.

Figure 1.5 Workers Distribution in the Primary Sector in Canada, 2006


In 2006, the fishing industry surpassed the other primary industries in four Atlantic Provinces in terms of contribution to employment (Table 1.8 and Figure 1.6). It is in Newfoundland and Labrador where the fishing industry made up the largest component of the primary sector ( $69 \%$ ), followed by Nova Scotia (58\%), Prince Edward Island (58\%), and New Brunswick (45\%).

In contrast, in the Central Provinces, the oil and gas industry generated the most number of jobs in the primary sector, especially in Alberta. Likewise, the fishing industry also constituted a small segment of the primary sector in British Columbia and in the Northern Territories at $14 \%$ and $6 \%$ respectively. In British Columbia, the forestry industry led by providing $39 \%$ of the total primary sector jobs. In the Northern Territories, mining provided employment to $67 \%$ of the workforce in the primary sector.

Table 1.8 Geographic Distribution of Workers in the Primary Sector, 2006

|  | Fishing <br> Industry <br> Workers |  | Forestry |  | Oil and Gas Extraction |  | Mining |  | Other Industries in the Primary Sector |  | Primary Sector as a Whole |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of Workers | \% | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { Workers } \end{aligned}$ | \% | Number of Workers | \% | Number of Workers | \% | Number of Workers | \% | Number of Workers | \% |
| Atlantic Provinces | 59,650 | 50 | 17,900 | 15 | 6,370 | 5 | 12,900 | 11 | 23,450 | 19 | 120,270 | 100 |
| Newfoundland \& Labrador | 22,630 | 69 | 2,280 | 7 | 2,600 | 8 | 3,320 | 10 | 2,100 | 6 | 32,930 | 100 |
| Prince Edward Island | 4,940 | 58 | 170 | 2 | 280 | 3 | 60 | 1 | 3,010 | 36 | 8,460 | 100 |
| Nova Scotia | 16,020 | 58 | 2,290 | 8 | 1,690 | 6 | 2,220 | 8 | 5,550 | 20 | 27,770 | 100 |
| New Brunswick | 12,190 | 45 | 4,360 | 16 | 1,730 | 6 | 3,900 | 15 | 4,660 | 17 | 26,840 | 100 |
| Quebec (Atlantic) | 3,880 | 16 | 8,800 | 36 | 60 | 0 | 3,400 | 14 | 8,130 | 33 | 24,270 | 100 |
| Quebec (Whole Province) | 6,620 | 7 | 29,600 | 32 | 570 | 1 | 15,890 | 17 | 40,360 | 43 | 93,040 | 100 |
| Central Provinces | 4,490 | 2 | 18,540 | 7 | 108,020 | 40 | 35,710 | 13 | 101,290 | 38 | 268,050 | 100 |
| Ontario | 2,230 | 2 | 11,410 | 12 | 3,030 | 3 | 18,980 | 20 | 58,330 | 62 | 93,980 | 100 |
| Manitoba | 1,530 | 8 | 800 | 4 | 1,370 | 8 | 3,320 | 18 | 11,010 | 61 | 18,030 | 100 |
| Saskatchewan | 290 | 1 | 1,350 | 4 | 10,850 | 33 | 7,380 | 23 | 12,920 | 39 | 32,790 | 100 |
| Alberta | 440 | 0 | 4,980 | 4 | 92,770 | 75 | 6,030 | 5 | 19,030 | 15 | 123,250 | 100 |
| British Columbia | 11,940 | 14 | 34,660 | 39 | 7,090 | 8 | 7,770 | 9 | 26,790 | 30 | 88,250 | 100 |
| Northern Territories | 170 | 6 | 160 | 6 | 490 | 17 | 1,890 | 67 | 120 | 4 | 2,830 | 100 |
| Yukon | 20 | 2 | 40 | 5 | 90 | 11 | 620 | 78 | 40 | 5 | 810 | 100 |
| Northwest Territories | 30 | 2 | 120 | 7 | 380 | 22 | 1,140 | 67 | 50 | 3 | 1,720 | 100 |
| Nunavut | 120 | 40 | n.s. | n.s. | n.s. | n.s. | 130 | 43 | 30 | 10 | 300 | 100 |
| Canada | 79,000 | 14 | 92,050 | 17 | 122,450 | 22 | 70,770 | 13 | 183,860 | 34 | 548,130 | 100 |

Nevertheless, the importance of the fishing industry for many communities across Canada, especially for the aboriginal population, cannot be properly quantified by the number of jobs alone. The number of jobs generated at the provincial and territorial level may seem small or even insignificant statistically for the Central Provinces and the Northern Territories, but these jobs provide a key source of income for workers and contribute to economic and social development of many rural and remote communities. The analysis of this important source of income is the subject of the next section.

Figure 1.6 Geographic Distribution of Workers in the Primary Sector by Region, 2006


## Section 2: Portrait of the total employment income of workers in the fishing industry

This section reviews the total employment income of workers in the fishing industry. This income represents the sum of earnings from all jobs held by workers in one of the fishing based sectors.

### 2.1 Net income of self-employed fish harvesters according to gender

Before examining the overall employment income picture, this section of the report analyzes the net income from fishing reported by both male and female self-employed fish harvesters in 2006. This income includes only the earnings from harvesting minus the expenses incurred to obtain the earnings. Therefore, it provides a partial portrait of the total employment income in the fishing industry.

Across Canada, net fishing income for male self-employed fish harvesters is higher than for their female counterparts. In 2006, females reported an average net income of $\$ 10,472$, corresponding to $89 \%$ of the net earnings of male harvesters (Table 2.1). The gap in earnings between women and men, shown in Figure 2.1, varies considerably from one region to the next. It is surprising that in New Brunswick, women reported an average net income equal to only $42 \%$ of net earnings of men. In contrast, female harvesters in Quebec and British Columbia earned more in net fishing income than men, namely $119 \%$ and $122 \%$ of the net income observed among men. To get a more complete picture of the income disparity between the genders, a comparison of the total incomes for men and women is presented in Section 3.1.

Figure 2.1 Average Net Income of Self-employed Fish Harvesters Based on Gender and Region, 2006


Source: Canada Revenue Agency (CRA), Income statistics, Final statistics - Sampling data, 2008 issue (2006 tax year), basic table 4 - All declarations are based on age and gender.

Table 2.1 Average Net Fishing Income of Self-employed Fish Harvesters Based on Gender and Region, 2006

|  | Men | Women | Women - Men Income Ratio |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | \% |
| Newfoundland \& Labrador | 9,950 | 6,789 | 68 |
| Prince-Edward Island | 18,785 | 17,301 | 92 |
| Nova Scotia | 14,988 | 14,527 | 97 |
| New Brunswick | 8,263 | 3,510 | 42 |
| Quebec | 8,325 | 9,879 | 119 |
| British Columbia | 15,350 | 18,760 | 122 |
| Canada | 11,731 | 10,472 | 89 |

Source: Canada Revenue Agency (CRA), Income statistics, Final statistics - Sampling data, 2008 issue (2006 tax year), basic table 4 - All declarations are based on age and gender.

### 2.2 Total employment income based on age and work sector

In all categories of work throughout the fishing industry, workers under 20 years of age have the lowest incomes. In this age group in 2006, self-employed fish harvesters reported the highest average total employment income, $\$ 10,412$. They were followed by aquaculture workers $(\$ 8,487)$, wage-earning fish harvesters $(\$ 7,697)$ and fish processing workers $(\$ 5,376)$. The average employment earnings for the fishing industry as a whole stood at $\$ 6,538$, which is a few hundred dollars less than the average total employment income of all Canadians in this age group (Table 2.2 ).
In general, average total employment income increases with age, except for individuals 60 years or older. In 2006, with the exception of the fish processing sector, the highest earning age group were those between 40 to 59 years of age. This group was followed by workers aged 20 to 39 years. These observations are identical to those in other Canadian industries. In addition, the employment incomes of fishing based workers 20 years and older are significantly lower than the average earnings of Canadians. In 2006, among those aged 40 to 59, Canadian workers posted an average employment income of $\$ 44,791$, corresponding to more than double the earnings of workers in the fishing industry $(\$ 19,932)$. For those 20 to 39 years and 60 years and older, the earnings gap compared to the average Canadian worker is not as great but is still significant at about $70 \%$. For all age groups, Canadians earned on average $\$ 35,493$, which is $95 \%$ more than the earnings of workers in the fishing industry $(\$ 18,207)$.

Table 2.2 Average Total Employment Income Based on Age and Sector, 2006

| Age | Average Total Employment Income (\$) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Self-employed Fish Harvesters | Wage-earning Fish Harvesters | Fish Processing Workers | Aquaculture Workers | Fishing Industry as a Whole | Canadian Industries as a Whole |
| Less than 20 years old | 10,412 | 7,697 | 5,376 | 8,487 | 6,538 | 6,659 |
| 20 to 39 years old | 17,109 | 22,565 | 14,349 | 24,966 | 17,862 | 30,390 |
| 40 to 59 years old | 17,268 | 26,205 | 17,776 | 31,736 | 19,932 | 44,791 |
| 60 years old and more | 12,636 | 23,385 | 22,488 | 27,692 | 18,025 | 30,651 |
| Total | 16,348 | 23,534 | 15,803 | 26,181 | 18,207 | 35,493 |

Note: Statistics for Canadian industries as a whole are calculated using CRA data, income statistics, provisional statistics - Universal data, 2008 issue (2006 tax year), table 4 - All declarations are based on age and gender.

Moreover, in 2006, aquaculture workers reported the highest average total employment income in the fishing industry $(\$ 26,181)$, while wage-earning fish harvesters came in second $(\$ 23,534)$, followed by self-employed fish harvesters $(\$ 16,348)$ and fish processing employees $(\$ 15,803)$. Table 2.2 details the average total employment income by age group and category of workers.

### 2.3 Total employment income based on work sector and region

A portrait of total employment income, shown in Figure 2.2 for the entire fishing industry is not reflected uniformly in all regions. Employment income varies by province. In all work sectors except self-employ fish harvesting, Ontario based workers reported the highest average total employment incomes in the country in 2006, at $\$ 33,725$. After Ontario, the next highest employment earnings come from Nova Scotia at $\$ 24,852$, Alberta at $\$ 23,818$, and British Columbia at $\$ 22,319$. As for total employment incomes for people living in the Northern Territories, it came out to $\$ 19,450$, slightly above the national average (Table 2.3 ). However, given the small number of workers in this region, about 300 in 2006, this average is sensitive to changes in income from even a small number of workers.

Figure 2.2 Average Total Employment Income Based on Sector and Region, 2006


The analysis of total employment income in the Atlantic Provinces and British Columbia, two regions which together contain almost $90 \%$ of jobs in the fishing industry, reveals that workers in British Columbia have much higher employment incomes than their counterparts living on the east coast. Moreover, aquaculture workers in British Columbia had the largest income disparity compared to workers in the Atlantic Provinces.
In 2006, workers in British Columbia recorded incomes $32 \%$ higher on average than their Atlantic counterparts. Incomes for workers in British Columbia were 75\% higher than in Newfoundland and Labrador, and 62\% and 52\% higher in Quebec-Atlantic and New Brunswick respectively.
In contrast, Nova Scotian workers posted incomes $10 \%$ higher than those in British Columbia. This is driven by the higher incomes earned by self-employed fish harvesters and fish processing workers. Besides Nova Scotia, Prince Edward Island is the only other province which has reported higher incomes than British Columbia, such as the selfemployed fish harvesters.

Table 2.3 Average Total Employment Income Based on Sector and Region, 2006

|  | Average Total Employment Income (\$) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Self-employed Fish Harvesters | Wage-earning Fish Harvesters | Fish Processing Workers | Aquaculture Workers | Fishing Industry as a Whole |
| Atlantic Provinces | 16,262 | 22,405 | 14,005 | 20,555 | 16,962 |
| Newfoundland \& Labrador | 11,484 | 20,466 | 11,135 | 16,375 | 12,784 |
| Prince Edward Island | 22,808 | 16,352 | 14,829 | 17,463 | 18,250 |
| Nova Scotia | 24,439 | 27,149 | 22,380 | 20,392 | 24,852 |
| New Brunswick | 14,206 | 17,985 | 12,299 | 23,236 | 14,665 |
| Quebec (Atlantic) | 16,053 | 15,907 | 11,670 | 14,438 | 13,809 |
| Quebec (Whole Province) | 17,104 | 16,186 | 13,000 | 15,255 | 14,629 |
| Central Provinces | 7,887 | 33,440 | 27,647 | 31,322 | 23,917 |
| Ontario | 14,324 | 42,394 | 32,274 | 35,769 | 33,725 |
| Manitoba | 5,694 | 8,944 | 20,231 | 16,226 | 10,836 |
| Saskatchewan | 4,041 | 21,456 | 19,667 | 31,039 | 8,100 |
| Alberta | 17,415 | 34,361 | 19,698 | 23,494 | 23,818 |
| British Columbia | 19,355 | 34,107 | 19,180 | 33,404 | 22,319 |
| Northern Territories | 16,843 | n.a. | 15,649 | n.a. | 19,450 |
| Yukon | n.a. | n.a. | 20,401 | n.a. | 20,401 |
| Northwest Territories | 3,921 | n.a. | 25,652 | n.a. | 14,787 |
| Nunavut | 21,150 | n.a. | 12,648 | n.a. | 20,157 |
| Canada | 16,348 | 23,534 | 15,803 | 26,181 | 18,208 |

### 2.4 Total employment income based on the industry

This section analyzes the total employment income of fishing industry workers compared to the earnings of workers in other primary industries. This comparison will highlight the income gap between fishery workers and workers in other industries that form the primary sector.

Results show a large income gap between workers in the primary sector and fishing industry workers. In 2006, workers in the primary sector recorded average employment earnings of $\$ 50,537$, which corresponds to 2.8 times the employment income of fish harvesters. The average employment income of workers in the oil and gas industry reached $\$ 98,144$, five times those of fish harvesters. It was $\$ 78,861$ and $\$ 40,670$ respectively for workers in mining and forestry (Table 2.4).

Table 2.4 Average Total Employment Income Based on the Primary Sector and the Province / Territory, 2006

|  | Average Total Employment Income (\$) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fishing Industry | Forestry | Oil and Gas Extraction | Mining | Other Industries in the Primary Sector | Primary Sector as a Whole |
| Atlantic Provinces | 17,118 | 28,725 | 60,501 | 55,928 | 16,397 | 27,939 |
| Newfoundland \& Labrador | 12,726 | 34,117 | 71,294 | 69,464 | 13,214 | 29,789 |
| Prince Edward Island | 18,882 | 22,655 | 37,862 | 30,181 | 17,879 | 20,373 |
| Nova Scotia | 25,559 | 21,670 | 60,079 | 42,129 | 15,650 | 27,293 |
| New Brunswick | 14,396 | 21,415 | 48,767 | 51,332 | 15,958 | 27,172 |
| Quebec (Atlantic) | 14,165 | 32,907 | 51,314 | 57,463 | 17,434 | 29,569 |
| Quebec <br> (Whole Province) | 14,908 | 34,088 | 50,096 | 59,063 | 17,864 | 30,656 |
| Central Provinces | 22,801 | 40,694 | 102,714 | 87,239 | 22,753 | 65,045 |
| Ontario | 34,251 | 41,381 | 63,381 | 93,435 | 21,016 | 39,860 |
| Manitoba | 10,363 | 25,258 | 51,466 | 69,437 | 23,891 | 33,509 |
| Saskatchewan | 5,861 | 26,167 | 68,949 | 83,727 | 21,554 | 51,300 |
| Alberta | 19,186 | 45,539 | 108,705 | 81,838 | 28,232 | 92,179 |
| British Columbia | 23,078 | 50,571 | 68,473 | 112,197 | 19,477 | 45,665 |
| Northern Territories | 16,056 | 19,218 | 56,702 | 68,193 | 16,269 | 59,503 |
| Yukon | 17,481 | 17,778 | 52,235 | 42,151 | 17,132 | 40,799 |
| Northwest Territories | 11,096 | 19,698 | 59,479 | 86,680 | 15,510 | 72,886 |
| Nunavut | 17,059 | n.a. | 24,033 | 30,271 | 16,384 | 25,716 |
| Canada | 18,301 | 40,670 | 98,144 | 78,861 | 20,623 | 50,537 |

Moreover, in 2006, the primary sector as a whole posted higher employment incomes than fishing industry workers in all provinces and territories.

In addition to these observations, it is important to note that the difference in employment incomes, shown in Figure 2.3, between fishing industry workers and workers in other primary industries is smaller in the Atlantic Provinces than in the rest of the country, except for Newfoundland and Labrador. Primary sector workers in the Central Provinces $(285 \%)$ and the Northern Territories ( $418 \%$ ) posted the highest employment incomes as compared to fishery workers in their regions.

Figure 2.3 Total Employment Income Based on the Primary Sector and Province / Territory, 2006


## Section 3: Portrait of the total income before and after tax of workers in the fishing industry

### 3.1 Total income based on gender

It is widely accepted that women generally have lower incomes than men. This section examines the income gap between male workers and their female counterparts in the fishing industry, nationally and regionally.

In 2006, for the general population of Canada, the average total income before tax for female workers was $\$ 29,961$. This includes total employment income, investment income, transfer payments and other taxable incomes. This total amounted to only $61 \%$ of the total income posted by male workers, which stood at $\$ 48,831$.

Figure 3.1 Average Total Income by Gender Based on Sector, 2006


Note: Statistics for the Canadian population overall are based on CRA data, income statistics, provisional statistics - Universal data, 2008 issue (2006 tax year), table 4 - All declarations are based on age and gender.

In the fishing industry, women earned lower incomes than men in all categories of work (Figure 3.1). However, the income gap in the fishing industry is smaller than that observed in the general working population. The largest income gap was reported in the fish processing sector, where women earned only $66 \%$ of the income received by male workers. This income gender gap was $68 \%$ among wage-earning fish harvesters, and $73 \%$ and $75 \%$ respectively for self employed fish harvesters and aquaculture workers (Table 3.1).

Table 3.1 Ratio of Female to Male Average Total Income Based on Sector and Region, 2006
Ratio of Women's Total Average Income Compared to Men's

|  | Self-employed Fish Harvesters | Wage-earning Fish Harvesters | Fish Processing Workers | Aquaculture Workers | Entire Population |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Atlantic Provinces | 71\% | 63\% | 65\% | 75\% | 65\% |
| Newfoundland \& Labrador | 79\% | 65\% | 75\% | 82\% | 63\% |
| Prince Edward Island | 83\% | 89\% | 68\% | 91\% | 74\% |
| Nova Scotia | 66\% | 57\% | 45\% | 59\% | 66\% |
| New Brunswick | 54\% | 77\% | 77\% | 73\% | 64\% |
| Quebec (Whole Province) | 73\% | 66\% | 76\% | 77\% | 64\% |
| Central Provinces | 96\% | 75\% | 71\% | 78\% | 60\% |
| British Columbia | 72\% | 78\% | 75\% | 75\% | 62\% |
| Northern Territories | 21\% | 155\% | 118\% | n.a. | 75\% |
| Canada | 73\% | 68\% | 66\% | 75\% | 61\% |

Note: The average total income ratio for the population overall is based on CRA statistics, income statistics, provisional statistics - Universal data, 2008 issue (2006 tax year), Table 4 - All declarations are based on age and gender.

At the regional level, except for the Northern Territories and Central Provinces, where the results can be skewed due to the low number of workers in the industry, the average total incomes of female workers is lower than males, in all categories of work. In 2006, the smallest income gap was recorded in Prince Edward Island, where the average total income of women corresponded to $91 \%$ of men in the aquaculture sector. This was followed by the wage-earning fish harvesting sector and the self-employed fish harvesting sector at $89 \%$ and $83 \%$ respectively. Not entirely surprising than is the fact that Prince Edward Island also had the smallest income gap among the general working population, women on average earned $74 \%$ the incomes of men. In contrast, Nova Scotia had the largest gender income gap in the fishing industry. For example, the average total incomes of female fish processing workers amounted to only $45 \%$ of their male counterparts. It was higher in other categories of work, ranging between $57 \%$ and $66 \%$, but well below the national average for the fishing industry.

One glaring result is the large income gap between male self-employed fish harvesters and their female counterparts in New Brunswick, where the average total income of female workers amounted to only $54 \%$ that of male workers. British Columbia on the other hand, has the least significant income disparity between the genders. In 2006, female workers in British Columbia earned $72 \%$ of the average total income of male self-employed fish harvesters, $75 \%$ of the average total incomes for both fish processing and aquaculture workers, and $78 \%$ of the average total incomes for the male wage-earning fish harvesters. Table 3.1 details the proportion of average total income of women relative to men by work sector and region.
The analysis of the gender income gap brings forth an important observation about their median income differences. The median total income is the income where half the workers earn a total income greater than this value and the other half, a lower value. It has the advantage of not being influenced by very high incomes. Table 3.2 summarizes the average total income and median total incomes of both genders.

Table 3.2 Average Total Income and Average Median Income Based on Gender and Sector, 2006

|  | Average Total Income |  |  | Average Median Income |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Men | Women | Women's to Men's Income Ratio | Men | Women | Women's to Men's Income Ratio |
|  | \$ | \$ | \% | \$ | \$ | \% |
| Self-employed Fish Harvesters | 32,350 | 23,600 | 73 | 25,280 | 19,930 | 79 |
| Wage-earning Fish Harvesters | 37,650 | 25,490 | 68 | 29,350 | 20,690 | 70 |
| Fish Processing Workers | 27,770 | 18,390 | 66 | 21,380 | 17,000 | 80 |
| Aquaculture Workers | 33,530 | 25,240 | 75 | 27,630 | 20,080 | 73 |

In general, the total income gap between male and female workers is lower using the median than the average, except for aquaculture. However, there is still a significant income gap between the genders using median incomes (Table 3.2 and Figure 3.2.).

Figure 3.2 Average Median Income by Gender Based on Sector, 2006


### 3.2 Total income before and after tax based on age

This section paints a portrait of the total income of workers by age group. It analyzes the income gaps observed between age groups and the impact of income taxes.

First of all, it should be noted that the portrait of total income before and after tax of workers in the fishing industry is similiar to the employment income described in Section 2.2. As with the employment income in all work sectors, workers younger than 20 years old earned the lowest average total incomes. In this age group in 2006, selfemployed fish harvesters recorded the highest total income ( $\$ 13,146$ ), followed by aquaculture workers $(\$ 9,437)$, wage-earning fish harvesters $(\$ 9,373)$ and fish processing workers $(\$ 7,686)$. However, contrary to employment income, young workers in the fishing industry had a slightly higher total income than the same workers in the general population in Canada, i.e. approximately $\$ 200$ more (Table 3.3).

Table 3.3 Average Total Income Before Tax Based on Age and Sector, 2006

| Age | Average Total Income Before Tax (\$) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Self-employed Fish Harvesters | Wage-earning Fish Harvesters | Fish Processing Workers | Aquaculture Workers | Fishing Industry as a Whole | Canadian Industries as a Whole |
| Less than 20 years old | 13,146 | 9,373 | 6,130 | 9,437 | 7,686 | 7,444 |
| 20 to 39 years old | 27,714 | 31,220 | 20,092 | 28,573 | 25,288 | 32,263 |
| 40 to 59 years old | 30,635 | 37,922 | 25,950 | 38,367 | 30,365 | 49,531 |
| 60 years old and more | 36,848 | 48,709 | 42,351 | 51,883 | 41,061 | 34,524 |
| All Ages | 30,396 | 34,494 | 23,236 | 31,426 | 28,163 | 38,084 |

Statistics for the Canadian population overall are based on CRA data, income statistics, provisional statistics - Universal data, 2008 issue (2006 tax year), Table 4 - All declarations are based on age and gender.

Contrary to the average employment income which increased with age, except for the 60 years and older age group, average total incomes before and after tax for workers in the fishing industry increased with age even for workers 60 years and older. In 2006, workers 60 years and older had the highest total incomes, whereas workers in the 40 to 59 year old group recorded the highest employment incomes.

In addition to these observations, workers in the fishing industry aged 60 and over earned higher average total incomes before and after tax than the general Canadian population in this age group. In 2006, the average total income before and after tax for workers in the fishing industry aged 60 and over was $\$ 41,061$ and $\$ 33,709$ respectively, while for all Canadians it was $\$ 34,524$ and $\$ 29,459$ respectively. However, by including all age groups, the general Canadian working population had higher average total incomes before and after tax (\$38,084 and \$31,823), than workers in the fishing industry ( $\$ 28,163$ and $\$ 23,767$ ).
In 2006, wage-earning fish harvesters recorded the highest average total incomes before and after tax, at $\$ 34,494$ and $\$ 28,754$ respectively. Aquaculture workers followed with earnings of $\$ 31,426$ and $\$ 26,749$. Detailed results of average total incomes before taxes are presented in Table 3.3, whereas the average total income after tax are shown in Table 3.4.

Table 3.4 Average Total Income After Tax Based on Age and Sector, 2006

| Age | Average Total Income After Tax (\$) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Self-employed Fish Harvesters | Wage-earning Fish Harvesters | Fish Processing Workers | Aquaculture Workers | Fishing Industry as a Whole | Canadian Industries as a Whole |
| Less than 20 years old | 11,693 | 8,662 | 5,887 | 8,927 | 7,212 | 7,166 |
| 20 to 39 years old | 22,658 | 26,155 | 17,943 | 24,759 | 21,612 | 27,475 |
| 40 to 59 years old | 25,014 | 31,493 | 22,495 | 31,948 | 25,518 | 40,409 |
| 60 years old and more | 30,620 | 40,049 | 34,152 | 42,866 | 33,709 | 29,459 |
| All Ages | 24,931 | 28,754 | 20,210 | 26,749 | 23,767 | 31,823 |

Statistics for the Canadian population overall are based on CRA data, income statistics, provisional statistics - Universal data, 2008 issue (2006 tax year), Table 4 - All declarations are based on age and gender.

The main impact of the income tax is to shrink the income gap between high and low-earning workers. This reduction is based on income redistribution mechanisms, such as taxes and government transfers. Taxes have the effect of reducing income gaps between different age groups of workers (Figure 3.3).

Figure 3.3 Average Total Income Before and After Tax for the Fishing Industry Based on Age, 2006


### 3.3 Recent history of the average total income before tax based on work sector

This section analyzes the recent history of the average total incomes before tax of workers in the fishing industry from 2002 to 2006. In order to take into account inflation, the total incomes reported in each year were corrected and expressed in constant dollars (2005). During this period, wage-earning fish harvesters reported the highest total
incomes before taxes. In 2002, their average total incomes stood at $\$ 35,375$. Between 2002 to 2006, however, their average total income fell by $4.4 \%$, for an an annual decline of $1.1 \%$. Self-employed fish harvesters saw their incomes decline from $\$ 33,325$ to $\$ 29,810$, a drop of $10.8 \%$ over the four year period. In contrast, aquaculture workers saw an increase in their incomes, rising by $10.8 \%$ between 2002 to 2006 (Figure 3.4).

Figure 3.4 Recent Changes in Average Total Income Before Tax Based on Sector, 2002-2006 (in 2005 constant dollars)


### 3.4 Total income before and after tax based on work sector and on region

Similar to the employment income component, the total income before and after tax of workers in the fishing industry varies from one province to another (Figure 3.5). In all categories of work, the province of Ontario had the highest earning workers in the fishing industry in 2006. Their average incomes before and after tax were $\$ 42,669$ and $\$ 34,479$ respectively. The next highest earning group of workers resided in Nova Scotia, $\$ 36,066$ and $\$ 29,117$ respectively. Alberta came next with average total incomes before and after tax of $\$ 29,902$ and $\$ 25,659$ respectively (Table 3.5).

Figure 3.5 Average Total Income Before and After Tax in the Fishing Industry as a Whole, Based on Region, 2006


[^9]Table 3.5 Average Total Income Before and After Tax, Based on Sector and Region, 2006

|  | Self-employed Fish Harvesters |  | Wage-earning Fish Harvesters |  | Fish Processing Workers |  | Aquaculture Workers |  | Fishing Industry Workers as a Whole |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Before Tax | After Tax | Before <br> Tax | After <br> Tax | Before Tax | After Tax | Before Tax | After Tax | Before Tax | After Tax |
| Atlantic Provinces | 31,124 | 25,330 | 33,391 | 27,799 | 22,467 | 19,533 | 26,451 | 22,867 | 27,753 | 23,333 |
| Newfoundland \& Labrador | 24,894 | 20,801 | 29,655 | 24,681 | 19,588 | 17,322 | 23,309 | 20,437 | 23,269 | 19,862 |
| Prince Edward Island | 38,594 | 30,195 | 26,983 | 23,247 | 22,955 | 19,667 | 24,586 | 21,348 | 29,538 | 24,272 |
| Nova Scotia | 40,931 | 32,001 | 37,701 | 30,703 | 30,823 | 25,243 | 24,800 | 21,578 | 36,066 | 29,117 |
| New Brunswick | 30,610 | 25,385 | 30,971 | 26,070 | 20,572 | 18,328 | 28,607 | 24,510 | 24,788 | 21,427 |
| Quebec (Atlantic) | 33,813 | 30,984 | 29,707 | 27,100 | 21,253 | 19,758 | 23,287 | 21,637 | 26,030 | 23,955 |
| Quebec (Whole Province) | 35,748 | 32,598 | 29,165 | 26,575 | 21,217 | 19,716 | 22,897 | 21,325 | 25,728 | 23,655 |
| Central Provinces | 20,200 | 17,366 | 42,164 | 34,141 | 32,049 | $\mathbf{2 6 , 8 7 9}$ | 42,228 | 33,963 | 31,664 | 26,328 |
| Ontario | 45,962 | 35,508 | 53,724 | 42,497 | 36,956 | 30,540 | 50,164 | 39,537 | 42,669 | 34,479 |
| Manitoba | 15,296 | 13,854 | 14,496 | 13,197 | 23,929 | 20,578 | 18,304 | 15,801 | 17,950 | 15,914 |
| Saskatchewan | 10,581 | 9,843 | 25,484 | 21,894 | 23,460 | 19,975 | n.a. | n.a. | 14,010 | 12,590 |
| Alberta | 29,655 | 25,376 | 40,255 | 33,583 | 23,930 | 21,142 | 27,955 | 24,073 | 29,902 | 25,659 |
| British Columbia | 30,293 | 25,130 | 46,336 | 38,280 | 23,656 | 20,659 | 36,657 | 30,962 | 29,419 | 24,939 |
| Northern Territories | 25,277 | 22,047 | 72778 | 58105 | 18,569 | 16,936 | n.a. | n.a. | 24,159 | 21,185 |
| Yukon | n.a. | n.a. | n.a. | n.a. | 22,809 | 20,615 | n.a. | n.a. | 22,809 | 20,615 |
| Northwest Territories | 15,626 | 14,584 | n.a. | n.a. | 29,407 | 26,118 | n.a. | n.a. | 22,517 | 20,351 |
| Nunavut | 28,494 | 24,534 | 72,778 | 58,105 | 15,597 | 14,392 | n.a. | n.a. | 24,729 | 21,453 |
| Canada | 30,396 | 24,931 | 34,494 | 28,754 | 23,236 | 20,210 | 31,425 | 26,749 | 28,165 | 23,768 |

Note: The average total income after tax for Quebec represents the total income after the federal tax. It does not take into account the provincial tax that is collected separately by the Quebec government. For this reason, the income reported is overstated.

The total income composition of workers in the Atlantic Provinces and British Columbia is different than the employment income composition in these two regions. Although workers in British Columbia have higher total incomes than their counterparts in the Atlantic Provinces, the difference is not as large as the gap in employment incomes. For example, in 2006, workers in British Columbia reported average total incomes before and after tax of $\$ 29,419$ and $\$ 24,939$ respectively, while those in the Atlantic Provinces earned $\$ 27,753$ and $\$ 23,333$. This amounts to a difference of $6 \%$ before tax and $6.8 \%$ after tax, which is much lower than the gap between their employment incomes, which came out to be $32 \%$. Section 3.7.3 examines the two largest components of total income, namely employment income and employment insurance (EI). An analysis of these two sources, presented in Table 3.12, gives a clearer understanding of the income disparity between regions, particularly between the Atlantic Provinces and British Columbia.

Workers living in the Northern Territories reported total incomes much lower than the average incomes of all workers in the fishing industry. In 2006, workers in the Northern Territories reported average total incomes before and after tax of $\$ 19,139$ and $\$ 17,178$ respectively, which was $47 \%$ and $38 \%$ lower than the earnings of average workers in the industry.

Figure 3.6 illustrates the major regional differences in average total incomes before tax by work sector. In 2006, in the Atlantic Provinces, self-employed fish harvesters and wage-earning fish harvesters reported higher average total incomes than workers in aquaculture and fish processing. Whereas, in the Central Provinces and British Columbia, it was the wage-earning fish harvesters and the aquaculture workers who recorded the highest incomes.

Figure 3.6 Average Total Income Before Tax Based on Sector and Region, 2006


### 3.5 Total income before and after tax based on the primary sector

The gap between the total incomes before and after tax of workers in the primary sector as a whole versus fishing industry workers is less than the gap between their total employment incomes. For example, in 2006, workers in the primary sector as a whole earned average total incomes before and after tax of $\$ 59,713$ and $\$ 47,564$ respectively. As a comparison, fishing industry workers earned $\$ 28,983$ and $\$ 24,366$. The total income gap between all workers in the primary sector and fishing industry workers is approximately $100 \%$, whereas the difference between their employment income earnings shows a greater disparity (156\%). For the average employment incomes, workers in the oil and gas industry had the highest incomes in the primary sector. In 2006, their average total incomes stood at $\$ 112,121$ before tax and $\$ 84,907$ after tax. People working in the mining and forestry industries also recorded much higher total incomes than fishing industry workers. The average total incomes before and after tax in the primary sector are presented in Figure 3.7 and Table 3.6.

Figure 3.7 Average Total Income Before and After Tax of Workers in the Primary Sector, 2006


Table 3.6 Average Total Income Before Tax of Workers in the Primary Sector, Based on Region, 2006

|  | Average Total Income Before Tax (\$) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fishing industry | Forestry | Oil and Gas Extraction | Mining | Other Industries in the Primary Sector | Primary Sector as a Whole |
| Atlantic Provinces | 28,534 | 37,371 | 67,872 | 63,273 | 22,720 | 37,405 |
| Newfoundland \& Labrador | 23,691 | 44,610 | 78,112 | 76,041 | 21,225 | 40,149 |
| Prince Edward Island | 31,199 | 30,753 | 47,299 | 37,810 | 25,078 | 31,046 |
| Nova Scotia | 37,280 | 28,384 | 67,199 | 55,441 | 21,227 | 37,528 |
| New Brunswick | 25,363 | 30,315 | 56,803 | 57,803 | 21,846 | 36,064 |
| Quebec (Atlantic) | 27,204 | 41,464 | 60,705 | 62,656 | 23,755 | 37,463 |
| Quebec (Whole Province) | 26,993 | 41,477 | 58,117 | 66,368 | 23,385 | 37,488 |
| Central Provinces | 31,048 | 45,864 | 117,343 | 96,051 | 28,878 | 74,965 |
| Ontario | 43,056 | 46,752 | 74,912 | 104,583 | 25,939 | 46,437 |
| Manitoba | 18,182 | 30,156 | 62,339 | 73,403 | 29,044 | 39,126 |
| Saskatchewan | 11,908 | 31,308 | 76,143 | 89,233 | 28,847 | 58,062 |
| Alberta | 27,538 | 50,297 | 124,360 | 90,008 | 37,812 | 106,074 |
| British Columbia | 31,068 | 57,366 | 79,551 | 137,995 | 24,965 | 54,448 |
| Northern Territories | 21,789 | 27,723 | 60,751 | 72,907 | 20,033 | 64,388 |
| Yukon | 19,493 | 24,433 | 55,433 | 48,321 | 20,169 | 46,496 |
| Northwest Territories | 20,023 | 28,819 | 63,705 | 90,659 | 19,382 | 77,368 |
| Nunavut | 22,613 | n.a. | 28,560 | 34,490 | 20,938 | 30,800 |
| Canada | 28,983 | 47,524 | 112,121 | 88,995 | 26,538 | 59,713 |

In addition to these observations, it should be noted that fishing industry workers in Prince Edward Island and Nova Scotia recorded higher average total incomes before and after tax than workers in the forestry industry (Table 3.6 and 3.7).

It is also noteworthy that the total income gap before and after tax between fishing industry workers and workers in the primary sector is lower in the Atlantic Provinces than in the rest of Canada. In addition, the Central Provinces and British Columbia have the highest earning primary sector workers before and after tax (Figure 3.8 and 3.9).

Table 3.7 Average Total Income After Tax of Workers in the Primary Sector, Based on Region, 2006

|  | Average Total Income After Tax (\$) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fishing Industry | Forestry | Oil and Gas Extraction | Mining | Other Industries in the Primary Sector | Primary Sector as a Whole |
| Atlantic Provinces | 23,888 | 32,699 | 51,111 | 50,563 | 20,410 | 31,046 |
| Newfoundland \& Labrador | 20,194 | 36,432 | 57,128 | 57,208 | 18,635 | 31,771 |
| Prince Edward Island | 25,387 | 26,022 | 37,550 | 31,062 | 21,779 | 25,627 |
| Nova Scotia | 29,913 | 24,419 | 50,969 | 43,957 | 18,541 | 30,311 |
| New Brunswick | 21,864 | 26,113 | 44,436 | 45,391 | 19,351 | 29,767 |
| Quebec (Atlantic) | 24,976 | 37,284 | 51,644 | 54,668 | 22,247 | 33,784 |
| Quebec (Whole Province) | 24,772 | 37,085 | 50,730 | 57,473 | 21,708 | 33,560 |
| Central Provinces | 25,956 | 37,546 | 88,711 | 73,016 | 24,893 | 58,115 |
| Ontario | 35,090 | 38,275 | 57,427 | 78,798 | 22,458 | 37,253 |
| Manitoba | 16,112 | 25,391 | 48,485 | 55,140 | 24,760 | 31,632 |
| Saskatchewan | 10,945 | 25,942 | 57,362 | 69,041 | 24,935 | 45,526 |
| Alberta | 23,787 | 40,975 | 93,993 | 69,525 | 32,406 | 80,964 |
| British Columbia | 26,192 | 46,636 | 62,139 | 106,637 | 21,910 | 44,103 |
| Northern Territories | 19,298 | 25,019 | 48,460 | 58,026 | 18,222 | 51,593 |
| Yukon | 17,892 | 22,115 | 44,535 | 40,201 | 18,312 | 38,671 |
| Northwest Territories | 18,201 | 25,987 | 50,622 | 70,908 | 17,555 | 61,029 |
| Nunavut | 19,807 | n.a. | 25,044 | 30,073 | 19,215 | 26,898 |
| Canada | 24,366 | 39,883 | 84,907 | 69,600 | 23,301 | 47,564 |

Figure 3.8 Average Total Income Before Tax of Workers in the Primary Sector, 2006


Figure 3.9 Average Total Income After Tax of Workers in the Primary Sector, 2006


### 3.6 Total income distribution based on centile

This section reviews the distribution of total incomes of workers in the fishing industry from a different outlook. Namely, categorizing workers based on their total incomes in groups of equal sizes called centiles. First, the average total income of workers is examined for four groups: the 25 th percentile, the 50th percentile or median, the 75th percentile and 95th percentile. Then, an analysis is presented to determine if the total income inequality between workers has changed from 1998 to 2006.

Categorizing workers according to their total incomes in ascending order, the results show that wage-earning fish harvesters posted the highest total incomes for the four groups of workers under review. Self-employed fish harvesters and aquaculture workers had relatively similar incomes at the 25 th centile, although aquaculture workers earned slightly more than self-employed fish harvesters at the 50th and 75 th percentiles. In contrast, fish processing workers had the lowest average total incomes in the results.

Figure 3.10 displays the average total incomes according to work sector and by percentile in 2006 . The positive slope of each curve indicates that workers at the higher percentiles earn progressively higher incomes. The change in the slope of the curves at the 50th and the 75th percentiles suggests that income disparities are increasing as the average total incomes increase.

Figure 3.10 Average Total Income Before Tax Based on Sector and Centile, 2006


Table 3.8 Average Total Income Before Tax Based on Sector, Region and Centile, 2006
Average Total Income of the $\mathbf{2 5 t h}$ percentile, 95 th percentile and income ratio of the 95 th percentile to the $\mathbf{2 5 t h}$ percentile

|  | Self-employed Fish Harvesters |  |  | Wage-earning Fish Harvesters |  |  | Fish Processing Workers |  |  | Aquaculture Workers |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total Income of the 25th Centile | Total <br> Income <br> of the <br> 95th <br> Centile | Ratio Between the 95th and 25th Centiles | Total Income of the 25th Centile | Total <br> Income <br> of the <br> 95th <br> Centile | Ratio Between the 95th and 25th Centiles | Total <br> Income of the 25th Centile | Total <br> Income of the 95th Centile | Ratio Between the 95th and 25th Centiles | Total Income of the 25th Centile | Total <br> Income <br> of the <br> 95th <br> Centile | Ratio Between the 95th and 25th Centiles |
|  | \$ | \$ | $\mathrm{N}: 1$ | \$ | \$ | $\mathrm{N}: 1$ | \$ | \$ | $\mathrm{N}: 1$ | \$ | \$ | $\mathrm{N}: 1$ |
| Newfoundland and Labrador | 15,500 | 49,020 | 3.2 | 16,380 | 68,020 | 4.2 | 12,240 | 38,530 | 3.1 | 14,710 | 43,810 | 3.0 |
| Prince Edward Island | 19,380 | 91,340 | 4.7 | 17,480 | 49,890 | 2.9 | 13,680 | 41,750 | 3.1 | 14,460 | 51,920 | 3.6 |
| Nova Scotia | 20,170 | 96,870 | 4.8 | 19,950 | 84,190 | 4.2 | 12,330 | 68,170 | 5.5 | 13,110 | 57,800 | 4.4 |
| New Brunswick | 15,560 | 71,630 | 4.6 | 20,610 | 63,910 | 3.1 | 14,070 | 39,050 | 2.8 | 15,440 | 56,950 | 3.7 |
| Quebec | 16,600 | 80,670 | 4.9 | 18,110 | 60,250 | 3.3 | 13,530 | 43,490 | 3.2 | 14,600 | 46,010 | 3.2 |
| Ontario | 11,610 | 121,630 | 10.5 | 19,230 | 105,830 | 5.5 | 13,700 | 94,450 | 6.9 | 13,190 | 213,300 | 16.2 |
| Manitoba | 6,470 | 38,760 | 6.0 | 5,810 | 38,100 | 6.6 | 9,440 | 57,460 | 6.1 | п.a. | n.a. | n.a. |
| Saskatchewan | 2,880 | 30,060 | 10.4 | 8,820 | 63,430 | 7.2 | 9,950 | 108,810 | 10.9 | n.a. | n.a. | n.a. |
| Alberta | 11,330 | 104,200 | 9.2 | 23,640 | 79,740 | 3.4 | 12,510 | 57,940 | 4.6 | 13,340 | 62,400 | 4.7 |
| British Columbia | 12,840 | 79,740 | 6.2 | 14,690 | 124,680 | 8.5 | 8,350 | 57,450 | 6.9 | 16,650 | 78,560 | 4.7 |
| Northwest Territories | 4,610 | 37,770 | 8.2 | n.a. | n.a. | n.a. | n.a. | п.a. | n.a. | n.a. | n.a. | n.a. |
| Yukon | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 14,430 | 49,790 | 3.5 | n.a. | n.a. | n.a. |
| Nunavut | 18,180 | 47,450 | 2.6 | 29,720 | 166,840 | 5.6 | 5,280 | 46,040 | 8.7 | n.a. | n.a. | n.a. |
| Canada | 15,330 | 73,840 | 4.8 | 18,470 | 79,400 | 4.3 | 12,250 | 51,490 | 4.2 | 15,300 | 68,980 | 4.5 |

Table 3.8 and Figure 3.11 highlight the major income discrepancies between workers at the 25 th and the 95 th centiles. Regardless of region, in all categories of work, those at the 95 th centile earned at least four times more than those at the 25th centile.
At the regional level, the differences were more pronounced in the Central Provinces and British Columbia. Selfemployed fish harvesters at the 95th centile in Ontario and Alberta earned at least nine times more than their counterparts at the 25th percentile, while it was over six times more in British Columbia. For wage-earning fish harvesters, British Columbia had the greatest income disparity between the 95 th and 25 th centiles, at 8.5 times, while this ratio was 5.5 times in Ontario and between 3.1 to 4.2 in the Atlantic Provinces. This pattern is also reflected for both aquaculture and fish processing workers, as those living in the Atlantic Provinces reported lower incomes than their counterparts in the Central Provinces and those in British Columbia.

Figure 3.11 Average Total Income Before Tax of Workers at the 95th and 25th Centiles, Based on Sector, 1998 - 2006


### 3.7 Composition of total income

Total income is the sum of employment income, investment income, EI and other income. This section first analyzes the composition of total income for workers in the fishing industry. Second, it examines the composition of total income according to different income ranges. This is followed by an analysis of total income by the age of workers. Through these portraits, two important sources of income for workers are highlighted, employment income and EI.

### 3.7.1 Composition of total income based on sector

For workers in the fishing industry, employment income is their main source of income. In 2006, 65\% of total income came from this source, while $24 \%$ was attributed to EI, $5 \%$ to investment income and $6 \%$ to other sources (Figure 3.12). This distribution varies by sector. Among self-employed fish harvesters, employment income accounted for only $54 \%$ of total income, whereas it represented $83 \%$ of total income for aquaculture workers. For wage-earning fish harvesters and fish processing workers, employment income represented $68 \%$ of total income.

After employment income, EI was the second biggest source of income for workers. It constituted $30 \%$ of the total income for self-employed fish harvesters, and $23 \%$ and $21 \%$ for fish processors and wage-earning fish harvesters respectively. In contrast, this income source represented only $8 \%$ of total income for aquaculture workers.

Figure 3.12 Composition of the Average Total Income Before Tax of Workers Based on Sector, 2006


### 3.7.2 Composition of total income based on income ranges

The proportion of employment income to total income varies depending on the level of total income. For example, in 2006, employment income accounted for $51 \%$ of total income for workers who earned less than $\$ 20,000$. This increased to $61 \%$ and $75 \%$ for those individuals earning $\$ 20,000$ to $\$ 39,999$ and $\$ 40,000$ or more respectively.

Unlike employment income, the proportion of total income represented by EI decreases as the level of total income increases. For example, EI represented $40 \%$ of total income for workers who earned less than $\$ 20,000,33 \%$ for those who recorded a total income of $\$ 20,000$ to $\$ 39,999$ and $14 \%$ for those whose total income was $\$ 40,000$ to $\$ 59,999$. It was only $4 \%$ of total income for workers earning $\$ 60,000$ or more.

Investment income represented a meager $1 \%$ of total income for those earning less than $\$ 40,000$ and $3 \%$ for those making $\$ 40,000$ to $\$ 59,999$. Meanwhile, it contributed $16 \%$ of the total income for workers earning $\$ 60,000$ or more (Figure 3.13).

Figure 3.13 Composition of the Average Total Income Before Tax for Workers in the Fishing Industry, Based on their Total Income Range, 2006


Table 3.9 displays the composition of total income based on work sector. It should be emphasized that the composition of total income in the fishing industry is not uniform for all categories of workers. However, there are two main trends. The first trend is the increase in the proportion of employment income to total income as the level of total income increases. The second trend is the reduction in the share of EI as incomes rise.

Apart from these trends, the proportion of employment income at each income range varies by work sector. For example, among self-employed fish harvesters who earn less than $\$ 20,000$, employment income accounted for only $29 \%$ of total income. In sharp contrast, employment income constituted $59 \%$ and $73 \%$ of total income for wageearning fish harvesters and aquaculture workers making less than $\$ 20,000$.

The importance of EI should also be noted, especially for self-employed fish harvesters with total incomes of less than $\$ 20,000$. In 2006, EI accounted for $57 \%$ of total incomes for this group of workers. Except for those in aquaculture, EI accounted for at least $29 \%$ of the total income of workers who reported incomes of less than $\$ 40,000$.

Table 3.9 Composition of the Average Total Income Based on Sector and on Income Range, 2006


### 3.7.3 Composition of total income based on workers age

A review of the composition of total income based on age ranges shows that the share of employment income to total income decreases as workers get older (Figure 3.14). In 2006, for the fishing industry as a whole, employment income constituted $85 \%$ of the total income for workers under 20 years old, compared to $71 \%$ for workers 20 to 39 years. This ratio was $66 \%$ and $44 \%$ for those 40 to 59 years of age and those 60 and older respectively. This inverse relationship is observed in all work sectors (Table 3.10).

Figure 3.14 Total Employment Income and El Benefits Contribution to the Total Income Based on Age, 2006


Table 3.10 Contribution of Total Employment Income to the Total Income Based on Age, 2006

| Age | Ratio of the Average Employment Income to the Average Total Income |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Self-employed Fish Harvesters | Wage-earning Fish Harvesters | Fish Processing Workers | Aquaculture Workers | Fishing Industry as a Whole | Canadian Industries as a Whole |
| Less than 20 years old | 79\% | 82\% | 88\% | 90\% | 85\% | 85\% |
| 20 to 39 years old | 62\% | 72\% | 71\% | 87\% | 71\% | 91\% |
| 40 to 59 years old | 56\% | 69\% | 69\% | 83\% | 66\% | 85\% |
| 60 years old and more | 34\% | 48\% | 53\% | 53\% | 44\% | 24\% |
| All Ages | 54\% | 68\% | 68\% | 83\% | 65\% | 73\% |

Note: Statistics for the Canadian population overall are based on the sum of the total employment income and the total income reported by taxpayers in Canada. CRA data, income statistics, provisional statistics - Universal data, 2008 issue (2006 tax year), table 4 - All declarations are based on age and gender.

Meanwhile, the relationship between the proportion of EI to total income and the age of workers is less obvious. EI is a smaller proportion of total income for workers under 20 and those 60 years and older. Moreover, in contrast to the employment income, the proportion of EI to total income is lower among aquaculture workers and higher for self-employed fish harvesters (Table 3.11).

Table 3.11 Contribution of El Benefits to the Total Income Based on Age, 2006

| Age | Ratio of Average EI Benefits to Average Total Income |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Self-employed Fish Harvesters | Wage-earning Fish Harvesters | Fish Processing Workers | Aquaculture Workers | Fishing Industry as a Whole | Canadian Industries as a Whole |
| Less than 20 years old | 17.4\% | 13.7\% | 7.7\% | 5.6\% | 10.7\% | 0.7\% |
| 20 to 39 years old | 33.3\% | 24.4\% | 23.8\% | 9.1\% | 25.1\% | 2.9\% |
| 40 to 59 years old | 32.5\% | 20.5\% | 24.6\% | 7.7\% | 25.1\% | 1.1\% |
| 60 years old and more | 19.3\% | 12.8\% | 14.5\% | 5.4\% | 16.0\% | 0.4\% |
| All Ages | 30.1\% | 21.0\% | 22.8\% | 8.2\% | 23.7\% | 0.1\% |

Note: Statistics for the Canadian population overall are based on the sum of employment insurance and total income declared by taxpayers in Canada. CRA data, income statistics, provisional statistics - Universal data, 2008 issue (2006 tax year), table 4 - All declarations are based on age and gender.

### 3.7.4 Composition of total income based on region

The importance of employment income and EI as sources of total income varies by region (Figure 3.15). In the fishing industry, the proportion of employment income to total income is highest in British Columbia and in the Northwest Territories, as compared to the rest of the country. In 2006, employment income represented $76 \%$ and $80 \%$ of total income, respectively in these two regions, compared to $61 \%$ and $64 \%$ in the Atlantic Provinces and the Central Provinces. Among the Atlantic Provinces, it was highest in Nova Scotia (69\%) and Prince Edward Island ( $62 \%$ ), and lowest in Newfoundland and Labrador ( $55 \%$ ). Table 3.12 displays the contribution of employment income and EI to total income by sector and region in 2006.
Moreover, a review of income composition reemphasizes the importance of EI for the Atlantic Provinces. In 2006, EI accounted for $35 \%$ of the total incomes of workers in the Atlantic Provinces, whereas they represent only $9 \%$ in British Columbia, $8 \%$ in the Central Provinces, and $6 \%$ in the Northern Territories. It reached as high as $44 \%$ in Newfoundland and Labrador (Table 3.12).

Figure 3.15 Contribution of Total Employment Income and El Benefits to Total Income in the Fishing Industry Based on Region, 2006


Table 3.12 Contribution of Total Employment Income and El Benefits to Total Income Based on Sector and Region, 2006

|  | Ratio of the Average Employment Income and of Average EI Benefits |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Self-employed Fish Harvesters |  | Wage-earning Fish Harvesters |  | Fish Processing Workers |  | Aquaculture Workers |  | Fishing Industry as a Whole |  |
|  | Employment Income (\%) | $\begin{gathered} \text { EI } \\ (\%) \end{gathered}$ | Employment Income (\%) | $\begin{gathered} \text { EI } \\ (\%) \end{gathered}$ | Employment Income (\%) | $\begin{gathered} \text { EI } \\ (\%) \end{gathered}$ | Employment <br> Income (\%) | $\begin{gathered} \text { EI } \\ (\%) \end{gathered}$ | Employment Income (\%) | $\begin{gathered} \text { EI } \\ (\%) \end{gathered}$ |
| Atlantic Provinces | 52 | 35 | 67 | 24 | 62 | 29 | 78 | 14 | 61 | 29 |
| Newfoundland and Labrador | 46 | 44 | 69 | 25 | 57 | 37 | 70 | 24 | 55 | 37 |
| Prince Edward Island | 59 | 31 | 61 | 30 | 65 | 26 | 71 | 21 | 62 | 28 |
| Nova Scotia | 60 | 24 | 72 | 18 | 73 | 13 | 82 | 11 | 69 | 18 |
| New Brunswick | 46 | 35 | 58 | 33 | 60 | 34 | 81 | 10 | 59 | 32 |
| Quebec (Atlantic) | 47 | 35 | 54 | 33 | 55 | 37 | 62 | 27 | 53 | 35 |
| Quebec (Whole Province) | 48 | 31 | 55 | 33 | 61 | 31 | 67 | 21 | 58 | 31 |
| Central Provinces | 39 | 19 | 79 | 7 | 86 | 6 | 75 | 4 | 76 | 8 |
| British Columbia | 64 | 14 | 74 | 2 | 81 | 7 | 91 | 3 | 76 | 9 |
| Northern Territories | 67 | 10 | 91 | 3 | 83 | 5 | n.a. | n.a. | 80 | 6 |
| Canada | 54 | 30 | 68 | 21 | 68 | 23 | 83 | 8 | 65 | 24 |

## Section 4: Changes in the fishing industry between 1994 and 2006

### 4.1 Changes in the workers demographic profile

This section presents the major demographic changes observed for workers in the fishing industry from 1994 to 2006. In particular, it examines the gender imbalance in employment in the industry from 1998 to 2006. It also assesses the ageing effect of the workforce, specifically for two groups of workers, those aged 40 years and over, and those 60 years and older.

The analysis begins by examining changes in employment from 1994 to 2006 for self-employed fish harvesters and from 1998 to 2006 for other workers in the fishing industry ${ }^{13}$. The number of self-employed fish harvesters dropped from 39,090 in 1994 to 26,120 in 2006 (Table 4.1), representing a decline of 12,970 or a $33 \%$ loss of jobs during the time period. A closer review of the job figures shows that $65 \%$ of the losses, or 8,460 jobs, occurred from 1994 to 1998.

Table 4.1 Number of Workers by Sector, 1994-2006

|  | Workers Distribution, 1994-2006 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|  | Number of Workers |  |  |  |  |  |  |  |  |  |  |  |  |
| Self- <br> employed <br> Fish <br> Harvesters | 39,090 | 37,960 | 36,000 | 33,550 | 30,630 | 31,480 | 31,340 | 31,360 | 31,480 | 31,370 | 30,890 | 28,230 | 26,120 |
| Wageearning Fish Harvesters | u.a. | u.a. | u.a. | u.a. | 21,170 | 21,020 | 16,050 | 16,140 | 17,210 | 19,400 | 19,520 | 20,910 | 21,080 |
| Fish <br> Processing <br> Workers | u.a. | u.a. | u.a. | u.a. | 48,100 | 49,890 | 53,340 | 51,870 | 52,530 | 48,870 | 47,080 | 43,790 | 41,980 |
| Aquaculture Workers | u.a. | u.a. | u.a. | u.a. | 3,950 | 4,230 | 5,500 | 5,730 | 5,490 | 5,210 | 4,820 | 5,130 | 4,670 |
| Fishing <br> Industry as a Whole | u.a. | u.a. | u.a. | u.a. | 103,850 | 106,610 | 106,230 | 105,100 | 106,700 | 104,840 | 102,300 | 98,070 | 93,840 |

The period of severe job losses among self-employed fish harvesters from 1994 to 1998 was followed by a period of relative stability from 1999 to 2004. Then there was another period of substantial jobs losses. The number of workers in this sector dropped by $8.6 \%$ in 2005 and another $7.5 \%$ in 2006 (Figure 4.1).

[^10]Figure 4.1 Number of Workers Based on Sector, 1998-2006


The number of jobs in the wage-earning fish harvesting sector seems to be rather stable as it went from 21,170 in 1998 to 21,080 in 2006, a decrease of only 90 jobs during the time period. However, the overall result masks a steep decline in jobs of 4,970 ( $24 \%$ ) from 1999 to 2000. Following this period, the number of jobs rebounded with gains of 1,070, 2,190 and 1,390 in 2002, 2003 and 2005 respectively. These significant increases totaling 4,650 jobs, coupled with moderate increases in 2004 and 2006 have balanced out the jobs lost in 1999.
The fish processing sector experienced a moderate loss in jobs from 48,100 in 1998 to 41,980 in 2006. After posting gains in 1999 and 2000, the sector went into a downward trend as the number of jobs declined significantly from 2000 to 2006. More specifically, the number of jobs fell by 10,550 ( $20 \%$ ) from 2000 to 2006.

Aquaculture was the only sector to buck the job loss trend. The sector went through a growth phase from 1998 to 2001 as the number of jobs increased from 3,950 to 5,730. Following this period, small job losses were recorded from 2002 to 2004. The next two years saw large fluctuations in the number of jobs, eventually reaching 4,670 in 2006 (Table 4.1).

Overall, the fishing industry registered a loss of approximately ten thousand jobs, from 1998 to 2006. Geographically, Newfoundland and Labrador bore the brunt of the job losses during this period, losing 5,990 workers. New Brunswick and Nova Scotia came next, with job losses of 2,780 and 1,710 respectively. The Northern Territories also experienced a job loss of 200. In contrast, employment increased in the Quebec-Atlantic region by 1,910. British Columbia and Alberta also posted gains, albeit modest, of 360 and 300 respectively.
A more in-depth review at the provincial level reveals that the highest job losses among self-employed fish harvesters from 1994 to 2006 were in Nova Scotia $(5,030)$, British Columbia $(3,760)$, and Newfoundland and Labrador $(2,660)$. In general, two major trends emerged in the sector, severe job losses from 1994-1998, and then once again in 2004-2005. Employment figures from 1994 to 2006 by region are presented in the Appendix to Section 4.1a for the Atlantic Provinces, 4.1b for Quebec, 4.1c for the Central Provinces, 4.1d for British Columbia and 4.1e for the Northern Territories.

One factor that may have contributed to the significant decline in industry jobs is that during this period the federal government implemented a series of overlapping programs from 1990 to 2001 to restructure the Canadian fishery. More specifically, the Canadian government implemented the Atlantic Fisheries Adjustment Program (1990-1995), the Northern Cod Adjustment and Recovery Program (1992-1994), the Atlantic Groundfish Adjustment Program (1993-1994), the Atlantic Groundfish Strategy (1994-1998) and the Canadian Fisheries Adjustment and Restructuring Program (1998-2001).

Through these programs, the federal government has spent $\$ 4.1 \mathrm{~B}$, including $\$ 3.9 \mathrm{~B}$ from 1992 to 2001 dedicated to: income replacement (\$2.7B), training and counseling (\$497M), withdrawal of fishing licences $(\$ 330 \mathrm{M})$, economic development (\$207M), early retirement (\$159M) and assistance programs for vessels (\$46M). ${ }^{14}$

### 4.1.1 Changes in the number of workers based on gender

Before reviewing the gender composition of workers in the fishing industry over time, it is important to recall the main points of the profile of workers by gender in 2006. The profile, presented in Section 1.1 illustrated a significant gender gap, namely the industry had a $66 \%$ to $34 \%$ male to female workforce. This gap was more pronounced in some sectors; in particular, men were four times more likely than women to work as self-employed fish harvesters.

Figure 4.1.1 Ratio of Men Compared to Women in the Fishing Industry, from 1998 to 2006


The gender distribution of workers in the fishing industry from 1998 to 2006 is consistent (Figure 4.1.1). However, the ratio of male to female self-employed fish harvesters decreased from 6:1 to $4: 1$ during this time period. Going in the opposite direction, the number of male to female aquaculture workers has grown from $2: 1$ to $3: 1$. The wageearning fish harvesting and the fish processing sectors on the other hand have shown a more steady ratio. Figure 4.1.2 highlights the changes in the proportion of men compared to women from 1998 to 2006.

[^11]Figure 4.1.2 Ratio of Men Compared to Women, Based on Sector, from 1998 to 2006


### 4.1.2 Changes in the number of workers based on age

The 2006 profile of workers based on age in Section 1.2 pointed to an older workforce in the fishing industry compared to all Canadian industries taken together. In addition, it highlighted the fact that the oldest workers were self-employed fish harvesters.

This section examines the aging effect of the workforce in the fishing industry from 1998 to 2006. During this period, the proportion of workers aged 40 and over increased by $12 \%$ among self-employed fish harvesters, $14 \%$ among wage-earning fish harvesters, $16 \%$ for fish processing workers, and $8 \%$ for aquaculture workers. In addition to the general expansion of this population segment, shown in Figure 4.1.3, it is important to note that from 1998 to 2006, the proportion of workers aged 40 and over in self-employed fish harvesting has jumped from $58 \%$ in 1998 to $70 \%$ in 2006. In contrast, the same population segment shifted from $32 \%$ to $40 \%$ in the aquaculture sector.

Figure 4.1.3 Ratio of Workers Aged 40 and More, Based on Sector, from 1998 to 2006


A closer examination of workers 60 years and older also highlights the aging trend observed from 1998 to 2006 (Figure 4.1.4). In 1998, self employed fish harvesters 60 years and older accounted for $11 \%$ of the sector as compared to $16 \%$ in 2006. Although this population segment is much smaller in the other fishing based sectors, they too have seen large increases.

Figure 4.1.4 Ratio of Workers Aged 60 and More, Based on Sector, from 1998 to 2006


The ratio of workers under 20 years old remained relatively unchanged from 1998 to 2006 in all sectors. This population cohort contributed about $2 \%$ of the workforce in the self-employed fish harvesting sector, $6 \%$ in the wage-earning fish harvesting sector, and $9 \%$ in the fish processing sector.

The aging workforce in the fishing industry at the national level is reflected in most regions, with some exceptions. The fishing workforce in the Québec-Atlantic region appears to be older than in other regions. In Quebec-Atlantic, from 1998 to 2006, the population aged 40 and over increased by $29 \%$ among self-employed fish harvesters, $39 \%$ for wage-earning fish harvesters, $34 \%$ among fish processing workers and $22 \%$ in aquaculture.
In addition to these major population shifts, significant regional differences in the age of workers exist, especially for fish processing and aquaculture. From 1998 to 2006, fish processing workers aged 40 and over increased by 19\% in the Atlantic Provinces compared to $8 \%$ in British Columbia. From 1998 to 2006, aquaculture workers aged 40 and over increased by $21 \%$ in Newfoundland and Labrador and $24 \%$ in Prince Edward Island compared to only 5\% in New Brunswick.

### 4.2 Changes in total employment income and El benefits collected by workers

This section presents an analysis of average employment income and average EI over time. Before examining these two important sources of income, it should be noted that employment income consists of incomes earned from all employment sources, both fishing and non-fishing, as well as from self employment. It is also important to note that the income in this section have been corrected and expressed in constant dollars (2005) to account for inflation.

### 4.2.1 Changes in total employment income

A review of employment income from 1998 to 2006 shows an upward movement for most workers, except for the self employed fish harvesters (Figure 4.2.1). However, the pace of income growth is uneven, as the aquaculture sector had the most pronounced growth at $28 \%$ during the period, whereas the fish processing sector saw their incomes grow by only $6 \%$. As for self-employed fish harvesters, their employment incomes dropped from \$22,691 in 1995 to $\$ 17,340$ in 1998 , a decrease of $25 \%$. This was followed by a remarkable jump of $\$ 4,595$ or $26 \%$ in 1999 . Since this period, employment incomes have fallen annually, bottoming out at $\$ 16,033$ in 2006, the lowest level during the study period (Table 4.2.1).

Figure 4.2.1 Average Total Employment Income Based on Sector, 1998-2006 (Income in 2005 Constant Dollars)


The findings of this report also revealed growing income disparities between the different fishing based sectors from 1998 to 2006. For example in 1998, wage-earning fish harvesters, the highest paid workers in the industry, earned $\$ 20,537$ in employment income, whereas fish processing workers earned $\$ 14,664$, the lowest. Thus, the income gap amounted to $\$ 5,874$, a $40 \%$ disparity. Eight years later the gap between the highest and lowest paid doubled to $\$ 10,177$ or an income disparity of $66 \%$. Workers in aquaculture as previously noted saw their incomes grow the fastest, eventually surpassing the wage-earning fish harvesters.

Table 4.2.1 Average Total Employment Income Based on Sector, 1995-2006

|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Self-employed Fish Harvesters | 22,691 | 18,903 | 17,360 | 17,340 | 21,934 | 20,745 | 19,452 | 19,328 | 19,436 | 18,824 | 16,448 | 16,033 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 20,537 | 22,140 | 23,465 | 24,018 | 24,921 | 25150 | 23,810 | 24,776 | 23,081 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 14,664 | 16,723 | 16,601 | 17,807 | 17,298 | 16,130 | 16,259 | 15,050 | 15,500 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 20,101 | 19,830 | 22,229 | 23,329 | 22,804 | 22,873 | 23,376 | 23,841 | 25,677 |

Note: The average total employment income in constant dollars (2005) is calculated using the average total income in constant dollars (2005) and the evolution of the ratio of total employment income compared to the total income in current dollars observed each year.

The employment income situation of workers in the fishing industry compiled in Section 2.3 showed that earnings in 2006 varied by region and sector. Employment incomes in 2006 were highest in Ontario, followed by Nova Scotia, Alberta, and British Columbia. This income component has undergone significant shifts over the years, with large differences at the regional level.

In addition to these observations, a sustained drop in employment incomes for self-employed fish harvesters was noted in the Northern Territories from 1995 to 2006, as average employment incomes fell by $75 \%$ in this period. This collapse in earnings occurred in parallel with job losses during the same period. The history of employment incomes by region from 1995 to 2006 is presented in Appendix to Section 4.2.1a to 4.2.1e.

In other sectors, from 1998 to 2006, employment income were the highest in Ontario and British Columbia for wage-earning fish harvesters. In contrast, incomes were the lowest in Newfoundland and Labrador and Prince Edward Island.

Fish processing workers experienced a very similar situation to their wage-earning counterparts, in that Ontario workers had the highest employment incomes while Quebec, Newfoundland and Labrador, and Prince Edward Island had the lowest incomes.

As for aquaculture workers, according to the figures in Section 2.3, workers in British Columbia earned significantly more than their counterparts in the Atlantic Provinces. In Prince Edward Island, average employment incomes dropped by $\$ 6,131$ or $26 \%$ from 1998 to 2006, whereas at the same time the province added a significant number of jobs, from 120 to 470 by 2006.

### 4.2.2 Changes in El collected by workers

In contrast to the decline in employment incomes, self-employed fish harvesters saw their EI increase by $14 \%$ from 1998 to 2006. Average EI payments rose from 1998 to 2003, peaking at $\$ 11,792$. Following this period, average EI payments dropped until they reached $\$ 8,959$ in 2006. Despite this development, self-employed fish harvesters continue to collect the most EI benefits in the fishing industry (Figure 4.2.2).

Figure 4.2.2 Average El Benefits Based on Sector, 1998-2006 (Income in 2005 Constant Dollars)


Similarly to self-employed fish harvesters, EI benefits collected by wage-earning fish harvesters grew $15 \%$ from 1998 to 2006. Although these workers received much lower amounts in general, averaging $\$ 2,667$. Fish processing workers saw their EI payments grow at a constant rate, reaching $\$ 5,193$ in 2006, an annual increase of $3 \%$ from 1998 to 2006. In contrast, aquaculture workers actually received decreasing amounts of EI payments during the time period, collecting on average $\$ 2,522$ in 2006 (Table 4.2.2).

Table 4.2.2 Average El Benefits Based on Sector, 1995-2006

|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Self-employed Fish Harvesters | 6,989 | 6,798 | 7,207 | 7,864 | 8,233 | 8,574 | 9,899 | 10,343 | 11,792 | 9,797 | 9,420 | 8,959 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 6,175 | 6,445 | 6,716 | 7,373 | 7,162 | 6,682 | 6,576 | 6,700 | 7,107 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 4,166 | 4,236 | 4,411 | 4,806 | 4,896 | 4,875 | 4,922 | 4,960 | 5,193 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 2,929 | 2,725 | 2,200 | 2,301 | 2,482 | 2,693 | 2,519 | 2,267 | 2,522 |

Note: Average employment insurance in constant dollars (2005) is calculated using the average total income in constant dollars (2005) and the evolution of the ratio of employment income compared to the total income in current dollars observed every year.

At the regional level, average EI benefits vary by sector. A substantial gap exists between the amount of EI received by workers in the Atlantic Provinces and the other provinces and territories. For example, in 1995, workers in British Columbia received $\$ 4,949$, or $12 \%$ less than similar workers in Newfoundland and Labrador, while eleven years later they earned $60 \%$ less.

Among the major changes in regards to EI benefits, self-employed fish harvesters from Newfoundland and Labrador saw their EI payments increase from $\$ 5,634$ in 1995 to a peak of $\$ 16,254$ in 2003, an increase of $\$ 10,620$ in eight years.

Among wage-earning fish harvesters, New Brunswick and Quebec reported the highest EI benefits in the country, of \$9,620 and \$9,239 respectively. Workers in both Quebec and New Brunswick saw their EI increase considerably, especially from 1999 to 2001, which widened the gap between their benefit levels and those of other provinces. By comparison, wage-earning fish harvesters in British Columbia received on average $\$ 1,274$ per year, while their counterparts in Newfoundland and Labrador reported annual EI benefits of \$6,310.

Among fish processing workers, the portrait is similar to that observed for wage-earning fish harvesters. EI payments increased considerably in Newfoundland and Labrador, from \$4,360 in 1998 to \$7,117 in 2006.

In aquaculture, EI payments from 1998 to 2006 are comparable to the other sectors. Once again, the Atlantic Provinces collected much higher amounts than the Central Provinces and British Columbia. During this period, British Columbia workers collected on average $\$ 1,224$ in EI payments, while in New Brunswick they collected $\$ 2,752$.

The history of EI by sector and region is presented in Appendix to Section 4.2.2a to 4.2.2e.

### 4.3 Changes in total income over time

This section analyzes the average total income of workers in the fishing industry. It also presents a comparison of the incomes by gender as well as by composition for each sector.

### 4.3.1 Changes in average total income

It is important to note that the total income in this section is the average total income before taxes from all sources. (Note that the total incomes reported were adjusted for inflation with 2005 as base year).

Figure 4.3.1 Average Total Income Based on Sector, 1998-2006 (In 2005 Constant Dollars)


Similar to the analysis of employment incomes and EI, this section begins by examining changes in average total income for self-employed fish harvesters. Their incomes went from $\$ 34,793$ in 1995 to $\$ 29,214$ in 1997. This drop was followed by two years of growth, however, starting in 1999 incomes have fallen once again (Figure 4.3.1). In 2006, average incomes reached $\$ 29,810$ (Table 4.3.1).

Unlike self-employed fish harvesters, the earnings of wage-earning fish harvesters follow a different path. Their average total incomes grew substantially each year from 1998 to 2002 . The peak was reached in 2002 at $\$ 35,375$, but in recent years incomes have fluctuated.
There has been a consistent income gap between the self-employed and the wage-earning harvesting sectors. Wageearning fish harvesters in general earn slightly more in total income than self employed fish harvesters.

Table 4.3.1 Average Total Income Based on Sector, 1995-2006

|  | Average Total Income in 2005 Constant Dollars (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Self-employed Fish Harvesters | 34793 | 30507 | 29214 | 29586 | 34650 | 33352 | 32778 | 33325 | 34802 | 32259 | 29767 | 29810 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 30496 | 32272 | 33830 | 34749 | 35375 | 35169 | 33933 | 35347 | 33830 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 21680 | 23290 | 22889 | 24542 | 24020 | 22868 | 23112 | 21703 | 22790 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 25384 | 25306 | 28005 | 28156 | 27807 | 27843 | 27869 | 28643 | 30820 |

Fish processing workers earned the lowest total incomes in the fishing industry from 1998 to 2006. Their incomes fluctuated widely from 1998 to 2002, peaking at $\$ 24,542$. Since that time, their incomes have fallen steadily. In terms of the income gap, these workers earned $29 \%$ less than wage-earning fish harvesters.

The total income of aquaculture workers increased from $\$ 25,384$ in 1998 to $\$ 30,820$ in 2006 , up $21 \%$. This trend was driven by increases in 2000 and 2006 of $12 \%$ and $8 \%$ respectively. The growth in average total incomes in aquaculture combined with the decline of incomes for self-employed fish harvesters in recent years has led to the sector having the second highest incomes in the fishing industry (Figure 4.3.1).

At the regional level, the total incomes are almost a mirror image of the employment incomes. Nova Scotia selfemployed fish harvesters were the highest earners in the Atlantic Provinces at an average rate of $\$ 43,305$. This was followed by Quebec-Atlantic $(\$ 41,158)$, Prince Edward Island $(\$ 39,277)$, and New Brunswick $(\$ 34,770)$. In contrast, Newfoundland and Labrador, posted average total incomes much lower than the other Atlantic Provinces, averaging $\$ 28,214$.

Ontario had the highest earning self-employed fish harvesters, which is mainly due to the sharp increase in incomes in 2006. It should be noted, however, that this is due mostly to the growth in investment incomes.

The history of average total incomes by sector and region is presented in Appendix to Section 4.3.1a to 4.3.1e.
Average total incomes were highest among wage-earning fish harvesters in Ontario $(\$ 44,860)$, followed by British Columbia $(\$ 42,526)$ and Nova Scotia $(\$ 37,753)$. The lowest earning workers could be found in Newfoundland and Labrador $(\$ 26,482)$ and Prince Edward Island $(\$ 24,997)$.

Among fish processing workers, average total incomes were highest in Ontario and Nova Scotia during this period at $\$ 33,354$ and $\$ 31,379$ respectively. British Columbia came in at a distant third with $\$ 23,798$, but this was still higher than the rest of the Atlantic Provinces.

The growth of total incomes in the aquaculture sector from 1998 to 2006 mirrors that of the employment incomes. Once again, British Columbia posted higher average incomes than the Atlantic Provinces. Specifically, aquaculture workers in British Columbia reported on average total incomes of $\$ 31,507$ from 1998 to 2006, while their counterparts in Newfoundland and Labrador earned \$18,773.

### 4.3.2 Comparison of incomes by gender

This section reviews the gender income gap between male and female workers in the fishing industry over time.
According to Section 3.1 female workers earned less than male workers in all sectors. Moreover, the largest income gap occurred in the fish processing sector, where female workers generated only $66 \%$ of the incomes of male workers.

Figure 4.3.2 Ratio of Female to Male Average Total Income, Based on Sector, 1998-2006


The history of the gender income gap, shown in Figure 4.3.2, has been shrinking in all sectors. However, the pace has been slow and uneven. Incomes for female workers were catching up faster to their male counterparts in the self-employed fish harvesting and aquaculture sectors. Table 4.3.2 displays the proportion of average total incomes of female workers compared to their male counterparts.

Table 4.3.2 Ratio of Female to Male Average Total Income, Based on Sector, 1995-2006


Ratio of Women's Average Total Income Compared to Men's (\%)

| $\mathbf{1 9 9 5}$ | $57 \%$ | u.a. | u.a. |  |
| :--- | :--- | :---: | :---: | :---: |
| $\mathbf{1 9 9 6}$ | $60 \%$ | u.a. | u.a. |  |
| $\mathbf{1 9 9 7}$ | $61 \%$ | u.a. | u.a. | u.a. |
| $\mathbf{1 9 9 8}$ | $60 \%$ | $64 \%$ | $59 \%$ | u.a. |
| $\mathbf{1 9 9 9}$ | $58 \%$ | $65 \%$ | $56 \%$ | $64 \%$ |
| $\mathbf{2 0 0 0}$ | $61 \%$ | $67 \%$ | $58 \%$ | $64 \%$ |
| $\mathbf{2 0 0 1}$ | $62 \%$ | $69 \%$ | $57 \%$ | $71 \%$ |
| $\mathbf{2 0 0 2}$ | $63 \%$ | $65 \%$ | $59 \%$ | $71 \%$ |
| $\mathbf{2 0 0 3}$ | $64 \%$ | $64 \%$ | $64 \%$ | $72 \%$ |
| $\mathbf{2 0 0 4}$ | $68 \%$ | $65 \%$ | $67 \%$ | $72 \%$ |
| $\mathbf{2 0 0 5}$ | $71 \%$ | $65 \%$ | $68 \%$ | $74 \%$ |
| $\mathbf{2 0 0 6}$ | $73 \%$ | $68 \%$ | $75 \%$ |  |

At the regional level and in accordance with the observations made in Section 3.1, British Columbia posted the smallest income disparities between genders. A closer examination of the gender income gap between British Columbia and the Atlantic Provinces is offered in Table 4.3.3.

Table 4.3.3 Ratio of Female to Male Average Total Income, Based on Sector, Atlantic Provinces and British Columbia, 1995-2006

|  | Self-employed Fish Harvesters |  | Wage-earning Fish Harvesters |  | Fish Processing Workers |  | Aquaculture Workers |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Atlantic Provinces | British Columbia | Atlantic Provinces | British Columbia | Atlantic Provinces | British Columbia | Atlantic Provinces | British Columbia |
|  | Ratio of Women's Average Total Income Compared to Men's (\%) |  |  |  |  |  |  |  |
| 1995 | 52\% | 74\% | u.a. | u.a. | u.a. | u.a. | u.a. | u.a. |
| 1996 | 55\% | 68\% | u.a. | u.a. | u.a. | u.a. | u.a. | u.a. |
| 1997 | 55\% | 74\% | u.a. | u.a. | u.a. | u.a. | u.a. | u.a. |
| 1998 | 55\% | 73\% | 60\% | 79\% | 55\% | 74\% | 55\% | 72\% |
| 1999 | 54\% | 72\% | 62\% | 70\% | 54\% | 73\% | 57\% | 73\% |
| 2000 | 57\% | 76\% | 58\% | 71\% | 55\% | $72 \%$ | 72\% | 71\% |
| 2001 | 60\% | 71\% | 59\% | 82\% | 53\% | 72\% | 65\% | 79\% |
| 2002 | 61\% | 71\% | 57\% | 77\% | 55\% | 74\% | 67\% | 77\% |
| 2003 | 61\% | 76\% | 57\% | 83\% | 60\% | 74\% | 68\% | 75\% |
| 2004 | 66\% | 73\% | 60\% | 83\% | 61\% | 74\% | 67\% | 75\% |
| 2005 | 69\% | 72\% | 58\% | 82\% | 65\% | $77 \%$ | 71\% | 76\% |
| 2006 | 71\% | 72\% | 63\% | 78\% | 65\% | 75\% | 75\% | 75\% |

### 4.3.3 Changes in the composition of the average total income based on sector, from 1994 to 2006

Before reviewing the composition of total incomes of workers in the fishing industry over time, a reminder of the results from Section 3.7.1 based on the 2006 tax year is presented. In general, for all fishing industry workers, $65 \%$ of total income came from employment income, and $24 \%$ came from EI, while investment income and other income sources represented only $5 \%$ and $6 \%$ respectively.
A brief review of the changing composition of average total income of self-employed fish harvesters shows that the investment income component has dropped precipitously since 1994. More specifically, investment incomes accounted for $28 \%$ of total incomes in 1994, while in subsequent years, accounted for $4 \%$ to $7 \%$ of total incomes (Figure 4.3.3a). The 1994 outlier is due to a combination of many different factors, including tax policy changes by the government of Canada that allowed individuals for that specific year to claim unused portions of their capital gains exemption. In addition, it may be partially attributed to fishing licence buy-back programs initiated by the government, which were aimed at restructuring the fishing industry. Fish harvesters may have the sold licences as investment income.

Figure 4.3.3a Changes in the Composition of Average Total Income for Self-employed Fish Harvesters, 1994-2006


One of the main findings of the composition of average total income for workers in the fishing industry is the high degree of stability. Employment income and EI continue to contribute the most towards average total income in all provinces.

Among self-employed fish harvesters, employment income accounted for only $58 \%$ of total incomes from 1998 to 2006, while representing $82 \%$ of total incomes for aquaculture workers. For both wage-earning fish harvesters and fish processing workers they represented close to $70 \%$ of their total incomes.
The next largest contributor to average total income is EI. EI accounts for $9-30 \%$ of the total incomes for workers in the fishing industry between 1998 to 2006. Investment incomes and other incomes represent together between $9 \%$ to $12 \%$ of the average total income of workers.
The history of total income composition for workers in the fishing industry is presented in Figures 4.3.3b to 4.3.3d.
Figure 4.3.3b Changes in the Composition of Average Total Income for Wage-earning Fish Harvesters, 1998-2006


Figure 4.3.3c Changes in the Composition of Average Total Income for Fish Processing Workers, 1998-2006


Figure 4.3.3d Changes in the Composition of Average Total Income for Aquaculture Workers, 1998-2006


## Section 5: Concepts, methodology and quality of data

### 5.1 Concepts, terms and definitions

### 5.1.1 Income concepts

## Total Employment Income

Includes all job earnings and income resulting from paid employment (salary, wages and commissions) and from self-employment.

More specifically, the total employment income in this report refers to the sum of earnings from the individual income tax return T1 (line 101) + other total employment income (line 104) + net business income (line 135) + net professional income (line 137) + net commission income (line 139) + net farm income (line 141) + net fishing income (line 143).

## Net fishing income

Net income from fishing activities (line 143).

## Employment Insurance and other benefits

Employment Insurance and other benefits (line 119)

## Investment income

This includes interest received on bonds, deposits and savings certificates from Canadian or foreign sources, dividends received from Canadian and foreign corporate stocks, cash dividends received from insurance policies, net rental income from real estate and farms, interest received on loans and mortgages, regular income from an estate or trust fund and other investment income. Realized capital gains from the sale of assets are excluded. Negative amounts are accepted.

This includes the sum of taxable dividend amounts (line 120) + interests and other investment income (line 121) + rental income (line 126) + taxable capital gains (line 127).

## Other income

All other income items that are not listed elsewhere. This is the sum of the old age security pension (line 113) + benefits from the Canada Pension Plan (CPP) or from the Quebec Pension Plan (QPP) (line 114) + other pensions and retirement pensions (line 115) + split pension amount (line 116) + Universal Child Care Benefit (line 117) + received alimony (line 128) + income from a registered retirement savings plan (RRSP) (line 129) + other income (line 130).

## Total income/total income before tax

Income from all sources before deducting federal and provincial taxes. This includes all earnings as a wage-earner, employment income as a self-employed worker, investment income, government transfers and other income items that are not included elsewhere. This amount appears on line 150 of the tax return.

## Income tax

Sum of federal and provincial taxes, except for Quebec, appearing on line 435 of the personal income tax return. Includes the employment income tax as a wage-earner, the employment income tax as a self-employed worker, the tax on capital gains and the tax on withdrawals from a RRSP, after subtracting exemptions, deductions and nonrefundable tax credits.

## After-tax income

Amount appearing on line 150 of the T1 tax return less the income tax (line 435)

### 5.1.2 Analytical concepts

## Average income

The average income is the income divided by the total number of individuals in the population for which it is calculated.

## Median income

The median income is the income level for which half of the individuals in the population it is based on have lower incomes and half have higher incomes. This income is calculated by ranking all incomes from lowest to highest and separating them into two groups of similar sizes. The income value that separates the two groups is the median income.

## Centiles / Percentiles

A centile or percentile is the value of a variable below which a certain percentage of observations fall. For example, the 20th percentile is the value (or score) below which 20 percent of the observations may be found. The 25th percentile is also known as the first quartile, the 50th percentile as the median, and the 75 th percentile as the third quartile.

## Current dollar income

Income with a value based on the current period.

## Constant dollar income

The constant dollar income corresponds to the income in current dollars that was corrected to eliminate the effect of inflation, i.e. the general inflationary tendencies of prices from one period to the next. This correction enables a fair comparison of earned incomes over different periods of time, since it is based on the purchasing power. For the purpose of this report, the constant dollar income has been calculated based on the purchasing power in 2005 and on the consumer price index (CPI) of each province/territory in order to better reflect consumer spending habits of Canadians from one province to the other.

### 5.1.3 Job category / Job sector / Work sector

In order to create the most complete profile of workers in the fishing industry, the following four types of employment were included in the analysis: self-employed fish harvesters, wage-earning fish harvesters, fish processing and aquaculture workers. Section 5.2.2 explains the selection of workers constituting the fishing industry, while Section 5.2.3 provides details about their classification into the four categories. This section defines each of these categories.

## Self-employed fish harvesters

The number of self-employed fish harvesters corresponds to the number of individuals whose main source of fishing related employment income comes from work for their own account.

## Wage-earning fish harvesters

The number of wage-earning fish harvesters corresponds to the number of individuals whose main source of fishing related employment income comes from work paid through a corporate entity.

## Fish processing workers

The number of fish processing workers corresponds to the number of individuals whose main source of fishing related employment income comes from work in fish processing.

## Aquaculture workers

The number of aquaculture workers corresponds to the number of individuals whose main source of fishing related employment income comes from work in aquaculture.

### 5.1.4 Industry classification

In order to determine an individual's job category/work sector, the Standard Industrial Classification (SIC) 1987 has been used with data gathered from tax returns from 1994 to 1999, while the North American Industry Classification System (NAICS) 2007 was used for data gathered from tax returns from 2000 to 2006. More specifically, the information from the industry classification comes from T4 slips provided by employers. This information was combined with personal income tax returns T 1 in order to determine the industry classification that corresponds to the employment income declared by individuals. Table 5.1 .1 shows the concordance between both industry classification systems that were used.

Table 5.1.1 Concordance between the North American Industry Classification System (NAICS) 2007 and the Standard Industrial Classification (SIC) 1987

| Industry |  | NAICS <br> Exemption | SIC 1987 |
| :--- | ---: | ---: | ---: |
| SAICS 2007 Exemption |  |  |  |

[^12]
### 5.1.5 Geographical classification

The provinces and territories of Canada were used in this report to profile the workers in the fishing industry and to create a geographical portrait of their employment and incomes.

## Atlantic Provinces

Newfoundland and Labrador
Prince Edward Island
Nova Scotia
New Brunswick
Quebec (Atlantic)
Quebec

## Central Provinces

Ontario
Manitoba
Saskatchewan
Alberta
British Columbia

## Territories

Yukon
Northwest Territories
Nunavut

## Notes regarding the geographical classification:

## 1. Nunavut

Nunavut became a Canadian territory in 1999. As a result, data for this territory is available only since that year.

## 2. Quebec

In this report, statistical information is presented for two regions in Quebec, namely the Quebec-Atlantic region and the Quebec province as a whole. The Quebec-Atlantic region corresponds to areas of residence of individuals having a postal code that begins with G0, G4 and G5. This is a coastal region located in the north-eastern part of Quebec, along the Gulf of St. Lawrence.

## 3. Atlantic Provinces

It is important to note that the statistics presented for the Atlantic Canada region, unless otherwise stated, include Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick and Quebec-Atlantic region as defined above.

### 5.1.6 Rules of confidentiality

In order to protect the confidentiality of tax filers' data, the Canada Revenue Agency (CRA) has applied the following rules:

## a) Regarding the number of tax filers

All data relating to less than ten tax filers has been suppressed, but was included in totals and subtotals. In addition, the number of tax filers has been rounded off to the closest multiple of ten. For example, 125 has been rounded off to 130 and 124 has been rounded off to 120 .
b)Regarding declared amounts

All income or earnings related data (\$) have not been subject to rounding. With the exception of the amounts for data with less than 10 respondents.

In addition to these rules that protect the information provided by individuals in their tax returns, another rule regarding the quality of the information was applied in the production of the statistical tables in the report. All categories with less than 30 tax filers and the incomes associated, are considered too insignificant to draw any reliable conclusions. For this reason, they were suppressed from the tables and were not analyzed. However, these numbers were included in the totals and subtotals rollup.

### 5.2 Methodology

### 5.2.1 Methodological comparison

The methodology used in this report is largely based on that used to produce the report entitled "Charting a New Course: the fishery of the future. ${ }^{י 15}$ The report, prepared by the Task Force on Incomes and Adjustment in the Atlantic fishery in 1993, analyzed the fishery management policies on the Atlantic coast of Canada and made a series of recommendations. As a result, the analysis was restricted to the Atlantic region.
In order to align this report with the previous report, which would allow a more extended comparison over time ${ }^{16}$, the same data sources (personal tax returns) and income concepts were used within the framework of this analysis. However, some modifications were made, including the two major changes as follows:

1) The addition of aquaculture as a sector of work, to reflect the emergence of this sector as a key player in the fishing industry in recent years.
2) The analysis was extended to Canada as a whole, rather than being limited to the Atlantic region. Increasing the scope of the analysis enables this report to cover all provinces and territories, including both marine and freshwater fishing.

### 5.2.2 Selection of the fishing industry population

First and foremost, it is important to note that the working population in the fishing industry has been selected from personal tax returns received by the Canada Revenue Agency for each year of the study period, from 1994 to 2006. Information provided by workers on their T1 tax returns were combined with information provided by their employers in the T4 (Statement of Remuneration Paid) to determine the industry classification associated with the employment income.

More specifically, the population of workers was determined by selecting all individuals who have declared any income on line 143 of the personal income tax return for self employed fish harvesters or any total employment income on line 101 for wage-earning fish harvesters, fish processing workers, or aquaculture workers.

### 5.2.3 Classification of workers based on sectors

- Self-employed fish harvesters
- Wage-earning fish harvesters
- Fish processing workers
- Aquaculture workers

The industry classification for self-employed fish harvesters corresponds specifically to code 1141 of the North American Industry Classification System (NAICS) 2007 for tax returns from 2000 to 2006 and to codes 0912,0913 and 0919 of the Standard Industrial Classification (SIC) 1987 for those from 1994 to 1999.

[^13]Wage-earning fish harvesters were defined based on the NAICS code 1141 for tax returns from 2000 to 2006 and on SIC codes 0912,0913 and 0919 for tax returns from 1994 to 1999 , according to information provided by their employers on T4 slips.

Fish processing workers were defined using NAICS code 3117 for tax returns from 2000 to 2006 and on SIC codes 2091 and 2092 for tax returns from 1994 to 1999.

Aquaculture workers were defined using NAICS code 1125 for tax returns from 2000 to 2006 and NAICS code 0921 for tax returns from 1994 to 1999.

It should also be noted that individuals who reported employment income in more than one category were placed in their highest earning category. For example, suppose an individual declare employment income from three different sources, including earnings of $\$ 5,000$ and $\$ 2,000$ as wage-earning fish harvesters in Company A and Company B respectively, and $\$ 10,000$ in employment income as a self-employed fish harvester. Such an individual would be classified as self-employed fish harvester, since his employment income as a self-employed fish harvester ( $\$ 10,000$ ) exceeds his income as a wage-earning fish harvester $(\$ 7,000)$.

### 5.2.4 Sources of data

Unless otherwise indicated, summary statistics tables presented in this report were produced from data provided by CRA. More specifically:

1) Data on the number of jobs presented in the tables were provided for all four categories of workers that make up the fishing industry according to gender, age and income bracket for Canada, the Atlantic Provinces, the Central Provinces, and the Northern Territories from 1994 to 2006 when such information is available.
2) Data used to paint a picture of the employment income, EI and the total income of workers came from detailed tables provided by CRA. Information is presented for Canada, the Atlantic Provinces, the Central Provinces, and the Northern Territories from 1994 to 2006, when such information is available.
3) Statistics tables presented for the total income in constant dollars were created from data provided by CRA. In order to produce this data, the consumer price index (CPI) of each province was used to convert incomes into constant dollars.
4) Statistics on the total employment income and EI presented in constant dollars have been calculated from the total income in constant dollars and from the ratio of the total employment income and EI compared to the total income in constant dollars for each year.

### 5.3 Quality of data

### 5.3.1 Benefits of using T1 and T4 data instead of survey data

Using data from the T1 personal tax return and from T4 paid remuneration statements provided by employers rather than data from questionnaires and surveys has its advantages. This section reviews the major advantages in terms of data quality. More specifically, it examines the advantages within the context of the major sources of error potentially affecting the accuracy of the data. These errors can be classified into two categories: sampling errors and non-sampling errors.

First, it should be noted that the T1 and T4 data used in this report come from the tax returns of Canada's residents. For this reason, they are free of sampling error as opposed to survey data, which can be suceptible to this type of error.

Generally speaking, major non-sampling errors that may influence the accuracy of the data belong to different groups, including coverage errors, non-response errors, measurement errors committed voluntarily or involuntarily by the respondent, measurement errors made by the interviewer or when elaborating the questionnaire to gather information, data processing errors, etc.

In the case of T1 and T4 data, coverage errors refer to the potential inability of CRA to reach all those individuals who received employment income as self-employed fish harvesters, wage-earning fish harvesters, fish processing workers or aquaculture workers. In addition to this type of error, there are also errors resulting from non-responses that corresponds to individuals who belong to one of the above-mentioned categories and who did not file their tax returns when the data was being compiled. It is difficult to estimate the number of people working in the fishing industry, as defined above, and who did not file a T1 or T4. However, it is reasonable to assume the data used by CRA is less vulnerable to these types of errors than survey data, since according to the Income Tax Act, individuals must file their tax return each year. In addition, CRA operates an enforcement and disclosures program to deal with suspected cases of tax evasion, fraud, and other tax offences, as well as non-compliance with Canada's tax laws by those who earn income from illegal activities. The CRA's enforcement activities help to preserve public confidence in the fairness and integrity of those systems ${ }^{17}$.

It is logical to think that T1 and T4 data are less sensitive than survey data to response or measurement errors, either because of the refusal or inability of the individual to provide precisely the information requested, or because of a misinterpretation of the question. Again, because of the Income Tax Act, individuals must follow specific guidelines when filing their tax returns. In addition, T 4 slips provided by employers on the employment incomes of workers and fact sheets provided by other payers enable individuals to accurately declare their incomes. In this regard, it should be noted that self employed fish harvesters are probably the most likely to submit inaccurate numbers. As is the case with all self-employed workers in Canada, their employment incomes are not validated.

### 5.3.2 Benefits of using T1 and T4 slips from CRA rather than other sources of data

The benefits of using data from the T1 tax return are many, and its accuracy is undeniable. For this reason even the largest data provider in the country, Statistics Canada, uses this data source to produce or complete many data files that provide information on the personal incomes of Canadian residents. In this regard, Statistics Canada uses T1 slips to collect information on incomes for its main products, including the Survey of Labour and Income Dynamics (SLID), the Census of Population and the System of National Accounts (SNA).

More specifically, Statistics Canada uses T1 tax returns of individuals, together with information taken from other sources, such as the Canada Child Tax Benefits file to produce the T1 data file on families. This source of data is used mostly to provide information on family income in Canada. It is also used to produce the Longitudinal Administrative Data (LAD) file, which is one of the most commonly used sources of data to analyze changes in family income over time.

The above-mentioned sources of data seem to represent valid options that could have been used to analyze the employment profile in the fishing industry, but using T1 and T4 data collected directly by CRA remains the most appropriate choice. Since data are being produced from the tax returns, as opposed to other sources, they are exempt from sampling errors that may affect the exactness of data for regions with a limited number of workers.

[^14]
### 5.3.3 Limitations of the data

Although using the T1 and T4 tax forms has some clear advantages, and is arguably the best choice for this report, it is important to note some limitations. First off, it should be noted that although it is probably very low, there are coverage errors, as mentioned in Section 4.3.1, because a number of individuals do not file tax returns for various reasons . According to figures provided by CRA ${ }^{18}$ for the fiscal years 2003-2004 to 2007-2008, an average of 92.7\% of individuals filed their T 1 tax returns on time and without direct intervention. During this period, $95.4 \%$ of employers also filed their returns on time (T4).
Furthermore, it should also be noted that even if individuals file their tax returns, some do not declare all their incomes. It is very difficult to estimate the size of this undeclared income. A survey on tax avoidance ${ }^{19}$ showed that $8 \%$ of Canadians declared that "cheating on taxes is acceptable." However, as explained in Section 4.3.1, based on the requirements of the Income Tax Act, and on information slips filed by employers as well as tax returns audited by CRA, it is reasonable to assume that the income declared is accurate for all employed workers. In contrast, it is more probable that the employment income reported by self-employed fish harvesters is less than the income that they truly collected, since their earnings as a self-employed worker are not subject to the same constraints as those of employed workers. In a study conducted in 1997, Rolf Mirus and Roger S. Smith ${ }^{20}$ estimated that the selfemployed do not report between $11 \%$ and $16 \%$ of their income. Based on estimates made by Herb J. Schuetze ${ }^{21}$ in 2002 , unreported income by such workers may be even higher, between $12 \%$ and $24 \%$.

Besides these factors, other types of errors can affect the accuracy of the data. The classification of workers into four sectors in the fishing industry may be incorrect in some cases, especially for self-employed fish harvesters who provide their own industry classification on their T 1 tax returns. In this regard, it should be noted that during the production of the statistical tables, CRA identified a number of individuals who reported their income on the wrong line. For example, some have erroneously stated their employment income as self-employed fish harvesters on line 143 of their T1 slip instead of on line 101. However, CRA estimates that this type of error is relatively small and therefore should not substantially change the results.

In addition to these errors, there may be errors in data processing that occur during the data collection or preparation of the statistical tables. They can be simple errors such as entering the wrong data, or errors that result from missing data. No matter their source, these types of errors can affect the accuracy of the data. It is important to note that CRA implements data validation procedures and corrects identified errors, but it is very possible that some errors remain. As a result, this can reduce the quality of the data provided.

### 5.3.4 Comparison with other sources of data

It is always tempting to compare statistics from different sources in order to validate information or to estimate discrepancies between sources. Before engaging in such an exercise, it should be noted that in general, statistics will vary from one source to another. The different concepts used to produce the data, the methods of data collection, and the types of errors mentioned above can explain the differences observed between different data sources.
This section compares the job statistics from the T 1 and T 4 slips provided by CRA with data from the census conducted by Statistics Canada in 2006. This comparison is limited to two types of jobs classified using the NAICS code, fish harvesters and fish processing workers. The information from the census was not sufficiently detailed to obtain statistics for aquaculture workers or to allow fish harvesters to be broken down into the self-employed and the

[^15]wage-earners. As another limiting factor, this comparison is done for 2005 instead of 2006, as census data, although collected in 2006, refers to information gathered in 2005.

Before comparing statistics from these two sources of data, it is important to clarify some points. First, there is a major difference between these two data sources. Statistics on employment from the census represent the sum of individuals who were employed and those who were unemployed, but who have worked sometime either as an employed worker or as self-employed during the reference period, in 2005. These statistics represent more accurately the labor force, while those from the T1 and T4 slips are the number of workers classified according to their main source of income based on individuals who have reported net income from a fishing related activity (those who did not report a loss).

It should also be noted that the statistical data gathered from T1 and T4 slips in this section, Table 5.3.1, were based on the same concept that was used to produce Tables 1.7 and 1.8 titled "Contribution of the fishing industry to the workforce in Canada." However, employment statistics presented in Table 5.3.1 are for 2005, while those shown in Tables 1.7 and 1.8 are provided for 2006. In addition, the job categories do not include the same elements. More specifically, in Table 5.3.1, fishing industry jobs do not include people working in aquaculture, while fish processing jobs do not include those who sell the fish products. It should also be mentioned that the statistics displayed in Table 5.3.1, like those in Table 1.7 and 1.8 differ from the number of jobs that appear in the other tables in this report, as they were produced using the methodology presented in Section 5.2.2 and 5.2.3.

Comparing T1 and T4 data from CRA with census data from Statistics Canada in 2006 (Table 5.3.1) shows that according to CRA, there were 45,140 fish harvesters in Canada while the census data indicate 41,265 individuals, a difference of $9 \%$ between the two data sources. A review of the statistical discrepencies brings out the fact that the two data sources were very similar in Quebec (within 1\% of each other), while the gap was high in Newfoundland and Labrador ( $25 \%$ ) and Prince Edward Island (22\%).

As for fish processing workers, there was a $4 \%$ difference between the two data sources. At the provincial level, the gap was lowest in British Columbia (1\%) and highest in Newfoundland and Labrador (17\%).

This comparison gives an idea of the general ballpark. Some of the differences observed may be attributable to the differences in methodology.

Table 5.3.1 Comparison of the Number of Jobs for Fish Harvesters (NAICS code 1141) and Fish Processing Workers (NAICS code 3117), Based on Region

|  | Fish Harvesters (NAICS 1141) |  |  |  | Fish Processing Workers (NAICS 3117) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sources |  | Differences |  | Sources |  | Differences |  |
|  | $\begin{aligned} & \text { T1 and T4 } \\ & \text { per Industry } \\ & \text { Provided } \\ & \text { by the } \\ & \text { CRA, } 2005 \\ & \text { Statistics } \end{aligned}$ | 2006 Census of Statistics Canada, Reference Year 2005 | Number | \% | T1 and T4 per Industry Provided by the CRA, 2005 Statistics | 2006 Census of Statistics Canada, Reference Year 2005 | Number | \% |
| Atlantic Provinces (Not Including Quebec Atlantic) | 33,060 | 30,255 | 2,805 | 9\% | 24,130 | 25,770 | -1,640 | -6\% |
| Newfoundland and Labrador | 13,720 | 10,945 | 2,775 | 25\% | 9,550 | 11,450 | -1,900 | -17\% |
| Prince Edward Island | 3,030 | 3,870 | -840 | -22\% | 1,920 | 1,815 | 105 | 6\% |
| Nova Scotia | 11,580 | 10,205 | 1,375 | 13\% | 5,460 | 5,770 | -310 | -5\% |
| New Brunswick | 4,730 | 5,235 | -505 | -10\% | 7,200 | 6,735 | 465 | 7\% |
| Quebec (Whole Province) | 3,480 | 3,435 | 45 | 1\% | 3,600 | 3,990 | -390 | -10\% |
| Central Provinces | 2,560 | 2,290 | 270 | 12\% | 1,830 | 1,505 | 325 | 22\% |
| British Columbia | 5,950 | 5,190 | 760 | 15\% | 5,130 | 5,075 | 55 | 1\% |
| Northern Territories | 90 | 70 | 20 | 29\% | 100 | 45 | 55 | 122\% |
| Canada | 45,140 | 41,265 | 3,875 | 9\% | 34,780 | 36,380 | -1,600 | -4\% |

Note:

1. Please take note that numbers presented in this table for each region may not correspond with the Canadian total as a whole due to rounding off and to other measures taken to protect the confidentiality of those who provided this information.
2. Source of census data: Statistics Canada, 2006 Census (no. 97-559 - XCB2006010 in catalog, July 2008.

## Appendix to Section 4.1 changes in the workers demographic profile

Table 4.1a Number of Workers by Sector, Atlantic Provinces, 1994-2006


|  | Number of Workers |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundland \& Labrador |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed <br> Fish Harvesters | 12,600 | 12,510 | 12,490 | 12,460 | 11,970 | 13,160 | 13,090 | 12,840 | 12,850 | 12,650 | 12,620 | 11,430 | 9,940 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | u.a. | 5,560 | 5,190 | 1,320 | 1,390 | 1,500 | 1,930 | 2,210 | 2,870 | 3,930 |
| Fish Processing Workers | u.a. | u.a. | u.a. | u.a. | 13,040 | 12,770 | 15,940 | 14,510 | 14,120 | 13,460 | 13,110 | 11,430 | 11,210 |
| Aquaculture Workers | u.a. | u.a. | u.a. | u.a. | 830 | 830 | 340 | 400 | 340 | 310 | 310 | 330 | 340 |
| Fishing Industry | u.a. | u.a. | u.a. | u.a. | 31,410 | 31,930 | 30,690 | 29,140 | 28,820 | 28,330 | 28,250 | 26,050 | 25,420 |

Prince Edward island

| Self-employed <br> Fish Harvesters | 2,400 | 2,550 | 2,150 | 2,100 | 2,190 | 2,340 | 2,420 | 2,450 | 2,460 | 2,540 | 2,480 | 2,360 | 2,260 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | u.a. | 1,110 | 1,120 | 1,100 | 1,040 | 1,050 | 1,080 | 1,080 | 1,040 | 890 |
| Fish Processing Workers | u.a. | u.a. | u.a. | u.a. | 2,660 | 3,350 | 3,080 | 2,930 | 2,800 | 2,630 | 2,330 | 2,500 | 2,410 |
| Aquaculture Workers | u.a. | u.a. | u.a. | u.a. | 120 | 100 | 460 | 500 | 510 | 500 | 540 | 490 | 470 |
| Fishing Industry | u.a. | u.a. | u.a. | u.a. | 6,090 | 6,920 | 7,070 | 6,920 | 6,830 | 6,750 | 6,410 | 6,390 | 6,040 |

Nova Scotia

| Self-employed | 9,540 | 9,520 | 9,150 | 7,030 | 5,130 | 4,960 | 4,740 | 4,640 | 4,750 | 4,980 | 4,900 | 4,500 | 4,510 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fish Harvesters |  |  |  |  |  |  |  |  |  |  |  |  |  | as a Whole

Table 4.1a Number of Workers by Sector, Atlantic Provinces, 1994-2006

| 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

New Brunswick

| Self-employed Fish Harvesters | 2,740 | 2,690 | 2,520 | 2,510 | 2,360 | 2,400 | 2,380 | 2,300 | 2,300 | 2,230 | 2,220 | 2,140 | 1,980 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | u.a. | 3,700 | 3,690 | 3,270 | 3,320 | 3,400 | 3,280 | 3,230 | 3,050 | 3,090 |
| Fish Processing Workers | u.a. | u.a. | u.a. | u.a. | 11,080 | 11,080 | 8,170 | 8,070 | 9,500 | 9,290 | 8,960 | 8,500 | 8,370 |
| Aquaculture Workers | u.a. | u.a. | u.a. | u.a. | 310 | 380 | 1,300 | 1,250 | 1,230 | 1,350 | 1,160 | 1,500 | 1,220 |

as a Whole

Quebec (Atlantic)

| Self-employed |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fish Harvesters | 90 | 160 | 260 | 380 | 460 | 600 | 770 | 930 | 980 | 920 | 940 | 930 | 680 |
| Wage-earning <br> Fish Harvesters | u.a. | u.a. | u.a. | u.a. | 820 | 1,090 | 1,520 | 1,550 | 1,700 | 1,740 | 1,780 | 2,040 | 1,620 |
| Fish Processing <br> Workers | u.a. | u.a. | u.a. | u.a. | 1,400 | 1,690 | 2,440 | 2,620 | 3,120 | 3,090 | 3,250 | 2,920 | 2,320 |
| Aquaculture <br> Workers | u.a. | u.a. | u.a. | u.a. | 90 | 100 | 130 | 170 | 140 | 130 | 130 | 90 | 60 |
| Fishing Industry <br> as a Whole | u.a. | u.a. | u.a. | u.a. | $\mathbf{2 , 7 6 0}$ | $\mathbf{3 , 4 7 0}$ | $\mathbf{4 , 8 6 0}$ | $\mathbf{5 , 2 6 0}$ | $\mathbf{5 , 9 4 0}$ | $\mathbf{5 , 8 7 0}$ | $\mathbf{6 , 1 0 0}$ | $\mathbf{5 , 9 7 0}$ | $\mathbf{4 , 6 7 0}$ |

Table 4.1b Number of Workers by Sector, Quebec, 1994-2006

| $\mathbf{1 9 9 4}$ | $\mathbf{1 9 9 5}$ | $\mathbf{1 9 9 6}$ | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 2}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Table 4.1c Number of Workers by Sector, Central Provinces, 1994-2006

| 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Ontario

| Self-employed Fish Harvesters | 420 | 400 | 350 | 360 | 320 | 330 | 320 | 300 | 240 | 250 | 240 | 220 | 210 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | u.a. | 1,120 | 1,100 | 880 | 790 | 820 | 800 | 770 | 750 | 720 |
| Fish Processing Workers | u.a. | u.a. | u.a. | u.a. | 1,040 | 1,670 | 1,380 | 1,190 | 1,160 | 1,050 | 1,190 | 1,680 | 1,790 |
| Aquaculture Workers | u.a. | u.a. | u.a. | u.a. | 580 | 580 | 350 | 380 | 330 | 290 | 310 | 200 | 210 |

Fing Industry

Manitoba

| Self-employed Fish Harvesters | 970 | 950 | 980 | 870 | 930 | 980 | 1,010 | 1,070 | 1,160 | 1,200 | 1,130 | 1,020 | 960 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | u.a. | 320 | 300 | 410 | 360 | 320 | 290 | 240 | 230 | 250 |
| Fish Processing Workers | u.a. | u.a. | u.a. | u.a. | 440 | 530 | 610 | 630 | 540 | 660 | 670 | 630 | 570 |
| Aquaculture Workers | u.a. | u.a. | u.a. | u.a. | 60 | 40 | n.s | n.s | n.s | n.s | n.s | n.s | n.s |
| Fishing Industry as a Whole | u.a. | u.a. | u.a. | u.a. | 1,740 | 1,860 | 2,030 | 2,060 | 2,020 | 2,150 | 2,040 | 1,890 | 1,790 |
| Saskatchewan |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 220 | 230 | 210 | 180 | 230 | 220 | 300 | 320 | 340 | 350 | 310 | 270 | 250 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | u.a. | 40 | 60 | 30 | 30 | 60 | 50 | 50 | n.s | 50 |
| Fish Processing Workers | u.a. | u.a. | u.a. | u.a. | 60 | 40 | 40 | 30 | 30 | 40 | 30 | 30 | 30 |
| Aquaculture Workers | u.a. | u.a. | u.a. | u.a. | n.s | n.s | n.s | n.s | n.s | n.s | n.s | n.s | n.s |
| Fishing Industry as a Whole | u.a. | u.a. | u.a. | u.a. | 320 | 320 | 380 | 390 | 430 | 450 | 400 | 320 | 330 |

Table 4.1c Number of Workers by Sector, Central Provinces, 1994-2006


|  |  |  |  |  |  | U1 | W |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alberta |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 210 | 230 | 220 | 190 | 190 | 190 | 190 | 180 | 160 | 170 | 170 | 190 | 180 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | u.a. | 180 | 160 | 90 | 90 | 80 | 100 | 140 | 230 | 300 |
| Fish Processing Workers | u.a. | u.a. | u.a. | u.a. | 360 | 300 | 360 | 340 | 290 | 300 | 320 | 440 | 480 |
| Aquaculture Workers | u.a. | u.a. | u.a. | u.a. | 30 | 30 | 60 | 60 | 40 | 40 | 40 | 70 | 100 |
| Fishing Industry as a Whole | u.a. | u.a. | u.a. | u.a. | 750 | 690 | 700 | 670 | 580 | 610 | 660 | 930 | 1,050 |

Table 4.1d Number of Workers by Sector, British Columbia, 1994-2006

| 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Workers |  |  |  |  |  |  |  |  |  |  |  |  |
| 8,490 | 7,230 | 6,390 | 6,310 | 5,900 | 5,470 | 5,430 | 5,780 | 5,780 | 5,730 | 5,580 | 4,890 | 4,730 |
| u.a. | u.a. | u.a. | u.a. | 1,520 | 1,670 | 1,040 | 1,120 | 1,330 | 1,320 | 1,390 | 1,520 | 1,270 |
| u.a. | u.a. | u.a. | u.a. | 5,700 | 5,730 | 8,020 | 8,390 | 8,210 | 8,520 | 8,090 | 7,050 | 6,730 |
| u.a. | u.a. | u.a. | u.a. | 1,070 | 1,140 | 1,800 | 2,110 | 2,120 | 1,910 | 1,680 | 2,020 | 1,820 |
| u.a. | u.a. | u.a. | u.a. | 14,190 | 14,000 | 16,300 | 17,390 | 17,450 | 17,480 | 16,730 | 15,470 | 14,550 |

Table 4.1e Number of Workers by Sector, Northern Territories, 1994-2006


## Northwest Territories

| Self-employed <br> Fish Harvesters | 90 | 100 | 80 | 70 | 60 | 40 | 50 | 50 | 50 | 40 | 40 | 30 | n.s. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | u.a. | 50 | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Fish Processing Workers | u.a. | u.a. | u.a. | u.a. | 130 | 40 | 100 | 130 | 120 | 120 | 110 | 40 | n.s. |
| Aquaculture Workers | u.a. | u.a. | u.a. | u.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Fishing Industry as a Whole | u.a. | u.a. | u.a. | u.a. | 240 | 110 | 160 | 190 | 170 | 170 | 160 | 70 | 40 |
| Yukon |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed <br> Fish Harvesters | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | u.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Fish Processing Workers | u.a. | u.a. | u.a. | u.a. | n.s. | n.s. | 30 | 40 | 40 | 40 | 30 | 40 | 40 |
| Aquaculture Workers | u.a. | u.a. | u.a. | u.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Fishing Industry as a Whole | u.a. | u.a. | u.a. | u.a. | 50 | 40 | 50 | 50 | 50 | 40 | 40 | 40 | 40 |
| Nunavut |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | n.a | n.a | n.a | n.a | n.a | n.s. | n.s. | n.s. | n.s. | 40 | 40 | 50 | 60 |
| Wage-earning Fish Harvesters | n.a | n.a | n.a | n.a | n.a | 30 | n.s. | n.s. | 30 | 40 | 30 | 30 | n.s. |
| Fish Processing Workers | n.a | n.a | n.a | n.a | n.a | 120 | 250 | 250 | 270 | 310 | 260 | 110 | 130 |
| Aquaculture Workers | n.a | n.a | n.a | n.a | n.a | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Fishing Industry as a Whole | n.a | n.a | n.a | n.a | n.a | 190 | 290 | 300 | 310 | 380 | 330 | 200 | 220 |

## Appendix to Section 4.2 changes in the total employment income

Table 4.2.1a Average Total Employment Income Based on Sector, Atlantic Provinces, 1995-2006

|  | Average Employment Income in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Newfoundland \& Labrador |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 20,067 | 14,156 | 12,821 | 15,503 | 21,642 | 18,135 | 14,823 | 15,457 | 15,793 | 17,322 | 11,987 | 11,284 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 16,798 | 17,775 | 17,113 | 15,481 | 15,751 | 18,814 | 15,880 | 22,145 | 20,111 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 9,056 | 10,468 | 12,243 | 13,339 | 13,107 | 12,834 | 13,482 | 10,212 | 10,943 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 13,950 | 13,975 | 10,203 | 11,191 | 10,478 | 11,059 | 12,977 | 14,512 | 16,088 |
| Prince Edward Island |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 31,576 | 21,217 | 23,616 | 25,400 | 25,674 | 24,937 | 28,636 | 25,000 | 24,303 | 21,567 | 23,410 | 22,297 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 13,725 | 15,496 | 14,748 | 14,906 | 15,563 | 15,857 | 15,760 | 16,200 | 15,987 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 13,758 | 14,474 | 13,709 | 13,816 | 13,263 | 13,452 | 13,512 | 13,595 | 14,496 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 23,206 | 25,845 | 19,967 | 24,071 | 20,051 | 21,199 | 20,015 | 18,959 | 17,075 |
| Nova Scotia |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 29,159 | 25,549 | 26,168 | 26,122 | 31,738 | 31,541 | 32,194 | 31,961 | 33,242 | 26,279 | 24,577 | 23,955 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 24,282 | 26,888 | 27,267 | 29,728 | 30,224 | 30,106 | 27,688 | 27,462 | 26,608 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 22,037 | 25,654 | 26,485 | 29,101 | 26,636 | 23,058 | 23,460 | 21,292 | 21,935 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 16,243 | 17,502 | 16,317 | 16,343 | 16,279 | 18,803 | 18,424 | 17,021 | 19,989 |
| New Brunswick |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 26,743 | 20,070 | 15,459 | 14,642 | 20,175 | 18,351 | 21,845 | 19,280 | 17,212 | 16,198 | 16,788 | 13,974 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 18,397 | 20,604 | 21,316 | 20,195 | 22,218 | 20,907 | 22,191 | 21,965 | 17,688 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 12,337 | 13,164 | 11,957 | 12,343 | 14,120 | 13,815 | 12,940 | 11,750 | 12,095 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 17,849 | 18,550 | 23,601 | 25,095 | 24,168 | 22,472 | 23,927 | 22,376 | 22,849 |

Table 4.2.1a Average Total Employment Income Based on Sector, Atlantic Provinces, 1995-2006

|  | Average Employment Income in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Quebec (Atlantic) |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 36,183 | 24,254 | 18,369 | 15,826 | 26,341 | 26,258 | 27,746 | 26,481 | 28,004 | 28,660 | 20,801 | 15,786 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 14,785 | 16,637 | 18,806 | 19,307 | 21,378 | 20,634 | 20,798 | 19,334 | 15,646 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 10,318 | 11,365 | 11,005 | 10,787 | 11,112 | 11,345 | 11,891 | 11,209 | 11,476 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 13,025 | 13,460 | 20,544 | 18,858 | 19,986 | 20,937 | 19,403 | 14,502 | 14,198 |

Table 4.2.1b Average Total Employment Income Based on Sector, Quebec, 1995-2006

|  | Average Employment Income in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Self-employed Fish Harvesters | 27,328 | 19,599 | 15,136 | 14,120 | 23,419 | 23,740 | 23,652 | 23,173 | 24,910 | 25,831 | 20,337 | 16,823 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 16,302 | 17,668 | 18,598 | 19,247 | 20,889 | 20,162 | 19,991 | 18,579 | 15,917 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 12,608 | 13,645 | 12,309 | 12,936 | 12,614 | 12,689 | 13,467 | 12,341 | 12,787 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 16,785 | 17,536 | 15,402 | 17,616 | 16,296 | 17,016 | 16,506 | 16,353 | 15,004 |

Table 4.2.1c Average Total Employment Income Based on Sector, Central Provinces, 1995-2006

|  | Average Employment Income in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Ontario |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 11,138 | 11,669 | 14,159 | 10,286 | 12,523 | 11,677 | 14,458 | 12,082 | 9,412 | 12,042 | 10,324 | 14,074 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 36,155 | 36,368 | 35,592 | 32,425 | 34,169 | 32,826 | 31,643 | 37,246 | 41,657 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 21,715 | 34,684 | 25,243 | 32,096 | 26,630 | 25,887 | 27,197 | 31,900 | 31,710 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 22,850 | 21,184 | 22,601 | 20,198 | 23,170 | 26,949 | 25,090 | 27,545 | 35,146 |
| Manitoba |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 6,306 | 3,868 | 3,258 | 5,106 | 6,795 | 6,455 | 6,297 | 7,736 | 6,443 | 3,476 | 4,932 | 5,584 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 6,225 | 7,010 | 6,301 | 6,737 | 7,050 | 7,391 | 7,791 | 7,270 | 8,774 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 19,764 | 17,380 | 19,084 | 17,387 | 21,047 | 19,159 | 18,296 | 18,531 | 19,843 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 26,141 | 33,945 | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Saskatchewan |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 8,662 | 5,451 | 4,664 | 6,839 | 4,644 | 4,584 | 3,903 | 4,566 | 3,125 | 1,774 | 2,691 | 3,960 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 16,668 | 12,650 | 10,424 | 12,429 | 11,351 | 10,064 | 10,740 | n.s. | 21,023 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 15,234 | 19,642 | 15,008 | 17,531 | 20,882 | 24,424 | 24,907 | 22,148 | 19,273 |
| Aquaculture Workers | u.a. | u.a. | u.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Alberta |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 8,441 | 11,105 | 11,804 | 9,943 | 11,341 | 13,334 | 13,540 | 9,762 | 12,205 | 12,616 | 14,999 | 16,766 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 20,045 | 23,336 | 26,490 | 30,903 | 28,959 | 27,818 | 24,716 | 29,934 | 33,076 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 15,754 | 13,501 | 16,341 | 18,865 | 16,759 | 16,190 | 18,313 | 16,751 | 18,957 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 35,602 | 34,880 | 18,682 | 21,694 | 19,463 | 18,393 | 18,331 | 23,689 | 22,616 |

Table 4.2.1d Average Total Employment Income Based on Sector, British Columbia, 1995-2006

|  | Average Employment Income in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Self-employed Fish Harvesters | 16,747 | 20,295 | 17,989 | 15,313 | 17,515 | 20,552 | 18,507 | 18,721 | 17,888 | 19,041 | 18,525 | 19,034 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 30,283 | 29,896 | 36,850 | 37,043 | 31,419 | 29,693 | 29,216 | 32,689 | 33,536 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 20,423 | 21,377 | 19,237 | 19,479 | 19,469 | 18,867 | 18,557 | 18,608 | 18,859 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 25,599 | 24,271 | 28,211 | 28,402 | 27,513 | 27,187 | 28,706 | 29,093 | 32,851 |

Table 4.2.1e Average Total Employment Income Based on Sector, Northern Territories, 1995-2006

|  | Average Employment Income in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Northwest Territories |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 15,599 | 18,592 | 13,981 | 12,839 | 6,172 | 6,579 | 9,871 | 5,388 | 5,600 | 4,038 | 1,888 | 3,867 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 19,412 | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Fish Processing Workers | u.a. | u.a. | u.a. | 10,902 | 9,229 | 28,133 | 27,186 | 25,676 | 23,856 | 26,442 | 36,120 | n.s. |
| Aquaculture Workers | u.a. | u.a. | u.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Yukon |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Fish Processing Workers | u.a. | u.a. | u.a. | n.s. | n.s. | 14,191 | 16,420 | 13,875 | 14,805 | 17,255 | 16,844 | 20,116 |
| Aquaculture Workers | u.a. | u.a. | u.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Nunavut |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | n.a. | n.a. | n.a. | n.a. | n.s. | n.s. | n.s. | n.s. | 26,989 | 18,813 | 19,489 | 20,806 |
| Wage-earning Fish Harvesters | n.a. | n.a. | n.a. | n.a. | 30,090 | n.s. | n.s. | 47,211 | 44,457 | 60,801 | 56,059 | n.s. |
| Fish Processing Workers | n.a. | n.a. | n.a. | n.a. | 17,076 | 15,086 | 16,875 | 17,180 | 14,987 | 16,775 | 11,971 | 12,440 |
| Aquaculture Workers | n.a. | n.a. | n.a. | n.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |

Table 4.2.2a Average El Benefits Based on Sector, Atlantic Provinces, 1995-2006

|  | Average EI Benefits in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Newfoundland \& Labrador |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 5,634 | 6,313 | 6,944 | 7,880 | 8,906 | 9,996 | 11,404 | 12,341 | 16,254 | 11,883 | 11,367 | 10,671 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 5,361 | 6,823 | 6,222 | 6,968 | 6,659 | 6,188 | 6,009 | 5,352 | 7,204 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 4,360 | 5,342 | 5,940 | 6,673 | 6,830 | 6,839 | 6,930 | 6,900 | 7,117 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 5,021 | 5,207 | 4,785 | 4,074 | 4,681 | 5,065 | 4,788 | 5,000 | 5,421 |
| Prince Edward Island |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 11,209 | 11,045 | 11,683 | 10,727 | 10,604 | 10,712 | 14,017 | 14,519 | 11,911 | 11,793 | 11,603 | 11,651 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 8,264 | 8,006 | 7,891 | 8,076 | 7,917 | 7,544 | 7,460 | 7,538 | 7,862 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 4,988 | 5,090 | 4,799 | 5,431 | 5,312 | 5,250 | 4,936 | 5,049 | 5,824 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 5,462 | 5,457 | 4,470 | 5,132 | 5,114 | 4,834 | 4,469 | 5,017 | 5,022 |
| Nova Scotia |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 8,835 | 8,171 | 8,527 | 9,045 | 9,092 | 8,520 | 9,707 | 9,956 | 10,571 | 10,149 | 9,765 | 9,657 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 6,806 | 6,855 | 6,568 | 6,800 | 6,681 | 5,792 | 5,988 | 6,465 | 6,697 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 3,783 | 3,817 | 3,588 | 3,639 | 3,626 | 3,603 | 3,690 | 3,760 | 4,022 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 3,202 | 3,664 | 3,322 | 3,652 | 3,790 | 3,009 | 3,629 | 2,793 | 2,643 |
| New Brunswick |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 9,911 | 9,233 | 9,996 | 10,530 | 10,289 | 9,843 | 10,884 | 12,872 | 12,571 | 10,601 | 10,514 | 10,447 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 8,501 | 8,401 | 9,185 | 10,356 | 10,196 | 9,896 | 9,849 | 10,211 | 9,984 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 5,166 | 4,989 | 5,373 | 6,583 | 6,380 | 6,075 | 6,327 | 6,570 | 6,818 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 3,615 | 3,082 | 2,243 | 2,427 | 2,899 | 2,900 | 2,653 | 2,143 | 2,802 |

Table 4.2.2a Average El Benefits Based on Sector, Atlantic Provinces, 1995-2006

|  | Average EI Benefits in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Quebec (Atlantic) |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 10,333 | 10,559 | 11,121 | 10,605 | 9,978 | 11,419 | 17,377 | 12,977 | 12,889 | 14,500 | 12,607 | 11,599 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 9,597 | 8,858 | 8,900 | 11,005 | 10,745 | 10,650 | 10,208 | 10,058 | 9,619 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 6,559 | 6,294 | 6,250 | 7,533 | 7,306 | 7,592 | 7,360 | 8,027 | 7,772 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 4,487 | 4,801 | 5,368 | 5,949 | 6,389 | 6,079 | 7,167 | 6,884 | 6,282 |

Table 4.2.2b Average El Benefits Based on Sector, Quebec, 1995-2006

|  | Average EI Benefits in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Self-employed Fish Harvesters | 9,364 | 9,619 | 10,120 | 9,662 | 9,379 | 10,654 | 15,671 | 12,105 | 11,877 | 13,683 | 11,665 | 11,063 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 8,195 | 7,829 | 8,407 | 10,356 | 9,998 | 9,972 | 9,434 | 9,409 | 9,549 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 5,612 | 4,961 | 5,199 | 6,068 | 5,934 | 6,109 | 5,908 | 6,214 | 6,402 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 2,983 | 2,483 | 2,787 | 3,673 | 3,622 | 2,995 | 3,362 | 4,577 | 4,657 |

Table 4.2.2c Average El Benefits Based on Sector, Central Provinces, 1995-2006

|  | Average EI Benefits in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Ontario |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 2,468 | 2,744 | 2,325 | 1,981 | 2,206 | 2,189 | 2,202 | 2,186 | 1,997 | 2,002 | 1,590 | 1,336 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 2,359 | 2,515 | 2,955 | 3,488 | 2,797 | 3,103 | 2,688 | 2,234 | 2,273 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 1,424 | 976 | 1,360 | 1,530 | 1,272 | 1,273 | 1,250 | 1,076 | 1,125 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 1,323 | 1,271 | 669 | 880 | 726 | 741 | 757 | 836 | 603 |
| Manitoba |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 3,274 | 3,765 | 3,497 | 3,941 | 4,816 | 5,070 | 5,596 | 5,667 | 6,027 | 5,181 | 4,266 | 4,711 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 2,180 | 2,407 | 3,239 | 3,721 | 4,403 | 4,195 | 4,120 | 3,737 | 3,651 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 1,614 | 1,285 | 1,172 | 1,582 | 1,769 | 1,714 | 1,623 | 1,540 | 1,611 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 1,847 | 1,457 | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Saskatchewan |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 1,881 | 1,969 | 2,071 | 2,300 | 3,057 | 3,612 | 3,620 | 2,969 | 3,453 | 2,747 | 2,393 | 2,770 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 2,185 | 1,587 | 2,610 | 1,685 | 2,311 | 1,974 | 2,465 | n.s | 1,888 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 1,408 | 2,164 | 1,518 | 829 | 911 | 1,751 | 383 | 588 | 1,906 |
| Aquaculture Workers | u.a. | u.a. | u.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Alberta |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 1,700 | 1,413 | 2,041 | 2,097 | 1,759 | 2,438 | 2,786 | 2,135 | 2,965 | 3,019 | 4,484 | 3,507 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 3,278 | 3,092 | 3,587 | 3,860 | 3,581 | 4,252 | 5,213 | 4,594 | 4,486 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 2,068 | 2,176 | 2,467 | 3,064 | 2,857 | 2,774 | 3,021 | 3,266 | 3,054 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 1,264 | 1,650 | 2,073 | 1,382 | 2,427 | 2,271 | 2,596 | 1,351 | 2,542 |

Table 4.2.2d Average El Benefits Based on Sector, British Columbia, 1995-2006

|  | Average EI Benefits in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Self-employed Fish Harvesters | 4,949 | 3,814 | 4,002 | 5,659 | 5,256 | 4,712 | 5,469 | 5,378 | 5,421 | 4,935 | 4,620 | 4,233 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 1,649 | 1,268 | 1,024 | 1,226 | 1,380 | 1,478 | 1,266 | 1,250 | 928 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 2,028 | 1,693 | 1,875 | 1,664 | 1,829 | 1,919 | 1,840 | 1,635 | 1,739 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 1,634 | 1,145 | 880 | 909 | 1,079 | 1,797 | 1,308 | 1,121 | 1,142 |

Table 4.2.2e Average El Benefits Based on Sector, Northern Territories, 1995-2006

|  | Average EI Benefits in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Northwest Territories |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 2,113 | 2,228 | 3,224 | 4,224 | 4,014 | 3,179 | 4,164 | 4,041 | 4,064 | 3,265 | 3,642 | n.s. |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 1,986 | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Fish Processing Workers | u.a. | u.a. | u.a. | 1,544 | 1,046 | 1,238 | 626 | 1,295 | 888 | 1,221 | 1,846 | n.s. |
| Aquaculture Workers | u.a. | u.a. | u.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Yukon |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Fish Processing Workers | u.a. | u.a. | u.a. | n.s. | n.s. | 1,401 | 1,030 | 2,024 | 871 | 865 | 1,215 | 1,807 |
| Aquaculture Workers | u.a. | u.a. | u.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Nunavut |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | n.a. | n.a. | n.a. | n.a. | n.s. | n.s. | n.s. | n.s. | 4,219 | 3,226 | 1,882 | 1,973 |
| Wage-earning Fish Harvesters | n.a. | n.a. | n.a. | n.a. | 3,505 | n.s. | n.s. | 2,084 | 1,110 | 879 | 513 | n.s. |
| Fish Processing Workers | n.a. | n.a. | n.a. | n.a. | 1,164 | 1,193 | 1,179 | 1,199 | 866 | 939 | 911 | 679 |
| Aquaculture Workers | n.a. | n.a. | n.a. | n.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |

## Appendix to Section 4.3 changes in the total income

Table 4.3.1a Average Total Income Based on Sector, Atlantic Provinces, 1995-2006
Average Total Income in Constant Dollars of 2005 (\$)

|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundland \& Labrador |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 29,697 | 24,121 | 23,020 | 26,399 | 33,807 | 29,700 | 27,806 | 29,402 | 33,848 | 30,994 | 25,309 | 24,460 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 26,640 | 27,865 | 25,214 | 24,439 | 24,609 | 26,877 | 24,056 | 29,500 | 29,140 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 16,233 | 17,590 | 19,133 | 21,277 | 20,969 | 20,570 | 22,074 | 18,118 | 19,250 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 20,682 | 21,159 | 15,819 | 16,171 | 16,043 | 16,959 | 18,619 | 20,604 | 22,900 |
| Prince Edward Island |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 44,929 | 34,995 | 37,960 | 38,640 | 39,338 | 38,603 | 45,014 | 41,916 | 38,543 | 35,854 | 37,799 | 37,730 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 23,774 | 24,910 | 23,917 | 25,330 | 24,669 | 24,964 | 25,013 | 26,012 | 26,380 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 25,033 | 22,265 | 19,940 | 20,592 | 20,024 | 20,145 | 19,821 | 20,676 | 22,440 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 32,024 | 32,987 | 26,584 | 33,134 | 28,848 | 29,007 | 26,745 | 29,749 | 24,040 |
| Nova Scotia |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 43,055 | 38,450 | 39,494 | 40,429 | 46,286 | 46,465 | 47,110 | 47,093 | 49,262 | 41,884 | 40,006 | 40,120 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 35,132 | 36,862 | 37,227 | 39,438 | 40,095 | 39,099 | 37,168 | 37,804 | 36,950 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 29,431 | 32,868 | 32,542 | 35,347 | 33,254 | 30,344 | 30,147 | 28,265 | 30,210 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 23,273 | 23,908 | 21,494 | 21,506 | 22,519 | 23,188 | 23,943 | 22,285 | 24,310 |

New Brunswick

| Self-employed Fish Harvesters | 42,156 | 34,775 | 31,737 | 30,605 | 35,944 | 35,094 | 39,014 | 37,821 | 35,724 | 32,194 | 32,064 | 30,110 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 28,714 | 31,764 | 32,986 | 32,820 | 34,518 | 33,186 | 34,356 | 34,294 | 30,460 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 19,285 | 19,673 | 18,888 | 20,306 | 21,782 | 21,284 | 20,651 | 19,428 | 20,230 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 25,427 | 26,186 | 29,478 | 30,363 | 29,554 | 27,315 | 28,044 | 26,805 | 28,130 |

Table 4.3.1a Average Total Income Based on Sector, Atlantic Provinces, 1995-2006

|  | Average Total Income in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Quebec (Atlantic) |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 52,673 | 39,008 | 36,505 | 29,512 | 39,763 | 42,333 | 47,833 | 43,164 | 44,452 | 47,975 | 37,423 | 33,250 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 29,173 | 29,161 | 31,831 | 34,908 | 36,444 | 37,196 | 36,516 | 33,412 | 29,220 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 19,049 | 19,919 | 19,180 | 19,739 | 19,949 | 20,418 | 20,918 | 20,515 | 20,900 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 18,592 | 20,131 | 29,560 | 27,789 | 30,132 | 36,150 | 32,210 | 22,356 | 22,900 |

Table 4.3.1b Average Total Income Based on Sector, Quebec, 1995-2006
Average Total Income in Constant Dollars of 2005 (\$)

|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Self-employed Fish Harvesters | 43,371 | 34,749 | 30,766 | 27,769 | 36,912 | 38,972 | 42,305 | 38,849 | 40,436 | 44,209 | 36,173 | 35,160 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 28,331 | 29,223 | 31,312 | 33,686 | 34,736 | 35,372 | 34,173 | 31,451 | 28,680 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 20,360 | 20,910 | 19,415 | 20,523 | 20,069 | 20,369 | 21,106 | 20,045 | 20,870 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 22,457 | 23,618 | 24,646 | 26,912 | 24,050 | 25,828 | 23,852 | 22,661 | 22,520 |

Table 4.3.1c Average Total Income Based on Sector, Central Provinces, 1995-2006

|  | Average Total Income in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Ontario |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 25,467 | 25,249 | 28,958 | 26,822 | 27,334 | 24,959 | 28,793 | 26,983 | 22,655 | 25,923 | 28,202 | 45,160 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 44,996 | 46,807 | 44,694 | 40,497 | 41,519 | 42,085 | 41,275 | 49,074 | 52,790 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 26,712 | 38,674 | 30,689 | 39,448 | 32,452 | 29,794 | 30,959 | 35,149 | 36,310 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 26,378 | 26,261 | 25,009 | 22,972 | 25,810 | 30,098 | 27,873 | 31,405 | 49,290 |
| Manitoba |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 14,668 | 12,536 | 11,357 | 13,119 | 15,741 | 15,582 | 15,693 | 16,843 | 16,211 | 12,314 | 13,390 | 15,000 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 9,698 | 11,212 | 10,817 | 11,787 | 12,630 | 12,713 | 12,619 | 12,407 | 14,220 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 23,846 | 21,210 | 22,412 | 20,870 | 24,517 | 22,649 | 21,597 | 21,810 | 23,470 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 29,416 | 36,432 | 19,776 | n.a. | 19,302 | 16,750 | 28,759 | 22,257 | 17,950 |
| Saskatchewan |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 15,427 | 13,462 | 11,269 | 14,256 | 11,957 | 13,281 | 10,948 | 10,816 | 10,040 | 8,641 | 8,304 | 10,370 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 22,274 | 15,850 | 13,705 | 16,059 | 15,057 | 12,902 | 14,390 | 18,380 | 24,970 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 18,896 | 23,887 | 19,790 | 21,764 | 24,814 | 27,244 | 29,857 | 25,106 | 22,990 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 20,829 | 13,669 | 26,386 | 20,265 | 25,201 | 31,488 | 21,446 | 16,857 | 38,640 |
| Alberta |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 21,107 | 24,108 | 19,993 | 21,023 | 22,213 | 25,070 | 24,334 | 20,937 | 23,819 | 23,899 | 27,602 | 28,550 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 25,126 | 27,577 | 30,544 | 37,383 | 36,301 | 33,117 | 30,639 | 35,402 | 38,750 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 19,752 | 17,749 | 20,107 | 24,278 | 20,521 | 20,180 | 22,641 | 20,824 | 23,030 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 38,095 | 37,331 | 22,293 | 24,443 | 22,842 | 21,545 | 21,581 | 26,454 | 26,910 |

Table 4.3.1d Average Total Income Based on Sector, British Columbia, 1995-2006

|  | Average Total Income in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Self-employed Fish Harvesters | 28,617 | 30,701 | 28,338 | 26,972 | 28,989 | 31,607 | 28,971 | 28,971 | 28,343 | 29,322 | 29,317 | 29,790 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 37,336 | 39,499 | 49,092 | 48,728 | 48,728 | 38,475 | 37,855 | 44,625 | 45,560 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 25,216 | 26,058 | 24,139 | 23,817 | 23,817 | 23,219 | 22,607 | 22,220 | 23,260 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 28,884 | 27,425 | 33,650 | 31,342 | 31,342 | 30,913 | 31,961 | 32,439 | 36,050 |

Table 4.3.1e Average Total Income Based on Sector, Northern Territories, 1995-2006

|  | Average Total Income in Constant Dollars of 2005 (\$) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Northwest Territories |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 21,338 | 25,269 | 21,395 | 20,523 | 13,260 | 12,602 | 15,349 | 12,299 | 11,741 | 10,508 | 9,462 | 15,410 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 23,666 | 12,057 | 22,516 | 17,039 | 38,089 | 18,852 | 39,121 | 19,139 | 23,170 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 14,202 | 11,872 | 32,894 | 30,842 | 29,066 | 27,867 | 29,823 | 41,410 | 29,000 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 8,026 | 26,759 | 3,858 | 2,625 | 2,252 | 14,647 | 16,069 | n.a. | 43,170 |
| Yukon |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 10,369 | 11,724 | 11,062 | 15,310 | 23,998 | 22,963 | 15,191 | 26,092 | 21,682 | 23,587 | 20,404 | 23,360 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 15,271 | 16,155 | 14,981 | 13,109 | 28,633 | 10,125 | n.a. | 5,848 | n.a. |
| Fish Processing Workers | u.a. | u.a. | u.a. | 22,189 | 26,276 | 17,239 | 19,771 | 18,087 | 16,901 | 19,216 | 19,388 | 22,490 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 28,679 | 63,326 | 17,885 | n.a. | 18,077 | 20,873 | n.a. | n.a. | 32,540 |
| Nunavut |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | n.a. | n.a. | n.a. | n.a. | 15,925 | 22,420 | 12,683 | 28,929 | 34,705 | 26,367 | 26,148 | 28,030 |
| Wage-earning Fish Harvesters | n.a. | n.a. | n.a. | n.a. | 35,483 | 39,102 | 36,151 | 50,944 | 48,323 | 67,404 | 61,518 | 71,600 |
| Fish Processing Workers | n.a. | n.a. | n.a. | n.a. | 20,429 | 18,117 | 19,994 | 20,308 | 18,468 | 21,602 | 15,251 | 15,340 |
| Aquaculture Workers | n.a. | n.a. | n.a. | n.a. | 16,921 | 23,214 | n.a. | n.a. | n.a. | 28,129 | n.a. | n.a. |

Table 4.3.2a Median Total Income Based on Sector, Atlantic Provinces, 1995-2006


Table 4.3.2a Median Total Income Based on Sector, Atlantic Provinces, 1995-2006

|  | Average Median Income in Constant Dollars of 2005 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Quebec (Atlantic) |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 40,049 | 34,186 | 30,273 | 26,781 | 34,365 | 36,284 | 41,780 | 37,328 | 37,440 | 40,196 | 29,786 | 26,230 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 25,115 | 25,153 | 25,793 | 28,210 | 27,911 | 27,189 | 26,796 | 26,019 | 24,950 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 16,671 | 16,961 | 15,794 | 17,007 | 17,502 | 18,113 | 18,619 | 18,252 | 18,770 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 17,387 | 21,333 | 23,358 | 23,411 | 23,111 | 23,669 | 25,757 | 21,612 | 21,790 |

Table 4.3.2b Median Total Income Based on Sector, Quebec, 1995-2006
Average Median Income in Constant Dollars of 2005

|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Self-employed Fish Harvesters | 32,492 | 29,227 | 25,046 | 23,860 | 29,373 | 32,019 | 32,255 | 30,698 | 32,611 | 35,358 | 28,665 | 27,200 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 24,087 | 24,066 | 25,300 | 28,153 | 27,464 | 26,888 | 26,373 | 25,595 | 25,220 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 17,136 | 17,194 | 15,359 | 16,812 | 17,093 | 17,564 | 18,140 | 17,588 | 18,590 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 17,489 | 17,391 | 17,616 | 19,394 | 18,681 | 19,265 | 20,519 | 21,426 | 21,050 |

Table 4.3.2c Median Total Income Based on Sector, Central Provinces, 1995-2006


Table 4.3.2d Median Total Income Based on Sector, British Columbia, 1995-2006

|  | Average Median Income in Constant Dollars of 2005 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Self-employed Fish Harvesters | 18,946 | 22,722 | 20,514 | 19,934 | 21,011 | 23,059 | 21,492 | 21,730 | 21,428 | 21,407 | 21,345 | 22,100 |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 26,768 | 25,875 | 30,587 | 26,477 | 23,560 | 23,813 | 23,698 | 25,650 | 30,530 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 19,294 | 19,967 | 18,368 | 17,865 | 17,449 | 16,846 | 17,168 | 16,732 | 16,960 |
| Aquaculture Workers | u.a. | u.a. | u.a. | 25,749 | 23,447 | 25,478 | 27,134 | 27,703 | 27,578 | 27,443 | 28,369 | 30,160 |

Table 4.3.2e Median Total Income Based on Sector, Northern Territories, 1995-2006

|  | Average Median Income in Constant Dollars of 2005 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Northwest Territories |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | 16,919 | 21,079 | 16,394 | 15,528 | 12,627 | 10,773 | 11,900 | 10,324 | 10,003 | 7,508 | 7,442 | n.s. |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | 15,990 | n.s. | 16,096 | 10,594 | 38,089 | 22,681 | 33,259 | 19,336 | 28,330 |
| Fish Processing Workers | u.a. | u.a. | u.a. | 11,724 | 8,267 | 20,482 | 19,319 | 16,990 | 13,600 | 16,740 | 26,179 | n.s. |
| Aquaculture Workers | u.a. | u.a. | u.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Yukon |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Wage-earning Fish Harvesters | u.a. | u.a. | u.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Fish Processing Workers | u.a. | u.a. | u.a. | n.s. | n.s. | 12,175 | 15,393 | 16,714 | 14,663 | 18,188 | 19,507 | 18,940 |
| Aquaculture Workers | u.a. | u.a. | u.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |
| Nunavut |  |  |  |  |  |  |  |  |  |  |  |  |
| Self-employed Fish Harvesters | n.a. | n.a. | n.a. | n.a. | n.s. | n.s. | n.s. | n.s. | 25,030 | 20,098 | 19,476 | 23,540 |
| Wage-earning Fish Harvesters | n.a. | n.a. | n.a. | n.a. | 37,276 | n.s. | n.s. | 34,973 | 36,197 | 38,822 | 38,746 | n.s. |
| Fish Processing Workers | n.a. | n.a. | n.a. | n.a. | 11,835 | 12,062 | 13,769 | 13,997 | 12,800 | 15,133 | 7,499 | 9,480 |
| Aquaculture Workers | n.a. | n.a. | n.a. | n.a. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. | n.s. |

Table 4.3.3a Composition of Average Total Income for Self-employed Fish Harvesters, 1994-2006

| Self-employed Fish Harvesters (Income in Constant Dollars) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Total Employment Income |  | Average EI Benefits |  | Average Investment Income |  | Other Income (Average) |  | Average <br> Total <br> Income |
|  | \$ |  | \$ |  | \$ |  | \$ |  | \$ |
| 1994 | 16,356 | 47\% | 6,111 | 18\% | 9,685 | 28\% | 2,341 | 7\% | 34,493 |
| 1995 | 18,577 | 65\% | 5,722 | 20\% | 1,503 | 5\% | 2,683 | 9\% | 28,485 |
| 1996 | 15,703 | 62\% | 5,647 | 22\% | 1,368 | 5\% | 2,624 | 10\% | 25,342 |
| 1997 | 14,667 | 59\% | 6,089 | 25\% | 1,358 | 6\% | 2,568 | 10\% | 24,682 |
| 1998 | 14,795 | 59\% | 6,710 | 27\% | 1,193 | 5\% | 2,546 | 10\% | 25,244 |
| 1999 | 19,044 | 63\% | 7,148 | 24\% | 1,707 | 6\% | 2,185 | 7\% | 30,084 |
| 2000 | 18,496 | 62\% | 7,644 | 26\% | 1,775 | 6\% | 1,821 | 6\% | 29,736 |
| 2001 | 17,780 | 59\% | 9,048 | 30\% | 1,385 | 5\% | 1,747 | 6\% | 29,960 |
| 2002 | 18,064 | 58\% | 9,666 | 31\% | 1,352 | 4\% | 2,063 | 7\% | 31,145 |
| 2003 | 18,673 | 56\% | 11,329 | 34\% | 1,462 | 4\% | 1,972 | 6\% | 33,436 |
| 2004 | 18,418 | 58\% | 9,586 | 30\% | 1,486 | 5\% | 2,073 | 7\% | 31,563 |
| 2005 | 16,448 | 55\% | 9,420 | 32\% | 1,576 | 5\% | 2,323 | 8\% | 29,767 |
| 2006 | 16,348 | 54\% | 9,135 | 30\% | 2,156 | 7\% | 2,757 | 9\% | 30,396 |

Table 4.3.3b Composition of Average Total Income for Wage-earning Fish Harvesters, 1998-2006

Wage-earning Fish Harvesters
(Income in Constant Dollars)

|  | Average Total <br> Employment Income |  | Average EI Benefits |  | Average Investment Income |  | Other Income (Average) |  | Average Total Income |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ |  | \$ |  | \$ |  | \$ |  | \$ |
| 1998 | 17,523 | 67\% | 5,269 | 20\% | 1,216 | 5\% | 2,012 | 8\% | 26,020 |
| 1999 | 19,223 | 69\% | 5,596 | 20\% | 1,619 | 6\% | 1,582 | 6\% | 28,020 |
| 2000 | 20,920 | 69\% | 5,988 | 20\% | 2,055 | 7\% | 1,198 | 4\% | 30,161 |
| 2001 | 21,953 | 69\% | 6,739 | 21\% | 1,895 | 6\% | 1,175 | 4\% | 31,762 |
| 2002 | 23,290 | 70\% | 6,693 | 20\% | 1,844 | 6\% | 1,233 | 4\% | 33,060 |
| 2003 | 24,162 | 72\% | 6,361 | 19\% | 1,894 | 6\% | 1,371 | 4\% | 33,788 |
| 2004 | 23,298 | 70\% | 6,435 | 19\% | 1,957 | 6\% | 1,514 | 5\% | 33,204 |
| 2005 | 24,775 | 70\% | 6,700 | 19\% | 2,251 | 6\% | 1,620 | 5\% | 35,346 |
| 2006 | 23,534 | 68\% | 7,247 | 21\% | 1,954 | 6\% | 1,759 | 5\% | 34,494 |

Table 4.3.3c Composition of Average Total Income for Fish Processing Workers, 1998-2006
Fish Processing Workers
(Income in Constant Dollars)

|  | Average Total <br> Employment Income |  | Average EI Benefits |  | Average Investment Income |  | Other Income (Average) |  | Average Total Income |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ |  | \$ |  | \$ |  | \$ |  | \$ |
| 1998 | 12,512 | 68\% | 3,555 | 19\% | 754 | 4\% | 1,678 | 9\% | 18,499 |
| 1999 | 14,519 | 72\% | 3,678 | 18\% | 661 | 3\% | 1,362 | 7\% | 20,220 |
| 2000 | 14,802 | 73\% | 3,933 | 19\% | 598 | 3\% | 1,076 | 5\% | 20,409 |
| 2001 | 16,275 | 73\% | 4,393 | 20\% | 613 | 3\% | 1,150 | 5\% | 22,431 |
| 2002 | 16,166 | 72\% | 4,576 | 20\% | 639 | 3\% | 1,067 | 5\% | 22,448 |
| 2003 | 15,497 | 71\% | 4,684 | 21\% | 667 | 3\% | 1,123 | 5\% | 21,971 |
| 2004 | 15,909 | 70\% | 4,816 | 21\% | 553 | 2\% | 1,337 | 6\% | 22,615 |
| 2005 | 15,049 | 69\% | 4,960 | 23\% | 598 | 3\% | 1,095 | 5\% | 21,702 |
| 2006 | 15,803 | 68\% | 5,295 | 23\% | 870 | 4\% | 1,268 | 5\% | 23,236 |

Table 4.3.3d Composition of Average Total Income for Aquaculture Workers, 1998-2006

Aquaculture Workers
(Income in Constant Dollars)

|  | Average Total Employment Income |  | Average EI Benefits |  | Average Investment Income |  | Other Income (Average) |  | Average <br> Total <br> Income |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ |  | \$ |  | \$ |  | \$ |  | \$ |
| 1998 | 17,152 | 79\% | 2,499 | 12\% | 755 | 3\% | 1,254 | 6\% | 21,660 |
| 1999 | 17,217 | 78\% | 2,366 | 11\% | 1,034 | 5\% | 1,354 | 6\% | 21,971 |
| 2000 | 19,820 | 79\% | 1,962 | 8\% | 2,035 | 8\% | 1,153 | 5\% | 24,970 |
| 2001 | 21,323 | 83\% | 2,103 | 8\% | 1,072 | 4\% | 1,237 | 5\% | 25,735 |
| 2002 | 21,313 | 82\% | 2,320 | 9\% | 1,129 | 4\% | 1,227 | 5\% | 25,989 |
| 2003 | 21,974 | 82\% | 2,587 | 10\% | 887 | 3\% | 1,301 | 5\% | 26,749 |
| 2004 | 22,873 | 84\% | 2,465 | 9\% | 776 | 3\% | 1,155 | 4\% | 27,269 |
| 2005 | 23,841 | 83\% | 2,267 | 8\% | 1,108 | 4\% | 1,427 | 5\% | 28,643 |
| 2006 | 26,181 | 83\% | 2,571 | 8\% | 973 | 3\% | 1,700 | 5\% | 31,425 |

Pêches et Océans
Canada

## Canadå


[^0]:    ${ }^{1}$ The Central Provinces are Ontario, Manitoba, Saskatchewan, and Alberta.

[^1]:    ${ }^{2}$ Note that this does not take into account the specific job roles/titles within each sector.
    3 Centiles are another name for percentiles.

[^2]:    ${ }^{4}$ An explanation of this result is found in Section 4.3.3

[^3]:    5 Source: Fisheries and Oceans Canada, Policy Sector, Economic Analysis and Statistics, «Canadian Fishing Statistics 2006», table 1.1.
    ${ }^{6}$ Source: Fisheries and Oceans Canada, Policy Sector, Economic Analysis and Statistics, «Canadian Fishing Statistics 2006», table 2.1.
    7 Source: Fisheries and Oceans Canada, Policy Sector, Economic Analysis and Statistics, «Canadian Fishing Statistics 2006», table 2.3.

[^4]:    8 Source: Statistics Canada, 2006 Population Census, product no 97-551-XCB2006005 in the Statistics Canada catalog

[^5]:    9 According to Statistics Canada, "The ageing of the labor force in Canada continued between 2001 and 2006. In 2006, workers aged 55 and more represented $15.3 \%$ of the labor force compared to $11.7 \%$ five years earlier." Canada's Changing Labor Force, 2006 Census, p. 30, Statistics Canada, No. 97-559 in catalog.

[^6]:    ${ }^{10}$ The methodology is different than the one used in this report. Note that the Statistics Canada definition does not separate out self employed fish harvesters from wage-earning fish harvesters.

[^7]:    ${ }_{11}$ Statistics Canada, CANSIM : V 2062811 and V 2062815

[^8]:    12 The main difference is that this section only counts the 79,000 workers whose main source of income came from a fishing related activity, and not the 93,840 individuals who earned any income in fishing related income even if fishing was not their main source of employment income.

[^9]:    Note: The average total income after tax for Quebec represents the total income after the federal tax. It does not take into account the provincial tax that is collected separately by the Quebec government. For this reason, this income is overstated.

[^10]:    ${ }^{13}$ The data from 1994-1997 for the other fishing sectors are not reliable, according to the methodology used in this report.

[^11]:    ${ }^{14}$ Source: Fisheries and Oceans Canada, "Current State of the Atlantic Fishery", April 2003, archives, Backgrounders 2003.

[^12]:    Note: NAICS 2007 codes presented in this table correspond to codes used by the Canada Revenue Agency. Some of these codes may differ from those used in the NAICS 2007 manual published by Statistics Canada. These codes differ, among others, for wholesale trade and public administration, that correspond respectively to codes 41 and 91 in the NAICS manual of Statistics Canada.

[^13]:    ${ }^{15}$ Fisheries and Oceans Canada, Charting a new course: towards the fishery of the future, report of the Task Force on Incomes and Adjustment in the Atlantic Fishery, 1993.
    16 This comparison over time is not the object of this report.

[^14]:    ${ }^{17}$ Website of CRA: http://www.cra-arc.gc.ca/gncy/nvstgtns/menu-eng.html, visited on July 18, 2011.

[^15]:    ${ }^{18}$ Canada Revenue Agency, Departmental Performance Report 2007-2008.
    19 Roman Meyerovich, Compliance Research \& Strategic Analysis Division Canada Revenue Agency, "Compliance, tax evasion and change in Canada 2002, 3SC survey findings and implications", June 2004..
    ${ }^{20}$ Rolf Mirus and Roger S. Smith, "Self-Employment, Tax Evasion, and the Underground Economy: Micro-Based Estimates for Canada", Working Paper no. 1002 (Cambridge, MA: Harvard Law School, International Tax Program, October 1997).
    ${ }^{21}$ Herb J. Schuetze, "Profiles of Tax Non-Compliance Among the Self-Employed in Canada: 1969 to 1992" (2002) vol. 28, no. 2 Canadian Public Policy 220-23.

