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COMPARISON OF INCOME ESTIMATES FROM THE SURVEY OF CONSUMER FINANCES AND THE SURVEY OF LABOUR AND INCOME DYNAMICS

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EXECUTIVE SUMMARY

The published data from the 1994 Survey of Consumer Finances (1993 income) and the 1993 income data from the first wave of SLID were analysed, comparing various aggregate, average and other income distributions of the estimates produced by the two surveys. The purpose of the study was to identify differences between the estimates and to quantify these differences where possible.

Integration of the two surveys will occur commencing with 1997 income data. The differences need to be understood so that they can be minimized where appropriate and explained to users.

Initial Findings

The study found that there were some noteworthy differences in the two sets of 1993 income estimates. Given that SLID and SCF use different samples, it is conceivable that a portion of the difference between SLID and SCF estimates is caused by sampling variability. Nevertheless, statistical hypothesis testing suggests that some of the differences observed between various income sources are significantly different from zero. The differences may be summarized as follows:

- In aggregate, the SLID estimate of individual income was $20 billion (4%) higher than that of SCF. A 99% confidence interval suggests that the difference lies between $4.5 billion and $35.5 billion;

- SLID average individual income for income recipients was $200 (1%) higher than the comparable SCF average;

- SLID estimates of individual income recipients indicate 600,000 (3%) more income recipients than SCF. On a per capita basis, SLID average income is $700 (4%) higher than SCF;

- Consequently, the SLID estimate of average family income is about $2000 higher (or 4%) than that published by SCF;

- The higher SLID family income leads to an estimated incidence of low income for persons that is 3 percentage points lower than that published by SCF (14.7% versus 18.0%).

Major Contributors to Identified Income Differences

The investigation has determined that the following factors are major contributors to the differences identified:

- Editing procedures

  Some values, such as high income amounts, that have a high probability of being in error (based on inconsistencies observed with related variables) are edited out during SCF processing. These cases were not modified in the same manner on the SLID file. Based on the SCF processing experience, this could account for approximately $7 billion of the observed difference between the surveys.

- Imputation procedures

  SCF includes low income records but excludes high income records from the universe of donors during income imputation. SLID includes both low and high income records in the donor universe. Analysis indicates that

approximately $3 billion of the observed SCF/SLID aggregate income difference is possibly due to the differing imputation procedures used by SCF and SLID.

Item assignment procedures used by SCF for individual income sources do not usually permit refundable tax credits to be the sole source of income: in these situations, values are moved to spouses with income, if present. SLID does not have this restriction. There are 389,000 SLID individuals with Child Tax Benefits and 220,000 persons with Goods and Services Tax Credit as the sole income sources. These individuals could account for much of the 600,000 difference in income recipients between SLID and SCF.

The discrepancy in low income rates produced by SCF and SLID may be partly the result of differing income assignment procedures: previous evaluations of SCF data have shown that low income rates are sensitive to relatively small changes in income, given the clustering of certain population groups, such as the elderly, around the low income cut-offs. This highlights the potential sensitivity of low income rates overall to differing assignment procedures for various income sources. Analysis of the SLID and SCF data indicates that SLID estimates of CPP/QPP are $3.6 billion higher than SCF estimates. Reconciliation with Revenue Canada data indicates that SLID procedures may be over-assigning CPP/QPP, while SCF may be under-assigning. Much of CPP/QPP is received by the elderly and since low income rates for the elderly are particularly sensitive to small income changes, it is likely this difference in CPP/QPP has a significant impact on the observed discrepancy in SCF/SLID low income rates.

- Weighting, attrition and cohabitants

  As opposed to SCF, SLID does not use an integrated weight. However, this does not seem to have an impact on the estimates. On the other hand, SLID attrition and cohabitants that join the sample after its selection affect the weights and the estimates. The results of producing SLID weights by a series of alternate methods (that make use of different non-response adjustments and weight share techniques for handling cohabitants) suggests that differences in weighting schemes could account for up to $5 billion of the aggregate income difference.

- Variable derivation procedures

  Part of the discrepancy in low income rates between SCF and SLID appears due to definitional differences imbedded in the variable “size of area of residence”, used to determine the appropriate LICO. The “size of area of residence” variable is determined in SCF by using LFS sample unit identifiers to determine population, while for SLID, postal codes are used. The classification of urban size in the SCF/LFS sample and the SLID sample varies in another respect. For SCF, all areas within CMAs carry an urban size code according to total CMA population. For SLID, non-core CMA sample could be assigned differing urban size codes (eg., small urban, rural), following procedures used by the Census in the production of low income data. The result leads to discrepancies in SLID and SCF classification of families by “size of area” LICO categories.

  Calculations using a procedure standardizing for the coding differences show that variations in SLID and SCF classification by LICO categories may account for one-quarter of the observed difference in low income rates.

- Data sources

  One program is entirely survey, while the other is a combination of survey and tax data. The SCF data is collected entirely by questionnaire using four/sixths of the full LFS sample. The SLID data is collected partially by questionnaire as per SCF, and partially by linkage with Revenue Canada taxation data. It is conceivable that this procedural difference could be a significant contributor; however, it cannot be quantified.

- Income concepts

  Taxable Allowances and Benefits are conceptually excluded from Wages and Salaries for data obtained by questionnaire, while they are included for data obtained from tax records. By definition, all SCF Wage data and the 50% of SLID data from questionnaires should exclude Taxable Allowances. With Taxable Allowances representing about $3.3 billion in total, the SLID Wage component could be a maximum $1.7 billion higher than SCF. However, the actual value is likely less, since some questionnaire respondents may report values directly from their T-1s, where Wages include the value of Taxable Allowances. This conceptual variation therefore may represent about $1 billion of the difference.

Conclusions for Integration of SLID and SCF

As mentioned in the background above, the aim of the present research is to adopt the best set of procedures for the integrated program and to phase them in over the next 24 months. In this fashion, discontinuities in the data may be minimized and the reasons for any remaining differences understood.

TABLE OF CONTENTS

List of Tables

1. INTRODUCTION

The first wave of labour and income data from the Survey of Labour and Income Dynamics (SLID), containing 1993 income data, was released in the Spring of 1996. With the upcoming merge of SLID and the Survey of Consumer Finances (SCF) scheduled for January 1998 (1997 income), it is important to compare and understand the differences in cross-sectional income estimates from the two surveys.

This report is the first in a series that analyses estimates from the two surveys in an effort to identify important differences in the income estimates, as well as define some of the underlying causes of these differences. The following sections compare 1993 reference year income estimates from the two surveys, by examining a number of issues, including: recipiency rates; aggregate and average incomes; income distributions; taxes paid and after tax income; and low income estimates. The relationships among income sources, including identifying and understanding predominant patterns, is an important issue that will be examined in a future paper.

With an understanding of the differences in estimates produced by the two surveys, an analysis of the programs' approaches to edits, imputation and weighting is presently underway, with a view to adopting the best procedures for subsequent years.

2. INCOME RECIPIENCY

2.1 Income Recipiency By Age

In Table 1, the overall SLID recipiency rates are about four percentage points above those of SCF (96.6% versus 92.8%). The difference is consistently higher in

each age subgroup. There are a number of factors which possibly influence this result:

1) Collection route - SLID data is a mix of tax file and survey data, while SCF data is from questionnaires only. For SLID, the tax data source may result in more income recipients if tax filers in spousal situations split their income reporting on sources such as investment income if it results in a lessened tax burden. With survey data, these sources may be reported entirely by one spouse only. As well, small amounts of income such as interest could be reported on the tax file, while they may not be reported on the survey questionnaire.

2) Processing differences in SCF and SLID edit and imputation procedures.

I) In spousal situations, SCF moves refundable tax credits (ie., child tax benefit, GST credit, provincial tax credits) to the spouse with income, if credits are the only source of income for the other spouse. This does not happen in SLID. Historically, this practice originated in SCF in the late 1970s, when refundable tax credits were introduced. It was intended to prevent a disruption in the time series for average individual income: with females representing most of the tax credit recipients who had no other source of income, the effect of not transferring the credits would have been a decrease in average female income, accompanied by an increase in the number of female income recipients.

ii) SLID's income imputation procedure differs from that of SCF in the determination of who is an income recipient. In SLID, the imputation procedure imputes both recipients and non-recipients, relying in part on the information collected during the labour interview to make this determination. This includes information on paid worker jobs, self-employment, work history and receipt of UI, Social Assistance and

Worker's Compensation, among other things. In SCF, edits among the income, demographic and labour force data blocks determine who is an income recipient, followed by income imputation for income recipients only. This may result in a different proportion of income recipients in the two surveys.

3) Emphasis in SLID on labour interview - with greater prompting based on information obtained from SLID's labour interview, the number of individuals reporting earnings in SLID could be higher than in SCF. The figures in Table 5 seem to support this. Even though SCF covers ages 15 and over, while SLID covers ages 16 and over, the number of earnings recipients for SCF and SLID are identical.

Higher individual recipiency rates could impact SLID/SCF differences in other measures, such as the following:

I) Individual income distributions. If the extra recipients are concentrated in the distribution rather than following the same distribution pattern as for all individuals, the additional recipients could have an impact on income distributions. The evidence in Table 11 later in this report indicates that they follow a normal distribution pattern.

ii) Male/female differential. If the extra recipients are dominated by one sex in various income ranges, they could affect the overall average for males and for females. The evidence in Table 2 shows that, at the total income level, SLID has relatively more female than male income recipients vis-a-vis SCF.

Recipiency rates by province are still under investigation.

Table 1: Income Recipients by Age, SCF and SLID, 1993

Age	SCF (1993)			SLID (1993)			Census (1990)
	With Income	Total Individuals	Rate	With Income	Total Individuals	Rate	Rate
16 to 19 Years	1,101,991	1,541,714	71.5	1,161,202	1,538,212	75.5	63.8
20 to 24 Years	1,906,960	2,023,454	94.2	2,019,276	2,028,577	99.5	93.3
25 to 34 Years	4,634,823	4,904,309	94.5	4,890,106	4,919,138	99.4	93.4
35 to 44 Years	4,448,065	4,703,660	94.6	4,617,774	4,676,260	98.7	93.9
45 to 54 Years	3,190,603	3,436,231	92.9	3,235,881	3,396,953	95.3	92.5
55 to 64 Years	2,191,979	2,443,700	89.7	2,312,919	2,436,962	94.9	90.1
65+ Years	3,180,589	3,210,622	99.1	3,191,007	3,192,356	100.0	99.2
Total (1)	20,801,117	22,664,735	91.9	-	-	-	91.2
Total (2)	20,655,010	22,263,690	92.8	21,428,165	22,188,458	96.6	-

(1) Total for SCF and Census includes individuals 15 and over.
(2) Totals for both SCF and SLID include individuals 16 years and over.

2.2 Income Recipiency by Income Component and Sex

Recipiency by source ranges from somewhat equivalent to notably higher for SLID, compared to SCF. At the major component level:

I) SLID earnings recipiency rates are slightly higher for both males and females. The SCF universe of 15 and over versus the SLID universe of 16 and over in Table 2 may contribute to this difference, but does not account for most of it. Table 1, presenting total income recipiency rates for individuals age 16 to 19 for both SCF and SLID, still shows an overall rate of 75.5% for SLID versus 71.5% for SCF;

ii) Government transfers recipiency is identical for SLID and SCF at the total sex level, but notably higher for females and lower for males in SLID.

Much of this sex difference in transfers can be traced to child tax benefits, where the difference in SCF and SLID treatment of CTB edits account for this. By source of government transfers, CPP/QPP rates are higher for SLID, with females showing the greatest relative difference. Unemployment insurance recipiency is marginally higher in SLID, while social assistance recipiency is somewhat lower, for both males and females, compared to SCF.

iii) Investment income recipiency is significantly higher for SLID, for both sexes. SLID tax data could be a contributor, given the relatively low SCF/National Accounts reconciliation for this component in the past. As mentioned in section 2.1 above, income splitting for income tax reporting purposes may also be a contributing factor;

iv) Other sources have similar rates.

The differences in treatment of child tax benefits will net out at the family level, leaving family income unaffected. The impact of recipiency rate differences for other components, combined with the average and aggregate values and income distribution of the components may or may not have an impact on the level of family income estimated from the two surveys.

Table 2: Income Recipients by Income Component and Sex, SCF and SLID, 1993

Income Component	SCF (15 years +)			SLID (16 years +)		
	Males	Female	Total	Males	Female	Total
Wages and salaries	68.9	58.2	63.5	70.4	58.8	64.5
Farm self-employment	2.4	0.7	1.5	2.8	0.7	1.7
Non-farm self-employment	8.4	4.7	6.5	10.4	5.6	7.9
Total earnings	76.0	61.8	68.7	78.1	62.6	70.2
Investment income	28.9	26.9	27.9	34.0	33.9	34.0
Child tax benefit	5.6	22.6	14.3	1.5	29.0	15.5
OAS/GIS/SPA	12.3	16.4	14.4	12.5	16.6	14.6
CPP/QPP	14.2	13.9	14.1	16.5	18.5	17.5
U.I. benefits	14.3	10.7	12.5	15.5	12.9	14.2
Social assistance	8.3	9.1	8.7	6.1	8.5	7.3
Workers compensation	2.5	1.3	1.9	4.1	1.9	3.0
G.S.T. credit	40.3	33.4	36.8	38.0	34.1	36.0
Total government transfers	62.3	64.4	63.3	55.9	70.7	63.4
Pension income	11.3	7.4	9.3	11.8	8.8	10.3
Alimony	0.1	2.3	1.2	0.1	2.6	1.4
Total income	95.5	88.3	91.9	97.7	95.5	96.6

2.3 Imputed vs. Non-Imputed Income Recipients in SLID

In processing SLID income data, an important step was the imputation for total and partial non-response through a nearest-neighbour approach. The imputation used clean records (survey and tax) and was done through GEIS. Total income imputation occurred for 13% of all respondents and partial imputation for an

additional 5%. Donor selection was based on demographics and on information available from the labour interview.

Table 3: Imputed/Non-Imputed Income Recipients by Method of Reporting, SLID, 1993

Method of Reporting	Total	Income Received	No Income Received	Recipiency Rate
Not Imputed	18,124	17,481	643	96.5
Imputed - Partial	1,159	1,154	4	99.6
Imputed - Total	2,906	2,793	113	96.1
Total	22,188	21,428	760	96.6

Data was not imputed for 82% of all individuals age 16+ (individuals who either completed the May interview or who gave permission and linked to the Revenue Canada Taxation file).

Partially imputed data includes individuals with a final response code of “partial” or those who have at least one amount reported and an inconsistency between the January and May interviews, regardless of final response code. Individual income components were imputed for these persons (5% of all individuals).

Income data was totally imputed for 13% of all respondents. This includes respondents who either reported only a total income and no other income components or who did not respond to the May interview at all. (However, to have income imputed, a necessary precondition is that information be available from the labour interview). As can be seen in Table 3, the proportion of total imputation respondents receiving at least one source of income is very close to the proportion of income recipients who are not imputed. In other words, the imputation procedure did not in itself inflate the proportion of income recipients.

Table 4: SLID Income Recipients by Component and Imputation Status, 1993

Income Component	Total		Not imputed		% Imputed (total or partial)
	Income Recipients (Thousands)	Percent	% Tax	% Survey	
Wages and salaries	14,313	100	51	35	13
Farm self-employment	383	100	60	30	10
Non-farm self-employment	1,759	100	52	35	14
Investment income	7,535	100	58	25	17
Child tax benefit	3,446	100	57	12	31
OAS/GIS/SPA	3,237	100	47	20	33
CPP/QPP	3,888	100	48	29	24
UI benefits	3,129	100	58	28	13
Social assistance	1,615	100	47	39	14
Workers compensation	664	100	62	26	13
GST credits	7,990	100	49	8	42
Pension income	2,285	100	56	26	19
Alimony	301	100	52	34	15

Table 4 indicates the proportion of income recipients who are either totally or partially imputed for each income source. Child tax benefit, OAS/GIS and GST credit have a higher proportion of imputed records (over 30%), as amounts are assigned deterministically for survey respondents. For these sources, the program eligibility rules are specific enough to permit determination of appropriate amounts within relatively narrow ranges. Edit/assignment routines based on the program eligibility conditions accept or override reported amounts, and impute non-reported values, within these tight ranges. In addition, as SLID was unable to obtain GST data from Revenue Canada for the 1993 reference year, GST was also

assigned deterministically for tax route respondents. Of the remaining sources, CPP/QPP has the highest proportion of totally or partially imputed cases (24%).

3. AGGREGATE AND AVERAGE INCOME BY COMPONENT

3.1 Aggregate Income by Component and Income Source

Table 5: Percentage of SLID Aggregate Income by Source from Tax, Survey or Imputation, 1993

Income Component	Total		Not imputed		% Imputed (total or partial)
	Aggregate Income (Millions)	Percent	% Tax	% Survey	
Wages and salaries	368,380	100	51	36	12
Farm self-employment	2,961	100	34	49	15
Non-farm self-employment	28,183	100	41	42	16
Investment income	22,090	100	49	30	21
Child tax benefit	5,101	100	55	15	29
OAS/GIS/SPA	17,531	100	47	20	33
CPP/QPP	18,486	100	49	29	22
UI benefits	15,930	100	58	29	13
Social assistance	10,024	100	45	42	12
Workers compensation	3,678	100	63	26	12
GST credits	2,519	100	49	9	42
Pension income	25,227	100	53	27	20
Alimony	1,433	100	52	33	14

While Table 4 indicates the proportion of income recipients that have imputed data, Table 5 shows, for SLID, the proportion of aggregate income that is

imputed. As with recipients, relatively larger proportions of the aggregate income for Child Tax Benefits (29%), OAS/GIS/SPA (33%) and GST credits (42%) are imputed.

Although CTB, OAS/GIS and GST have the highest proportion of imputed records, these income components account for a relatively small proportion of SLID's total income (4.6%), as can seen in Table 6 below. The majority of SLID income (almost 71%) comes from wages and salaries, of which 12% is imputed (Table 5).

Table 6: Percentage of SLID Overall Aggregate Income from Tax, Survey or Imputation, 1993

Income Component	Total	Not imputed		% Imputed (total or partial)
		% from Tax	% from Survey	
All sources	100.0	50.5	34.3	14.9
Wages and salaries	70.6	36.3	25.1	9.2
Farm self-employment	0.5	0.2	0.3	--
Non-farm self-employment	5.4	2.2	2.3	0.9
Investment income	4.3	2.1	1.3	0.9
Child tax benefit	0.8	0.5	0.1	0.2
OAS/GIS/SPA	3.4	1.6	0.7	1.1
CPP/QPP	3.5	1.7	1.0	0.8
UI benefits	3.1	1.8	0.9	0.4
Social assistance	1.9	0.9	0.8	0.2
Workers compensation	0.6	0.4	0.2	--
GST credits	0.4	0.2	--	0.2
Pension income	4.8	2.5	1.3	1.0
Alimony	0.2	0.1	0.1	--

3.2 Comparison of SLID, SCF and External Sources

Table 7 below shows that average Total Income from SLID and SCF are relatively close, with SLID 0.9% higher than SCF. However, the number of SLID income recipients is .6 million or 3.0% higher, and SLID aggregate income is $20 billion or 4.0% higher. Since total recipients for earnings is the same in both surveys, the higher number of recipients for SLID is distributed among some, but not all, other sources: SLID investment income has 19.3% more recipients and private pension income has 22.4% more. For government income, though, SLID is slightly lower, with 1.9% fewer recipients. The overall average for SLID and SCF are close, since averages for many SLID components do not follow the same higher trend as shown by the number of recipients when compared to SCF. The National Accounts reconciliation for Total Income shows SCF at 104.7% and SLID at 108.8%.

For wages and salaries, the major component of income representing 71% of aggregate income, SLID average is 2.6% higher than SCF. This, however, is for the age universe 16+ for SLID and 15+ for SCF. Even though the SCF includes age 15, the number of wage and salary recipients for SCF and SLID are the same, while the SLID aggregate is 2.2% higher. Both SCF and SLID, though, reconcile higher than Revenue Canada estimates, at 108% and 110% respectively. Similar results hold at the total earnings level for averages, aggregates and number of recipients. Differences in aggregates and averages in self-employment income are not of major concern, since they represent less than 1% of aggregate income. In addition, these sources tend to be quite variable in reported amounts from year to year, and reconciliation figures from National Accounts are subject to substantial revisions. Total earnings reconcile with NA at 104.6% for SCF and 108.0% for SLID.

For investment income, although SLID shows 19.3% more recipients, the aggregate SLID amount is only 3.4% higher than the comparable SCF estimate and the average amount per recipient is 13.3% lower than the SCF average. This could be due to tax records including more low investment recipients (ie., small interest amounts). Even so, SLID and SCF still reconcile low with National Accounts, at 66.7% and 64.5% respectively. Both surveys appear to under-represent the upper end of the income distribution.

Overall, the subtotal for government transfers is close for recipients, aggregate and average in the two surveys. This reflects a netting out of differences within transfer components. For OAS, number of recipients is the same, and lines up with NA at 99%. SCF aggregate exceeds NA by the same amount as SLID falls short (4%). SCF and SLID OAS estimates for both number of recipients and the aggregate amounts exceed National Revenue estimates, likely reflecting low NR counts and values due to non-filing of some seniors. For CPP, SLID recipients exceeds SCF by 22%, while the average is almost the same, resulting in an aggregate that is 24% or $4 billion higher for SLID. Compared to National Revenue, the SLID estimates are higher in aggregate and number of recipients, while SCF is somewhat lower. SLID social assistance recipients are 22% lower than SCF, while the average is 14% higher. This could reflect processing differences, since SCF has a routine that assigns provincial top-up supplements for the elderly, a value which is part of the social assistance field. This would increase low amount recipients for SCF, decreasing the average. SLID child tax benefits recipients exceed SCF counts by 7%, while the average values are 14% lower, giving a SLID aggregate 8% lower than SCF. SCF aggregates are 94% of HRD values, while SLID is at 87%. Processing differences in the surveys likely account for these results. The last significant difference is pension income, where SLID shows more recipients (22%), a higher aggregate (17% or $4 billion dollars) and a lower average (-4%) compared to SCF.

Table 7: SCF/SLID/External Comparison of Aggregate and Average Income, 1993[1]

Income Component	SCF (15 +)	SLID (16 +)	SLID /SCF	External Source	SCF/ Ext.	SLID /Ext.	RCT- Green Book	SCF/ RCT	SLID/ RCT
Wages									
Wgt. Count	14,368,797	14,312,620	99.6						
Agg. Inc.	360,507,518,552	368,379,944,629	102.2	343,203,000,000	105.0	107.3	333,852,756,000	108.0	110.3
Ave. Inc.	25,090	25,738	102.6						
Farm Self									
Wgt. Count	348,322	383,408	110.1				424,430	82.1	90.3
Agg. Inc.	3,518,019,218	2,961,310,375	84.2	1,923,000,000	182.9	154.0	1,541,748,000	228.2	192.1
Ave. Inc.	10,100	7,724	76.5				3,633	278.0	212.6
Non-Farm									
Wgt. Count	1,477,018	1,759,154	119.1						
Agg. Inc.	22,995,846,094	28,182,541,296	122.6	24,842,000,000	92.6	113.4	21,382,366,000	107.5	131.8
Ave. Inc.	15,569	16,021	102.9						
Tot. Earn.(1)									
Wgt. Count	15,567,849	15,577,375	100.1						
Agg. Inc.	387,021,383,864	399,523,796,300	103.2	369,971,000,000	104.6	108.0	356,776,870,000	108.5	112.0
Ave. Inc.	24,860	25,648	103.2						
Tot. Invest.									
Wgt. Count	6,316,654	7,534,959	119.3						
Agg. Inc.	21,370,204,752	22,089,766,437	103.4	33,135,000,000	64.5	66.7	-	-	-
Ave. Inc.	3,383	2,932	86.7						
C.T.B. (2)									
Wgt. Count	3,231,557	3,445,895	106.6						
Agg. Inc.	5,535,046,349	5,100,576,449	92.2	5,899,000,000	93.8	86.5	5,694,411,221	97.2	89.6
Ave. Inc.	1,713	1,480	86.4						
OAS/GIS (2)									
Wgt. Count	3,264,862	3,237,091	99.1	3,250,279	100.4	99.6	2,919,640	111.8	110.9
Agg. Inc.	19,068,362,138	17,530,959,780	91.9	18,189,000,000	104.8	96.4	16,696,701,433	114.2	105.0
Ave. Inc.	5,840	5,416	92.7				5,719	102.1	94.7
CPP/QPP (2)									
Wgt. Count	3,182,262	3,888,151	122.2	4,116,574	77.3	94.5	3,494,440	91.1	111.3
Agg. Inc.	14,862,471,688	18,485,509,081	124.4	17,807,000,000	83.5	103.8	16,653,028,000	89.2	111.0
Ave. Inc.	4,670	4,754	101.8				5,205	98.0	99.8
U.I.									
Wgt. Count	2,830,956	3,148,793	111.2				3,237,220	87.5	97.3
Agg. Inc.	15,430,199,158	15,930,460,885	103.2	17,531,000,000	88.0	90.9	16,848,405,000	91.6	94.6
Ave. Inc.	5,451	5,059	92.8				5,205	104.7	97.2
S.A.									
Wgt. Count	1,971,852	1,615,327	81.9				1,870,540	105.4	86.4
Agg. Inc.	10,672,826,051	10,024,295,904	93.9	-	-	-	11,452,991,841	93.2	87.5
Ave. Inc.	5,413	6,206	114.6				6,123	88.4	101.4

[1]See footnotes, Table 8, for conceptual differences in SCF and SLID income components

Income Component	SCF (15 +)	SLID (16 +)	SLID /SCF	External Source	SCF/ Ext.	SLID /Ext.	RCT- Green Book	SCF/ RCT	SLID/ RCT
W.C.(2)									
Wgt. Count	432,548	664,359	153.6				724,681	59.7	91.7
Agg. Inc.	3,090,036,727	3,677,989,566	119.0	3,844,000,000	80.4	95.7	3,736,192,555	82.7	98.4
Ave. Inc.	7,144	5,536	77.5				5,156	138.6	107.4
G.S.T. (2)									
Wgt. Count	8,335,573	7,990,113	95.9				8,270,799	100.8	96.6
Agg. Inc.	2,336,783,057	2,519,315,462	107.8	2,508,000,000	93.2	100.5	2,723,786,969	85.8	92.5
Ave. Inc.	280	315	112.6				329	85.0	95.7
Total G.T.									
Wgt. Count	14,342,098	14,074,807	98.1						
Agg. Inc.	73,233,896,132	73,269,098,594	100.0	84,872,000,000	86.3	86.3	-	-	-
Ave. Inc.	5,106	5,206	102.0						
Pension (2)									
Wgt. Count	1,866,662	2,285,262	122.4						
Agg. Inc.	21,535,047,955	25,226,568,511	117.1	-	-	-	24,013,973,000	89.7	105.0
Ave. Inc.	11,537	11,039	95.7						
Alimony									
Wgt. Count	281,097	301,289	107.2				320,012	87.8	94.1
Agg. Inc.	1,357,541,076	1,433,430,730	105.6	-	-	-	1,599,941,425	84.8	89.6
Ave. Inc.	4,829	4,758	98.5				5,000	96.6	95.2
Tot. Income (2)									
Wgt. Count	20,801,177	21,428,166	103.0				19,034,510	109.3	112.6
Agg. Inc.	510,766,647,248	530,962,905,143	104.0	487,978,000,000	104.7	108.8	500,013,347,000	102.2	106.2
Aver. Inc.	24,555	24,779	100.9				26,269	93.5	94.3
Med. Inc.	19,364	19,304							
S.E. of Aver.	160	213							

(1) Aggregate income difference between SCF and SLID is statistically significant at the 0.95 level

(2) Aggregate income difference between SCF and SLID is statistically significant at the 0.99 level

A cursory examination of SCF and SLID processing procedures suggests that most of the $20 billion difference in aggregate income results from procedural differences in the two surveys:

- Editing procedures

  Some values, such as high income amounts, that have a high probability of being in error (based on inconsistencies observed with related variables) are edited out during SCF processing. These cases were not modified in the same manner on the SLID file. Based on the SCF processing experience,

this could account for approximately $7 billion of the observed difference between the surveys.

- Imputation procedures

SCF includes low income records but excludes high income records from the universe of donors during income imputation. SLID includes both low and high income records in the donor universe. Analysis indicates that approximately $3 billion of the observed SCF/SLID aggregate income difference is possibly due to the differing imputation procedures used by SCF and SLID.

Item assignment procedures used by SCF for individual income sources do not usually permit refundable tax credits to be the sole source of income: in these situations, values are moved to spouses with income, if present. SLID does not have this restriction. There are 389,000 SLID individuals with Child Tax Benefits and 220,000 persons with Goods and Services Tax Credit as the sole income sources. These individuals could account for much of the 600,000 difference in income recipients between SLID and SCF.

The discrepancy in low income rates produced by SCF and SLID may be partly the result of differing income assignment procedures: previous evaluations of SCF data have shown that low income rates are sensitive to relatively small changes in income, given the clustering of certain population groups, such as the elderly, around the low income cut-offs. This highlights the potential sensitivity of low income rates overall to differing assignment procedures for various income sources. Analysis of the SLID and SCF data indicates that SLID estimates of CPP/QPP are $3.6

billion higher than SCF estimates. Reconciliation with Revenue Canada data indicates that SLID procedures may be over-assigning CPP/QPP, while SCF may be under-assigning. Much of CPP/QPP is received by the elderly and since low income rates for the elderly are particularly sensitive to small income changes, it is likely this difference in CPP/QPP has a significant impact on the observed discrepancy in SCF/SLID low income rates.

- Weighting, attrition and cohabitants

  As opposed to SCF, SLID does not use an integrated weight. However, this does not seem to have an impact on the estimates. On the other hand, SLID attrition and cohabitants that join the sample after its selection affect the weights and the estimates. The results of producing SLID weights by a series of alternate methods (that make use of different non-response adjustments and weight share techniques for handling cohabitants) suggests that differences in weighting schemes could account for up to $5 billion of the aggregate income difference.

- Variable derivation procedures

  Part of the discrepancy in low income rates between SCF and SLID appears due to definitional differences imbedded in the variable “size of area of residence”, used to determine the appropriate LICO. The “size of area of residence” variable is determined in SCF by using LFS sample unit identifiers to determine population, while for SLID, postal codes are used. The classification of urban size in the SCF/LFS sample and the SLID sample varies in another respect. For SCF, all areas within CMAs carry an urban size code according to total CMA population. For SLID, non-core

CMA sample could be assigned differing urban size codes (eg., small urban, rural), following procedures used by the Census in the production of low income data. The result leads to discrepancies in SLID and SCF classification of families by “size of area” LICO categories.

Calculations using a procedure standardizing for the coding differences show that variations in SLID and SCF classification by LICO categories may account for one-quarter of the observed difference in low income rates.

- Data sources

One program is entirely survey, while the other is a combination of survey and tax data. The SCF data is collected entirely by questionnaire using four/sixths of the full LFS sample. The SLID data is collected partially by questionnaire as per SCF, and partially by linkage with Revenue Canada taxation data. It is conceivable that this procedural difference could be a significant contributor; however, it cannot be quantified.

- Income concepts

Taxable Allowances and Benefits are conceptually excluded from Wages and Salaries for data obtained by questionnaire, while they are included for data obtained from tax records. By definition, all SCF Wage data and the 50% of SLID data from questionnaires should exclude Taxable Allowances. With Taxable Allowances representing about $3.3 billion in total, the SLID Wage component could be a maximum $1.7 billion higher than SCF. However, the actual value is likely less, since some questionnaire respondents may report values directly from their T-1s, where Wages

include the value of Taxable Allowances. This conceptual variation therefore may represent about $1 billion of the difference.

Overall, the impact of these differences could affect average incomes and low income rates in some age cohorts more than others. With the higher SLID estimates for the number of recipients of CPP/QPP and pension income, income for the elderly and elderly families could be elevated in SLID, also leading to lower rates of low income, particularly given the "clustering" of elderly persons with incomes close to the low income cut-offs.

For family income, the impact on family averages and low income rates would depend on the degree to which the individual income differences reflect just a redistribution of income among family members (without changing family income overall), versus additional income within the family, resulting in lower rates of low income. If, for example, additional income is concentrated among individuals within families that are already above the low income cut-off, there would be not impact on low income rates. Given the comparability of the SLID and SCF individual income distributions, plus the additional .6 million recipients and $20 billion dollars in individual aggregate income, one could expect some impact on family income levels and low income rates.

A complete analysis of the impact on families has not yet been done, since there is not a SLID "family weight" comparable to the SCF family weight. However, an approximate SLID "family weight" was created, using an integrated weighting procedure similar to the one used by SCF. Based on this SLID family weight, SLID average family income was $55,088, or $2,023 (3.9%) higher than the SCF average of $53,065.

3.3 Comparison of Aggregate and Average Income Using Only Tax or Survey Data

While SLID uses a mix of survey and tax data, SCF uses survey data only. In order to make a direct comparison between SLID and SCF aggregate and average incomes, SLID data was reweighted and run by survey respondents only, as well as tax respondents only (Table 8, below).

Although this sheds some additional light on what is going on "behind the scenes", it should be noted that there is no a priori reason to expect that the separately-weighted survey and tax data should be equivalent. Indeed, since the non-filers (who tend to have little income) are all, by definition, in the survey data, one might expect reweighted aggregate income for survey respondents to be lower than the comparable aggregate for tax respondents.

Table 8: Comparison of SLID and SCF Aggregate and Average Incomes with Reweighting (1) of SLID Tax and Survey Respondents, 1993

Income Component	SCF (15 +)	SLID - survey and tax data (16 +)	SLID/ SCF	SLID - survey data only, incl. imputation (2)	SLID/ SCF	SLID - tax data only	SLID/ SCF
Wages(3)							
Wgt. Count	14,368,797	14,312,620	99.6	13,677,000	95.2	15,238,000	106.0
Agg. Inc.	360,507,518,552	368,379,944,629	102.2	360,465,493,000	100.0	379,897,069,000	105.4
Ave. Inc.	25,090	25,738	102.6	26,356	105.0	24,931	99.4
Farm Self							
Wgt. Count	348,322	383,408	110.1	314,000	90.1	456,000	130.9
Agg. Inc.	3,518,019,218	2,961,310,375	84.2	4,000,229,000	113.7	2,000,725,000	56.9
Ave. Inc.	10,100	7,724	76.5	12,729	126.0	4,383	43.4
Non-Farm							
Wgt. Count	1,477,018	1,759,154	119.1	1,658,000	112.2	1,833,000	124.1
Agg. Inc.	22,995,846,094	28,182,541,296	122.6	33,196,737,000	144.4	23,235,091,000	101.1
Ave. Inc.	15,569	16,021	102.9	20,017	128.6	12,678	81.4

Income Component	SCF (15 +)	SLID - survey and tax data (16 +)	SLID/ SCF	SLID - survey data only, incl. imputation (2)	SLID/ SCF	SLID - tax data only	SLID/ SCF
Tot. Earns.							
Wgt. Count	15,567,849	15,577,375	100.1	14,982,000	96.2	16,438,000	105.6
Agg. Inc.	387,021,383,864	399,523,796,300	103.2	397,662,458,000	102.7	405,132,885,000	104.7
Ave. Inc.	24,860	25,648	103.2	26,544	106.8	24,646	99.1
Tot. Invest.							
Wgt. Count	6,316,654	7,534,959	119.3	6,098,000	96.5	9,164,000	145.0
Agg. Inc.	21,370,204,752	22,089,766,437	103.4	22,170,348,000	103.4	22,851,184,000	106.9
Ave. Inc.	3,383	2,932	86.7	3,636	107.5	2,494	73.7
C.T.B.							
Wgt. Count	3,231,557	3,445,895	106.6	3,022,000	93.5	3,854,000	119.3
Agg. Inc.	5,535,046,349	5,100,576,449	92.2	4,777,387,000	86.3	5,437,894,000	98.2
Ave. Inc.	1,713	1,480	86.4	1,581	92.3	1,411	82.4
OAS/GIS							
Wgt. Count	3,264,862	3,237,091	99.1	3,243,000	99.3	3,227,000	98.8
Agg. Inc.	19,068,362,138	17,530,959,780	91.9	17,566,155,000	92.1	17,542,833,000	92.0
Ave. Inc.	5,840	5,416	92.7	5,416	92.7	5,435	93.1
CPP/QPP							
Wgt. Count	3,182,262	3,888,151	122.2	3,871,000	121.6	3,951,000	124.2
Agg. Inc.	14,862,471,688	18,485,509,081	124.4	18,293,704,000	123.1	18,976,348,000	127.7
Ave. Inc.	4,670	4,754	101.8	4,726	101.2	4,803	102.8
U.I.							
Wgt. Count	2,830,956	3,148,793	111.2	2,687,000	94.9	3,623,000	128.0
Agg. Inc.	15,430,199,158	15,930,460,885	103.2	13,960,384,000	90.5	17,822,883,000	115.5
Ave. Inc.	5,451	5,059	92.8	5,195	95.3	4,920	90.3
S.A.							
Wgt. Count	1,971,852	1,615,327	81.9	1,702,000	86.3	1,553,000	78.8
Agg. Inc.	10,672,826,051	10,024,295,904	93.9	10,916,715,000	102.3	9,218,902,000	86.4
Ave. Inc.	5,413	6,206	114.6	6,415	118.5	5,935	109.6
W.C.							
Wgt. Count	432,548	664,359	153.6	508,000	117.4	834,000	192.8
Agg. Inc.	3,090,036,727	3,677,989,566	119.0	2,716,499,000	87.9	4,676,990,000	151.4
Ave. Inc.	7,144	5,536	77.5	5,352	74.9	5,608	78.5
G.S.T.							
Wgt. Count	8,335,573	7,990,113	95.9	7,924,000	95.1	8,281,000	99.3
Agg. Inc.	2,336,783,057	2,519,315,462	107.8	2,513,202,000	107.5	2,571,354,000	110.0
Ave. Inc.	280	315	112.6	317	113.2	311	111.1

Income Component	SCF (15 +)	SLID - survey and tax data (16 +)	SLID/ SCF	SLID - survey data only, incl. imputation (2)	SLID/ SCF	SLID - tax data only	SLID/ SCF
Total G.T.(4)							
Wgt. Count	14,342,098	14,074,807	98.1	13,560,000	94.5	14,796,000	103.2
Agg. Inc.	73,233,896,132	73,269,098,594	100.0	70,744,029,000	96.6	76,247,204,000	104.1
Ave. Inc.	5,106	5,206	102.0	5,217	102.2	5,153	100.9
Pension							
Wgt. Count	1,866,662	2,285,262	122.4	1,966,000	105.3	2,662,000	142.6
Agg. Inc.	21,535,047,955	25,226,568,511	117.1	23,619,651,000	109.7	27,368,757,000	127.1
Ave. Inc.	11,537	11,039	95.7	12,016	104.2	10,283	89.1
Alimony							
Wgt. Count	281,097	301,289	107.2	288,000	102.5	313,000	111.3
Agg. Inc.	1,357,541,076	1,433,430,730	105.6	1,382,199,000	101.8	1,487,303,000	109.6
Ave. Inc.	4,829	4,758	98.5	4,807	99.5	4,751	98.4
Tot. Income (5)							
Wgt. Count	20,801,177	21,428,166	103.0	21,076,000	101.3	22,081,000	106.2
Agg. Inc.	510,766,647,248	530,962,905,143	104.0	521,677,748,000	102.1	545,974,730,000	106.9
Ave. Inc.	24,555	24,779	100.9	24,752	100.8	24,725	100.7

(1) Reweighting was done on internal file. Upper income values have not been suppressed on this file.

(2) SCF excludes value of Taxable Allowances and Benefits ($3.3 billion). SLID questionnaire excludes Taxable Allowances, while SLID tax records include Taxable Allowances. With about 50% of SLID records from tax records, SLID Wages exceed SCF Wages by a total of $1.7 billion due to treatment of Taxable Allowances; actual difference may be less, assuming some respondents to questionnaire report value directly from their T-1s.

(3) SLID survey data excluding imputation was also run, but the difference between survey excluding imputation and including imputation was not significant.

(4) For SCF, Total Government Transfers includes amounts from sources not specified above, consisting of Provincial Tax Credits ($.5 billion), Veterans Pensions ($.6 billion) and Taxable/Non-taxable Other Income from Government Sources ($1.1 billion: $.6 billion taxable, $.5 billion non-taxable).
For SLID, Total Government Transfers does not include any sources not specified in the table above. Provincial Tax Credits and Veterans Pensions are excluded, while Taxable Other Government Income from the questionnaire is included Total Income. Non-taxable Government Income from the questionnaire is excluded.

(5) Includes some components not specified by source above. For SCF, includes Money from Outside the Household ($.5 billion) and Other Money Income ($5.8 billion: $4.5 billion taxable, $1.3 billion non-taxable).

For SLID, includes Taxable Other Government Income and Taxable Other Money Income from the questionnaire, and Employment Income and Other Income from tax records (total of $9.4 billion).

Using reweighted SLID survey data only, the number of income recipients (total income estimated numbers) dropped much closer to the SCF estimates, while the gap between the SCF and SLID aggregate total income dropped to $11 billion from $20 billion. Average income was virtually unchanged, since both estimated numbers and aggregates saw similar declines.

For non-government income sources, a similar pattern is seen for the number of recipients. Reweighted SLID survey data shows relatively fewer recipients for all sources in comparison with the total SLID file. The impact on aggregates varies. The wages aggregate is $8 billion lower, resulting in an aggregate identical to that of SCF. Farm and Non-farm income are higher, with both estimates higher than SCF estimates, while Investment income is unchanged. Pensions and Alimony are lower, moving closer to the SCF estimates. As a result, reweighted SLID averages are higher for all non-government sources.

For government transfers, reweighting of SLID survey data had a mixed impact. Total Government Transfers recipients and aggregate were both lower by the same relative amount (about 4%, representing .5 million recipients and $2.5 billion), leaving the average unchanged. Compared to SCF, the aggregate went from 100% reconciliation on the total SLID file to 97% on the reweighted survey data file. OAS, CPP/QPP and G.S.T., representing over half of the transfers total, were essentially unchanged. For UI, Workers Compensation and Child Tax Benefits, estimated numbers dropped more than the aggregates, resulting in higher averages. The UI aggregate showed the largest decrease ($2 billion), resulting in an SCF reconciliation of 91% versus 103% for the total SLID file. For Social Assistance, reweighted aggregates rose more than estimated numbers, increasing the average.

Using reweighted SLID tax data, the number of income recipients increased to 22.0 million persons, compared to 21.4 million on the total SLID file. The aggregate rose by a similar proportion, increasing the gap between SLID and SCF to $35 billion from $20 billion, leaving the average based on reweighted SLID tax data unchanged.

For non-government sources, reweighted SLID tax data show increased numbers of recipients, with earnings increasing by almost 1 million. Investment recipients saw the greatest increase, with the number up 1.6 million for the reweighted SLID tax data compared to the full SLID file, resulting in 45% more recipients than SCF. Similarly, non-government aggregates increased on the SLID reweighted tax file, with the notable exception of farm self employment income. The investment income aggregate did not rise by the same degree as investment estimated numbers, reflecting more investment recipients with lower average investments on the Revenue Canada file.

For government sources, most estimated numbers increased, while OAS was unchanged and Social Assistance was down. Child Tax Benefit recipients changed the most, up .4 million, while the relative increase was greatest for Workers Compensation recipients, up 25%. Most government aggregates were up, with Unemployment Insurance showing the largest change at $2 billion higher on the reweighted SLID tax data file. Aggregate OAS was unchanged, while Social Assistance aggregates were lower. Overall, total government aggregates increased a bit more than estimated numbers, giving a slightly lower average on the reweighted file.

This comparison provides some insights into differences between data obtained from survey respondents versus tax respondents but, as noted above, the two populations are different in that non-filers are necessarily survey respondents.

There may be other important differences between the two populations that are correlated with income. Further work would be needed to determine if this is the case.

3.4 Comparison of SLID External and Internal Files

Table 9 outlines the differences in aggregate amounts for each income component found on SLID's internal and external files. On SLID's external file, figures have been rounded and the records for the top three amounts in each component have been suppressed.

Table 9: Comparison of SLID External and Internal Files, 1993

Component	SLID - Internal	SLID - External	Actual Difference	Relative Diff. (%)
Wages	368,379,944,629	365,820,163,897	-2,559,780,732	-.7
Farm Self	2,961,310,375	2,774,158,758	-187,151,617	-6.3
Non-Farm	28,182,541,296	26,254,305,125	-1,928,236,171	-6.8
Tot. Earns.	399,523,796,300	394,848,627,780	-4,675,168,520	-1.2
Tot. Invest.	22,089,766,437	20,108,289,324	-1,981,477,113	-9.0
C.T.B.	5,100,576,449	5,101,057,952	481,503	0
OAS/GIS	17,530,959,780	17,480,673,551	-50,286,229	-.3
CPP/QPP	18,485,509,081	18,278,258,854	-207,250,227	-1.1
U.I.	15,930,460,885	15,855,864,348	-74,596,537	-.5

Component	SLID - Internal	SLID - External	Actual Difference	Relative Diff. (%)
S.A.	10,024,295,904	9,836,984,582	-187,311,322	-1.9
W.C.	3,677,989,566	3,568,283,707	-109,705,859	-3.0
G.S.T.	2,519,315,462	2,517,936,092	-1,379,370	-.1
Total G.T.	73,269,098,594	72,639,059,086	-630,039,508	-.9
Pension	25,226,568,511	24,260,850,946	-965,717,565	-3.8
Alimony	1,433,430,730	1,385,497,008	-47,933,723	-3.3
Total Income	530,962,905,143	521,934,634,131	-9,028,271,012	-1.7

With the top three values on the external file suppressed, the aggregate amount of income for each of the components on the external file (with the exception of Child Tax Benefits) is lower than on the internal file. The slight increase in Child Tax Benefits on the external file is most likely due to rounding. When comparing the two files, one can see that editing of upper values accounts for approximately $2.7 billion difference in wages and salaries, a component representing 70% of SLID income. Overall, there is a $9 billion difference in total income. What is of interest here is that this finding is consistent with SCF high income editing, where $7 billion was identified as erroneous high income reporting and eliminated from the SCF file. SLID does not perform this edit. However, a cursory examination suggests that SLID has “high income” that, under SCF procedures, would have been eliminated.

The amounts on the external SLID file include “don’t knows” and, as a result, SLID Total Income has been underestimated somewhat.

4. AVERAGE INCOME: DEMOGRAPHICS

4.1 By Sex and Component

Table 10: Aggregate and Average Income by Component and Sex, SCF and SLID, 1993

Income Component	SCF (15+)			SLID (16+)		
	Males	Female	Total	Males	Female	Total
Wages and Salaries						
Weighted Count	7,664,850	6,703,947	14,368,797	7,666,224	6,646,396	14,312,620
Aggregate Income	230,470,056,151	130,037,462,401	360,507,518,552	236,455,996,095	131,923,948,534	368,379,944,629
Average Income	30,068	19,397	25,090	30,844	19,849	25,738
Farm Self						
Weighted Count	264,280	84,042	348,322	305,133	78,274	383,408
Aggregate Income	2,939,376,894	578,642,324	3,518,019,218	2,472,643,888	488,666,488	2,961,310,375
Average Income	11,122	6,885	10,100	8,103	6,243	7,724
Non-Farm Self						
Weighted Count	933,399	543,619	1,477,018	1,130,570	628,584	1,759,154
Aggregate Income	17,572,678,597	5,423,167,497	22,995,846,094	20,622,086,160	7,560,455,136	28,182,541,296
Average Income	18,827	9,976	15,569	18,240	12,028	16,021
Total Earnings						
Weighted Count	8,449,917	7,117,932	15,567,849	8,505,760	7,071,615	15,577,375
Aggregate Income	250,982,111,642	136,039,272,222	387,021,383,864	259,550,726,143	139,973,070,158	399,523,796,300
Average Income	29,702	19,112	24,860	30,515	19,794	25,648
Investment Income						
Weighted Count	3,211,957	3,104,697	6,316,654	3,698,466	3,836,494	7,534,959
Aggregate Income	11,762,207,478	9,607,997,274	21,370,204,752	12,339,108,354	9,750,658,083	22,089,766,437
Average Income	3,662	3,095	3,383	3,336	2,542	2,932
Child Tax Benefit						
Weighted Count	623,001	2,608,556	3,231,557	165,111	3,280,784	3,445,895
Aggregate Income	1,214,787,426	4,320,258,923	5,535,046,349	218,278,202	4,882,298,247	5,100,576,449
Average Income	1,950	1,656	1,713	1,322	1,488	1,480
OAS/GIS/SPA						
Weighted Count	1,371,160	1,893,702	3,264,862	1,359,732	1,877,359	3,237,091
Aggregate Income	7,602,237,271	11,466,124,867	19,068,362,138	6,998,589,287	10,532,370,493	17,530,959,780
Average Income	5,544	6,055	5,840	5,147	5,610	5,416

Income Component	SCF (15+)			SLID (16+)		
	Males	**Female**	**Total**	**Males**	**Female**	**Total**
CPP/QPP						
Weighted Count	1,579,490	1,602,772	3,182,262	1,793,114	2,095,037	3,888,151
Aggregate Income	8,569,266,271	6,293,205,417	14,862,471,688	10,257,815,253	8,227,693,828	18,485,509,081
Average Income	5,425	3,926	4,670	5,721	3,927	4,754
U.I. Benefits						
Weighted Count	1,594,657	1,236,299	2,830,956	1,691,127	1,457,665	3,148,793
Aggregate Income	9,700,150,354	5,730,048,804	15,430,199,158	9,587,082,373	6,343,378,512	15,930,460,885
Average Income	6,083	4,635	5,451	5,669	4,352	5,059
Social Assistance						
Weighted Count	921,712	1,050,140	1,971,852	659,982	955,345	1,615,327
Aggregate Income	4,858,862,813	5,813,963,238	10,672,826,051	3,536,279,493	6,488,016,411	10,024,295,904
Average Income	5,272	5,536	5,413	5,358	6,791	6,206
Workers Comp.						
Weighted Count	280,542	152,006	432,548	451,451	212,908	664,359
Aggregate Income	2,054,947,756	1,035,088,971	3,090,036,727	2,754,557,470	923,432,097	3,677,989,566
Average Income	7,325	6,810	7,144	6,102	4,337	5,536
G.S.T. Credit						
Weighted Count	4,480,113	3,855,460	8,335,573	4,135,945	3,854,168	7,990,113
Aggregate Income	1,265,751,142	1,071,031,915	2,336,783,057	1,304,966,575	1,214,348,887	2,519,315,462
Average Income	283	278	280	316	315	315
Total G.T.						
Weighted Count	6,921,239	7,420,859	14,342,098	6,084,789	7,990,017	14,074,807
Aggregate Income	36,572,021,042	36,661,875,090	73,233,896,132	34,657,560,943	38,611,537,651	73,269,098,594
Average Income	5,284	4,940	5,106	5,696	4,832	5,206
Pension Income						
Weighted Count	1,093,042	773,620	1,866,662	1,288,799	996,463	2,285,262
Aggregate Income	15,441,712,702	6,093,335,253	21,535,047,955	18,212,057,159	7,014,511,353	25,226,568,511
Average Income	14,127	7,896	11,537	14,131	7,039	11,039
Alimony						
Weighted Count	16,534	264,563	281,097	9,551	291,738	301,289
Aggregate Income	47,325,728	1,310,215,348	1,357,541,076	40,856,616	1,392,574,115	1,433,430,730
Average Income	2,862	4,952	4,829	4,278	4,773	4,758
Total Income						
Weighted Count	10,618,961	10,182,216	20,801,177	10,637,417	10,790,748	21,428,166
Aggregate Income	318,973,105,842	191,793,541,406	510,766,647,248	331,146,858,523	199,816,046,619	530,962,905,143
Average Income	30,038	18,836	24,555	31,130	18,517	24,779

The number of male and female recipients for total earnings are quite similar in SLID and SCF. The aggregate amounts, however, are higher for both males

(3.4%) and females (2.9%) in SLID as compared to SCF, and consequently, the average earnings are higher for both males and females in SLID.

For total government transfer payments, while SLID and SCF are quite close in terms of number of recipients. However, there is variation for aggregates, averages and distributions by sex. The aggregate amount of government transfers for males is higher in SCF than SLID (almost $2 billion), while the aggregate amount for females in SCF is lower than in SLID ($2 billion). The difference in aggregate income for males can be attributed, partially, to the difference in assignment of Child Tax Benefit in SCF and SLID. During imputation in SCF, if Child Tax Benefit is the only income the recipient has, this amount is moved to the head of the family. This is not done in SLID. As a result, the aggregate amount of Child Tax Benefits for males is approximately $1 billion more in SCF than in SLID. For CPP/QPP, while the average amounts are very close for males, and identical for females, the number of recipients and aggregate amounts are higher for both sexes in SLID. For OAS/GIS, while the number of male and female recipients in the two surveys is almost the same, the average amounts for both sexes are lower in SLID than SCF. This results in lower aggregate amounts of OAS/GIS for males and females in SLID.

Finally, for Social Assistance for males, the average amounts in SCF and SLID are quite close. The number of males receiving Social Assistance, however, is much higher (40%) in SCF than SLID, resulting in a higher aggregate income for SCF. For females, the story is slightly different. While the number of female Social Assistance recipients is higher in SCF (10%), the average income is higher on the SLID side, resulting in a higher average income in SLID than in SCF.

For private pensions, the aggregate income and the number of recipients for SCF and SLID differ by sex. For males, SLID estimates of aggregate pensions and the

number of recipients are both 18% higher than SCF estimates, resulting in almost identical averages. For females, SLID estimates of recipients is almost 30% higher than SCF estimates, while the SLID aggregate is 15% higher than the SCF aggregate, resulting in a SLID average 11% lower than the SCF estimate.

Overall, while the number of male income recipients is the same in SCF and SLID, the aggregate male Total Income is approximately $12 billion higher in SLID. Consequently, the average male Total Income in SLID is also higher. For females, while the average female Total Income is only slightly higher in SCF than SLID, the number of female income recipients is some .6 million higher in SLID. As a result, the aggregate female Total Income is $8 billion higher in SLID.

4.2 By Age and Component

Table 11 presents compares SCF and SLID estimated numbers, aggregate income, income distributions and averages by age and component.

Table 11: Aggregate and Average Income by Component and Age, SCF and SLID, 1993

Income Component	SCF				SLID			
	Weighted Count ('000)	Aggregate Income ('000 000)	Aggregate Income Distribution	Average Income ($)	Weighted Count ('000)	Aggregate Income ('000 000)	Aggregate Income Distribution	Average Income ($)
Wages and Salaries								
<20 years	1,120	5,176	1.4	4,620	995	4,324	1.2	4,346
20 to 24 years	1,701	21,119	5.9	12,417	1,708	20,686	5.6	12,110
25 to 34 years	3,920	97,972	27.2	24,991	3,998	99,976	27.1	25,008
35 to 44 years	3,720	112,665	31.3	30,288	3,726	119,676	32.5	32,117
45 to 54 years	2,558	85,819	23.8	33,546	2,503	87,563	23.8	34,977
55 to 64 years	1,165	34,255	9.5	29,397	1,214	32,784	8.9	26,997
65 and over	184	3,503	1.0	19,022	168	3,370	0.9	20,102

Income Component	SCF				SLID			
	Weighted Count ('000)	Aggregate Income ('000 000)	Aggregate Income Distribution	Average Income ($)	Weighted Count ('000)	Aggregate Income ('000 000)	Aggregate Income Distribution	Average Income ($)
Farm Self-Emp.								
<20 years	8	123	3.5	15,889	3	7	0.2	2,728
20 to 24 years	9	163	4.6	17,430	13	84	2.8	6,470
25 to 34 years	52	551	15.7	10,606	67	509	17.2	7,606
35 to 44 years	89	937	26.6	10,555	89	730	24.6	8,161
45 to 54 years	72	652	18.5	9,015	76	858	29.0	11,261
55 to 64 years	67	772	21.9	11,552	70	596	20.1	8,472
65 and over	51	320	9.1	6,233	65	178	6.0	2,730
Non-Farm Self								
<20 years	65	129	0.6	1,982	61	76	0.3	1,244
20 to 24 years	59	395	1.7	6,729	74	482	1.7	6,525
25 to 34 years	344	4,489	19.5	13,044	444	5,092	18.1	11,466
35 to 44 years	428	8,182	35.6	19,108	544	10,757	38.2	19,790
45 to 54 years	320	5,761	25.1	17,983	372	7,106	25.2	19,086
55 to 64 years	180	5,968	12.9	16,530	187	3,477	12.3	18,618
65 and over	81	1,072	4.7	13,261	77	1,193	4.2	15,412
Total Earnings								
<20 years	1,178	5,429	1.4	4,610	1,041	4,408	1.1	4,233
20 to 24 years	1,733	21,677	5.6	12,510	1,753	21,252	5.3	12,122
25 to 34 years	4,158	103,012	26.6	24,774	4,243	105,576	26.4	24,881
35 to 44 years	4,041	121,784	31.5	30,137	4,075	131,163	32.8	32,184
45 to 54 years	2,812	92,231	23.8	32,799	2,780	95,528	23.9	34,360
55 to 64 years	1,344	37,994	9.8	28,272	1,391	36,858	9.2	26,507
65 and over	302	4,895	1.3	16,186	294	4,740	1.2	16,143
Investment Income								
<20 years	192	166	0.8	864	155	169	0.9	1,089
20 to 24 years	298	443	2.1	1,483	336	275	1.4	817
25 to 34 years	941	1,333	6.2	1,417	1,130	592	3.0	524
35 to 44 years	1,166	2,619	12.3	2,246	1,409	258	1.3	1,833
45 to 54 years	1,068	3,140	14.7	2,939	1,355	3,352	17.0	2,474
55 to 64 years	936	4,121	19.3	4,404	1,197	5,864	29.7	4,900
65 and over	1,715	9,548	44.7	5,568	1,953	9,256	46.8	4,739
Child Tax Benefit								
<20 years	19	26	0.5	1,355	30	27	0.5	913
20 to 24 years	169	282	5.1	1,668	202	276	5.4	1,367
25 to 34 years	1,247	2,327	42.0	1,866	1,443	2,360	46.3	1,635
35 to 44 years	1,364	2,321	41.9	1,702	1,362	2,054	40.3	1,508
45 to 54 years	368	499	9.0	1,353	367	347	6.8	946
55 to 64 years	56	74	1.3	1,307	37	30	0.6	818
65 and over	8	8	0.1	986	4	6	0.1	1,260
OAS/GIS/SPA								
<20 years	-	-	-	-	-	-	-	-
20 to 24 years	-	-	-	-	-	-	-	-
25 to 34 years	-	-	-	-	-	-	-	-
35 to 44 years	-	-	-	-	-	-	-	-
45 to 54 years	-	-	-	-	-	-	-	-
55 to 64 years	133	502	2.6	3,775	127	365	2.1	2,881
65 and over	3,132	18,567	97.4	5,928	3,107	17,164	97.9	5,524

Income Component	SCF				SLID			
	Weighted Count ('000)	Aggregate Income ('000 000)	Aggregate Income Distribution	Average Income ($)	Weighted Count ('000)	Aggregate Income ('000 000)	Aggregate Income Distribution	Average Income ($)
CPP/QPP								
<20 years	18	31	0.2	1,730	37	59	0.3	1,588
20 to 24 years	52	95	0.6	1,823	51	64	0.3	1,252
25 to 34 years	50	197	1.3	3,970	33	100	0.5	2,991
35 to 44 years	88	471	3.2	5,375	57	287	1.6	5,017
45 to 54 years	133	693	4.7	5,222	133	794	4.3	5,974
55 to 64 years	533	2,711	18.2	5,089	750	3,909	21.1	5,211
65 and over	2,310	10,665	71.8	4,618	2,826	13,272	71.8	4,697
U.I. Benefits								
<20 years	64	226	1.7	4,141	31	81	0.5	2,580
20 to 24 years	326	1,365	8.8	4,191	409	1,731	10.9	4,230
25 to 34 years	974	5,429	35.2	5,572	1,198	6,052	38.0	5,053
35 to 44 years	745	4,136	26.8	5,551	719	3,744	23.5	5,207
45 to 54 years	448	2,583	16.7	5,763	452	2,422	15.2	5,358
55 to 64 years	247	1,501	9.7	6,072	305	1,678	10.5	5,507
65 and over	27	151	1.0	5,707	35	222	1.4	6,392
Social Assistance								
<20 years	59	290	2.7	4,960	57	317	3.2	5,524
20 to 24 years	196	1,246	11.7	6,365	215	1,130	11.3	5,253
25 to 34 years	459	3,406	31.9	7,418	481	3,385	33.8	7,031
35 to 44 years	301	2,346	22.0	7,794	306	2,329	23.2	7,598
45 to 54 years	207	1,401	13.1	6,770	217	1,399	14.0	6,445
55 to 64 years	209	1,362	12.8	6,503	168	1,094	10.9	6,524
65 and over	541	622	5.8	1,149	170	370	3.7	2,175
Workers Comp.								
<20 years	9	25	0.8	2,931	9	10	0.3	1,095
20 to 24 years	31	102	3.3	3,253	35	62	1.7	1,752
25 to 34 years	100	463	15.0	4,619	179	597	16.2	3,325
35 to 44 years	116	1,075	34.8	9,302	134	848	23.1	6,331
45 to 54 years	81	646	20.9	8,009	146	925	25.1	6,323
55 to 64 years	79	732	23.7	9,216	109	886	24.1	8,123
65 and over	17	47	1.5	2,816	51	350	9.5	6,870
G.S.T. Credit								
<20 years	305	71	3.0	231	377	87	3.5	31
20 to 24 years	1,514	384	16.4	254	1,636	431	17.1	263
25 to 34 years	1,886	518	22.2	275	1,665	569	22.6	341
35 to 44 years	1,269	376	16.1	296	1,085	426	16.9	393
45 to 54 years	841	251	10.7	298	723	234	9.3	324
55 to 64 years	824	247	10.6	300	753	223	8.9	296
65 and over	1,696	490	21.0	289	1,751	549	21.8	314
Total G. Transfers								
<20 years	397	775	1.1	1,954	448	583	0.8	1,301
20 to 24 years	1,708	3,633	5.0	2,128	1,839	3,695	5.0	2,010
25 to 34 years	3,261	12,673	17.3	3,887	3,272	13,062	17.8	3,992
35 to 44 years	2,761	11,058	15.1	4,005	2,492	9,688	13.2	3,888
45 to 54 years	1,596	6,301	8.6	3,948	1,394	6,123	8.4	4,392
55 to 64 years	1,448	7,469	10.2	5,157	1,446	8,186	11.2	5,660
65 and over	3,172	31,324	42.8	9,876	3,184	31,933	43.6	10,028

Income Component	SCF				SLID			
	Weighted Count ('000)	Aggregate Income ('000 000)	Aggregate Income Distribution	Average Income ($)	Weighted Count ('000)	Aggregate Income ('000 000)	Aggregate Income Distribution	Average Income ($)
Pension Income								
<20 years	2	18	0.1	9,532	1	1	0.0	785
20 to 24 years	8	69	0.3	8,445	8	59	0.2	7,353
25 to 34 years	28	147	0.7	5,281	32	83	0.3	2,601
35 to 44 years	60	614	2.9	10,177	50	449	1.8	8,997
45 to 54 years	89	1,008	4.7	11,322	87	1,200	4.8	13,793
55 to 64 years	431	7,064	32.8	16,405	508	7,501	29.7	14,766
65 and over	1,249	12,616	58.6	10,102	1,599	15,933	63.2	9,964
Alimony								
<20 years	3	3	0.2	1,293	6	7	0.5	1,210
20 to 24 years	10	16	1.2	1,657	20	81	5.6	4,060
25 to 34 years	85	277	20.4	3,240	93	350	24.4	3,776
35 to 44 years	117	540	39.8	4,625	123	703	49.0	5,713
45 to 54 years	40	323	23.8	8,179	49	234	16.3	4,785
55 to 64 years	18	158	11.6	8,615	8	44	3.1	5,370
65 and over	9	40	2.9	4,596	3	15	1.0	5,716
Total Money Income								
<20 years	1,248	6,494	1.3	5,203	1,161	5,319	1.0	4,581
20 to 24 years	1,907	26,179	5.1	13,728	2,019	25,838	4.9	12,796
25 to 34 years	4,635	118,304	23.2	25,525	4,890	121,229	22.8	24,791
35 to 44 years	4,448	137,638	26.9	30,943	4,618	146,118	27.5	31,642
45 to 54 years	3,191	104,361	20.4	32,709	3,236	109,311	20.6	33,781
55 to 64 years	2,192	58,562	11.5	26,716	2,313	60,467	11.4	26,143
65 and over	3,181	59,228	11.6	18,622	3,191	62,681	11.8	19,643

4.3 By Province

Table 12 compares SCF and SLID average and aggregate income of individuals by province.

Table 12: Aggregate and Average Income of Individuals by Province (1), SCF and SLID, 1993

Province	SCF			SLID		
	Weighted Count	Aggregate Income	Average Income	Weighted Count	Aggregate Income	Average Income
Nfld.	405,670	7,558,707,757	18,633	421,779	8,452,787,800	20,041
P.E.I.	97,005	1,895,390,539	19,539	97,933	2,051,745,973	20,951

Province	SCF			SLID		
	Weighted Count	Aggregate Income	Average Income	Weighted Count	Aggregate Income	Average Income
N.S.	660,785	14,109,206,811	21,352	682,326	14,432,792,813	21,152
N.B.	538,024	11,195,113,350	20,808	554,730	11,149,842,795	20,100
Quebec	5,197,464	115,936,688,239	22,306	5,380,289	122,567,538,829	22,781
Ontario	7,847,023	209,543,571,334	26,704	8,128,497	218,064,787,804	26,827
Manitoba	797,084	17,656,188,300	22,151	810,625	17,521,260,606	21,615
Saskatchewan	699,723	15,353,728,278	21,943	707,683	15,510,298,907	21,917
Alberta	1,896,572	48,722,562,194	25,690	1,926,700	49,458,550,712	25,670
B.C.	2,661,827	68,795,490,446	25,845	2,717,603	71,753,298,905	26,403
Canada	20,801,177	510,766,647,248	24,555	21,428,165	530,962,905,144	24,779

(1) SCF figures include individuals aged 15and over, while SLID figures include individuals 16 and over.

5. INCOME DISTRIBUTIONS

Table 13 compares SCF and SLID distributions of individuals by income groups.

Table 13: Comparison of SCF and SLID Income Distribution, Canada, 1993 (1)

Income Range	SCF (15+)			SLID (16+)		
	Estimate	Percent	Cumulative	Estimate	Percent	Cumulative
Total	20,801,177	100.0	100.0	21,428,000	100.0	100.0
Less than $2,500	1,273,865	6.1	6.1	1,616,000	7.5	7.5
$2,500 to $4,999	1,147,803	5.5	11.6	1,124,000	5.2	12.8
$5,000 to $7,499	1,350,839	6.5	18.1	1,338,000	6.2	19.0
$7,500 to $9,999	1,397,540	6.7	24.9	1,393,000	6.5	25.5
$10,000 to $12,499	1,709,502	8.2	33.1	1,685,000	7.9	33.4

Income Range	SCF (15+)			SLID (16+)		
	Estimate	Percent	Cumulative	Estimate	Percent	Cumulative
$12,500 to $14,999	1,413,392	6.8	39.9	1,442,000	6.7	40.1
$15,000 to $17,499	1,291,546	6.2	46.1	1,276,000	6.0	46.1
$17,500 to $19,999	1,073,746	5.2	51.2	1,117,000	5.2	51.3
$20,000 to $22,499	1,126,188	5.4	56.7	1,014,000	4.7	56.0
$22,500 to $24,999	902,163	4.3	61.0	913,000	4.3	60.3
$25,000 to $29,999	1,707,361	8.2	69.2	1,778,000	8.3	68.6
$30,000 to $34,499	1,497,626	7.2	76.4	1,531,000	7.1	75.7
$35,000 to $39,999	1,151,722	5.5	81.9	1,285,000	6.0	81.7
$40,000 to $44,499	934,398	4.5	86.4	967,000	4.5	86.2
$45,000 to $49,999	717,622	3.4	89.9	748,000	3.5	89.7
$50,000 to $54,499	549,419	2.6	92.5	640,000	3.0	92.7
$55,000 to $59,999	429,744	2.1	94.6	401,000	1.9	94.6
$60,000 to $64,499	300,722	1.4	96.0	325,000	1.5	96.1
$65,000 to $69,999	213,226	1.0	97.1	211,000	1.0	97.1
$70,000 to $74,499	150,140	0.7	97.8	127,000	0.6	97.7
$75,000 to $79,999	92,315	0.4	98.2	84,000	0.4	98.1
$80,000 to $84,499	62,825	0.3	98.5	78,000	0.4	98.4
$85,000 to $89,999	51,932	0.2	98.8	42,000	0.2	98.6
$90,000 to $99,999	70,863	0.3	99.1	62,000	0.3	98.9
$100,000 and more	184,678	0.9	100.0	232,000	1.1	100.0

6. TAXES PAID AND INCOME AFTER TAX

SCF and SLID employ different procedures for the edit/imputation of income tax payable.

For SCF, an income tax calculation routine simulates the T-1 calculation of federal and provincial income tax payable for every individual 15+ on the file. This

program uses a combination of income and demographic variables from the individuals' own survey data, and average deduction values by age, sex, income and province categories from the 100% Revenue Canada file. The resulting tax payable values are compared to reported values. Where reported amounts are obvious outliers, they are replaced with calculated values. Where individuals refused to report income tax, or refused the complete income questionnaire (ie., had all income imputed to them), the calculated tax values are assigned. In total, about 65 % of SCF tax values are the reported amounts and 35% are assigned.

For SLID, the procedure used was determined by the type of respondent. All respondents from the questionnaire universe had their income tax imputed. The imputation procedure is based on a regression, using total income to estimate income tax. The regression was developed using Revenue Canada tax records. All respondents using the tax link route had values assigned directly from their corresponding tax records.

Further investigations are being done on the reconciliations among SCF, SLID and Revenue Canada data for income tax payable and income after tax. For the present study, the three following tables have been prepared to present an initial comparison. Table 14 compares Revenue Canada, SCF and SLID aggregate and average income tax paid by province. Table 15 compares SLID and Revenue Canada aggregate federal and provincial income tax by province. Table 16 compares SCF and SLID aggregate and average income after tax by province.

Table 14: Total Income Tax Paid by Province - RCT, SCF and SLID, 1993

Province	Total Income Tax Paid (Federal and Provincial)						
	RCT	SCF			SLID		
	Aggregate Income Tax	Weighted Count	Aggregate Income Tax	Ave. Tax	Weighted Count	Aggregate Income Tax	Ave. Tax
Nfld.	1,218,626,000	243,713	1,197,313,650	4,913	279,979	1,607,104,767	3,435
P.E.I.	284,647,000	63,243	287,968,694	4,553	75,876	333,828,345	4,400
N.S.	2,377,872,000	420,379	2,469,090,237	5,873	500,383	2,401,652,328	4,800
N.B.	1,779,955,000	350,294	1,881,816,436	5,372	392,338	1,863,483,008	4,750
Quebec*	25,113,460,000	3,486,872	22,709,600,736	6,513	3,948,123	26,619,330,866	6,742
Ontario	39,902,804,000	5,431,966	40,789,592,939	7,509	6,323,196	42,545,620,216	6,728
Manitoba	3,011,070,000	529,743	3,058,674,380	5,774	591,414	3,059,048,046	5,172
Sask.	2,539,493,000	467,039	2,728,425,277	5,842	522,404	2,786,032,874	5,333
Alberta	8,725,067,000	1,309,278	8,823,366,124	6,739	1,455,997	9,129,403,059	6,332
B.C.	12,331,405,000	1,882,073	13,054,313,279	6,936	2,147,965	13,287,717,833	6,186
Canada	97,284,399,000	14,184,600	97,000,161,752	6,838	16,237,675	103,723,221,342	6,388

* Sum of Revenue Canada “Federal Tax Payable” and Revenu Québec “Total Taxes Before Surtax” and the “Quebec Surtax”.

Table 15: Comparison of Aggregate Federal and Provincial Income Tax, SLID and RCT, 1993

Province	SLID		RCT	
	Federal Tax	Provincial Tax	Federal Tax	Provincial Tax
Nfld.	961,677,063	645,427,705	729,301,000	489,325,000
P.E.I.	210,183,510	123,644,834	178,777,000	105,870,000
N.S.	1,528,854,802	872,797,526	1,503,094,000	874,778,000
N.B.	1,157,700,132	705,782,876	1,109,131,000	670,824,000
Quebec *	14,252,361,773	12,366,969,093	12,995,763,000	12,117,697,000
Ontario	27,219,595,029	15,326,025,187	25,265,582,000	14,637,222,000

Province	SLID		RCT	
	Federal Tax	Provincial Tax	Federal Tax	Provincial Tax
Manitoba	1,854,549,041	1,204,499,005	1,833,006,000	1,178,064,000
Saskatchewan	1,641,695,322	1,144,337,551	1,468,226,000	1,071,266,000
Alberta	6,267,601,087	2,951,801,972	5,926,173,000	2,798,894,000
B.C.	8,738,268,621	4,549,449,213	8,052,365,000	4,279,040,000
Canada	63,832,486,380	39,890,734,963	59,061,420,000	38,222,980,000

* RCT Provincial Tax from Revenu Québec “Total Taxes Before Surtax” and “Quebec Surtax”.

Table 16: Aggregate and Average After Tax Income by Province, SCF and SLID, 1993

Province	Income After Tax (IAT)					
	SCF			SLID		
	Weighted Count	Aggregate IAT	Average IAT	Weighted Count	Aggregate IAT	Average IAT
Nfld.	405,670	6,361,394,107	15,681	420,982	6,848,105,903	16,267
P.E.I.	97,005	1,607,421,845	16,571	97,831	1,718,173,090	17,563
N.S.	660,785	11,640,116,574	17,616	681,441	12,034,447,791	17,660
N.B.	538,024	9,343,296,914	17,310	553,630	9,289,589,653	16,779
Quebec	5,197,464	93,227,087,503	17,937	5,377,631	95,962,171,274	17,845
Ontario	7,847,023	168,753,978,395	21,505	8,107,775	175,592,025,628	21,657
Manitoba	797,084	14,597,513,920	18,314	807,952	14,475,388,042	17,916
Saskatchewan	699,723	12,625,303,001	18,043	706,247	12,737,604,703	18,036
Alberta	1,896,572	39,899,196,070	21,038	1,920,744	40,391,134,323	21,029
B.C.	2,661,827	55,741,177,167	20,941	2,714,054	58,474,592,605	21,545
Canada	20,801,177	413,766,485,496	19,891	21,388,287	427,523,233,013	19,989

7. FEMALE/MALE EARNINGS RATIO

Due to conceptual differences in SCF and SLID source variables, a direct comparison of SLID data to the published SCF estimates for female and male earnings and earnings ratios is not possible. Published SCF estimates for earners highlight data for "full-year, full-time earners", based on the variables "weeks worked in 1993" and "full-time/part-time". To compare with SCF, records were selected from SLID where individuals worked full time (at least 130 hours) during every month in 1993. SLID estimates of this proxy for SCF "full-year, full-time workers" gave somewhat lower estimated numbers of male and females than SCF, slightly higher average earnings for both sexes, and almost identical female/male earnings ratio.

SCF estimates indicate 5,394,000 males and 3,641,000 females with full-year, full-time earnings, while SLID estimates indicate 5,205,000 males and 3,403,000 females (4% and 7% lower respectively). SCF average earnings are estimated at $39,503 for males and $28,530 for females, compared with $39,890 and $28,910 (1% higher for both sexes). These averages result in an SCF 1993 female/male earnings ratio of 72.2%, versus 72.5% for SLID.

There is little difference between SCF and SLID estimates for full-year full-time earners, at least at the overall Canada level. Since the SCF definition of "full-year" includes 49 to 52 weeks worked, one would expect, given the SLID selection criteria used, that the SLID estimated numbers would be somewhat lower and average earnings would be somewhat higher than SCF.

8. LOW INCOME ESTIMATES

The SLID estimate of low income incidence for persons is 14.7%, 3.3 percentage points lower than the SCF estimate of 18.0%. This reflects a weighted estimate difference between SLID and SCF of 967,000 low income persons. On a family basis, this represents a difference of about 480,000 families, or a sample count of about 600 families. This difference between the SLID and SCF estimates can be attributed to a number of factors, including differences in derivation of key

variables used in the determination of low income status, the difference in aggregate income between SLID and SCF, and possibly the impact of differential non-response in the two surveys..

The two variables used to determine low income cut-offs are “economic family size” and “size of area of residence”. In order to estimate the number of low income persons, the status of economic families is first established by comparing each economic family’s total income with appropriate family cut-offs by “family size” and “urban size”. Once the family status is set, all persons in low income families are then counted.

Both of the family size and urban size variables are calculated in a different fashion for SLID and SCF. The “economic family size” variable is determined in SCF using LFS economic unit identifiers, where members of families are determined by relationship to one reference person, the “EF Head”. For SLID, economic units are not coded directly by interviewers, with relationships among family members determined instead. Although conceptually the family relationship variable is equivalent in the two surveys, the different SLID and SCF results for counts of families in the various “family size” categories used in the cut-offs could be due to the different collection procedures. Differential non-response in either survey could also influence the outcome.

The “size of area of residence” variable is determined in SCF by using LFS sample unit identifiers to determine population, while for SLID, postal codes are used. The classification of urban size in the SCF/LFS sample and the SLID sample varies in another respect. For the SCF sample, all areas within CMAs carried the urban size code according to total CMA population. In the SLID sample, non-core CMA sample could be assigned differing urban size codes (eg., small urban, rural). The result produces discrepancies in SLID and SCF counts of families by “size of area” LICO categories. Calculations using a procedure standardizing for the geographic coding differences reduce the low income incidence gap from 3.3 percentage points to 2.9 percentage points. This is an indicator that variations in SLID and SCF estimated numbers by LICO categories may account for a quarter of the observed difference in the incidence of low income for

persons. This standardization procedure, however, does not account for coding variations due to the use of postal codes for SLID versus the LFS sample unit identifiers for SCF.

The aggregate income gap between SLID and SCF is likely a significant contributor to the difference in the incidence of low income for persons. Calculations based on an assumption of similar SLID and SCF aggregate incomes as well as standardized geography reduce the low income incidence gap from 3.3 percentage points to .1 percentage point (Table 17). This adjustment was done at the provincial age/sex level, and is a useful indicator that aggregate income differences between SLID and SCF likely account for a significant portion of the variation in low income estimates.

Table 17: LICO Estimates, Before Tax, by Province and Age, SCF and SLID (1), 1993

Province	Age at end of 1993	SCF (15+) % below LICO	SLID (16+) % below LICO	SLID % below LICO adjusted (2)
Newfoundland	-	18.4	14.3	18.7
Prince Edward Island	-	11.1	6.6	9.5
Nova Scotia	-	17.2	12.7	20.8
New Brunswick	-	15.1	12.0	19.7
Quebec	-	20.8	18.6	20.1
Ontario	-	16.2	11.8	15.8
Manitoba	-	20.3	20.8	20.2
Saskatchewan	-	18.4	16.2	21.9
Alberta	-	18.8	16.9	19.0
British Columbia	-	17.6	12.7	16.3
Canada	0 to 17 years	21.3	18.3	22.5
	18 to 64 years	15.9	12.9	15.4
	65 + years	22.8	16.6	22.2
	Total	18.0	14.7	17.9

(1) SCF figures include individuals aged 15and over, while SLID figures include individuals 16 and over.
(2) Geography has been standardized and aggregate income adjusted for SLID data.

Table 18 presents the SCF and SLID estimates of low income persons by LICO categories and the difference between the SCF and SLID estimates. The SLID estimates and SLID/SCF differences are presented for the actual and adjusted SLID data (for geography and aggregate income).

Table 18: Estimated Number of Low Income Persons by LICO Categories, SCF and SLID, 1993

Size of family unit	Urban areas: 500,000 and over	Urban areas: 100,000 to 499,999	Urban areas: 30,000 to 99,999	Urban areas: Less than 30,000	Rural areas	All Areas
SCF PERSONS BELOW THE LICO						
1 person	887,000	220,000	149,000	172,000	115,000	1,543,000
2 persons	564,000	128,000	90,000	105,000	99,000	986,000
3 "	472,000	123,000	81,000	98,000	89,000	863,000
4 "	554,000	124,000	83,000	105,000	132,000	998,000
5 "	214,000	61,000	37,000	52,000	81,000	445,000
6 "	91,000	17,000	7,000	21,000	50,000	186,000
7 or more persons	77,000	11,000	3,000	9,000	21,000	121,000
Total Persons	2,859,000	684,000	450,000	562,000	587,000	5,142,000
SLID PERSONS BELOW THE LICO - Estimates adjusted for "Don't Know" in area size						
1 person	746,000	157,000	148,000	144,000	149,000	1,344,000
2 persons	373,000	66,000	62,000	81,000	112,000	694,000
3 "	368,000	82,000	75,000	64,000	85,000	674,000
4 "	438,000	66,000	35,000	100,000	111,000	750,000
5 "	217,000	30,000	54,000	31,000	101,000	433,000
6 "	92,000	12,000	9,000	32,000	43,000	188,000
7 or more persons	50,000	0	12,000	8,000	22,000	92,000
Total Persons	2,284,000	413,000	395,000	460,000	623,000	4,175,000

Size of family unit	Urban areas 500,000 and over	100,000 to 499,999	30,000 to 99,999	Less than 30,000	Rural areas	All Areas
LOW INCOME PERSON COUNT DIFFERENCE SCF -SLID						
1 person	141,000	63,000	1,000	28,000	(34,000)	199,000
2 persons	191,000	62,000	28,000	24,000	(13,000)	292,000
3 "	104,000	41,000	6,000	34,000	4,000	189,000
4 "	116,000	58,000	48,000	5,000	21,000	248,000
5 "	(3,000)	31,000	(17,000)	21,000	(20,000)	12,000
6 "	(1,000)	5,000	(2,000)	(11,000)	7,000	(2,000)
7 or more persons	27,000	11,000	(9,000)	1,000	(1,000)	29,000
Total Persons	575,000	271,000	55,000	102,000	(36,000)	967,000
SLID PERSONS BELOW THE LICO -ESTIMATES ADJUSTED FOR SIZE OF AREA CODING						
1 person	742,000	220,000	116,000	101,000	133,000	1,312,000
2 persons	393,000	88,000	60,000	68,000	102,000	711,000
3 "	376,000	114,000	60,000	55,000	70,000	675,000
4 "	491,000	93,000	42,000	66,000	95,000	787,000
5 "	246,000	44,000	49,000	35,000	70,000	444,000
6 "	92,000	12,000	15,000	28,000	44,000	191,000
7 or more persons	49,000	19,000	4,000	7,000	23,000	102,000
Total Persons	2,389,000	590,000	346,000	360,000	537,000	4,222,000
LOW INCOME PERSON COUNT DIFFERENCE SCF -SLID (SLID ESTIMATES ADJUSTED FOR SIZE OF AREA CODING)						
1 person	145,000	0	33,000	71,000	(18,000)	231,000
2 persons	171,000	40,000	30,000	37,000	(3,000)	275,000
3 "	96,000	9,000	21,000	43,000	19,000	188,000
4 "	63,000	31,000	41,000	39,000	37,000	211,000
5 "	(32,000)	17,000	(12,000)	17,000	11,000	1,000
6 "	(1,000)	5,000	(8,000)	(7,000)	6,000	(5,000)
7 or more persons	28,000	(8,000)	(1,000)	2,000	(2,000)	19,000
Total Persons	470,000	94,000	104,000	202,000	50,000	920,000

Size of family unit	Urban areas: 500,000 and over	100,000 to 499,999	30,000 to 99,999	Less than 30,000	Rural areas	All Areas
SLID PERSONS BELOW THE LICO -ESTIMATES ADJUSTED FOR SIZE OF AREA CODING AND FOR TOTAL AGGREGATE INCOME DIFFERENCE FROM SCF						
1 person	786,000	265,000	75,000	42,000	215,000	1,383,000
2 persons	396,000	224,000	52,000	32,000	131,000	835,000
3 "	491,000	186,000	62,000	37,000	92,000	868,000
4 "	410,000	260,000	49,000	46,000	105,000	870,000
5 "	465,000	52,000	75,000	21,000	55,000	668,000
6 "	138,000	71,000	9,000	20,000	41,000	279,000
7 or more persons	0	65,000	4,000	6,000	17,000	92,000
Total Persons	2,686,000	1,123,000	326,000	204,000	656,000	4,995,000
LOW INCOME PERSON COUNT DIFFERENCE SCF -SLID (SLID ESTIMATES ADJUSTED FOR SIZE OF AREA CODING AND FOR TOTAL AGGREGATE INCOME DIFFERENCE FROM SCF)						
1 person	101,000	(45,000)	74,000	130,000	(100,000)	160,000
2 persons	168,000	(96,000)	38,000	73,000	(32,000)	151,000
3 "	(19,000)	(63,000)	19,000	61,000	(3,000)	(5,000)
4 "	144,000	(136,000)	34,000	59,000	27,000	128,000
5 "	(251,000)	9,000	(38,000)	31,000	26,000	(223,000)
6 "	(47,000)	(54,000)	(2,000)	1,000	9,000	(93,000)
7 or more persons	77,000	(54,000)	(1,000)	3,000	4,000	29,000
Total Persons	173,000	(439,000)	124,000	358,000	(69,000)	147,000