



Income Statistics Division

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A Comparison of the Results of the Survey of Labour and Income Dynamics (SLID) and the Survey of Consumer Finances (SCF), 1993-1996

**Maryanne Webber
Cathy Cotton
Mauri Meere
Kevin Bishop
Peter Hewer**

April 1999



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Statistics Canada
Income Statistics Division

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1. HIGHLIGHTS

- In 1993, the Survey of Labour and Income Dynamics (SLID) began to collect longitudinal labour market and income data. SLID is also capable of producing cross sectional data. In 1995 Statistics Canada decided to replace the Survey of Consumer Finances (SCF) by SLID for efficiency reasons.
- The estimates from these two surveys line up well. The major Statistics Canada income releases over the past four years would not have changed if they had been based on SLID, rather than SCF, results.
- The SLID and SCF samples both consist of two-thirds of the Labour Force Survey sample.
- In 1996, the average income of economic families was estimated at \$56,900 by SLID and \$56,000 by SCF. The average income of unattached individuals was estimated at \$24,400 by both surveys. These differences are not statistically significant at the 95% level.
- In 1996, SLID's estimate of the number of economic families was 1.6% lower than SCF's estimate. For unattached individuals the difference was 1.0%.
- The average income for persons aged 16+ was \$750 (3%) higher in SCF than in SLID. Average income has two inputs: aggregate income, which is not significantly different in the two surveys, and number of income earners, which is significantly different.
- The SLID's higher count of income earners is linked to the use of tax data which contains more precise responses and has a higher frequency of small reported amounts. SLID shows more individuals with small amounts of income while SCF shows more individuals with no income.
- The distribution of total income is very similar in the two surveys, with the exception of the low income earners mentioned above, and the higher degree of rounding in SCF. The same differences exist in market income.
- The proportion of the population in low income, based on before-tax income, was 18.6% in SLID and 17.9% in SCF. After-tax rates were 14.3% in SLID and 13.5% in SCF. These differences are not significant at the 95% level.
- The 1996 difference between SLID and SCF aggregate income was \$4.0 billion (0.7%). The difference is not significant at the 95% level.
- Estimates of average income in SLID are lower than in SCF because of SLID's higher estimates of number of persons with income.
- With the exception of Nova Scotia, estimates of average family income by province and estimates of average income for unattached individuals by province were not significantly different at the 95% level.
- There were no significant differences in the provincial before tax low income rates, or in the provincial after tax low income rates for all persons.
- Because SLID is a longitudinal survey, new information is available on a number of important issues. This report provides some samples of this type of information.

2. INTRODUCTION

2.1 Background

In 1993, the Survey of Labour and Income Dynamics (SLID) began to collect longitudinal labour market and income data. SLID is also capable of producing annual cross-sectional data. In the case of income data, the survey content is very similar to the Survey of Consumer Finances (SCF). Statistics Canada decided in 1995 to replace the SCF by SLID, for efficiency reasons. However, the SCF is a survey of high stature and very wide usage. Clearly, the impact on the time series needed to be understood and minimised.

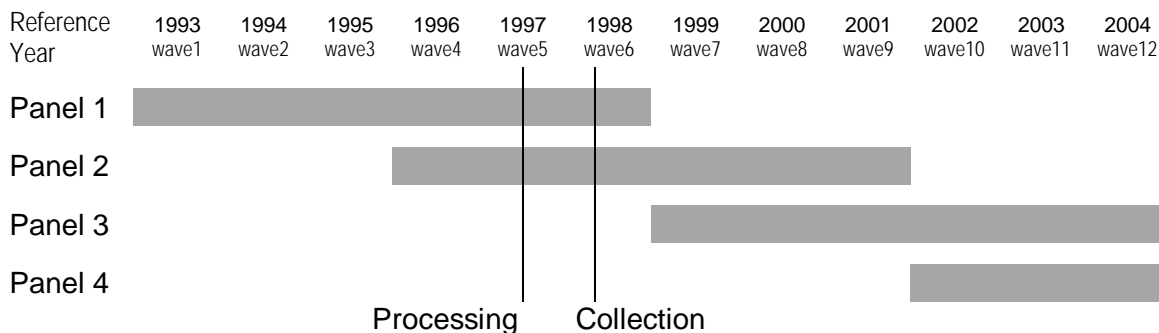
During the last few years, the SLID and SCF teams have worked together to document and reduce differences in the estimates. As this report shows, the estimates from the two sources line up very well and tell essentially the same story. Had the major Statistics Canada income releases over the past four years been based on SLID rather than SCF, the main messages reaching the public would have been no different.

It is quite feasible for SLID to replace SCF as of the 1998 reference year, with a generous period of overlap of five years between the two surveys. Apart from the efficiency reason for moving to SLID, there are information gains to be made. SLID has a very large selection of demographic, family and labour market variables available, in addition to the familiar income content. SLID offers a broad range of demographic and labour variables that can be used in both cross-sectional and longitudinal analyses.

This report presents results from the two sources for a variety of important time series. In addition, there is a selection of tables on income dynamics from SLID to provide a flavour of the new information now available due to SLID's longitudinal nature.

2.2 SLID and SCF Samples

SLID's first reference year was 1993, and in 1996 a second panel was introduced, doubling the sample size. This pattern of rotating, overlapping panels will continue with the introduction of panel three and the exit of panel one in 1999.



The SCF sample consists of two-thirds of the Labour Force Survey (LFS) sample. In 1996 SCF had 56,000 responses from persons 15 years and over, for a response rate of 82%.

SLID's sample also consists of two-thirds of the Labour Force Survey sample. In addition to longitudinal respondents, SLID also interviews cohabitants – persons who live in households of longitudinal sample members. In 1996, SLID had 51,000 persons aged 16 years and over who responded to both the labour and income interviews. Increased stability due to a longitudinal sample compensates for SLID's slightly smaller sample size.

A top-up sample had been planned to increase SLID's cross-sectional representation, but the top-up was cut for 1998 due to budget constraints. The need for top-up samples in the future will be assessed.

Attrition is always an issue in longitudinal surveys. About 85% of persons in panel 1 who responded to SLID's preliminary interview were still responding four years later in 1996. In SLID adjustments are made to reduce the bias due to non-response by modelling the propensity to respond according to different characteristics of non-respondents.

2.3 Data Availability

SCF's practice has been to release before-tax data about 12 months after the end of the reference year with after-tax data following about 4 months later. SLID's approach is to release all the data at one time about 15 months after the end of the reference year. Data from SLID's first three waves were released about 30 months after the end of their reference years; 1996 will be released 24 months after the end of the reference year. Processing will be caught up to the 15 month target by the time 1998 data are released.

3. RESULTS OF SLID AND SCF

3.1 Average Income – Economic Families

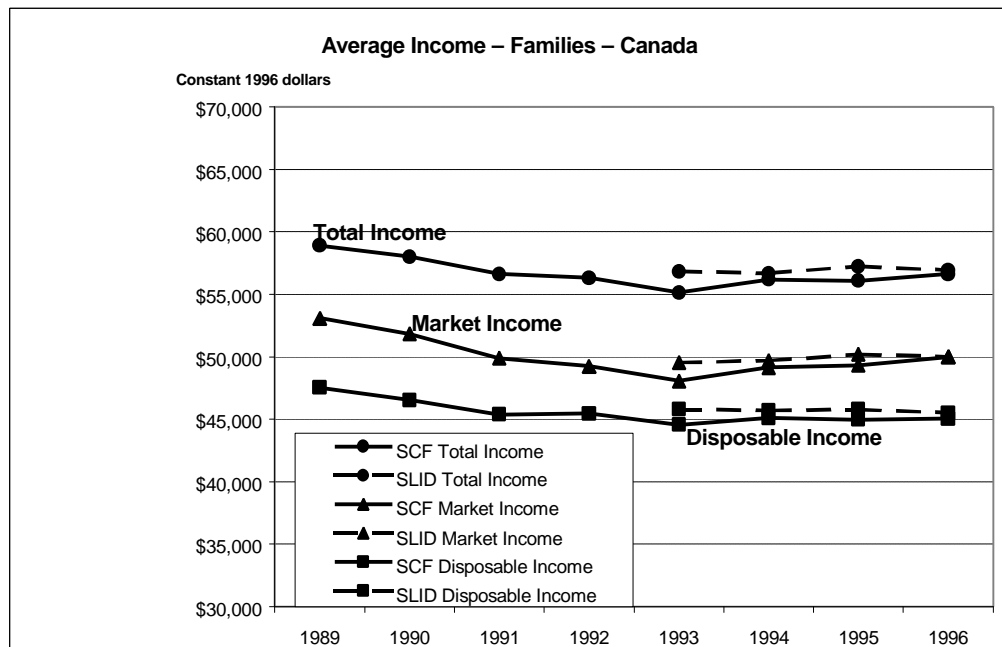
In 1996, the average income of economic families was estimated at \$56,600 by SCF and \$56,900 by SLID. The difference is not statistically significant at the 95% level. For unattached individuals, the estimate from both sources was \$24,400.

These averages refer to total money income, called *total income* throughout this report. Two other income concepts are used routinely:

- *market income*, defined as pre-tax income from employment, investment and private pensions, and
- *disposable income*, defined as income after taxes and transfers – disposable income is calculated by adding government transfers to market income and subtracting income taxes.

Over the 1993-1996 period, SLID and SCF have produced very similar results for average market income and average disposable income for families; the SLID results are marginally and consistently higher, probably as a result of SLID's use of tax data.

The average family income series, as well as several others, show larger differences between SLID and SCF in 1993 than in subsequent years. This appears to be due to some start-up problems in SLID, associated with computer-assisted interviewing and with income processing. These difficulties were resolved before the 1994 data collection and processing cycle.



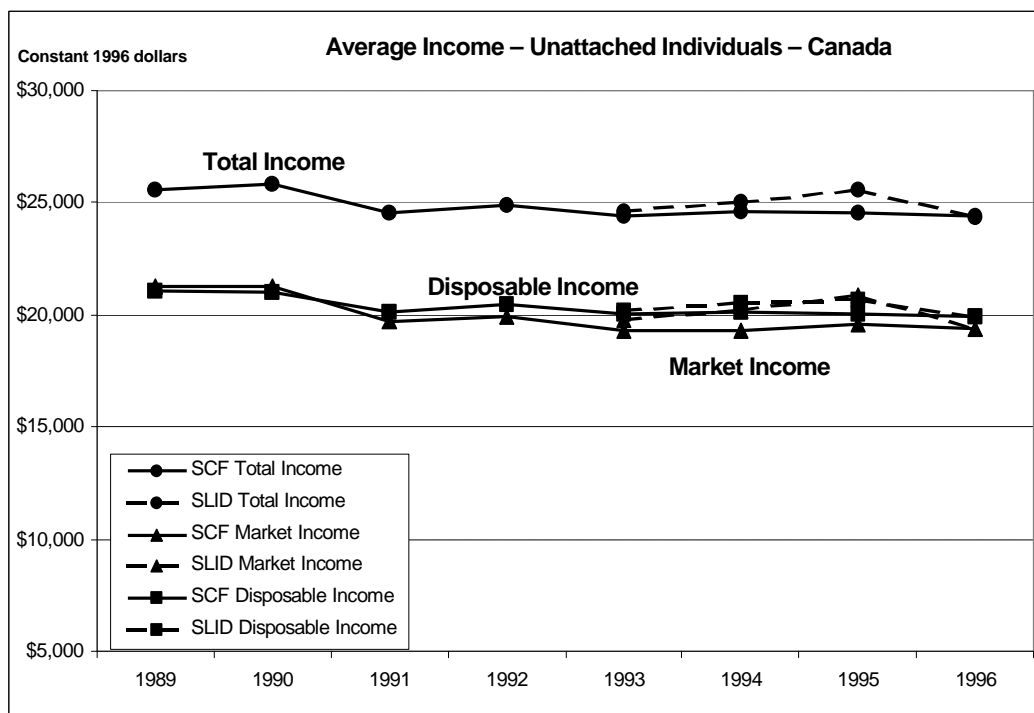
These averages reflect similar underlying distributions, as shown by the Gini coefficients for 1996 (see table). Similarly, 1996 average incomes within quintiles line up very well.

Gini Coefficients	SLID	SCF
Total Income	0.347	0.347
Market Income	0.431	0.431
Disposable Income	0.305	0.303
Average Income by Quintile		
Market Income	\$	\$
1 st	5,500	5,100
2 nd	24,900	24,900
3 rd	43,800	43,800
4 th	63,600	64,000
5 th	112,400	112,100
Disposable Income	\$	\$
1 st	17,000	16,800
2 nd	29,900	29,500
3 rd	41,300	40,500
4 th	54,100	53,600
5 th	85,300	84,700

3.2 Average Income – Unattached Individuals

For unattached individuals, average income in 1995 was \$24,500 in SCF and \$25,600 in SLID. In 1996, both surveys yielded an estimate of \$24,400. The 1996 estimates for market and disposable income are also very close; the differences are not significant at the 95% level.

As for economic families, the Gini coefficients from the sources are very close, with values for SLID always slightly higher. For total income, they were 0.407 and 0.396; for market income, 0.570 and 0.566; and for disposable income, 0.352 and 0.340.



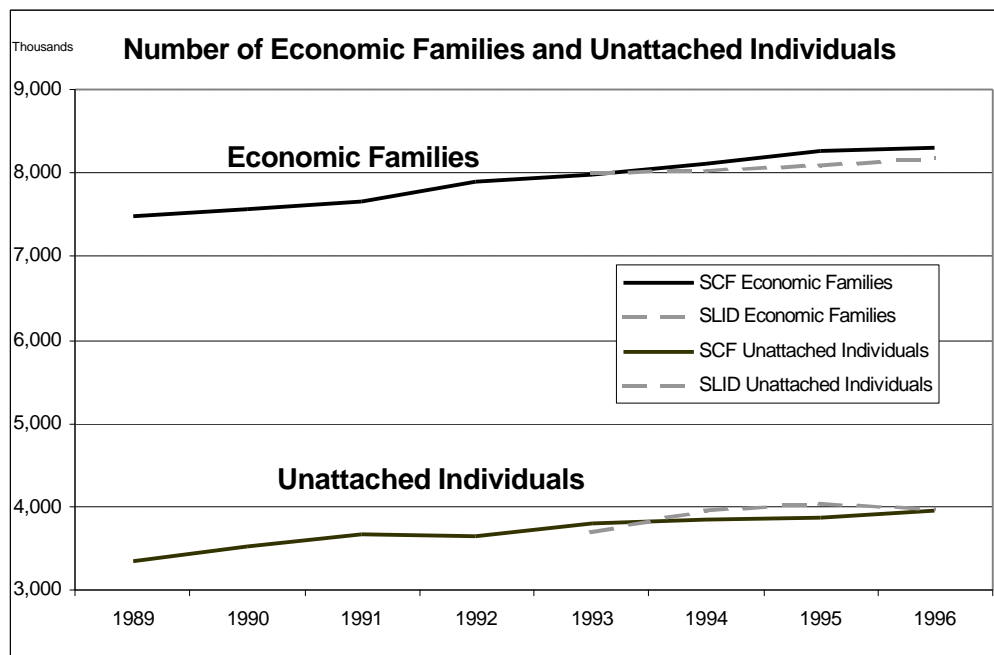
3.3 Unattached Individuals and Families

SLID and SCF have the same target population, but do not produce identical counts of economic families and unattached individuals. Reasons include sampling variability and response differences.

The differences are not large. In 1996, SLID's estimate of the number of economic families was 1.6% lower than SCF's estimate. For unattached individuals, the difference was 1.0%.

1996	SLID ('000)	SCF ('000)	Difference (SLID - SCF)	
			('000)	%
Economic Families	8,185	8,317	- 132	- 1.6
Unattached Individuals	3,983	3,944	+ 39	+ 1.0

Although small, these differences in the estimated numbers of families and unattached individuals can have an impact on the income results. Statistics Canada is now developing a standard set of independent estimates of households and economic families to be used in the weighting of SLID as well as other household survey data. This will stabilise the estimates and produce consistent family totals across surveys.

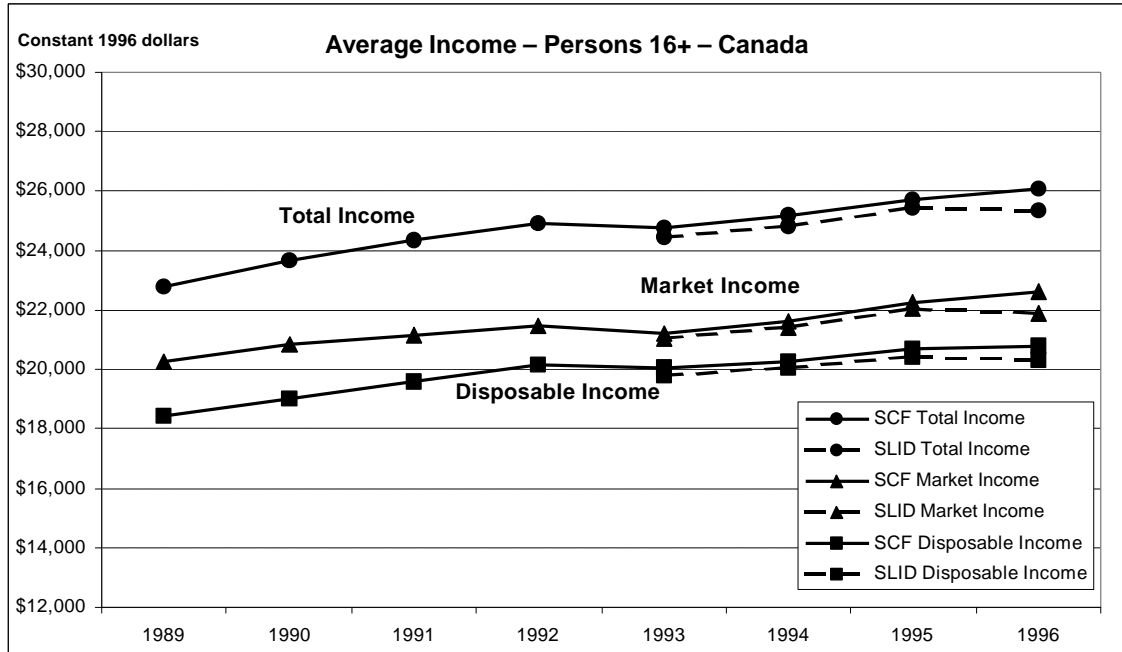


3.4 Average Income – Persons 16+ With Income

Although average income for families is slightly higher in SLID than in SCF, the reverse is true for the average income of persons aged 16 and over. This measure is traditionally based on *individuals with income* – that is, persons with no income are excluded from the calculation – and the two surveys are producing somewhat different results on that score.

The average income for persons aged 16 and over in 1996 was \$750 or 3.0% higher in SCF than SLID. The gap was about the same for market income: \$730 or 3.3%. For disposable income, the SCF exceeded SLID by \$500 or 2.4%.

The differences in 1996 were significant at the 95% level. There are two “inputs” to the calculation of average income, namely, aggregate income and number of persons with income. If these inputs are considered, the SLID/SCF differences in aggregate income are not significant, but the differences in the number of earners are significant.



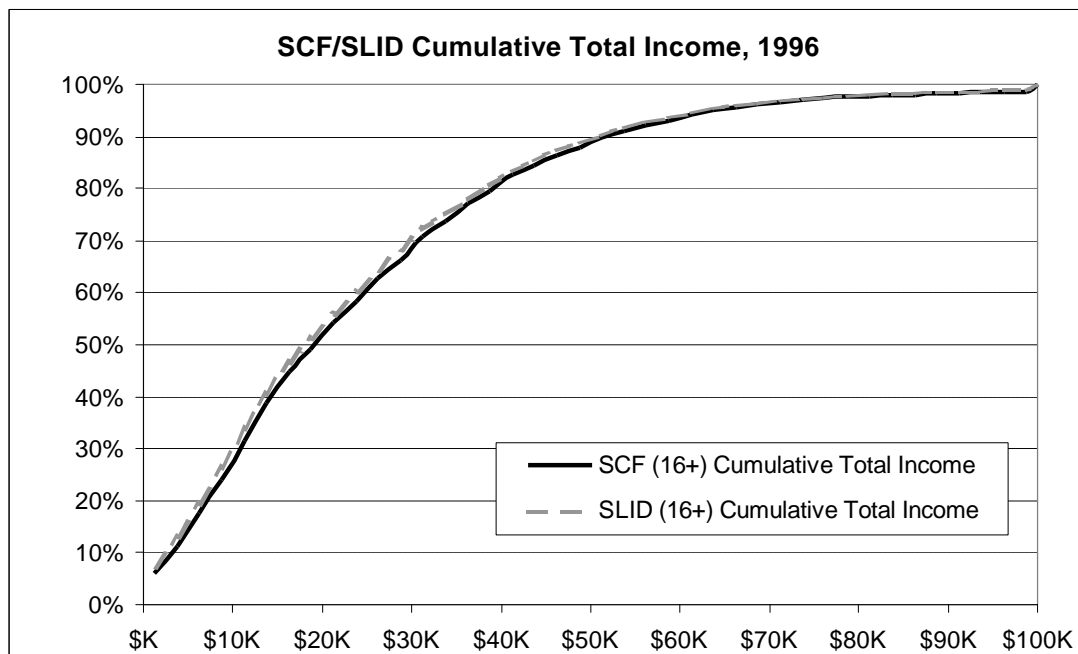
In 1996, SLID reported 96.1% of the population aged 16 and over as receiving income; the SCF proportion was 93.5%. This gap is about the same as in previous years. One of the differences between the two surveys is that SLID asks for permission to use the respondent's tax data. Where permission is received, a link is made to the T-1 files to pick up the respondent's income sources and reported amounts. Where permission is not granted (or if no tax return was filed) the information is collected via telephone interview. In the SCF, all information is based on telephone interviews.

The SLID approach was devised primarily to reduce attrition, non-response and measurement error in the reported income data. Studies have shown that, for the same respondent, the tax file contains more precise responses and a higher frequency of reporting small amounts. On the other hand, both surveys need to impute missing information for non-response and the donor pool for imputation in SLID clearly contains fewer people with no income. In any event, the comparison between the two sources shows that these differences in reporting at the individual level tend to "wash out" at the family level.

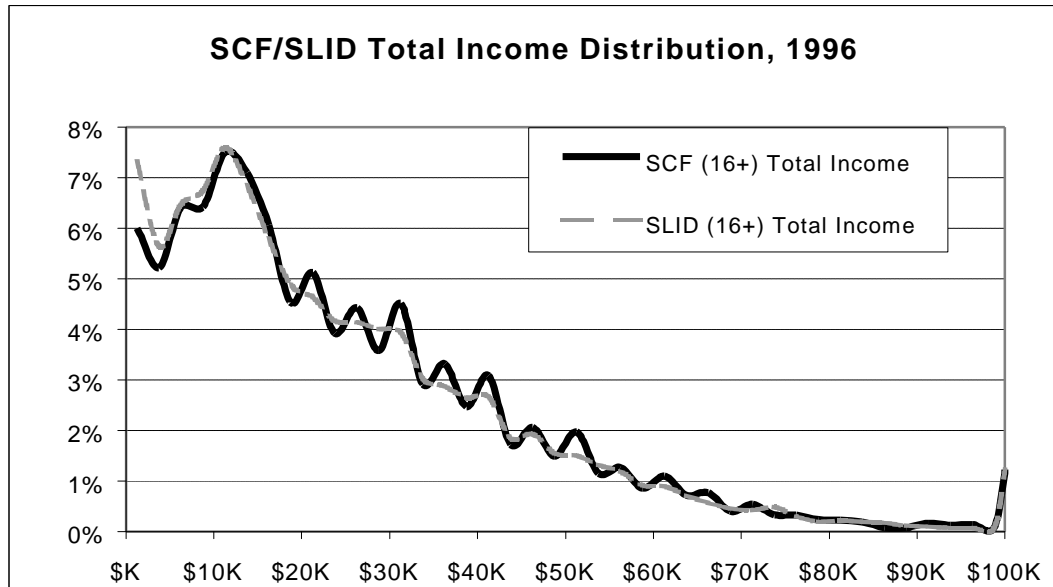
3.5 Distribution of Total Income

The distribution of income according to the two surveys is remarkably similar, as shown by the cumulative frequency distribution for 1996. For total income, the curves lie more or less on top of each other, except at the bottom end. In 1996, SLID had 2% more of the population (based on persons 16+ with income) below the \$10,000 mark than did SCF. The pattern is similar in earlier years.

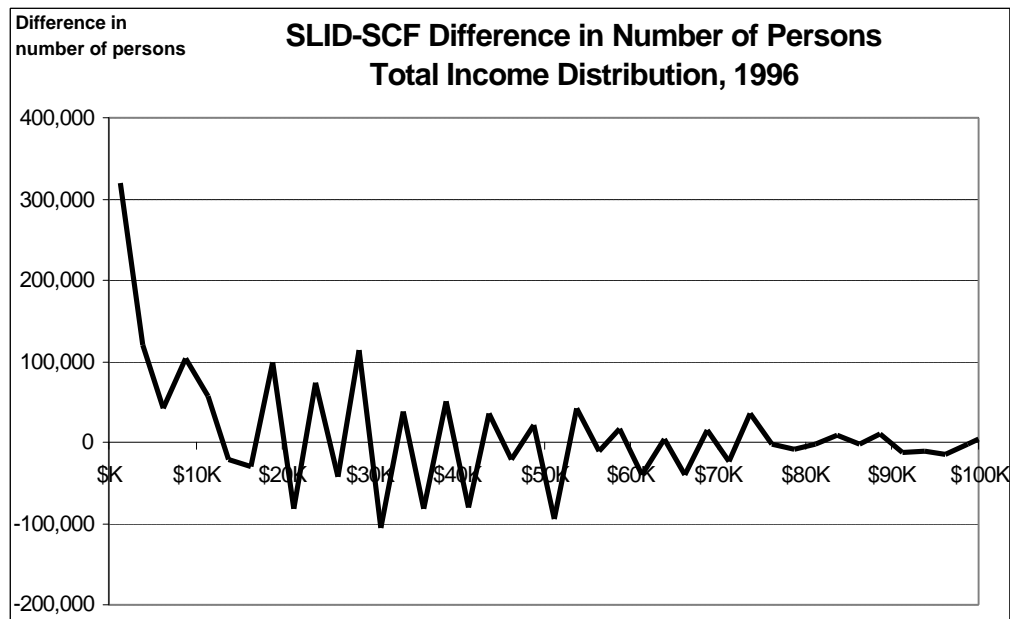
This difference between the two sources is linked to the fact that SLID identifies more individuals with income than SCF. In a nutshell, SLID shows more people with low income levels; SCF shows more with no income.



Although the general shape of the two distributions is very similar, a frequency distribution plotted in intervals of \$2,500 shows that the SLID line is smoother. The SCF results, which are based entirely on interviews, show the degree to which respondents round the amounts they report. Much of this income “heaping” is avoided in SLID because of the use of tax data.



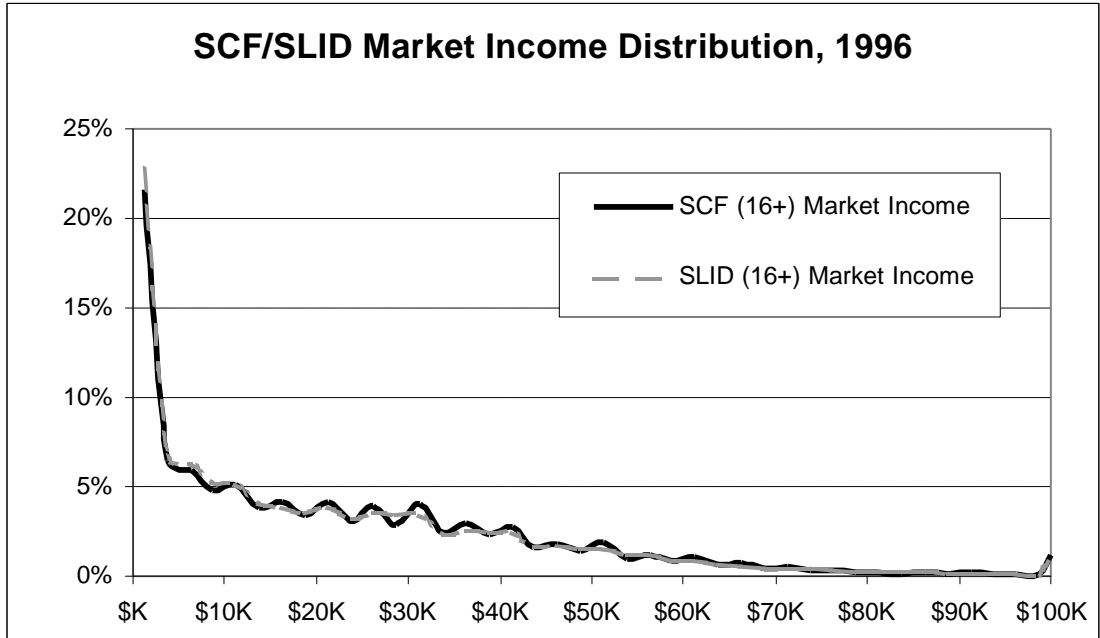
A separate chart plotting the differences between the two surveys (in numbers of persons) is also included. It shows a difference of over 300,000 in the number of persons with an income less than \$2,500. Thereafter, the main differences between the two distributions are associated with rounding. Although 300,000 is a large number, the aggregate income they account for is relatively small: \$1.7 billion (0.3% of aggregate income).



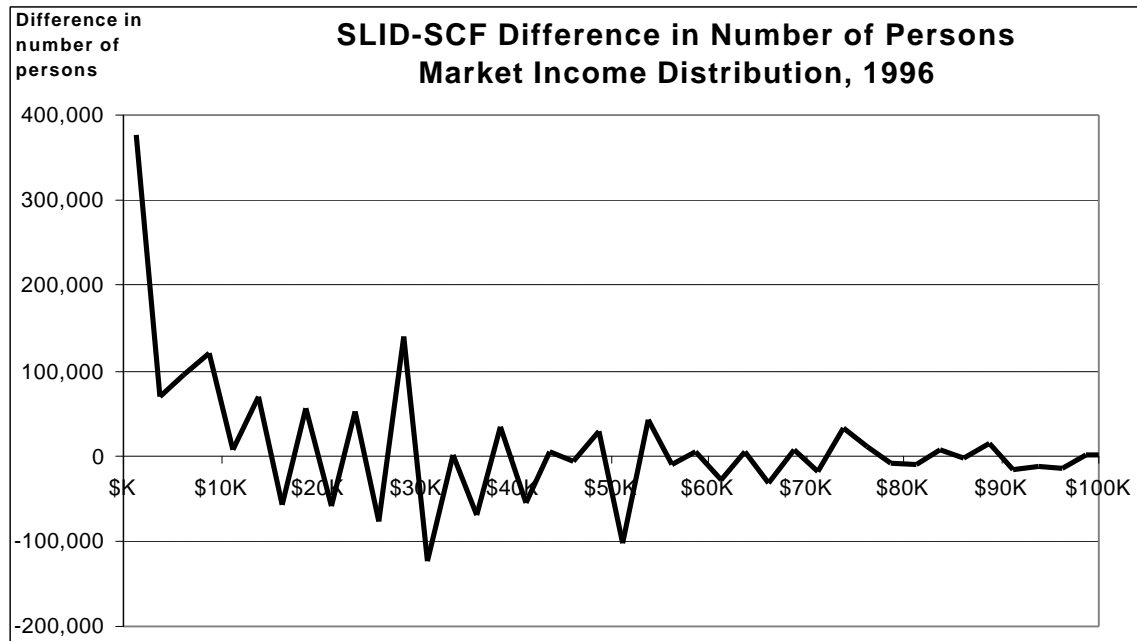
Total Income	SLID Total Income Persons 16+		SCF Total Income Persons 16+		SLID - SCF	
	('000)	%	('000)	%	('000)	% pts
Less than \$0	59.5	0.3	42.5	0.2	17.0	0.1
\$1 to \$2,499	1,567.6	7.1	1,263.6	5.8	304.0	1.2
\$2,500 to \$4,999	1,253.9	5.6	1,134.7	5.2	119.1	0.4
\$5,000 or more	19,353.5	87.0	19,308.3	88.7	45.2	-1.7
(excluded from the distribution)						
\$0	905.4		1,516.8		-611.4	

3.6 Distribution of Market Income

The two surveys yield very similar distributions of market income. Again, the main differences – more visible in the chart that plots the differences – are associated with income reporting at the bottom end of the distribution and rounding. The differences in the reporting of market income, which are at the root of the differences in total income, are again due to the fact that SLID uses tax data and SCF does not.



A chart plotting differences shows that SLID has about 375,000 more persons who have a market income less than \$2,500 (and who have a total income not equal to zero). The table divides this group into three: those with less than \$0 market income, those with \$0 market income and those with market income from \$1 to \$2,499. SLID has more people than SCF in each of these three groups.



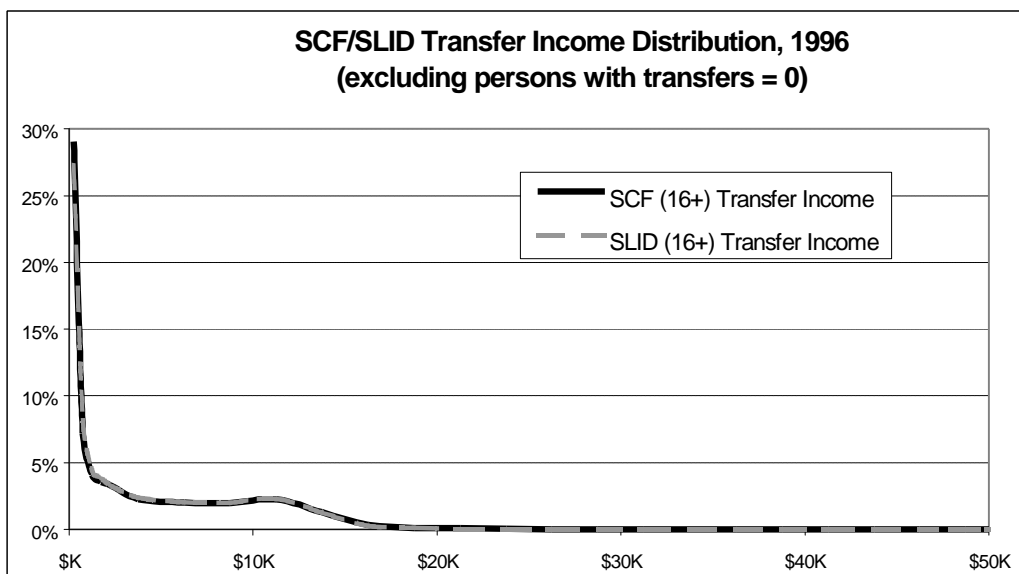
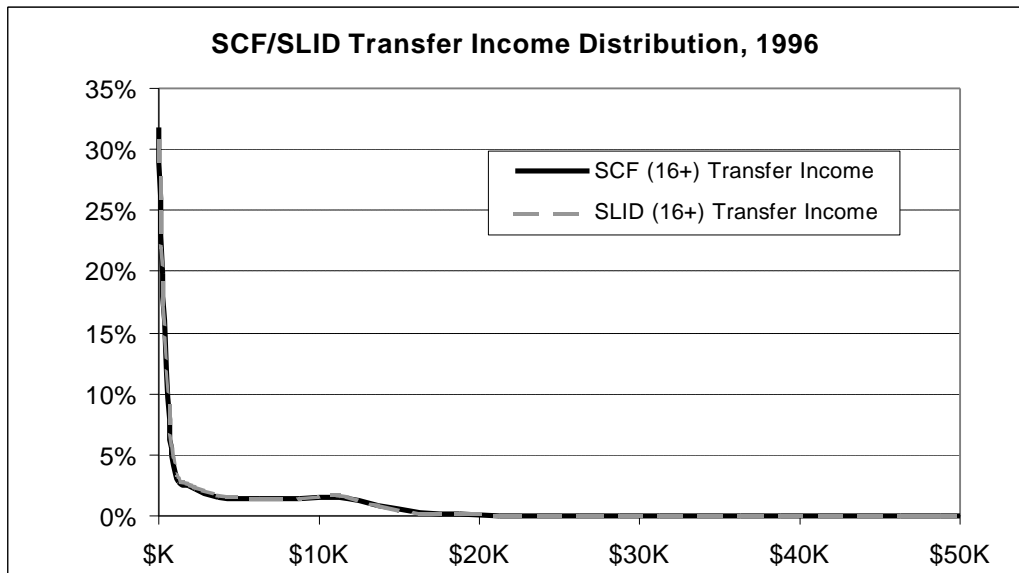
Market Income	Total Income	SLID Market Income Persons 16+		SCF Market Income Persons 16+		SLID - SCF	
		('000)	%	('000)	%	('000)	% pts
Less than \$0	Not \$0	118.2	0.5	68.7	0.3	49.5	0.2
\$0	Not \$0	2,820.9	12.7	2,655.6	12.2	165.3	0.5
\$1 to \$2,499	Not \$0	2,125.8	9.6	1,963.7	9.0	162.1	0.5
\$2,500 to \$4,999	Not \$0	1,480.3	6.7	1,409.8	6.5	70.6	0.2
\$5,000 or more	Not \$0	15,689.2	70.6	15,651.3	72.0	37.9	-1.4
	(excluded from the distribution)						
\$0	\$0	905.4		1,516.8		-611.4	

3.7 Distribution of Transfer Income

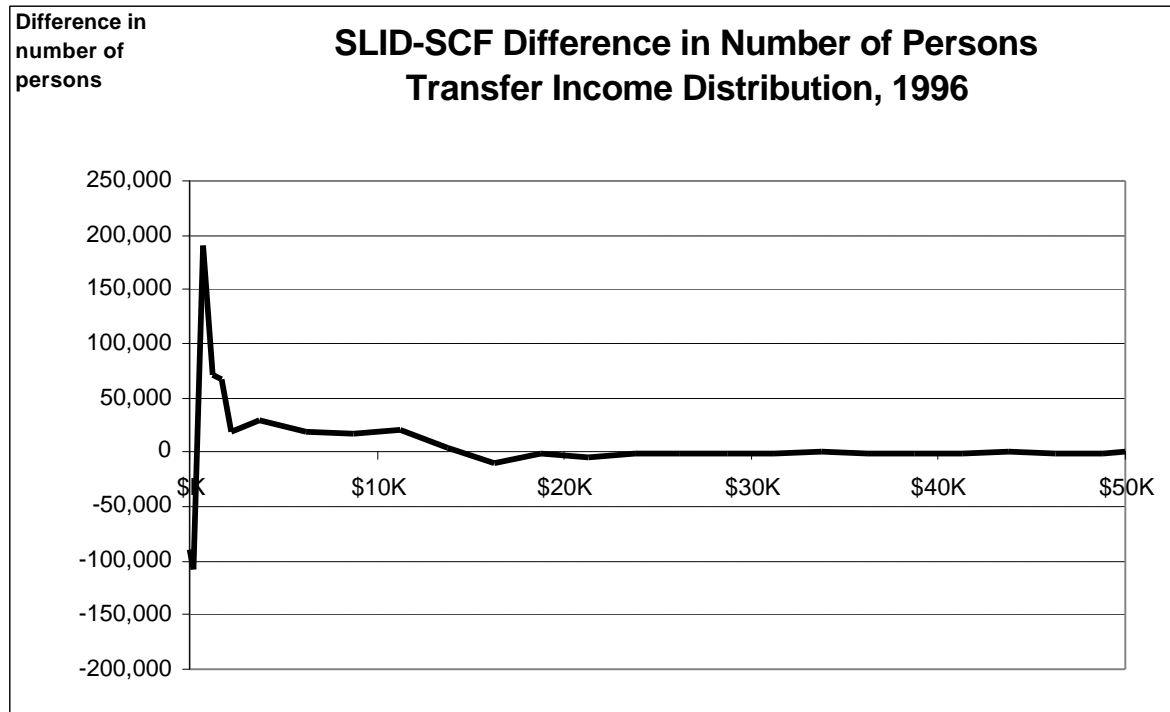
The distribution of transfer income is presented three ways in the following charts:

- the percentage distribution for all persons aged 16 and over, excluding those who have zero income;
- the percentage distribution for persons receiving transfer income;
- the difference between the two surveys, in estimates of persons, including those with no transfer income.

The first two charts show that the distributions are virtually identical and it is difficult to visually detect differences.



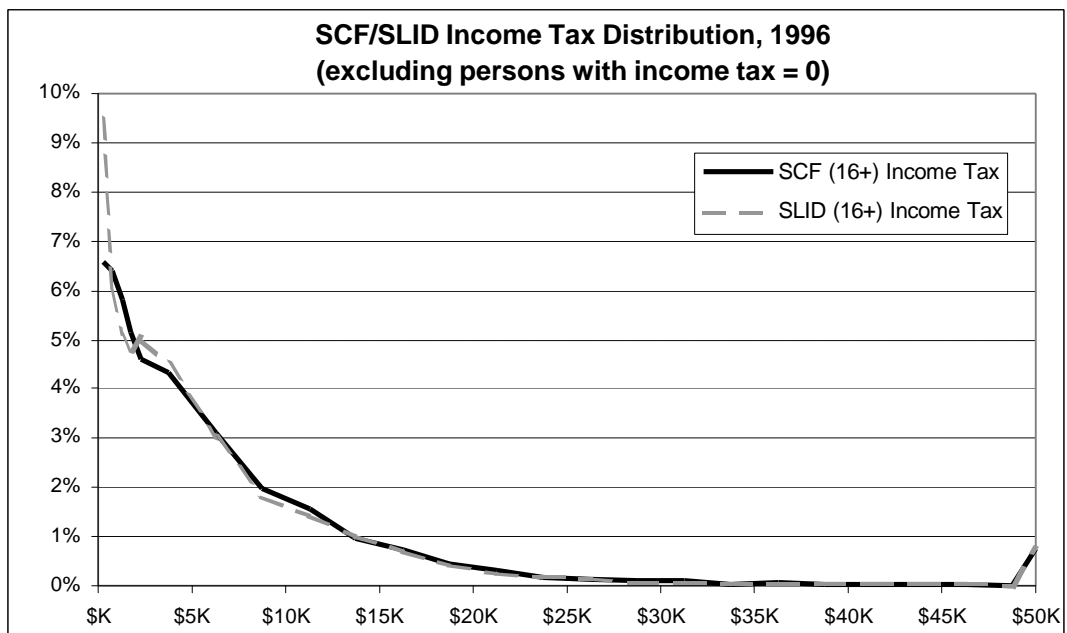
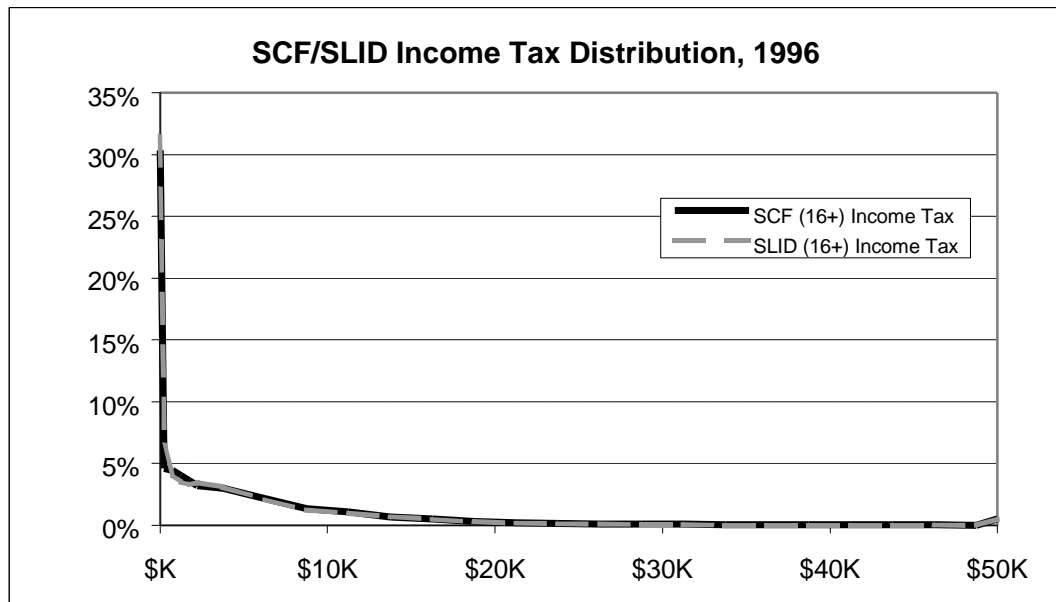
The third chart and the accompanying table show that SLID has a lower estimate of persons receiving no transfer income and a lower estimate of persons receiving \$1 to \$499 in transfers. The differences are about 90,000 and 110,000, respectively. Thereafter, SLID produces larger estimates of the number of people receiving relatively small amounts of transfer income. The differences more or less cease around the \$15,000 mark.



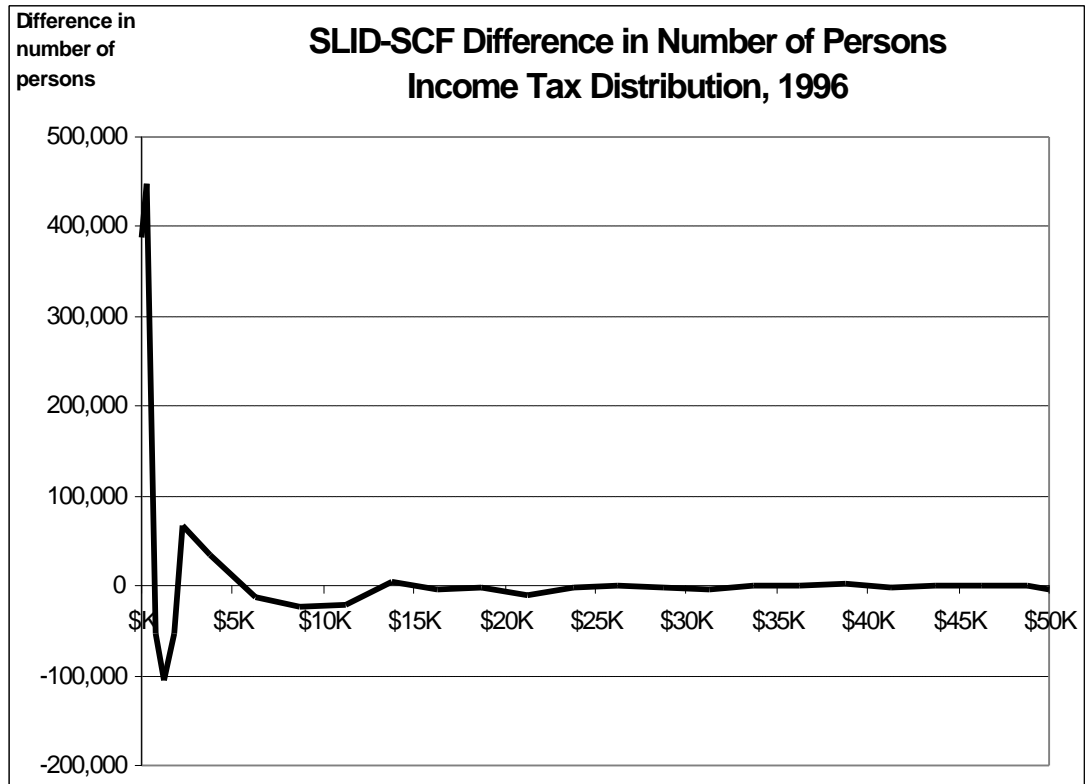
Transfer Income	Total Income	SLID Transfer Income Persons 16+		SCF Transfer Income Persons 16+		SLID - SCF	
		('000)	%	('000)	%	('000)	% pts
\$0	Not \$0	6,816.6	30.7	6,906.8	31.8	-90.3	-1.1
\$1 to \$499	Not \$0	4,204.7	18.9	4,313.2	19.8	-108.5	-0.9
\$500 to \$999	Not \$0	1,259.4	5.7	1,069.2	4.9	190.3	0.8
\$1,000 or more	Not \$0	9,953.7	44.8	9,459.8	43.5	493.9	1.3
		(excluded from the distribution)					
\$0	\$0	905.4		1,516.8		-611.4	

3.8 Distribution of Income Tax

As for the other major variables, the shape of the distribution of income taxes paid is very similar in SLID and SCF. The second chart in the series excludes individuals 16 and over paying no income tax, showing a higher proportion of individuals in SLID at very low levels of taxation.



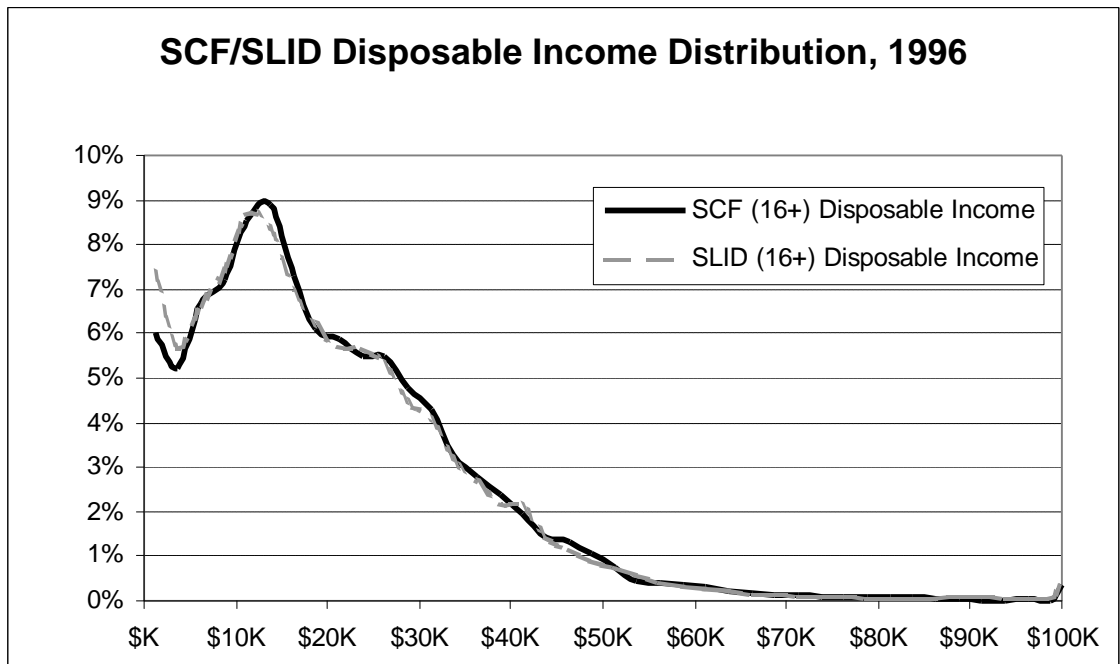
The third chart and the accompanying table highlight the differences between the two surveys, showing that the SLID estimate of persons with zero income tax is about 390,000 higher than SCF and the SLID estimate of persons with \$1 to \$499 in income tax is 450,000 higher than SCF.



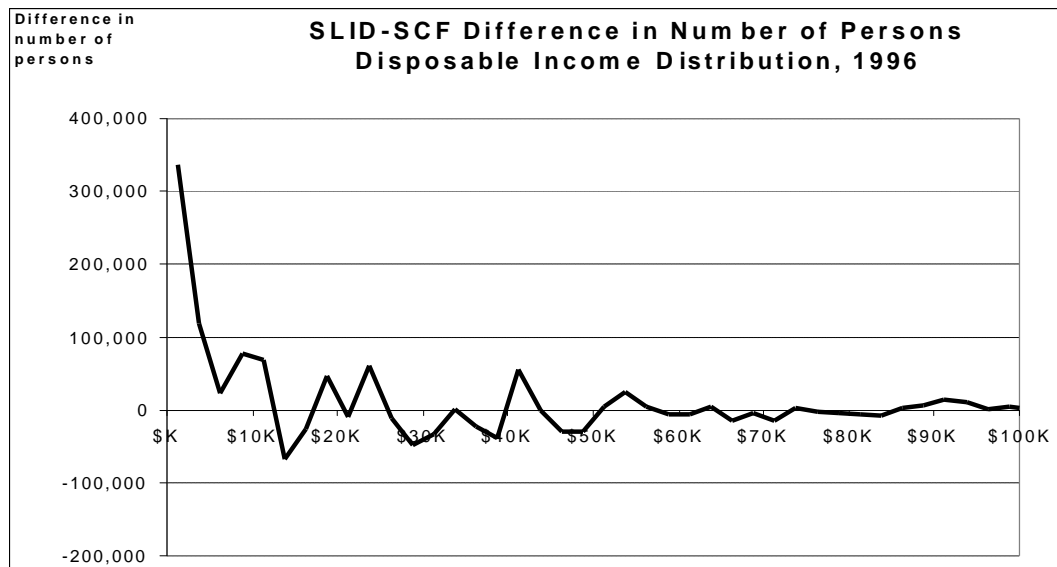
Income Tax	Total Income	SLID Income Tax Persons 16+		SCF Income Tax Persons 16+		SLID - SCF	
		('000)	%	('000)	%	('000)	% pts
\$0	Not \$0	6,990.8	31.4	6,602.2	30.4	388.5	1.1
\$1 to \$499	Not \$0	1,443.3	6.5	995.0	4.6	448.4	1.9
\$500 to \$999	Not \$0	914.0	4.1	968.2	4.5	-54.2	-0.3
\$1,000 or more	Not \$0	12,886.3	58.0	13,183.6	60.6	-297.3	-2.7
		(excluded from the distribution)					
\$0	\$0	905.4		1,516.8		-611.4	

3.9 Distribution of Disposable Income

The differences between SLID and SCF reviewed in the preceding series of charts generally net out, to produce virtually identical distributions of disposable income. The only difference worthy of comment is that SLID has a higher estimate of the number of individuals with income levels below \$5,000, which is due mainly to differences in the reporting of market income.



The graph of differences shows SLID with about 337,000 persons who have less than \$2,500 disposable income (and who have a total income that is not equal to zero).



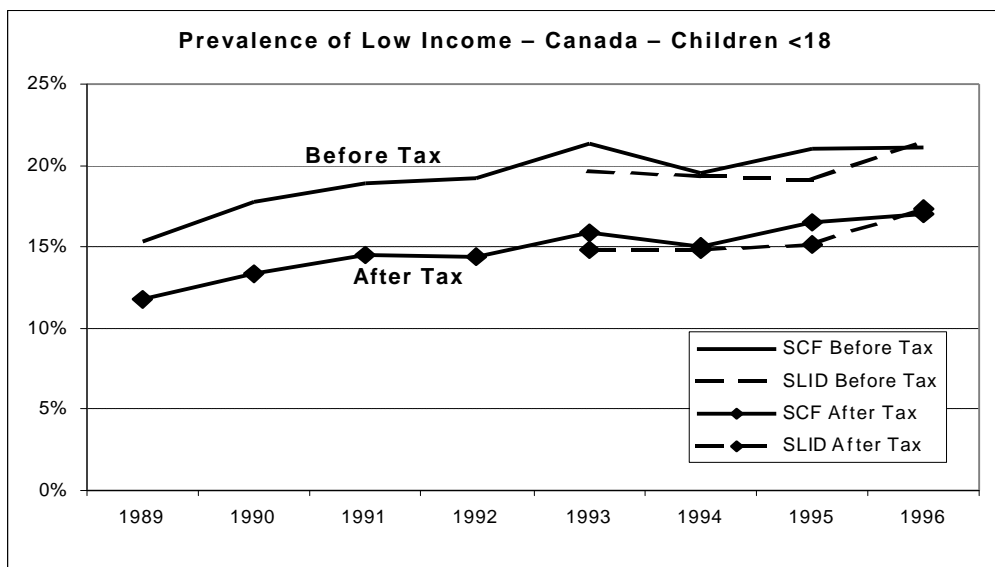
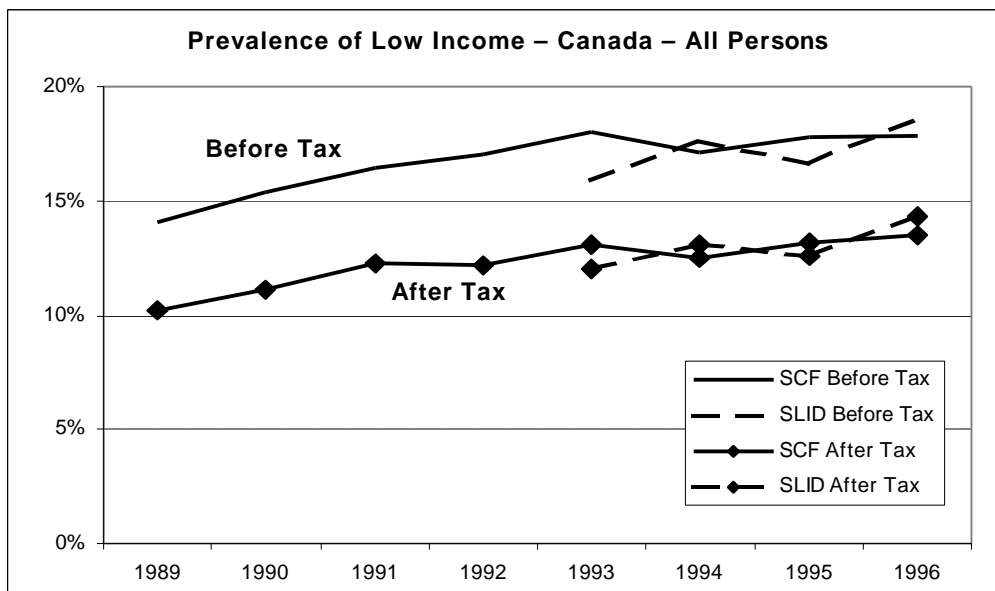
Disposable Income	Total Income	SLID Disposable Income Persons 16+		SCF Disposable Income Persons 16+		SLID - SCF	
		('000)	%	('000)	%	('000)	% pts
Less than \$0	Not \$0	73.0	0.3	44.5	0.2	28.5	0.1
\$0	Not \$0	0.0	0.0	0.0	0.0	0.0	0.0
\$1 to \$2,499	Not \$0	1,571.9	7.1	1,263.5	5.8	308.4	1.3
\$2,500 to \$4,999	Not \$0	1,256.3	5.7	1,137.1	5.2	119.1	0.4
\$5,000 or more	Not \$0	19,333.3	87.0	19,304.0	88.8	29.3	-1.8
		(excluded from the distribution)					
\$0	\$0	905.4		1,516.8		-611.4	

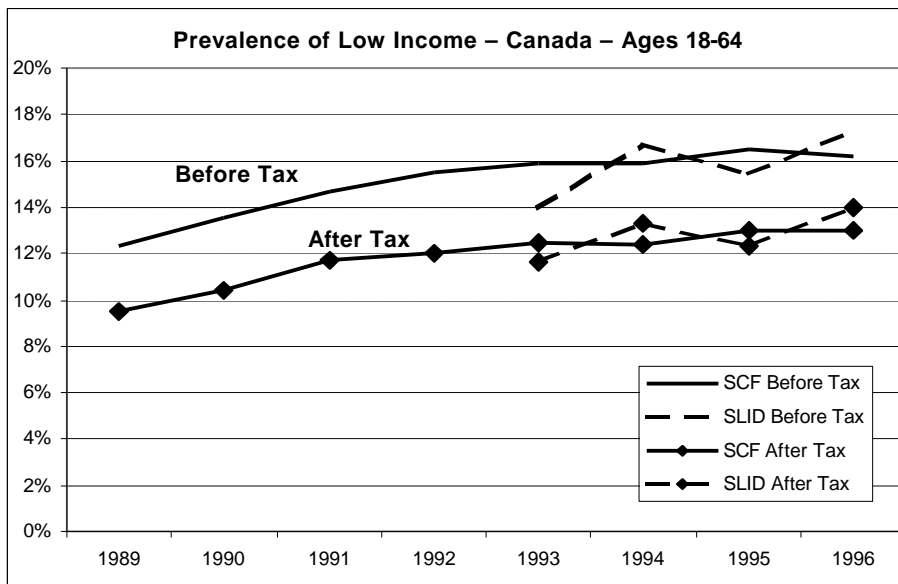
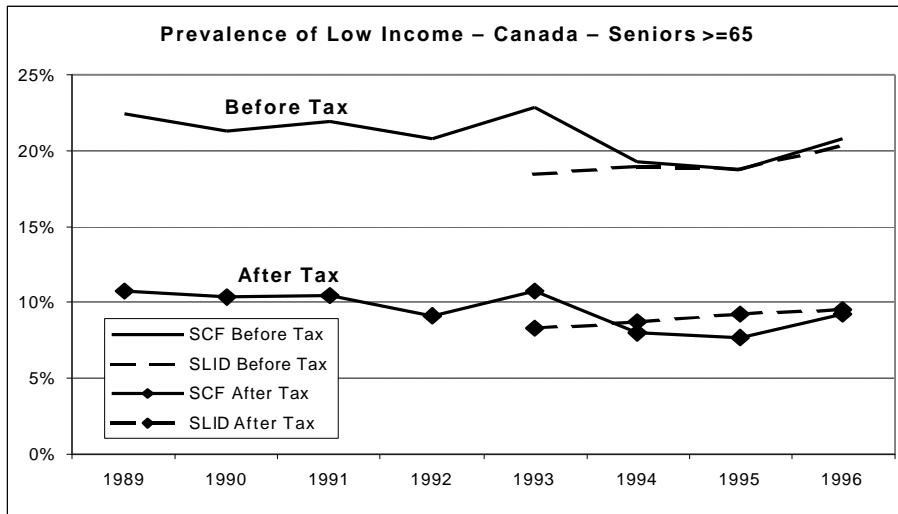
3.10 Prevalence of Low Income

In 1996, the proportion of the population in low income, based on before-tax income, was 17.9% in SCF and 18.6% in SLID. After tax, rates were 13.5% and 14.3% respectively. These differences are not significant at the 95% level. Over the past three years, the rates from the two surveys have fluctuated within a very narrow band. The after-tax rates – which will be highlighted in our future releases – have been less than one percentage point apart since 1994. The results for 1993 were not as close, which is attributable to the start-up problems in SLID alluded to earlier.

SLID's low income rate for children is very marginally higher than SCF's; the 1996 rates after tax were 17.3% and 17.1% respectively. Both rates have increased since 1994.

The after-tax rate for seniors was 9.5% in SLID and 9.2% in SCF.





Apart from sampling variability and systematic differences in income measurement, SLID and SCF may produce different low income rates because they do not line up with respect to two key variables underlying the derivation of LICOs, specifically family size and community size (also called size of area of residence).

Estimates of families were discussed earlier. The other underlying variable is community size. SLID and SCF are somewhat different with respect to the distribution of the population by community size. Essentially, the SLID population appears to be more concentrated in urban areas under 30,000 and in those between 30,000 and 100,000. Since both surveys are offshoots of the Labour Force Survey, this is not a sample design issue. It is rather due to differences in the way SLID and SCF derive the community size variable. This issue is currently under review.

3.11 Aggregate and Average Income by Source

In 1995, there was a gap of \$8.7 billion or 1.6% between the SLID and SCF estimates of aggregate income. In 1996, the gap declined to \$4.0 billion or 0.7%.

The difference between the two estimates is not significant at the 95% level.

For many of the major income sources, the 1996 SLID estimate came in slightly higher than SCF's. Some exceptions were: wages and salaries (-1.1%), CTB (-2.2%), OAS/GIS (-2.0%) and CPP/QPP (-0.9%).

The largest relative differences between the two surveys were recorded for:

- Employment Insurance, where the SLID estimate of aggregate income exceeds the SCF estimate by 7.3% in 1995 and 13.6% in 1996;
- Social Assistance, where SLID values are higher by 9.5% in 1995 and 16.7% in 1996;
- Workers' Compensation, where SLID is 18.3% higher in 1995 and 7.3% higher in 1996;
- income from private pensions, where SLID exceeds SCF by 10.3% in 1995 and 10.2% in 1996;
- other income, where SLID is 68.3% higher in 1995 and 56.1% higher in 1996.

The estimates for "other income" are considerably higher in SLID. At the root are some differences in income classification. Specifically, SLID has included "other employment income" – Line 104 from the T-1 – in the residual "other income" category, while SCF has included this type of income in wages and salaries. On balance, the SCF procedure seems better and SLID will follow suit. This will shift about \$3.9 billion from "other income" to wages and salaries, bringing the two surveys to within 0.1% for wages and salaries and within 13.8% for "other income".

However, it is important to keep in mind the weight of each income source in the aggregate as these sources account for a much smaller share than wages and salaries.

The estimates of average income by source are calculated by dividing the aggregate estimate by the number of people receiving the income source in question. As noted earlier, SLID estimates of persons with income are higher than SCF's, and average amounts per person are lower. This phenomenon is evident for virtually every major source of income.

Aggregate Income, Selected Sources, 1995 and 1996 (\$billions)

	SLID \$billions	SCF \$billions	Difference (SLID - SCF)	
			\$	%
1995				
Total	558.1	549.4	8.7	1.6
Earnings	418.3	418.8	-0.5	-0.1
Wages and salaries	389.5	382.9	6.7	1.7
Investment	22.2	22.6	-0.4	-1.6
Government transfers	74.9	73.9	1.0	1.3
Child Tax Benefit	5.4	5.5	--	--
OAS/GIS	19.1	19.5	-0.4	-2.1
CPP/QPP	19.1	18.4	0.7	3.7
EI	12.7	11.8	0.9	7.3
Social Assistance	11.0	10.0	1.0	9.5
Workers' Comp.	4.0	3.3	0.6	18.3
GST Credits	2.7	2.8	-0.1	-2.2
Pension	28.0	25.4	2.6	10.3
Other Income	14.7	8.7	6.0	68.3
Income tax	110.8	107.5	3.3	3.0
1996				
Total	563.1	567.1	-4.0	-0.7
Earnings	420.0	433.5	-13.5	-3.1
Wages and salaries	393.4	397.6	-4.2	-1.1
Investment	22.5	22.2	0.3	1.4
Government transfers	76.5	75.2	1.2	1.7
Child Tax Benefit	5.7	5.8	-0.1	-2.1
OAS/GIS	20.1	20.5	-0.4	-2.0
CPP/QPP	19.2	19.3	-0.2	-0.9
EI	12.7	11.2	1.5	13.6
Social Assistance	11.6	9.9	1.7	16.7
Workers' Comp.	3.5	3.3	0.2	7.3
GST Credits	2.8	2.8	--	--
Pension	29.5	26.7	2.7	10.2
Other income	14.6	9.4	5.3	56.1
Income tax	111.2	114.3	-3.1	-2.7

Average Income for Selected Sources, 1995 and 1996

	SLID \$	SCF \$	Difference (SLID - SCF)	
			\$	%
1995				
Total	25,500	25,700	-200	-1.0
Earnings	26,300	26,300	0	0.0
Wages and salaries	26,600	26,400	300	1.0
Investment	2,700	3,500	-800	-23.5
Government transfers	4,900	5,000	-100	-1.7
Child Tax Benefit	1,500	1,700	-200	-11.1
OAS/GIS	5,600	5,800	-100	-2.3
CPP/QPP	4,900	5,000	-100	-2.3
EI	4,400	4,800	-400	-8.5
Social Assistance	5,700	5,900	-200	-2.9
Workers' Comp.	5,000	7,400	-2300	-31.8
GST Credits	300	300	--	--
Pension	11,600	12,300	-700	-5.6
Income tax	7,200	7,300	-200	-2.4
1996				
Total	25,300	26,100	-700	-2.9
Earnings	26,400	27,300	-900	-3.3
Wages and salaries	27,000	27,600	-600	-2.1
Investment	2,800	3,600	-800	-21.8
Government transfers	5,000	5,100	-100	-2.1
Child Tax Benefit	1,600	1,800	-300	-14.6
OAS/GIS	5,800	5,900	-100	-1.3
CPP/QPP	5,000	5,200	-200	-3.8
EI	4,500	4,900	-500	-9.1
Social Assistance	5,700	5,700	--	-0.1
Workers' Comp.	4,800	7,800	-3,000	-38.1
GST Credits	300	300	--	1.0
Pension	12,500	12,600	--	-0.3
Income tax	7,300	7,500	-300	-3.3

3.12 Aggregate Income by Source – Comparison to RCT and SNA (\$billions)

With some adjustments, it is possible to compare the results from SLID and SCF to those of other sources, specifically National Accounts and Revenue Canada. Both are useful points of comparison. Revenue Canada should line up very well with the surveys, because the tax system now covers about 95% of the population. For the majority of income sources, the surveys make reference to tax form line numbers in the hope that survey respondents will report precisely the amounts indicated on their T-1. However, some items are known to be under-reported in the income tax data, and the National Accounts make use of other sources which are more complete.

For the comparison of total aggregate income, the survey results are adjusted to National Accounts concepts. In other words:

- income from private pensions is excluded;
- “other income” is excluded.

The National Accounts results in the comparison are not final estimates. The Revenue Canada results were obtained from Small Area and Administrative Data Division (SAADD) and are based on the full T-1 file rather than on the Green Book. The SAADD data provide a better basis for comparison as they are based on the full taxfiler universe, rather than a sample. Also, some editing is done by SAADD. Some adjustments have been made to both SNA and tax data to correspond to the population covered by the surveys. However, differences in conceptual coverage and definition remain.

On National Accounts concepts, the estimate of total aggregate income in 1995 was \$515.4 billion in SLID and \$515.3 billion in SCF. Both surveys were thus very close to the National Accounts estimate (0.8% higher). Both were about 6% higher than the corresponding estimate from Revenue Canada.

In 1996, the aggregate income from SLID adjusted to National Accounts concepts was \$519.0 billion; based on SCF, the estimate was \$530.9 billion. So the SLID estimate is 2.3% lower although there was less than a 1% difference in the aggregate income estimates *before* adjustment. This is because the two income sources removed to create the National Accounts concept are both higher in SLID than in SCF – specifically, pension income is about 10% higher in SLID and “other income” is 56% higher, as noted earlier. If “other employment income” in SLID is shifted to wages and salaries, aggregate SLID income for 1996 rises to about \$522.9 billion, or 1.6% below the National Accounts estimate.

**Aggregate Income, Selected Sources, 1995 and 1996:
Comparisons With National Accounts and Revenue Canada**

\$billions

	SLID	SCF	SNA	RCT
1995				
Total*	515.4	515.3	511.5	485.2
Earnings	418.3	418.8	387.0	380.7
Wages and salaries	389.5	382.9	358.6	354.2
Investment	22.2	22.6	39.8	29.1
Government transfers	74.9	73.9	84.6	75.4
Income tax	110.8	107.5	102.1	105.8
1996				
Total*	519.0	530.9	531.1	497.3
Earnings	420.0	433.5	401.6	392.1
Wages and salaries	393.4	397.6	367.7	363.5
Investment	22.5	22.2	40.3	29.3
Government transfers	76.5	75.2	89.2	76.0
Income tax	111.2	114.3	108.6	111.1

* Based on National Accounts concepts

**Aggregate Income, Selected Sources, 1995 and 1996:
Comparisons With National Accounts and Revenue Canada**

Ratios

	SLID/SNA	SCF/SNA	SLID/RCT	SCF/RCT
1995				
Total*	100.8	100.7	106.2	106.2
Earnings	108.1	108.2	109.9	110.0
Wages and salaries	108.6	106.8	110.0	108.1
Investment	55.9	56.8	76.5	77.8
Government transfers	88.4	87.3	99.3	98.0
Income tax	108.5	105.3	104.7	101.6
1996				
Total*	97.7	100.0	104.4	106.8
Earnings	104.6	107.9	107.1	110.6
Wages and salaries	107.0	108.1	108.2	109.4
Investment	55.8	55.1	77.0	75.9
Government transfers	85.7	84.3	100.6	99.0
Income tax	102.4	105.2	100.1	102.9

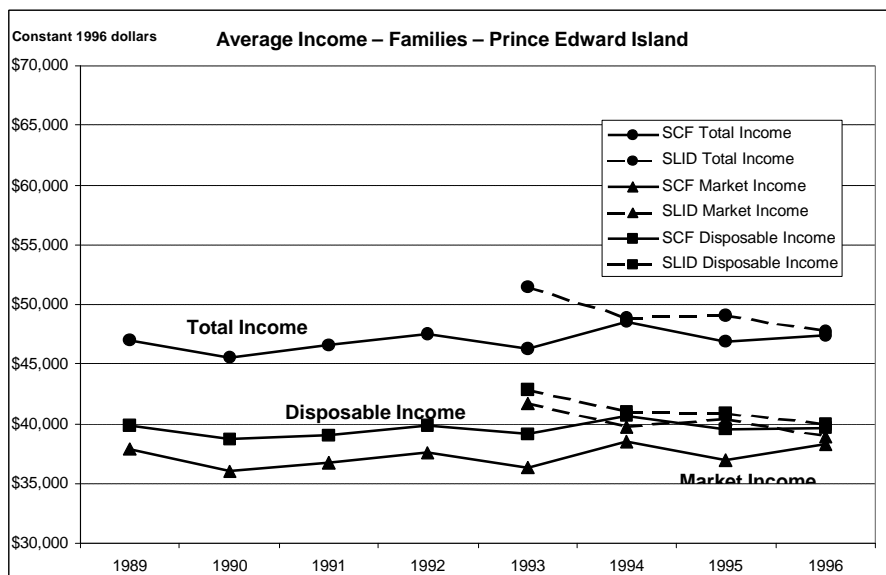
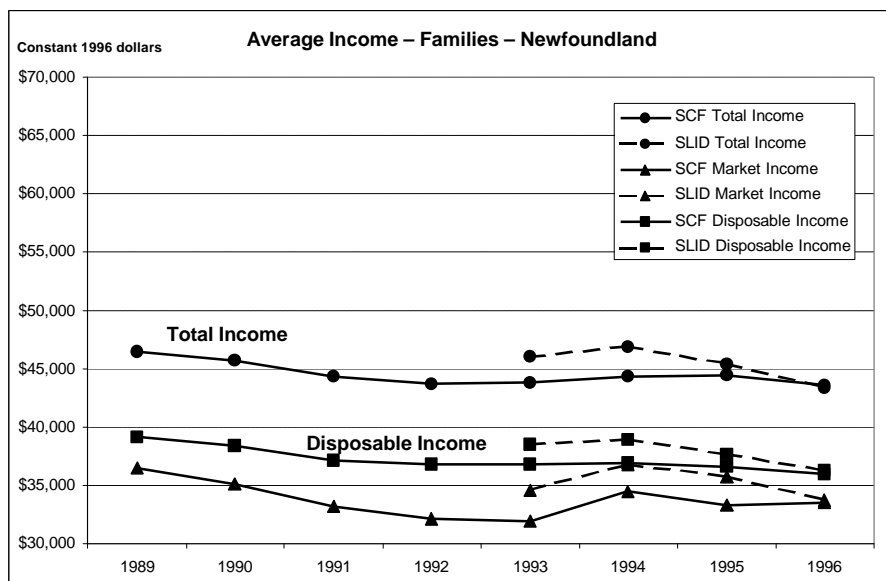
* Based on National Accounts concepts

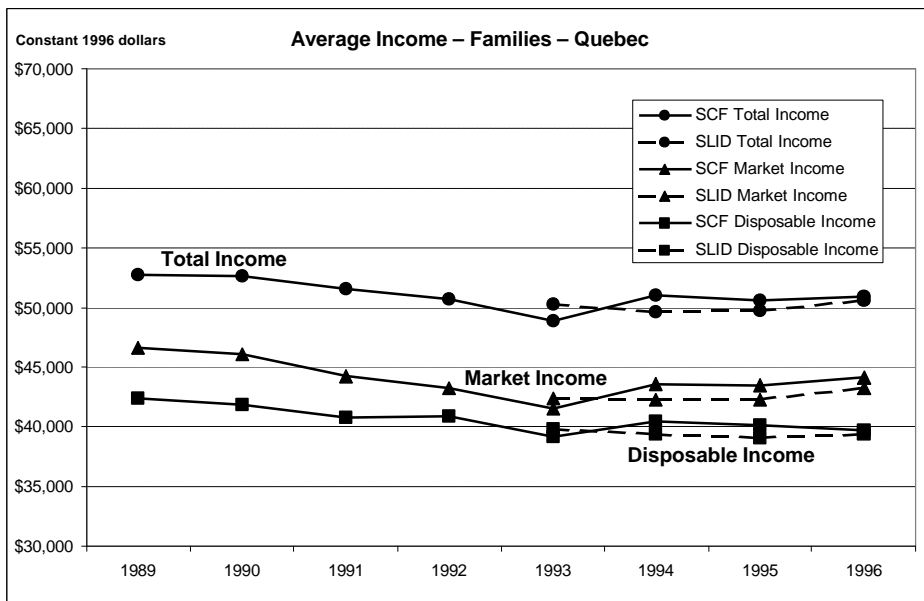
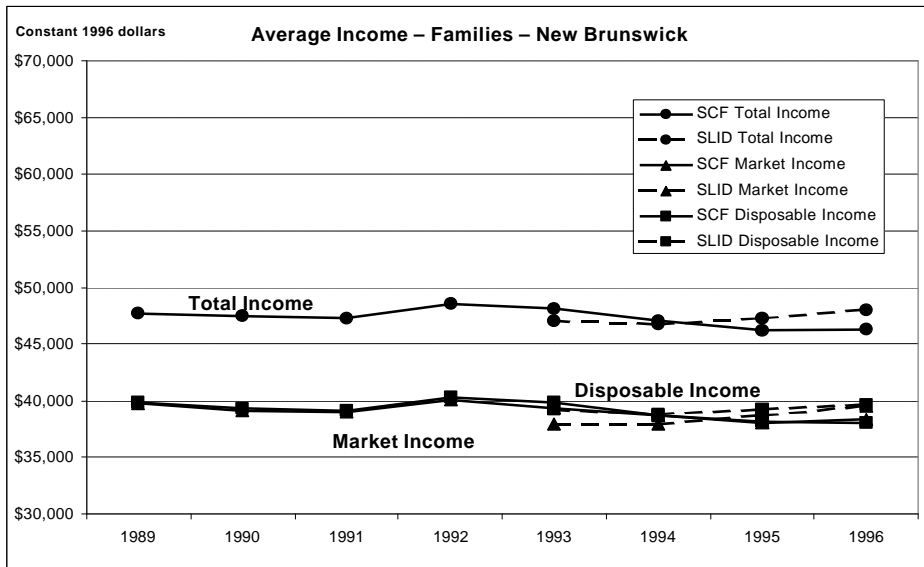
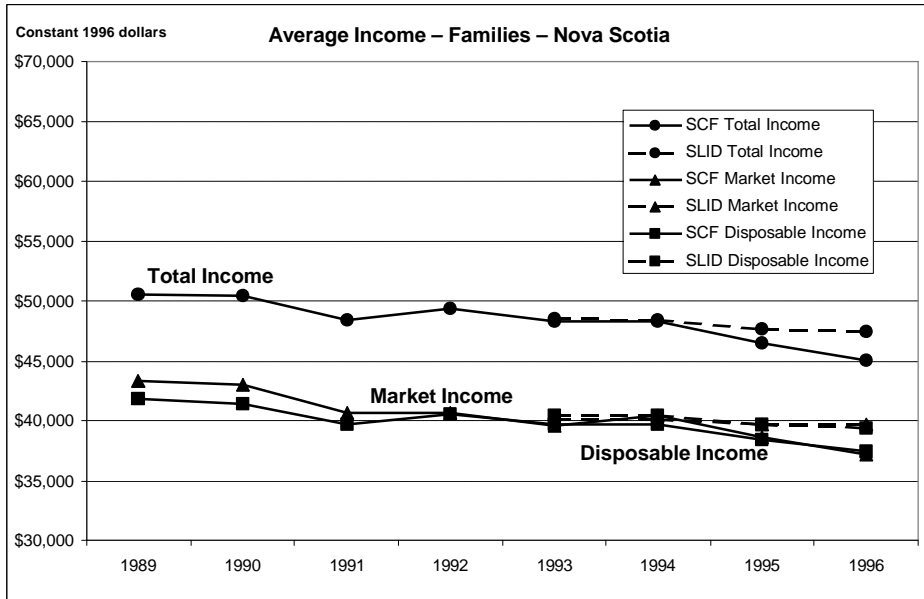
3.13 Average Income – Families – Provinces

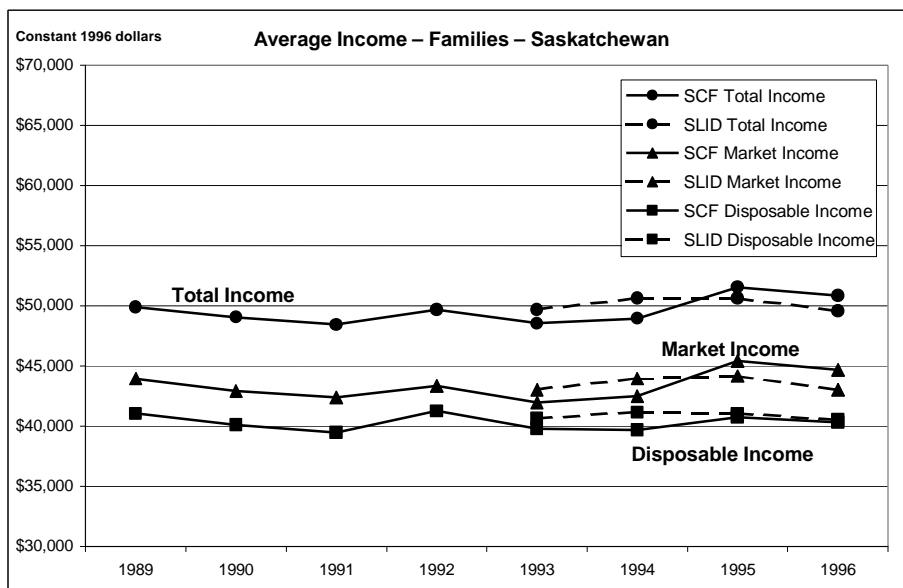
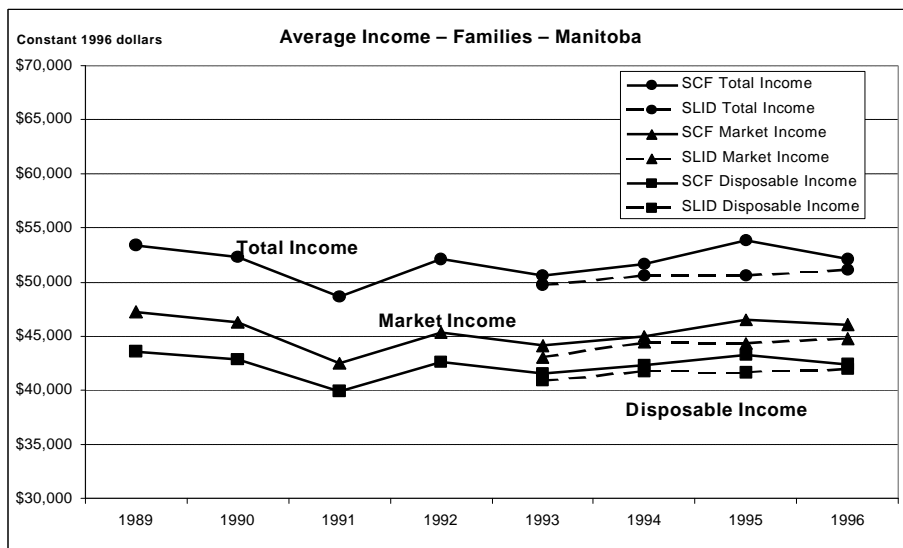
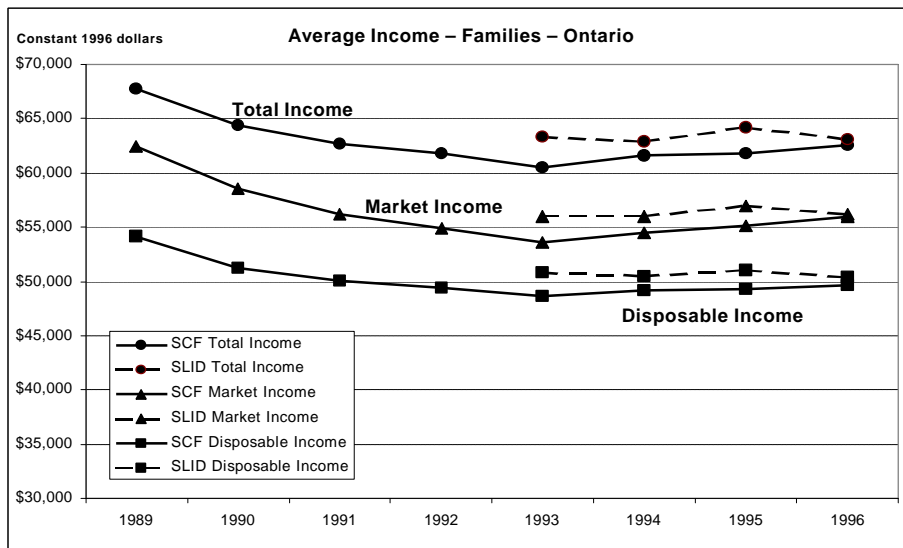
The estimates of average family income by province from SLID are generally quite close to the SCF values. With the introduction of the second panel in SLID, the sample size doubled. This, combined with large sample overlap from year to year, will contribute to stabilization of estimates for small provinces.

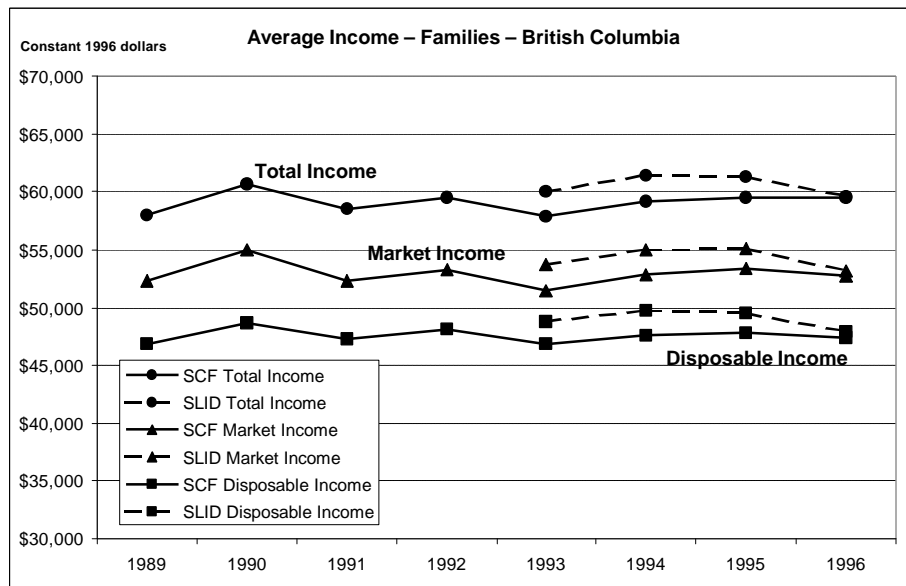
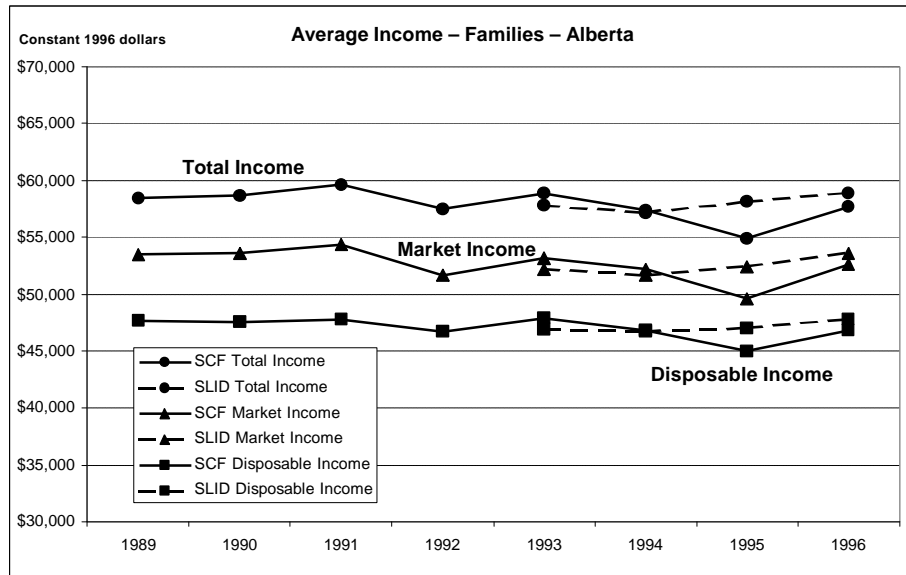
For 1996, the SLID and SCF estimates of average family income were within 2% of each other. The exceptions were Nova Scotia (5%), New Brunswick (4%) and Saskatchewan (3%).

The differences were not significant at the 95% level in any province, except for Nova Scotia.

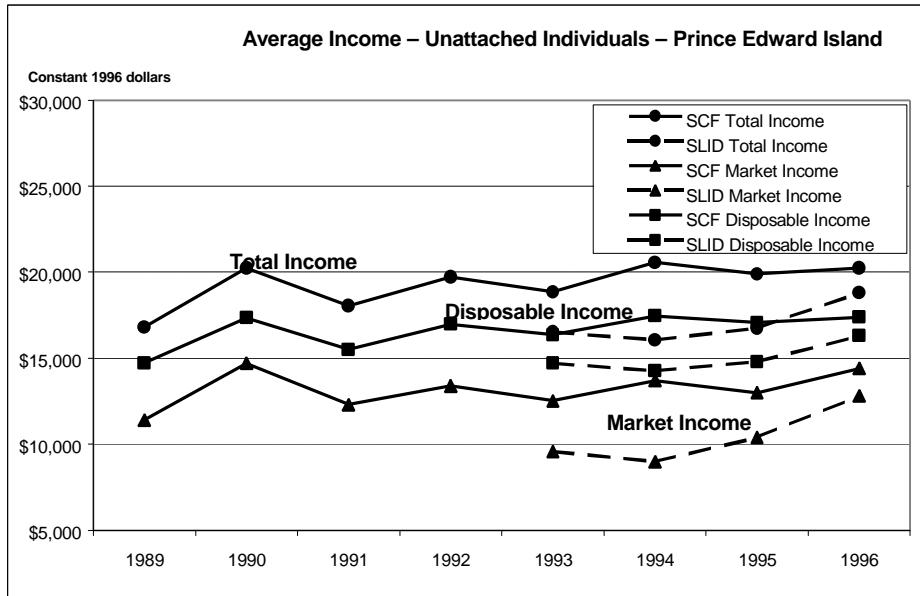
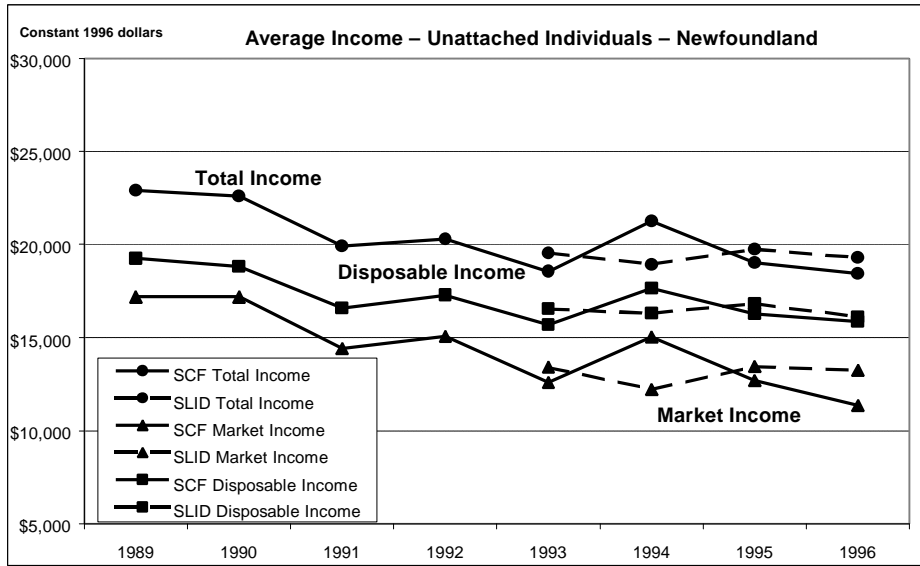


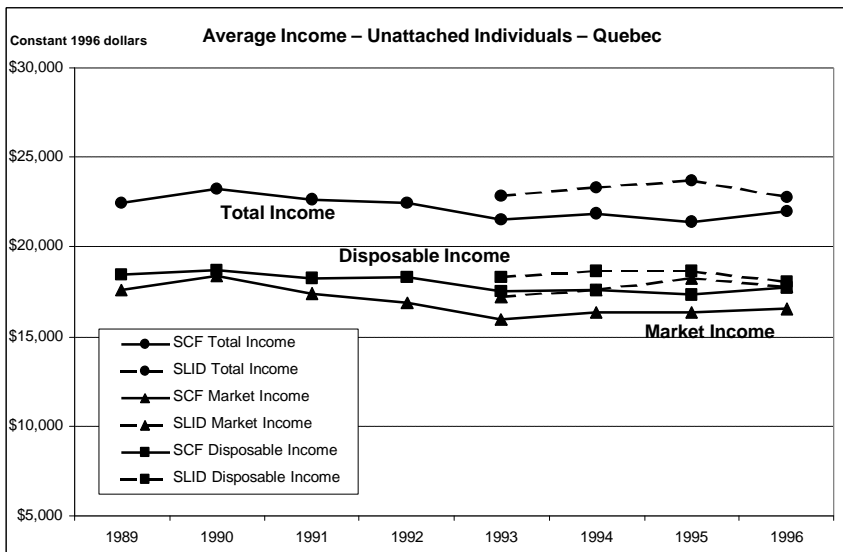
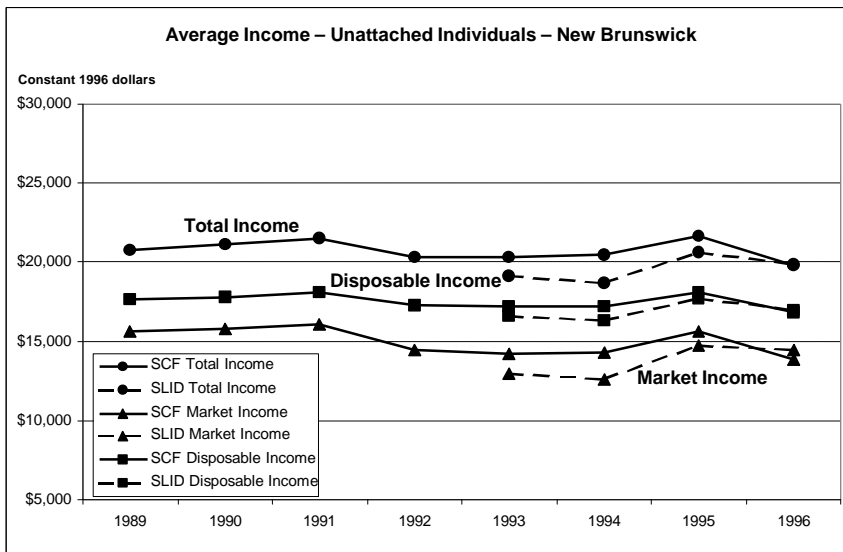
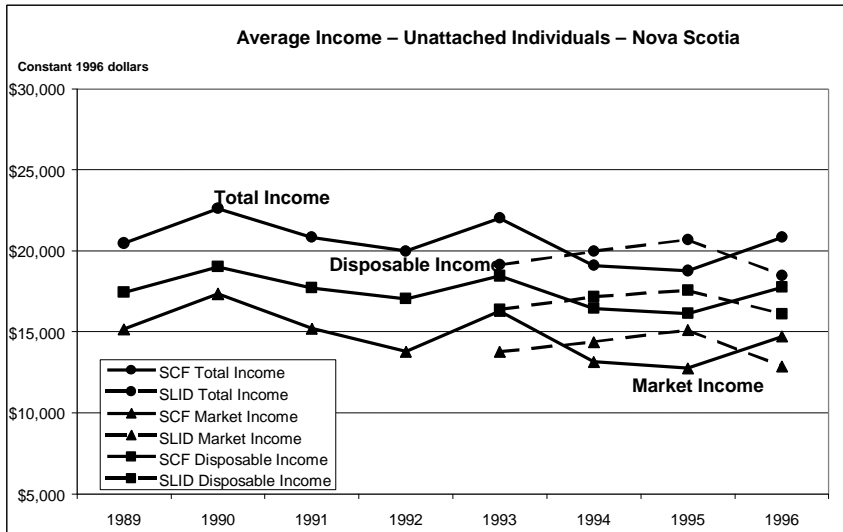


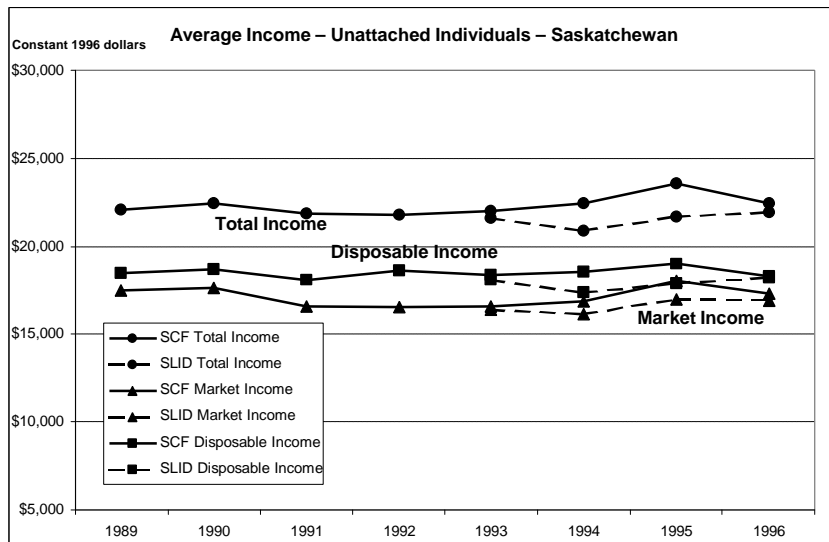
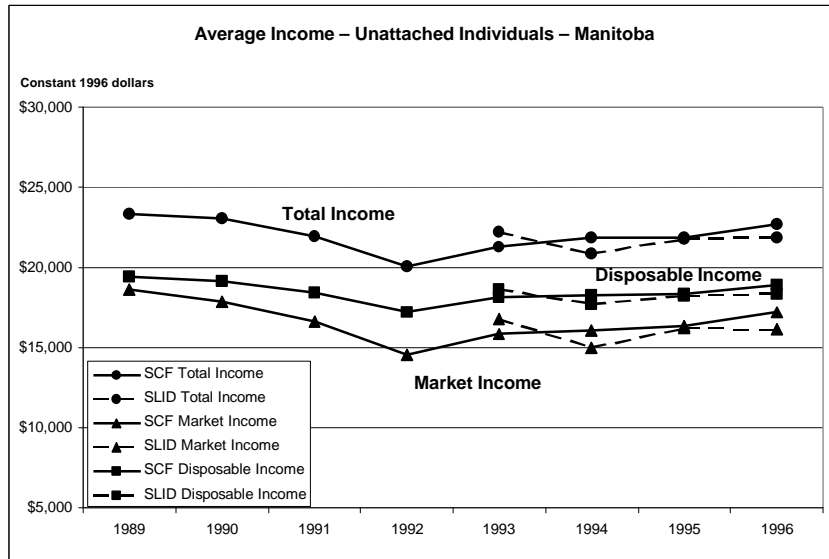
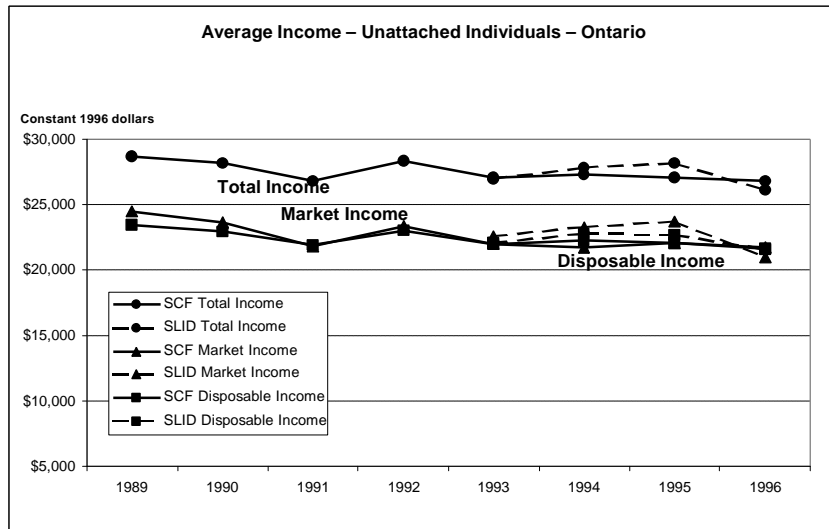


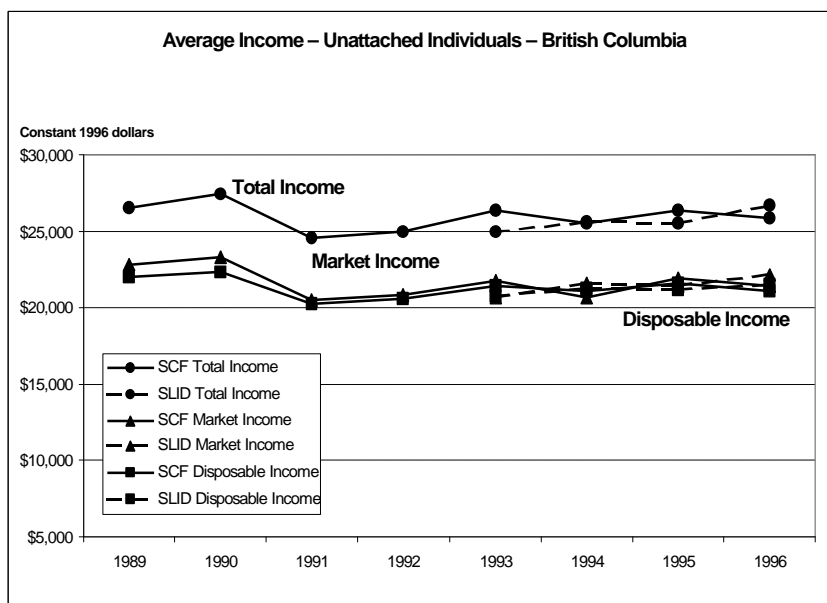
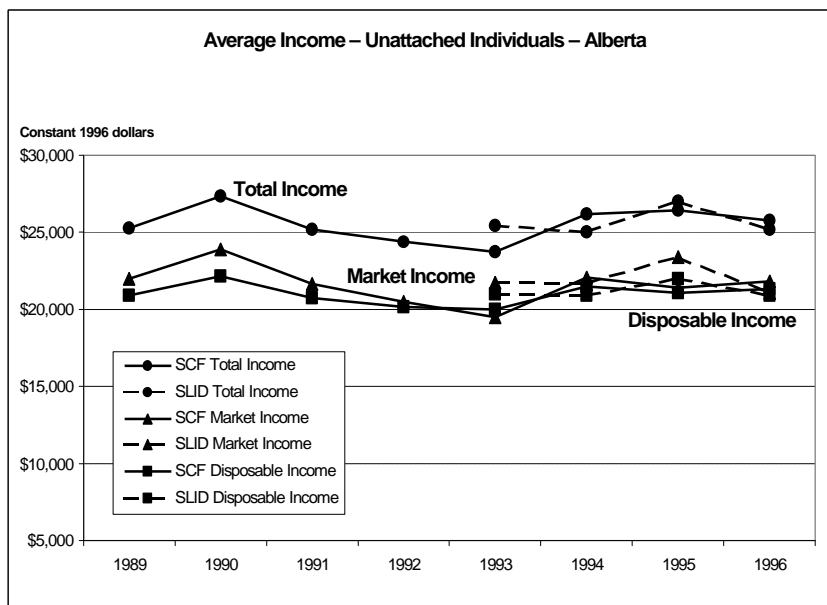


3.14 Average Income – Unattached Individuals – Provinces









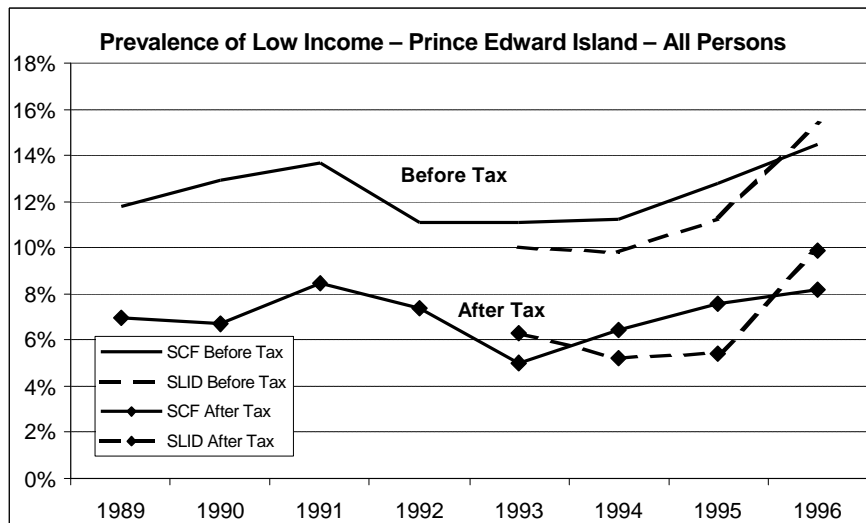
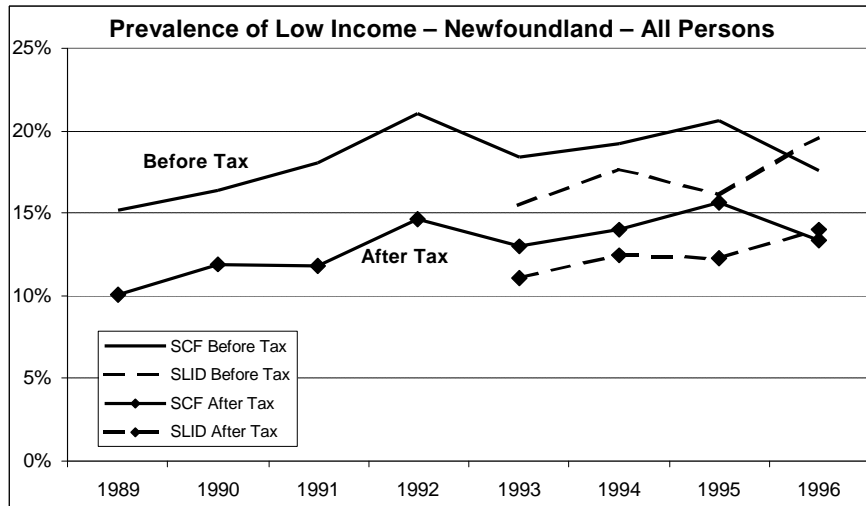
3.15 Prevalence of Low Income – Provinces

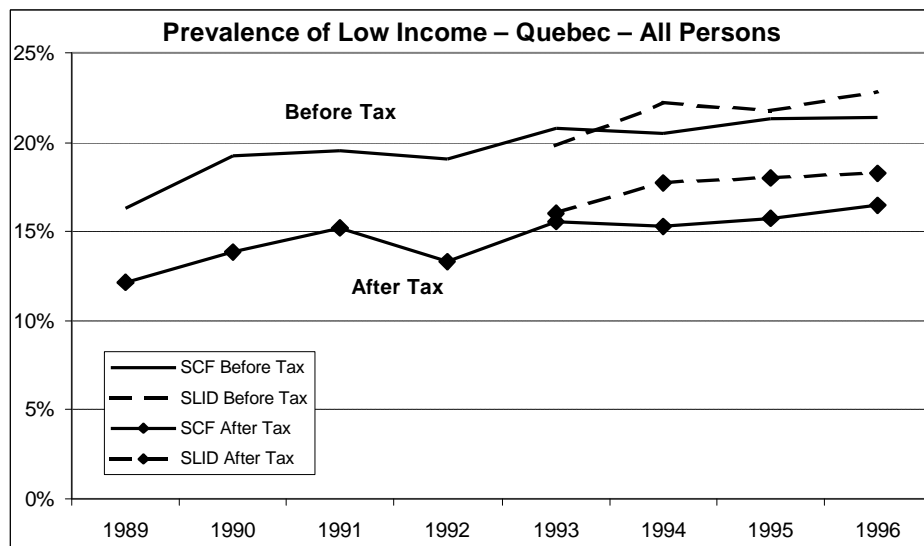
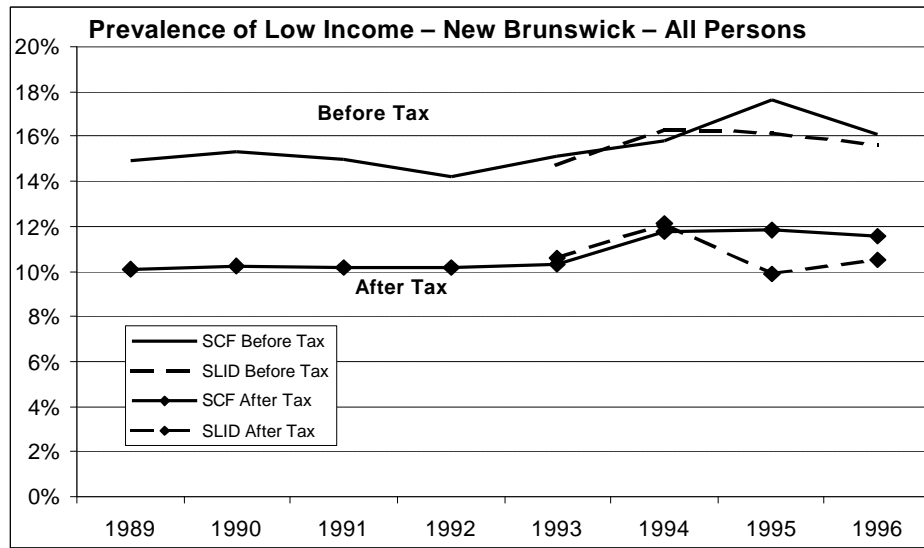
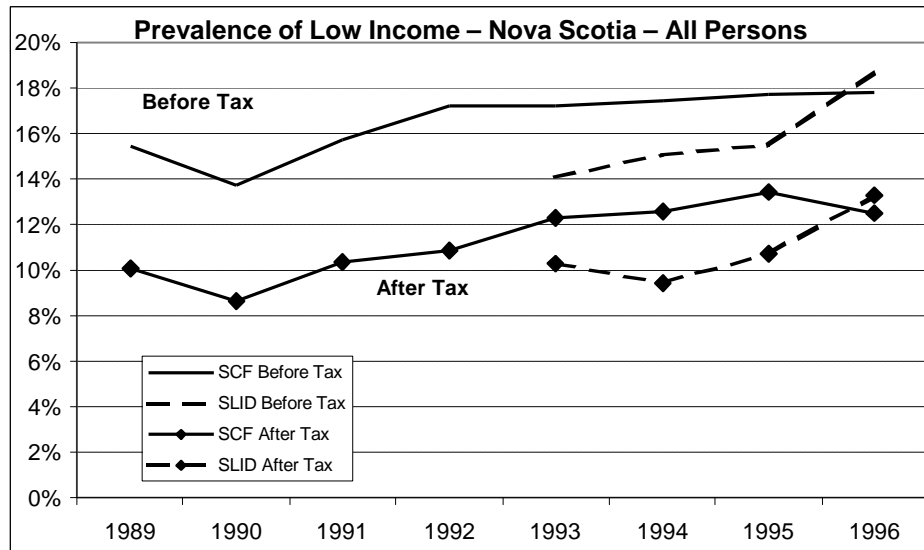
There are no significant differences in the SLID and SCF before tax low income rates at the provincial level.

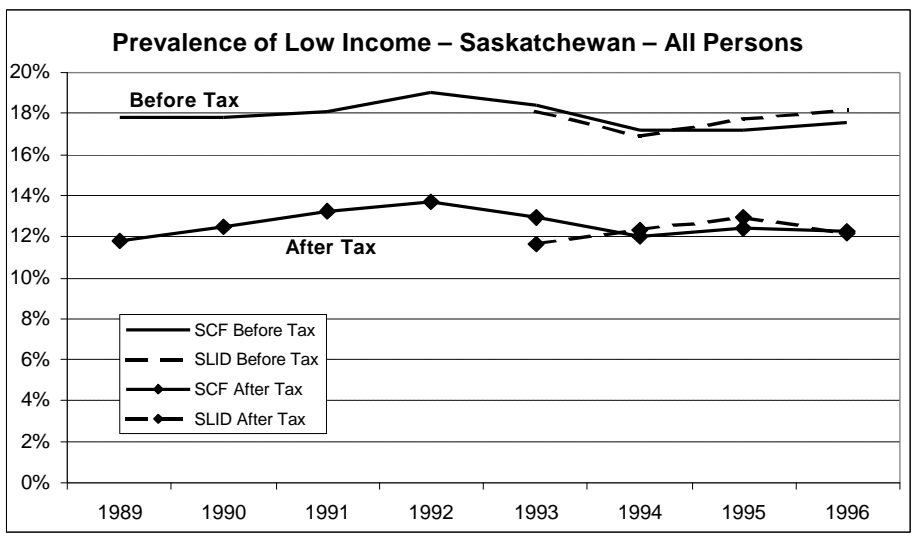
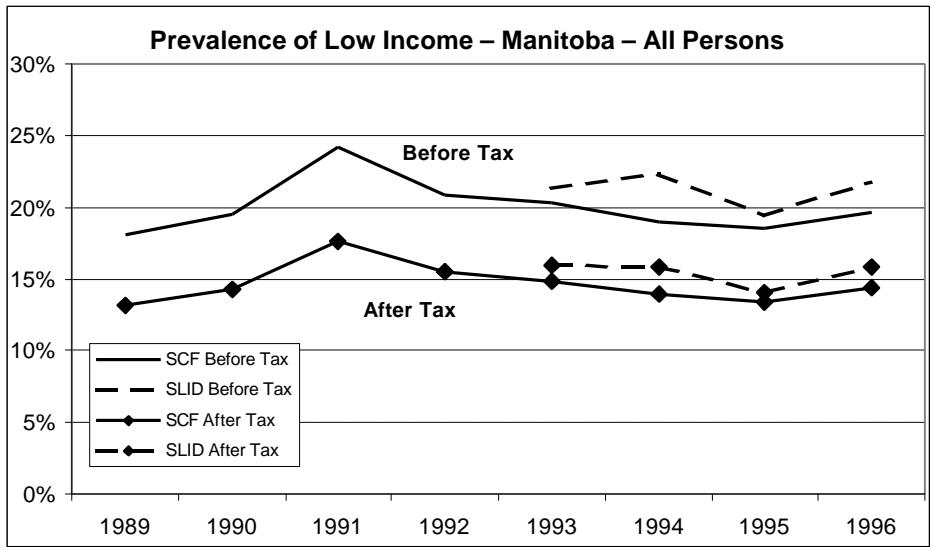
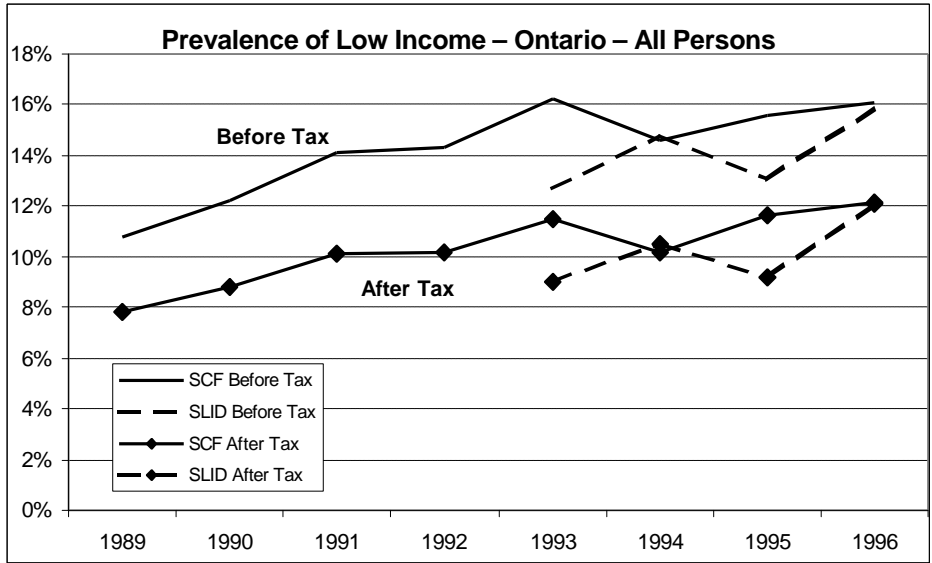
For most provinces, the 1996 low income rates before tax were somewhat higher in SLID than in SCF (New Brunswick and Ontario were the exceptions). In absolute terms, the largest gaps were recorded for Newfoundland, Manitoba and Alberta, where the SLID rates were about 2 p.p. higher. Both surveys show Quebec and Manitoba as having the highest rates and Prince Edward Island with the lowest rate, but there are some differences in ranking between the extremes.

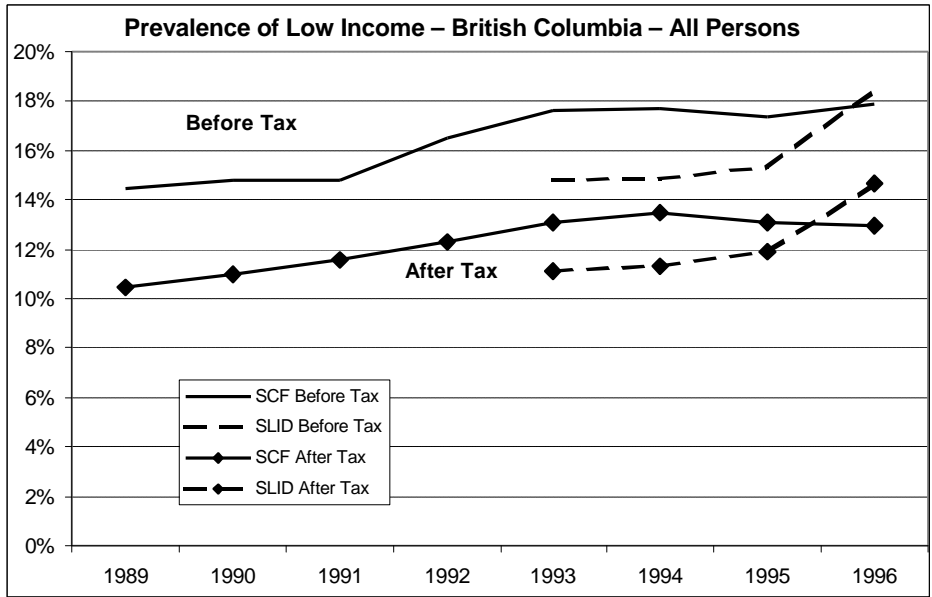
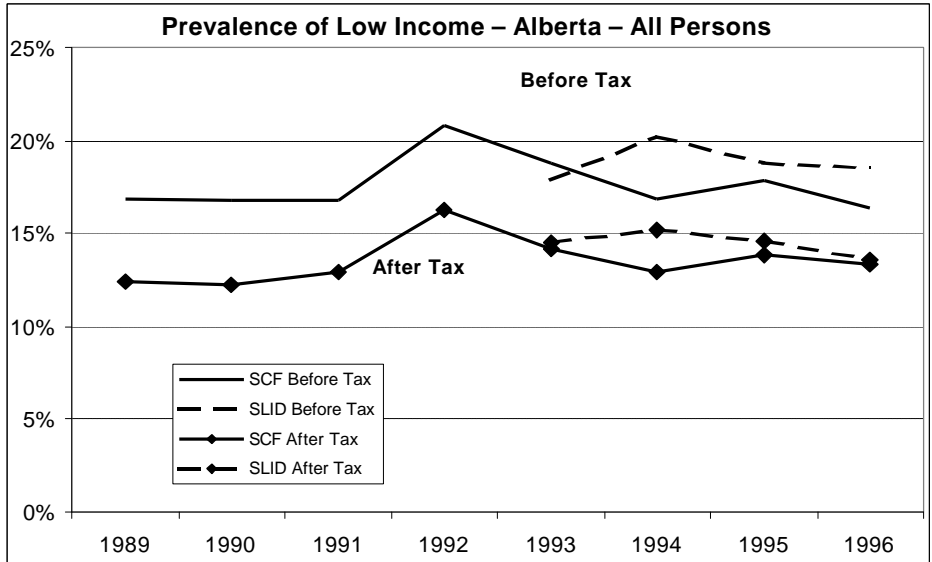
There are no significant differences in the SLID and SCF after tax low income rates at the provincial level.

The 1996 low income rates after tax are generally closer. The after-tax rates in SLID vary from 9.9% in Prince Edward Island to 18.3% in Quebec. The range in SCF is from 8.2% to 16.4%.









3.16 Unattached Individuals and Families – Provinces

Unattached individuals and economic families by province, 1995*

	SLID '000	SCF '000	Difference (SLID - SCF)	
			'000	%
Unattached individuals				
Canada	4,040	3,871	169	4.2
Newfoundland	38	37	2	4.6
Prince Edward Island	12	14	-2	-14.3
Nova Scotia	108	102	6	5.7
New Brunswick	66	78	-11	-17.0
Quebec	1,039	1,069	-30	-2.9
Ontario	1,425	1,349	76	5.3
Manitoba	170	130	40	23.6
Saskatchewan	151	125	26	17.1
Alberta	408	375	33	8.1
British Columbia	622	593	29	4.7
Economic families				
Canada	8,096	8,257	-162	-2.0
Newfoundland	163	165	-3	-1.7
Prince Edward Island	39	38	1	1.5
Nova Scotia	267	272	-5	-1.9
New Brunswick	223	221	2	0.8
Quebec	2,052	2,066	-14	-0.7
Ontario	3,081	3,112	-31	-1.0
Manitoba	291	310	-19	-6.4
Saskatchewan	259	274	-15	-5.9
Alberta	712	755	-44	-6.2
British Columbia	1,010	1,043	-33	-3.2

* As of January 1, 1996 for SLID and April 1, 1996 for SCF

Unattached individuals and economic families by province, 1996*

	SLID '000	SCF '000	Difference (SLID - SCF)	
			'000	%
Unattached individuals				
Canada	3,983	3,944	39	1.0
Newfoundland	43	42	1	2.4
Prince Edward Island	15	18	-3	-16.7
Nova Scotia	117	113	4	3.5
New Brunswick	77	80	-3	-3.8
Quebec	1,141	1,140	1	-
Ontario	1,336	1,283	53	4.1
Manitoba	163	149	14	9.4
Saskatchewan	158	138	20	14.5
Alberta	354	374	-20	-5.3
British Columbia	579	608	-29	-4.8
Economic families				
Canada	8,185	8,317	-132	-1.6
Newfoundland	161	164	-3	-1.8
Prince Edward Island	38	38	-	-
Nova Scotia	260	272	-12	-4.4
New Brunswick	220	221	-1	-0.5
Quebec	2,034	2,081	-47	-2.3
Ontario	3,127	3,164	-37	-1.2
Manitoba	294	302	-8	-2.6
Saskatchewan	260	274	-14	-5.1
Alberta	749	752	-3	-0.4
British Columbia	1,040	1,048	-8	-0.8

* As of January 1, 1997 for SLID and April 1, 1997 for SCF

3.17 Flows into and out of Low Income

The main purpose of this report is to examine the differences in cross-sectional estimates but it is also useful to look at the new information that will be available in SLID because it is a panel survey.

For example, the low income population is not fixed in time and substantial numbers of people cross the low income line in both directions in any given years. About 980,000 persons who were above the low income line in 1995 (about 3.7% of the population) dropped below the line in 1996. Conversely, 922,000 (3.5%) moved out of low income in 1996. About 2.3 million persons (8.8%) were below the low income cut-off in both years.

For persons under age 18, the low income rates are higher and the probability of staying below the line for two consecutive years is higher than for the population at large: 590,000 children (10.6%) were in low income in both 1995 and 1996.

Flows into and out of low income (after tax), all ages, 1995 to 1996

	Total %	Below LICO in 1996 %	Above LICO in 1996 %
Total	100.0	12.5	87.5
Below LICO in 1995	12.3	8.8	3.5
Above LICO in 1995	87.7	3.7	84.1

**Flows into and out of low income (after tax), persons under 18,
1995 to 1996**

	Total %	Below LICO in 1996 %	Above LICO in 1996 %
Total	100.0	14.6	85.5
Below LICO in 1995	14.7	10.6	4.1
Above LICO in 1995	85.4	4.0	81.4

**Flows into and out of low income (after tax), persons 18 to 64,
1995 to 1996**

	Total %	Below LICO in 1996 %	Above LICO in 1996 %
Total	100.0	12.7	87.3
Below LICO in 1995	12.2	8.7	3.5
Above LICO in 1995	87.8	4.0	83.8

**Flows into and out of low income (after tax), persons 65 and over,
1995 to 1996**

	Total %	Below LICO in 1996 %	Above LICO in 1996 %
Total	100.0	7.8	92.2
Below LICO in 1995	8.4	6.4	2.0
Above LICO in 1995	91.6	1.4	90.2

3.18 Persistence of Low Income – Years Spent in Low Income

SLID panels last six years, so it is possible to look at the persistence of low income over a longer time period. So far, there are four years of data available for the first panel. The population on December 31, 1992 – at the beginning of the panel and still in scope four years later – was 25.8 million. Of that total, 79% did not spend any of the following four years in low income. The remaining 5.4 million people spent at least one year in low income during the 1993-1996 period. Just over a third of these (1.9 million) spent one year in low income – although some of these would have begun or ended a spell during the four-year “window”, so their spell of low income would in fact be more than a year. About 1.2 million spent two years in low income and 870,000 spent three years. For those spending all four years in low income, the number climbs to 1.4 million. This pattern supports the idea of different subpopulations within the low income group, some experiencing a transitory financial problem, others, a persistent problem.

Among persons aged 65 and over, the proportion in low income for all four years (4.5%) is almost as high as the proportion in low income during just one of the four years (4.9%).

Persistence of Low Income
Low income persistence: total years spent in low income
over 1993-1996 period, all ages

	Persons – All ages	
	'000	%
Population on Dec. 31, 1992	25,836	100.0
Years spent in low income since then:		
0	20,475	79.3
1	1,947	7.5
2	1,190	4.6
3	871	3.4
4	1,353	5.2

**Low income persistence: total years spent in low income
over 1993-1996 period, persons under 18**

	Persons under 18	
	'000	%
Population on Dec. 31, 1992	6,611	100.0
Years spent in low income since then:		
0	4,965	75.1
1	566	8.6
2	377	5.7
3	289	4.4
4	415	6.3

**Low income persistence: total years spent in low income
over 1993-1996 period, persons aged 18 to 64**

	Persons aged 18 to 64	
	'000	%
Population on Dec. 31, 1992	16,660	100.0
Years spent in low income since then:		
0	13,277	79.7
1	1,257	7.5
2	752	4.5
3	551	3.3
4	823	4.9

**Low income persistence: total years spent in low income
over 1993-1996 period, persons aged 65 and over**

	Persons aged 65 and over	
	'000	%
Population on Dec. 31, 1992	2,565	100.0
Years spent in low income since then:		
0	2,233	87.1
1	125	4.9
2	60	2.4
3	32	1.2
4	115	4.5

3.19 Movement between Income Quintiles

About one-third of the population were not in the same income quintile in 1996 as they had been in 1995. In other words, their relative position on the income scale shifted. Of those who shifted, 8 in 10 moved up or down by one quintile. But that still leaves 1.6 million people whose income position changes by two or more quintiles. The most common patterns were shifts between the middle and bottom quintile – between 200,000 and 300,000 persons in each direction. Again, this shows a substantial amount of income mobility.

Persons classified by family income quintile in 1995 and 1996 (based on disposable income)

%

Income quintile in 1995	Income quintile in 1996				
	Lowest	2 nd	3 rd	4 th	Top
Lowest	15.0	3.4	0.8	0.5	0.2
2 nd	3.1	12.4	3.5	0.7	0.2
3 rd	1.0	3.2	11.3	3.9	0.6
4 th	0.5	0.7	3.8	11.9	3.1
Top	0.3	0.3	0.6	3.0	15.8

Persons classified by family income quintile in 1995 and 1996 (based on disposable income)

'000

Income quintile in 1995	Income quintile in 1996				
	Lowest	2 nd	3 rd	4 th	Top
Lowest	4,012	897	222	140	63
2 nd	830	3,313	934	196	64
3 rd	271	856	3,004	1,031	165
4 th	138	192	1,010	3,176	815
Top	81	75	164	790	4,221

3.20 Changes in Income After a Major Life Event

Changes in family income can occur because of labour market events. They can also arise because of changes in family or living circumstances. Close to 300,000 persons experienced a marital separation in 1996. Of those who separated, 38% of the men and 58% of the women suffered a drop in income of more than \$5,000 (based on per capita income, adjusted using an equivalence scale). Nearly one quarter of the men, but less than 4% of the women, had an *increase* of over \$5,000 that year. For men and women who did not separate in 1996, nearly half had little or no change in income; this was true for only 18% of the men and 21% of the women who did separate.

An estimated 78,000 people stopped living with a spouse either because the spouse died or was institutionalised. About 43% experienced an income loss of \$5,000 or more.

Changes in disposable family income following a major life event, 1995 to 1996: separation from a spouse

%

	Separated from spouse during 1996?			
	Yes		No	
	Men	Women	Men	Women
Total	100.0	100.0	100.0	100.0
Income decreased > \$5,000	37.8	58.4	12.8	12.7
Income decreased \$2,000-\$5,000	12.1	10.7	12.0	12.5
Change in income < \$2,000	18.0	21.1	48.1	47.8
Income increased \$2,000-\$5,000	8.5	6.4	14.4	14.4
Income increased > \$5,000	23.7	3.5	12.7	12.6

**Changes in disposable family income following a major life event,
1995 to 1996: separation from a spouse
'000**

	Separated from spouse during 1996?			
	Yes		No	
	Men	Women	Men	Women
Total	136	153	6,588	6,372
Income decreased > \$5,000	51	90	846	808
Income decreased \$2,000-\$5,000	16	16	792	795
Change in income < \$2,000	24	32	3,168	3,046
Income increased \$2,000-\$5,000	12	10	946	917
Income increased > \$5,000	32	5	835	805

**Changes in disposable family income following a major life event,
1995 to 1996: spouse died or institutionalised
%**

	Spouse died or was institutionalised during 1996?	
	Yes	No
Total	100.0	100.0
Income decreased > \$5,000	42.9	13.4
Income decreased \$2,000-\$5,000	15.7	12.2
Change in income < \$2,000	19.6	47.5
Income increased \$2,000-\$5,000	8.3	14.3
Income increased > \$5,000	13.5	12.7

**Changes in disposable family income following a major life event,
1995 to 1996: spouse died or institutionalised
'000**

	Spouse died or was institutionalised during 1996?	
	Yes	No
Total	78	13,170
Income decreased > \$5,000	34	1,761
Income decreased \$2,000-\$5,000	12	1,608
Change in income < \$2,000	15	6,256
Income increased \$2,000-\$5,000	7	1,878
Income increased > \$5,000	11	1,667