# THE INDEPENDENCE AND ECONOMIC SECURITY OF OLDER WOMEN LIVING ALONE 

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#### Abstract

We study women aged 51-75 who live alone and are not married over the period 1969-1993 using national samples from The Survey of Consumer Finances (SCF) and The Family Expenditure Survey (FAMEX). We examine Income and Expenditure Patterns over the period and find that: there have been substantial increases in real incomes of these women, particularly during the 1970's. The principal source of growth was government transfers and especially the growth in CPP incomes. Should governments withdraw this financial support, low incomes could quickly re-emerge. Incomes of those who were previously married and of the older group of these women (ages 60-75) grew more rapidly over the period. The growth in income has gone almost entirely into consumption. Some of these women are able to save, but like most sub-groups of the Canadian population there is tremendous variability in saving rates among older women.


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## 1. Introduction

Many discussions of pension reform have focused on the problem of poverty amongst older women. Women live longer than men and their average incomes both before and after retirement tend to be lower. More recently, one has a sense that policy makers now view the problem of poverty amongst older women as being "solved" - attention has shifted to poverty earlier in the life cycle, in particular, to the problem of poverty amongst lone-parent households and children (see Dooley (1994)). This paper uses SCF and FAMEX microdata to assemble a picture of the income, spending and saving patterns of women, between the ages of 51 and 75 , who live alone. Our data period, which spans the last twenty-five years, permits us to see that real incomes have indeed trended upwards for this subgroup of the population. Median saving rates, which were negative in the late 1960s, trended to positive values and peaked in the early 1980s and remain nonnegative in more recent surveys. Closer investigation reveals, however, that the poverty problem for this group has been "solved" primarily by increases in public transfer payments, not by increases in income from past saving such as property income or in increases in private pension benefits. If future governments decided to cut real transfers to older women, and the trends in other income sources continued, the poverty problem amongst older women would quickly re-emerge.

## 2. Data

We use data from the Survey of Consumer Finances (SCF) and the Family Expenditure Survey (FAMEX), both of which are supplements to Statistics Canada's Labour Force Survey. Biennial SCF household surveys from 1971 to 1979 and subsequent releases of public use sample tapes based on census families were replaced in 1981 by annual surveys and releases of microdata files on individuals. The SCF gathers information on the "income as well as personal and labour-related characteristics of individuals who are 15 years of age and older" (Statistics Canada, Survey of Consumer Finances Documentation, p. A-1, 1993), in April and May for the previous calendar year. ${ }^{1}$ FAMEX is conducted between January and March and collects information on each household's income, expenditures, and change in assets and liabilities during the previous calendar year. SCF data provide quite detailed information on the sources of income while FAMEX data provide more detailed information on the uses of income - we need both to assemble a picture of the economic status of this subgroup of the population. In this

[^0]study we employ seventeen SCFs (calendar years 1971, 1973, 1975, 1977, 1979, 1981, 1982 and 1984 to 1993 inclusive) and eight FAMEXs (calendar years 1969, 1974, 1978, 1982, 1984, 1986, 1990 and 1992).

While both SCF and FAMEX are LFS supplements and are thus similarly stratified and clustered samples they do differ in important ways. To begin, they focus on different economic units. The SCF examines "economic families" which are defined to be groups of individuals sharing a common dwelling unit and related by blood, marriage or adoption. Prior to 1990, FAMEX analysed the "spending unit" defined as a "group of persons dependent on a common or pooled income for the major items of expense and living in the same dwelling or one financially independent individual living alone" (Statistics Canada, 1995, 1974 Survey of Family Expenditures Public Use Microdata File, p. 101). The 1990 and 1992 FAMEXs redefined the "household" to be "a person or group of persons occupying one dwelling unit" (Statistics Canada, 1995, 1990 Survey of Family Expenditures Public Use Microdata File, p. 109). In addition, the SCF considers the household "as it is constituted at the time of the interview" while FAMEX "reconstruct(s) the household as it existed during the year" (Statistics Canada, 1995, 1990 Survey of Family Expenditures Public Use Microdata File, p. 109).

For these and other reasons it is quite possible that analysis of, say, total income in SCF and FAMEX data sets could yield conflicting results for the same calendar year. We adopt a quite stringent set of selection criteria that minimizes this possibility. In particular, we study women who live alone and who are not married. It is of some interest to know whether the economic circumstances of those who were never married differ in some respects from those who were married and we pursue this issue below. In addition, some of the FAMEX surveys did not cover rural areas or urban areas with populations less than 100,000 at the time of the survey. To achieve comparability of all data sets over time, therefore, we restrict our extracts from both the SCF and FAMEX to those individuals living in urban centres with populations of 100,000 or more. Finally, we study women between the ages of 51 and 75 . The upper bound is set by data availability. Some would argue that the lower bound is set rather low and it is true that the data sets at younger ages are very thin. Nevertheless, there may be women in their fifties who are unable to find work and are ineligible for public pensions. We investigate the possibility that after-tax income jumps at age 60 when some of these women become eligible for the Federal Government's Spouses’ Allowances Program.

Table 1 reports the numbers of observations by year for the SCF and FAMEX extracts. All of the extracts are small which rules out looking at questions that require a very fine breakdown of the data (e.g., how some variable changes with individual years of age or by region). It is also apparent that the FAMEX extracts are considerably smaller than those drawn from the SCFs. Adding up the universal weights assigned by Statistics Canada for all the women who satisfy our selection criteria yields an estimate of the number of older women, with the particular characteristics we have chosen, in the Canadian population. These "population estimates" are shown in the last column of Table 1. While FAMEX and SCF numbers are very close for 1986 the FAMEX number lies below neighbouring SCF numbers except in 1982 where the FAMEX population estimate is more than one-third higher than the SCF estimate. These
differences raise the possibility that for questions that could be addressed with either data set one might reach different conclusions with one as opposed to the other. Below we use both data sets to study the level and sources of total income.

## 3. The Level and Sources of Total Income

We present summary statistics for total income from all sources in Table 2. For either survey the sources include employment and self-employment income, investment income excluding unrealized capital gains, income from all levels of government and private pensions. We report the mean, standard deviation, 0.25 quantile ( $25 \%$ of the distribution is lower), median ( 0.50 quantile), the 0.75 quantile (all of these statistics employ the universal weight attached to each observation) as well as minimum and maximum values. Both SCF and FAMEX data have been converted into 1992 dollars using the all items consumer price index. As in Table 1 the SCF and FAMEX estimates are very close for 1986 and quite close for later years. In the early 1980s the SCF income statistics are a bit higher than those for FAMEX but in the 1970s the FAMEX estimates are much higher than the SCF estimates. For example, the FAMEX mean for 1978 is about $\$ 21,000$ while the SCF means are $\$ 16,700$ for 1977 and $\$ 17,900$ for 1979 . From either source, the conclusion is that real incomes for older women rose substantially over the period. This is in contrast to stagnant or even falling real incomes we have documented for other groups (see Burbidge, Magee and Robb (1997)).

Table 3 takes the investigation one step further and reports Mann-Whitney tests of the null hypothesis that the income levels observed in each survey could have been drawn from the same population. Since SCF and FAMEX were not conducted for the same calendar year prior to 1982 we use nearby SCF years for each year of FAMEX. For total income we can see that FAMEX estimates of income are indeed significantly higher than SCF estimates during the 1970s but that for 1982 and later years FAMEX and SCF income estimates do not differ significantly. We repeated these tests on government transfer income (income from all levels of government) - see the last two columns of Table 3 - with similar results. Note that 1978 is omitted from this exercise because the public use tape for the 1978 FAMEX did not report the components of income. Additionally, we note that the 1971 SCF estimates of government transfer income are higher than those for the 1969 FAMEX; this may simply reflect the strong increasing trend to this form of income in the early 1970s.

Whether or not one accepts the view that the data sets are comparable, both SCF and FAMEX data suggest that real incomes of older lone females trended sharply upwards over the 1970s. The mean rose by about $50 \%$ to just over 20,000 1992 dollars; the median rose by about the same percentage to over 15,0001992 dollars. What gave rise to these trends?

Figure 1 graphs the weighted average for total income and each of its components. The A panel uses SCF data, the B panel FAMEX data. The income breakdowns in the two surveys differ slightly; we report what is available for each survey. One can see that all major components of total income contributed to the upward trend over the 1970s - earnings, investment income, government transfers and private pensions which is part of miscellaneous
income in FAMEX. But after the early 1980s the first two components fell and government transfers have become the main source of total income.

SCF data permit one to separate government transfers into OAS/GIS (which includes Old-Age Security, the Guaranteed Income Supplement and Spouses’ Allowances), CPQP (all Canada and Quebec Pension Plan benefits including retirement pensions, disability benefits and survivor benefits) and other transfers (including, for example, employment insurance and workmen's compensation benefits) and we graph these components in Figure 2. Panel A of Figure 2 shows that, for this group of older women, average real total government transfers rose by more than $150 \%$ between 1971 and 1993. While the real value of each of the three components rose over this period they did not rise uniformly. Panel B of Figure 2 graphs the percentage breakdown of these components. Among other things this panel shows that the "other" component rose from $20 \%$ to $25 \%$ in the 1970s and has trended downwards since then to about $18 \%$. OAS/GIS, which comprised $75 \%$ of government transfer income in 1971, has fallen sharply to $45 \%$ of the total. The main source of growth in real government transfers has come from the Canada and Quebec Pension Plans which now make up more than one-third of total government transfers to this group. We suspect that most of the CPQP money arrives as survivor benefits but the SCF data do not permit one to separate out the various Canada and Quebec Pension Plan benefits. We return to this point in the conclusions.

## 4. The Uses of Total Income - Consumption, Saving and Taxes

While FAMEX is a survey that focuses on how households allocate their incomes, as we have seen, it also contains information on the sources of income. The basic idea of the FAMEX survey is this: get the household to list all sources of income, and then all expenditures, and then the net change in assets and liabilities. The difference of the first two should equal the third. If the two ways of measuring net change in assets and liabilities yield significantly different answers the surveyor is asked to re-interview the household. As a consequence, the following might be described as a stochastic identity in FAMEX data:

Income Before Taxes + Other Money Receipts ${ }^{2}$ - Total Expenditure $=$ Net Change in Assets and Liabilities.

Averaging over all the data in our extracts the two sides are very close to each other, and the discrepancy for most records is pretty small, but there are some "large" outliers that have not been purged by Statistics Canada.

The following are true identities in FAMEX:

> Total Expenditure $=$ Total Current Consumption + Personal taxes + Security + Gifts and Contributions

[^1]\[

$$
\begin{aligned}
\text { Security }= & \text { Life Insurance Premiums }+ \text { Employment Insurance Payments }+ \\
& \text { Canada/Quebec Pension Plan Contributions }+ \\
& \text { Contributions to Other Government Pension Plans }+ \\
& \text { Contributions to Other Private Pension Plans }+ \\
& \text { Residual Security }{ }^{3}
\end{aligned}
$$
\]

Thus if one defines:

$$
\begin{aligned}
\text { After-tax Income }= & \text { Income Before Taxes + Other Money Receipts - } \\
& \text { Personal taxes }- \text { Employment Insurance Payments - } \\
& \text { Canada/Quebec Pension Plan Contributions }
\end{aligned}
$$

and

> Consumption $=$ Total Current Consumption + Gifts and Contributions + Life Insurance Premiums,
then
SAVING $=$ After-tax Income - Consumption
and this definition of saving exceeds the "Net Change in Assets and Liabilities" definition of saving by the sum of Contributions to Other Government Pension Plans, Contributions to Other Private Pension Plans and Residual Security. If one thinks that FAMEX does a better job of estimating income and consumption than it does of estimating net change in assets and liabilities then this calculated saving definition may be more reliable than the net-change-in-assets-andliabilities measure. We present results using both definitions of saving below.

Before turning to our results on saving, however, it is necessary to provide further details on our SCF and FAMEX data sets. The SCF-FAMEX analysis of Total Income in the previous section did not include Other Money Receipts in the FAMEX measure of Total Income. Other Money Receipts includes money gifts from other households to the household in question, inheritances and lump-sum settlements. ${ }^{4}$ But the structure of the FAMEX survey does require including Other Money Receipts in Total Income when one wants to study the division of "income" into Consumption, Saving and Total Personal and Payroll Taxes paid by the household. A corollary of this is that when one looks at the division of income using the Net Change in Assets and Liabilities definition of saving, the Total Income concept is slightly different. This can be seen by comparing the A and B panels of Figure 3, especially saving in

[^2]1992. Both graphs suggest that as real incomes rose during the 1970s older women started to save, but the more recent FAMEX surveys indicate that on average they save very little. Some of the increase in pre-tax incomes has gone into taxes but after-tax incomes still rose over this period. Comparing the end of the period with the beginning almost all of the rise in after-tax income has gone into consumption.

So long as after-tax income is not zero one can calculate the average saving rate out of after-tax income as the ratio of saving to after-tax income. Since the numerator and the denominator in this calculation can be positive or negative (we set after-tax incomes of zero to one dollar) the distribution of saving rates is likely to have extreme values and thus quantile estimates are more reliable indicators of central tendency and the nature of the distribution than mean and variance. We show three quantile estimates for each of the two alternative definitions of saving in Figure 4. The saving rates based on after-tax income less consumption (calculated rates in panel A) tend to be higher than those based on net change in assets and liabilities (panel B) for the reasons noted above. Both show that median saving rates trended upwards from 1969 to 1982 and have fallen somewhat more recently. In almost every year more than one-quarter of these women had higher average saving rates than the annual personal saving rate published by Statistics Canada (CANSIM series no. D20112). ${ }^{5}$ Like most other subgroups of the Canadian population older women living alone exhibit huge variation in saving and spending behaviour (see, for example, Lin (1997) and Burbidge and Davies (1994)).

## 5. Sensitivity Tests

This section examines the sensitivity of the results reported above to differences in age and in marital status. Some individuals become eligible for particular government transfers such as OAS and GIS (through the Spouses' Allowance Program) at age 60. If we divide the sample into those aged 51 to 59 , and those aged 60 to 75 , are the income and spending patterns of the two groups similar? As we observed above we have excluded married women from our sample. However, the data allow us to separate those who were never married from the rest, whom we label as "ever married" (see below). In addition, we investigate the effects of this sample split on our results. We begin by dividing the sample at age 60 .

Tables 4 and 6 and Figures 5 to 12 report the results of splitting the sample at age 60 . Table 4 shows that the sub-samples for those aged 51 to 59 are very small especially for some FAMEX surveys and the estimated population numbers are very noisy. The table serves as a warning that anything we observe here can only be suggestive - firmer results would require using larger data sets. Table 6 indicates that total incomes are typically lower for the older group although the gap has diminished over time. For example, in 1971, the median for the older
${ }^{5}$ The personal saving rate is the average saving rate out of personal disposable income. It reflects saving behaviour by all individuals and unincorporated businesses. The personal saving rate exceeded $10 \%$ as recently as 1992 but it has trended downward lately and was $4.6 \%$ in 1996.
group was more than 7,000 (1992 dollars) lower than the 1971 median for the younger group, but this gap fell to less than $\$ 4,000$ by 1993. Figures 5 through 8 help to explain why this has occurred. Earnings are the dominant form of income for those aged 51 to 59 and although earnings trended upwards during the 1970s, they have trended downwards since the mideighties. Investment income has trended downwards since the early eighties (for both groups). Increases in government transfers and private pensions (see Figure 6) have been the main contributors to higher real incomes for those aged 60 to 75 . Although government transfers form a relatively small component of income for those aged less than 60, the average level of real government transfers more than tripled between 1971 and 1993. It would appear from Figure 7 that CPQP survivor and/or disability benefits account for a substantial component but other transfers (e.g., employment insurance or welfare payments) are also important. For those aged 60 to 75 government transfers have more than doubled and increases in CPQP benefits have played a major role in this increase.

Figures 9 through 12 look at the allocation of incomes for the two age groups. Only in the late 1970s and early 1980s did either group save a significant sum on average. One might expect that the younger group, with higher incomes and the motivation to save for retirement, would have higher saving rates than the older group. While there is some evidence for this in Figures 11 and 12 at the 75th quantile, the median saving rates for 1982, 1984 and 1990 in Figure 12 (the older group) lie above those in Figure 11 (the younger group).

Tables 5 and 6 together with Figures 13 to 20 explore the issue of how marital status affects the results. It bears repeating that none of the women in our sample is married - they are either "never married" or "not never married"; deleting the double negative we call the latter group "ever married". Table 5 re-emphasizes the small-sample point; sample sizes, especially for those never married, rule out strong statements. In fact the never-married samples are so small that the results for the full data set are very much like those for the ever-married subsample. This is evident from a comparison of the first and last income columns of Table 6, and Figures 1 to 4 with Figures 14, 16, 18 and 20. The never marrieds have higher real incomes but the gap has closed over time as the incomes of the ever marrieds has risen more quickly - see Table 6. Perhaps because they have higher real incomes the never marrieds are less dependent on government transfers and they have higher levels of real saving and higher saving rates. In terms of real earnings alone one might expect never married women, many of whom may have worked continuously, would tend to have higher real earnings than ever-married women whose careers may have been interrupted to care for families.

## 5. Summary and Conclusions

Much of the older pension reform literature focused on the problem of poverty amongst older women. In response to public pressure successive governments raised the levels of public pensions, including the introduction of and then several expansions of the Canada and Quebec

Pension Plans. Using SCF and FAMEX microdata we demonstrate that: (a) the principal source of growth in real incomes for older women has come from the Canada and Quebec Pension Plans, particularly for those aged 60 to 75 ; and (b) never married women tend to have higher real earnings than ever-married women. Further research with the Longitudinal Administrative Databank produced by the Small Area and Administrative Data Division of Statistics Canada may permit one to distinguish Canada and Quebec Pension Plan survivor benefits from disability and other benefits of these plans.

Median saving rates, which were negative for older women in the late 1960s, trended to positive values and peaked in the early 1980s and remained nonnegative in more recent surveys. As real incomes rose during the 1970s older women started to save, but the more recent FAMEX surveys indicate that on average they still save very little. Our results show that: (a) almost all of the rise in after-tax income has gone into consumption; (b) the never marrieds are less dependent on government transfers and they have higher levels of real saving and higher saving rates than the ever marrieds; (c) like most sub-groups of the Canadian population there is tremendous variability in saving rates among older women.

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Figure 1: Components of Total Income
Weighted Averages, Older Lone Females, Ages 51-65
Panel A: SCF DATA in $\$ 1992$



Panel B: FAMEX Data in \$1992


Figure 2: Total Government Transfers (SCF)
Panel A: Levels of Components


Panel B: Percentage Breakdown of Components


Figure 3: Components of Expenditure (Famex)
Panel A: Calculated Definition of Saving


Panel B: Saving = Net Change in Assets/Liabilities)


FIGURE 4: Saving Rate Quantiles
PANEL A: Calculated Rates


PANEL B: Net Changes in Assets and Liabilities


Figure 5: Components of Total Income
Ages 51-59
Panel A: SCF DATA in $\$ 1992$


Panel B: FAMEX Data in \$1992


Figure 6: Components of Total Income
Ages 60-75
Panel A: SCF DATA in $\$ 1992$


Panel B: FAMEX Data in \$1992


Figure 7: Total Government Transfers
Ages 51-59
Panel A: Levels of transfer components


Panel B: Percentage breakdown of components


Figure 8: Total Government Transfers
Ages 60-75
Panel A: Levels of transfer components


Panel B: Percentage breakdown of components


Figure 9: Components of Expenditure (Famex)
Ages 51-59
Panel A: Calculated Definition of Saving


Panel B: Saving = Net Change in Assets/Liabilities)


Figure 10: Components of Expenditure (Famex)
Ages 60-75
Panel A: Calculated Definition of Saving


Panel B: Saving (= Net Change in Assets/Liabilities)


FIGURE 11: Saving Rate Quantiles - Ages 51-59
PANEL A: Calculated Saving Rate


PANEL B: Change in Assets and Liabilities


FIGURE 12: Saving Rate Quantiles - 60 and 0ver
PANEL A: Calculated Saving Rate


PANEL B: Change in Assets and Liabilities


Figure 13: Components of Total Income
never married
Panel A: SCF DATA in \$1992


Panel B: FAMEX Data in \$1992


Figure 14: Components of Total Income
ever married
Panel A: SCF DATA in $\$ 1992$


Panel B: FAMEX Data in \$1992


Figure 15: Total Government Transfers
never married
Panel A: Levels of transfer components


Panel B: Percentage breakdown of components


Figure 16: Total Government Transfers
ever married
Panel A: Levels of transfer components


Panel B: Percentage breakdown of components


Figure 17: Components of Expenditure (Famex)
never married
Panel A: Calculated Definition of Saving


Panel B: Saving (= Net Change in Assets/Liabilities)


Figure 18: Components of Expenditure (Famex)
ever married
Panel A: Calculated Definition of Saving


Panel B: Saving (= Net Change in Assets/Liabilities)


FIGURE 19: Saving Rate Quantiles - Never Married
PANEL A: Calculated Saving Rate


PANEL B: Change in Assets


FIGURE 20: Saving Rate Quantiles - Married (not never married)
PANEL A: Calculated Saving Rate


PANEL B: Net Changes in Assets and Liabilities



NOTES: Extracts are of females living alone, aged 51-75, living in urban centres. See text for full details.

## Table 2: Total Income of Older Lone Females Famex and SCF Data in \$1992

| DATA | Year | Mean | St.Dev | Q25 | Median | Q75 | Min | Max |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FAMEX | 1969 | \$14,184 | 11663 | \$6,259 | \$9,737 | \$18,056 | \$51 | \$83,184 |
|  | 1970 |  |  |  |  |  |  |  |
| SCF | 1971 | \$13,113 | 11819 | \$5,965 | \$8,553 | \$17,767 | $(\$ 5,783)$ | \$87,309 |
|  | 1972 |  |  |  |  |  |  |  |
| SCF | 1973 | \$13,939 | 13589 | \$6,314 | \$8,994 | \$18,646 | \$0 | \$137,384 |
| FAMEX | 1974 | \$17,240 | 12408 | \$7,938 | \$13,031 | \$24,166 | \$0 | \$98,204 |
| SCF | 1975 | \$15,073 | 12832 | \$7,306 | \$10,405 | \$21,232 | \$0 | \$102,274 |
|  | 1976 |  |  |  |  |  |  |  |
| SCF | 1977 | \$16,745 | 17799 | \$6,920 | \$10,489 | \$21,400 | \$0 | \$181,363 |
| FAMEX | 1978 | \$20,992 | 15096 | \$9,620 | \$16,328 | \$27,532 | \$635 | \$94,643 |
| SCF | 1979 | \$17,894 | 15336 | \$7,958 | \$11,961 | \$23,742 | \$0 | \$163,214 |
|  | 1980 |  |  |  |  |  |  |  |
| SCF | 1981 | \$20,369 | 15767 | \$9,891 | \$14,944 | \$26,594 | \$0 | \$122,384 |
| FAMEX | 1982 | \$18,904 | 14003 | \$9,312 | \$13,469 | \$25,413 | \$3,665 | \$111,283 |
| SCF | 1982 | \$20,675 | 16315 | \$10,228 | \$14,379 | \$27,163 | \$0 | \$134,732 |
|  | 1983 |  |  |  |  |  |  |  |
| FAMEX | 1984 | \$19,688 | 14831 | \$10,436 | \$14,067 | \$25,854 | \$0 | \$133,669 |
| SCF | 1984 | \$20,381 | 15865 | \$10,280 | \$14,183 | \$26,211 | $(\$ 1,048)$ | \$125,495 |
| SCF | 1985 | \$20,195 | 15569 | \$10,883 | \$14,479 | \$24,761 | \$0 | \$133,432 |
| FAMEX | 1986 | \$20,201 | 14807 | \$10,221 | \$15,217 | \$26,176 | \$3,920 | \$90,392 |
| SCF | 1986 | \$20,479 | 14286 | \$11,731 | \$15,522 | \$25,717 | \$0 | \$136,489 |
| SCF | 1987 | \$20,184 | 14169 | \$11,320 | \$14,825 | \$25,951 | \$0 | \$122,701 |
| SCF | 1988 | \$20,679 | 14877 | \$11,712 | \$15,289 | \$25,155 | \$436 | \$129,728 |
| SCF | 1989 | \$21,663 | 16549 | \$11,675 | \$15,893 | \$27,830 | \$0 | \$197,768 |
| FAMEX | 1990 | \$20,772 | 12231 | \$11,733 | \$16,113 | \$25,834 | \$4,447 | \$66,033 |
| SCF | 1990 | \$22,239 | 16863 | \$12,044 | \$16,486 | \$27,389 | $(\$ 10,733)$ | \$160,795 |
| SCF | 1991 | \$20,542 | 13984 | \$11,686 | \$15,073 | \$26,602 | \$0 | \$93,127 |
| FAMEX | 1992 | \$20,365 | 15013 | \$11,211 | \$15,124 | \$25,601 | \$622 | \$143,700 |
| SCF | 1992 | \$20,288 | 14738 | \$11,921 | \$15,707 | \$24,961 | \$0 | \$171,147 |
| SCF | 1993 | \$20,323 | 15433 | \$11,550 | \$15,410 | \$25,652 | (\$14,160) | \$196,944 |

NOTES: Total Income includes employment and self-employment income, investment income, government transfers and private pensions. See text for complete details.

TABLE 3: Tests for the Comparability of FAMEX and SCF data Total Income and Total Government Transfer Income

| FAMEX | SCF | Total Income <br> Year |  | Year --Mann-Whitney tests--- | Transfer Income |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | U--Stat | p-value | U-Stat | p-value |  |
| 1969 | 1971 | -0.83 | 0.20 | 3.13 | 0.00 |  |
| 1974 | 1973 | -3.88 | 0.00 | -4.40 | 0.00 |  |
| 1974 | 1975 | -1.78 | 0.04 | -2.72 | 0.00 |  |
| 1978 | 1977 | -5.38 | 0.00 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ |  |
| 1978 | 1979 | -3.11 | 0.00 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ |  |
| 1982 | 1982 | 1.11 | 0.13 | 1.38 | 0.08 |  |
| 1984 | 1984 | -0.92 | 0.18 | -0.28 | 0.39 |  |
| 1986 | 1986 | 1.09 | 0.14 | 0.98 | 0.16 |  |
| 1990 | 1990 | -0.02 | 0.49 | 1.08 | 0.14 |  |
| 1992 | 1992 | 0.02 | 0.49 | 1.90 | 0.03 |  |

## NOTES:

1. The Mann-Whitney U-statistic is approximately normally distributed in samples of the size used here.
2. A negative value of the MWU statistic indicates that the FAMEX observations tend to be larger than the corresponding SCF observations.
3. The $p$-value is the probability of obtaining a more extreme $U$-statistic when the null hypothesis that the samples were drawn from the same population is true.
4. The not applicable ( $\mathrm{n} / \mathrm{a}$ ) entries arise because FAMEX did not provide income sub-categories in 1978.

## TABLE 4: Number of Observations and Population Estimates

By Age

| Survey Type | -----Ages 51-59----- |  |  | -----Ages 60-75----- |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Year | Number | opulation | Number | opulation |
| FAMEX | 1969 | 80 | 37462 | 230 | 119434 |
| SCF | 1971 | 159 | 71216 | 512 | 208077 |
| SCF | 1973 | 192 | 79200 | 651 | 265673 |
| FAMEX | 1974 | 109 | 91624 | 356 | 235925 |
| SCF | 1975 | 193 | 92949 | 570 | 287280 |
| SCF | 1977 | 229 | 81639 | 668 | 254642 |
| FAMEX | 1978 | 72 | 57745 | 205 | 152953 |
| SCF | 1979 | 249 | 104381 | 707 | 288456 |
| SCF | 1981 | 176 | 59928 | 554 | 189025 |
| FAMEX | 1982 | 102 | 85268 | 293 | 245174 |
| SCF | 1982 | 176 | 58291 | 537 | 186071 |
| FAMEX | 1984 | 73 | 70796 | 240 | 200256 |
| SCF | 1984 | 187 | 77325 | 561 | 209982 |
| SCF | 1985 | 184 | 70343 | 561 | 221315 |
| FAMEX | 1986 | 76 | 61160 | 282 | 220290 |
| SCF | 1986 | 127 | 64198 | 447 | 225646 |
| SCF | 1987 | 198 | 67876 | 652 | 254762 |
| SCF | 1988 | 183 | 88479 | 631 | 265765 |
| SCF | 1989 | 220 | 78496 | 749 | 271977 |
| FAMEX | 1990 | 49 | 47447 | 221 | 241949 |
| SCF | 1990 | 217 | 88239 | 777 | 275206 |
| SCF | 1991 | 212 | 96015 | 740 | 303474 |
| FAMEX | 1992 | 87 | 94044 | 232 | 227202 |
| SCF | 1992 | 193 | 86022 | 652 | 290166 |
| SCF | 1993 | 209 | 96652 | 643 | 295690 |

NOTES: See notes to Table 1.

## TABLE 5: Number of Observations and Population Estimates

By Marital Status

| Survey | Survey | ---Never Married--- | ---Ever Married--- |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Type | Year | Number | Population | Number | Population |
|  |  |  |  |  |  |
| FAMEX | 1969 | 65 | 33282 | 245 | 123615 |
| SCF | 1971 | 159 | 69944 | 512 | 209818 |
| SCF | 1973 | 232 | 99621 | 611 | 245866 |
| FAMEX | 1974 | 94 | 74561 | 371 | 252989 |
| SCF | 1975 | 192 | 98534 | 571 | 282131 |
| SCF | 1977 | 209 | 80570 | 688 | 256074 |
| FAMEX | 1978 | 49 | 38567 | 228 | 172131 |
| SCF | 1979 | 242 | 105318 | 714 | 288313 |
| SCF | 1981 | 135 | 45455 | 595 | 203490 |
| FAMEX | 1982 | 89 | 73768 | 306 | 256676 |
| SCF | 1982 | 118 | 41807 | 595 | 202598 |
| FAMEX | 1984 | 58 | 57067 | 255 | 213986 |
| SCF | 1984 | 138 | 53516 | 610 | 233569 |
| SCF | 1985 | 133 | 51538 | 612 | 240088 |
| FAMEX | 1986 | 58 | 47920 | 300 | 233529 |
| SCF | 1986 | 91 | 48794 | 483 | 241210 |
| SCF | 1987 | 149 | 56721 | 701 | 266001 |
| SCF | 1988 | 123 | 56402 | 691 | 297600 |
| SCF | 1989 | 133 | 51150 | 836 | 299163 |
| FAMEX | 1990 | 46 | 51075 | 224 | 238320 |
| SCF | 1990 | 170 | 67449 | 824 | 295635 |
| SCF | 1991 | 159 | 63333 | 793 | 335415 |
| FAMEX | 1992 | 58 | 58051 | 261 | 263195 |
| SCF | 1992 | 146 | 65557 | 699 | 310692 |
| SCF | 1993 | 138 | 64930 | 714 | 327433 |

NOTES: See notes to Table 1.

## Table 6: Median Income of Older Lone Females

Median Median Median Median Median DATA YearAll OLF's Ages 51-59 Ages 60-75 Never Married Ever Married

|  |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| FAMEX | 1969 | $\$ 9,737$ | $\$ 16,430$ | $\$ 7,869$ | $\$ 11,905$ | $\$ 9,386$ |
|  | 1970 |  |  |  |  |  |
| SCF | 1971 | $\$ 8,553$ | $\$ 14,709$ | $\$ 7,505$ | $\$ 15,558$ | $\$ 7,639$ |
|  | 1972 |  |  |  |  |  |
| SCF | 1973 | $\$ 8,994$ | $\$ 16,326$ | $\$ 8,422$ | $\$ 15,391$ | $\$ 8,524$ |
| FAMEX | 1974 | $\$ 13,031$ | $\$ 21,063$ | $\$ 11,360$ | $\$ 19,730$ | $\$ 11,346$ |
| SCF | 1975 | $\$ 10,405$ | $\$ 18,161$ | $\$ 9,321$ | $\$ 13,788$ | $\$ 9,737$ |
|  | 1976 |  |  |  |  |  |
| SCF | 1977 | $\$ 10,489$ | $\$ 18,027$ | $\$ 9,364$ | $\$ 17,979$ | $\$ 9,447$ |
| FAMEX | 1978 | $\$ 16,328$ | $\$ 26,512$ | $\$ 14,076$ | $\$ 26,967$ | $\$ 14,780$ |
| SCF | 1979 | $\$ 11,961$ | $\$ 22,061$ | $\$ 10,936$ | $\$ 16,085$ | $\$ 11,323$ |
|  | 1980 |  |  |  |  |  |
| SCF | 1981 | $\$ 14,944$ | $\$ 23,259$ | $\$ 13,098$ | $\$ 23,003$ | $\$ 13,879$ |
| FAMEX | 1982 | $\$ 13,469$ | $\$ 20,949$ | $\$ 12,244$ | $\$ 18,651$ | $\$ 12,110$ |
| SCF | 1982 | $\$ 14,379$ | $\$ 24,141$ | $\$ 13,306$ | $\$ 19,727$ | $\$ 13,851$ |
|  | 1983 |  |  |  |  |  |
| FAMEX | 1984 | $\$ 14,067$ | $\$ 21,458$ | $\$ 13,133$ | $\$ 19,865$ | $\$ 12,951$ |
| SCF | 1984 | $\$ 14,183$ | $\$ 19,675$ | $\$ 13,864$ | $\$ 23,803$ | $\$ 13,753$ |
| SCF | 1985 | $\$ 14,479$ | $\$ 21,960$ | $\$ 13,724$ | $\$ 19,109$ | $\$ 14,108$ |
| FAMEX | 1986 | $\$ 15,217$ | $\$ 26,876$ | $\$ 13,203$ | $\$ 24,157$ | $\$ 14,412$ |
| SCF | 1986 | $\$ 15,522$ | $\$ 23,419$ | $\$ 14,370$ | $\$ 22,981$ | $\$ 14,434$ |
| SCF | 1987 | $\$ 14,825$ | $\$ 22,086$ | $\$ 14,042$ | $\$ 18,633$ | $\$ 14,440$ |
| SCF | 1988 | $\$ 15,289$ | $\$ 20,903$ | $\$ 14,736$ | $\$ 23,766$ | $\$ 14,757$ |
| SCF | 1989 | $\$ 15,893$ | $\$ 22,603$ | $\$ 14,840$ | $\$ 24,273$ | $\$ 15,113$ |
| FAMEX | 1990 | $\$ 16,113$ | $\$ 23,192$ | $\$ 15,802$ | $\$ 25,524$ | $\$ 15,404$ |
| SCF | 1990 | $\$ 16,486$ | $\$ 22,005$ | $\$ 15,809$ | $\$ 20,887$ | $\$ 16,091$ |
| SCF | 1991 | $\$ 15,073$ | $\$ 18,976$ | $\$ 14,788$ | $\$ 19,594$ | $\$ 14,849$ |
| FAMEX | 1992 | $\$ 15,124$ | $\$ 22,208$ | $\$ 14,796$ | $\$ 21,214$ | $\$ 14,512$ |
| SCF | 1992 | $\$ 15,707$ | $\$ 22,540$ | $\$ 15,170$ | $\$ 17,874$ | $\$ 15,479$ |
| SCF | 1993 | $\$ 15,410$ | $\$ 19,098$ | $\$ 15,105$ | $\$ 15,927$ | $\$ 15,312$ |
|  |  |  |  |  |  |  |

NOTES: See notes to Table 2.

| Number | Title | Author(s) |
| :---: | :---: | :---: |
| No. 1: | Public Pensions in Canada | J.B. Burbidge |
| No. 2: | How Old Is Old? Revising the Definition Based on Life Table Criteria | F.T. Denton <br> B.G. Spencer |
| No. 3: | The Future Population of Canada and Its Age Distribution | F.T. Denton C.H. Feaver <br> B.G. Spencer |
| No. 4: | Caught in the Middle? Occupancy in Multiple Roles and Help to Parents in a National Probability Sample of Canadian Adults | C.J. Rosenthal <br> A. Martin-Matthews <br> S.H. Matthews |
| No. 5: | Women, Work and Caregiving: How Much Difference Does a Great Job Really Make? | A. Martin-Matthews C.J. Rosenthal |
| No. 6: | Health and the Transition from Employment to Retirement | V.W. Marshall P.J. Clarke |
| No. 7: | Aging and Work in Canada: Firm Policies | V.W. Marshall J.G. Marshall |
| No. 8: | The Changing Economic Circumstances of the Older Population: A Cohort Analysis | F.T. Denton <br> B.G. Spencer |
| No. 9: | Population Aging and the Maintenance of Social Support Systems | F.T. Denton B.G. Spencer |
| No. 10: | The Changing Contexts of Family Care in Canada | C.J. Rosenthal |
| No. 11: | Prevalence, Risk Factors, and Primary Causes of Disability Among Canadian Seniors: An Analysis of the 1986 and 1991 Health and Activity Limitation Surveys | P. Raina <br> S. Dukeshire <br> J. Lindsay |
| No. 12: | A Review of the Literature and An Analysis of Mortality and Hospitalization Data to Examine Patterns of Injuries Among Canadian Seniors | P. Raina <br> V. Torrance <br> J. Lindsay |
| No. 13: | Saving Before and After Retirement: A Study of Canadian Couples, 1969-1992 | X. Lin |
| No. 14: | The Effect of RRSPs on Savings in Canada | J. Burbidge D. Fretz M.R. Veall |


| Number | Title | Author(s) |
| :---: | :---: | :---: |
| No. 15: | Prevalence, Risk Factors, and Health Care Utilization for Injuries Among Canadian Seniors: An Analysis of 1994 National Population Health Survey | P. Raina <br> S. Dukeshire <br> L. Chambers <br> D. Toivonen <br> J. Lindsay |
| No. 16: | How Well Does the CPI Serve as an Index of Inflation for Older Age Groups? | F.T. Denton B.G. Spencer |
| No. 17: | Widowhood and Retirement: Women on the Margin | L. McDonald <br> P. Donahue <br> B. Moore |
| No. 18: | Sensory Impairments among Canadians 55 years and Older: An Analysis of 1986 and 1991 Health and Activity Limitation Survey | P. Raina <br> S. Dukeshire <br> L.W. Chambers <br> J. Lindsay |
| No. 19: | Cohort, Year and Age Effects in Canadian Wage Data | J.B. Burbidge <br> L. Magee <br> A.L. Robb |
| No. 20: | Age Differences in Women's Perceptions of Their Health Problems and Concerns | M. Denton V. Walters |
| No. 21: | The Role of Health and Age in Financial Preparations for Later Life | M.A. Denton P. Raina J. Lian <br> A. Gafni <br> A. Joshi <br> S. French <br> C. Rosenthal <br> D. Willison |
| No. 22: | The Independence and Economic Security of Older Women Living Alone | R. Smith <br> L. Magee <br> L. Robb <br> J. Burbidge |


[^0]:    ${ }^{1}$ The SCF for calendar year 1983 focused on assets and debts and did not provide income information comparable to that available for other years. Thus we omit the 1983 SCF.

[^1]:    ${ }^{2}$ We discuss Other Money Receipts below.

[^2]:    ${ }^{3}$ Residual Security includes annuity payments; see Statistics Canada (1995), p. 96.
    ${ }^{4}$ Statistics Canada does not track changes in assets and liabilities of private, non-RRSP pensions. Thus someone who leaves an employer and reallocates private pension assets to an RRSP could have a large, positive net change in assets and liabilities. The stochastic identity discussed above handles this by recognizing an offsetting amount in Other Money Receipts.

