



Income Statistics Division

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Proposal for an Asset and Debt Survey

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Statistics Canada
Income Statistics Division

Proposal for an Asset and Debt Survey

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Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

NOTE:

Change the name of survey: Since this report was completed, the name of the survey has been changed from the *Asset and Debt Survey* to the **Survey of Financial Security**. This was done to better reflect the fact that the survey, as well as aiming to develop a balance sheet for different types of Canadian families, is also seeking to examine issues such as financial vulnerability and the extent of which Canadians are able to save for the future.

Change to timing of survey: Because of funding considerations, the survey is now planned for **May and June of 1999**. A field test (using about 1,000 households) will be done in May and June of 1998.

Questions or comments about this document and / or about the survey can be directed to:

Karen Maser,
Project Manager,
Asset and Debt Survey / Survey of Financial Security,
Income Statistics Division
Phone: 613-951-0793
Fax: 613-951-3253
E-mail: maserk@statcan.ca

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Acronyms used in this document

ADS	Asset and Debt Survey
CAI	Computer-assisted interviewing
C/QPP	Canada and Québec Pension Plans
DB	Defined benefit
DC	Defined contribution
DPSP	Deferred Profit Sharing Plan
EF	Economic family
EI	Employment Insurance
FAMEX	Family Expenditure Survey (now called Survey of Household Spending)
GIC	Guaranteed Investment Certificate
GIS	Guaranteed Income Supplement
GST	Goods and Services Tax
LFS	Labour Force Survey
LIF	Life Income Fund
LIRA	Locked-in Retirement Account
LRIF	Locked-in Retirement Income Fund
MBS	Mortgage-backed securities
MRC	Microdata Release Committee
OAS	Old Age Security
PAPI	Pen and paper interviewing
PPIC	Pension Plans in Canada
RESP	Registered Education Savings Plan
RHOSP	Registered Home Ownership Savings Plan
RP	Reference person
RPP	Registered Pension Plan
RRIF	Registered Retirement Income Fund
RRSP	Registered Retirement Savings Plan
SA	Social Assistance
SCF	Survey of Consumer Finances
SHS	Survey of Household Spending (previously FAMEX)
SLID	Survey of Labour and Income Dynamics
SNA	System of National Accounts
SPA	Spouse's Allowance

TABLE OF CONTENTS

Acknowledgements	4
Acronyms	5
1. Introduction	9
2. Background	10
2.1 Previous asset and debt surveys	10
2.2 Proposed enhancements for the 1998 survey	10
3. Survey objectives	11
4. Conceptual framework for a new asset and debt survey	13
4.1 Relationship to other Statistics Canada data	13
4.2 Defining and accumulating wealth	13
4.3 A potential asset and debt accounting framework	14
4.4 Principle for valuing assets and debts	18
4.5 Reference period for data	18
4.6 Unit of observation	19
4.7 Challenges with surveying wealth	19
5. Data requirements	21
5.1 Process for determining content	21
5.2 Overview of content	21
5.3 Valuing pensions from RPPs and the C/QPP	30
5.4 Data from other sources	32
6. Survey design	33
6.1 Survey frame	33
6.1.1 LFS frame	33
6.1.2 Tax filer frame	34
6.1.3 Random digit dialling sample	34

6.2	Response rate	35
6.3	Sample size	35
6.4	Level of precision	35
7.	Collection methodology	37
7.1	Informing respondents	37
7.2	Collection method	37
7.3	Interviewer training	38
7.4	Proxy response	38
7.5	Computer assisted interviewing (CAI) versus paper questionnaire	38
7.6	Voluntary versus mandatory survey	38
7.7	Incentives	38
7.8	Required authorization from respondent	39
8.	Testing	40
8.1	Issues to be resolved by testing	40
8.2	Timing of testing	40
9.	An overview of system development	41
9.1	Introduction	41
9.2	Core system description	41
10.	Analysis and dissemination	44
10.1	Staging of release of data	44
10.2	Data / analytical products	44
10.3	Other means of disseminating data	45
11.	Survey costs and major milestones	46

<u>Proposal for an Asset and Debt Survey</u>		8
12.	Management / co-ordination approach	48
	12.1 Project team approach	48
	12.2 Steering Committee	48
Appendix A	Estimates of CVs assuming sample size of 15,000 and 30,000	49
References		51

1. Introduction

This paper presents a proposal for conducting an Asset and Debt Survey (ADS). The data from the last such survey carried out by Statistics Canada are well over a decade old, and the need for more up-to-date information is growing.

The first step in preparing this proposal was the release, in February, 1997, of a document entitled "Towards a New Canadian Asset and Debt Survey: A Content Discussion Paper". That paper, and this proposal, were prepared in partnership with Human Resources Development Canada. The intent of the discussion paper was to elicit feedback on the initial thinking regarding the content of the survey. We are grateful to those who responded to that document and have attempted to incorporate their comments and suggestions wherever possible.

Data collection will take place in May and June of 1998. Although this requires a very tight implementation schedule, comments on this proposal are still welcome. In fact, there are some issues that have not yet been fully resolved.

The response to the content discussion paper demonstrated the wide range of needs for this information. Although there was recognition of the burden on respondents in providing this information, many suggestions were made to expand on the proposed content. It is very tempting to look upon this survey as the opportunity to meet all long unfulfilled needs for this type of information. However, a priority in designing the survey must be the concerns of respondents, given they will be asked to entrust us with very sensitive information. The quality of the data will depend largely on our ability to keep those concerns in mind.

2. Background

2.1 Previous asset and debt surveys

The last Canadian survey capturing detailed information on family and individual asset and debt holdings was conducted in 1984. From 1955 to 1984, Statistics Canada collected asset and debt data on six separate occasions, using the Survey of Consumer Finances (SCF). Over time, these surveys broadened in coverage from non-farm private households to all private households in Canada. Also, the categories of assets they covered gradually expanded. The 1955 survey focused mainly on liquid asset holdings; by 1984, coverage had increased to include holdings of fixed and longer term assets. The most recent survey to include a separate sample of high wealth individuals was conducted in 1977. This was thought necessary to improve the income and wealth estimates at the upper end of the distributions. This practice, however, was not continued in the 1984 survey. Information on participation in pension plans was collected in previous surveys; however, the value of these pensions was not included in publicly released information from any past survey, including the 1984 survey.

To provide a point of comparison for the proposal that follows, a brief description of the 1984 survey would be useful. That survey was conducted as a supplement to the May 1984 Survey of Consumer Finances. The sample was selected from the Labour Force Survey (LFS) sampling frame; as stated above, it was not supplemented with a sample of high-income earners, as was done in the 1977 survey.

In 1984, about 72% of the 14,155 sampled family units provided all of the supplementary data on which wealth estimates were based. In addition to the information collected for the Labour Force Survey, all family members 15 years of age and over were asked to provide information on their income and their asset and debt position. Given the length and complexity of the information required, trained interviewers collected the data. Interviewers attempted to contact those members of the family most knowledgeable about the family's financial affairs.

The income data collected were for the year 1983, whereas the asset and debt detail was reported as of the time of the survey (May, 1984). The published data (see, for example, *The distribution of wealth in Canada*, catalogue 13-570) presented information for family units, which included economic families (a group of individuals sharing a common dwelling and related by blood, marriage or adoption) and unattached individuals. Geographic detail was provided for five economic regions.

2.2 Proposed enhancements for the 1998 survey

It is proposed that the current survey be as consistent as possible with former surveys, in order to generate a time-series on wealth categories and compositions embracing three decades of change. However, the following enhancements are proposed for the current survey:

- 1) **Valuing pensions** - The value of the benefit received, or to be received, from pension plans (both employer pension plans and the C/QPP) constitute one of the largest assets of many individuals. In this survey, it is intended to estimate the value of both pensions currently being received and pensions people will receive when they retire. This estimate must be made using a common set of assumptions applied to all individuals.
- 2) **High income sample** - This survey will include a high income sample, to improve the wealth estimates at the high end of the distribution.
- 3) **Examining indebtedness** - To allow for the examination of the dynamics of indebtedness, the survey will collect additional information on behaviour and attitudes with respect to debt.

3. Survey Objectives

Given the dated nature of information on the asset and debt position of Canadians, there is a growing need to update the information last collected in 1984. Many changes have taken place in Canada since that time. Some of these changes include:

- an increase in the incidence of non-standard work arrangements;
- an aging population, and changing retirement patterns;
- a flattening out in the growth of the number of dual-earner families;
- an expansion in the proportion of households now owning mutual funds and investing in Registered Retirement Savings Plans;
- nominal interest rates, and inflation, at their lowest levels in decades;
- an increase in the proportion of lone-parent families (from 1984 to 1994, the number of non-elderly lone-parent families increased nearly 30 percent, compared with an increase of just 19 percent for all non-elderly families);
- a recession in the early 1990s.

These events, taken together, signal that the distribution and composition of wealth in Canada must have changed, and perhaps quite dramatically, since 1984. (In this paper the terms wealth and net worth are used synonymously. Although wealth suggests positive net worth it is important to note that these values can be either positive or negative.) As a result of the changes listed above, many important policy issues need to be addressed. Data from 1984 can no longer be used for this purpose.

Judging from the response to the discussion paper on the content of this survey, many groups have a keen interest in the development of a new Asset and Debt Survey. Two broad collectives expected to take advantage of this information are governments and communities (e.g., special interest groups). Uses to which they can put the information include the following:

- 1) As part of the public policy process, income and wealth distribution data can be used:
 - to design and implement new social and retirement income policies;
 - to conduct analysis on a range of issues relating to equity and efficiency in the areas of taxation and income maintenance.
- 2) As part of the community information process, this information can be used by government, media and community organizations:
 - to help keep the public informed about social and economic conditions;
 - to provide individuals and organizations with the opportunity to keep governments accountable for their actions.

As well, the survey can provide the business community with information to aid in analysing their markets.

What types of important information can be extracted from the statistics of a wealth survey? Outlined here are four broad themes. Below each theme, a few possibilities are briefly described.

Expected Future Consumption - Net worth (i.e., assets less debts) is a better indicator of future consumption possibilities than current income. Thus, asset and debt data can provide an indication of the ability of families and individuals to adjust to unanticipated events, for example, job loss, extended periods of illness, or the economic consequences of marital dissolution. Moreover, net worth of the income-poor can be explicitly examined to uncover hardship and lifestyle implications.

Accumulation of Wealth over the Life Cycle - The accumulation of wealth is expected to increase rapidly up to one's prime-earning years. In retirement, a person's wealth declines as current consumption is financed primarily by accumulated savings since current income is, most likely, comparatively quite small. With a collection of wealth data, one can estimate the shape of this wealth profile, if it has shifted, and how it has shifted over time.¹

Intergenerational Transfers - Estimates of assets and debts by age groupings could be used to estimate wealth that is potentially available for transfer from one age cohort to another.

Wealth Distribution - Estimates of the level (e.g., median) and dispersion (e.g., gini coefficient) of the distribution, frequently related to income distribution studies in Canada, could be constructed to describe the distribution of Canadian net worth. Using data from both the last detailed wealth survey in Canada and a new ADS, one could determine how the distribution of net worth has changed over time.¹

In summary, the main objectives of a new Canadian survey measuring asset and debt holdings of families and unattached individuals would be to:

- 1) provide a description of the nature and types of assets and debts held by Canadian individuals and families, including the changes in the composition of assets and debts over the past few decades;
- 2) determine the manner in which wealth is distributed among the Canadian population;
- 3) develop a profile of Canadians holding different types of assets and debts;
- 4) examine the changes in asset and debt holdings over the life-cycle;
- 5) assess the future consumption capabilities of Canadians and their potential financial vulnerability, particularly if facing unforeseen events such as a reduction in income;
- 6) assess the extent to which individuals' current assets will provide them with an income in retirement;
- 7) further study the relationship between income and wealth;
- 8) provide information on the extent to which assets are being, or could be, transferred from one generation to the next.

¹From cross-sectional data, one can only make informed guesses about the shape of this profile. Longitudinal data are needed to calculate the life-cycle wealth process for an individual or family.

4. Conceptual Framework for a New Asset and Debt Survey

4.1 Relationship to other Statistics Canada data

The conceptual model that guides the thinking for a new Asset and Debt Survey is based upon the expectation that the proposed survey data will, in general, be comparable with those of its 1984 predecessor. The enhancements to content mentioned in the Background section will not preclude that comparison.

An important use of asset and debt data would be as input to Canada's national accounts balance sheet data; the ADS data can potentially be used to improve the balance sheet information. For example, Statistics Canada currently publishes financial flow and wealth information for the personal sector. However, it is recognized that the wealth information contained in the personal sector accounts also includes that of unincorporated business. A household asset and debt survey would provide the information necessary to remove the wealth of unincorporated business from the personal sector of national wealth accounts. In general, a household asset and debt survey could be a primary benchmarking device for wealth data at the national accounts level, a practice adopted in the United States. In other words, the development of the conceptual framework for an ADS should also, wherever possible, be based on national accounting considerations.

By the same token, national accounts data will serve as an important means of verifying the accuracy of the asset and debt information collected directly from households. Wherever possible, aggregate measures available from other Statistics Canada sources will be used to measure the quality of the estimates produced by the ADS.

Statistics Canada conducts a number of other surveys that can be used to complement the data from an Asset and Debt Survey. Two are the Survey of Labour and Income Dynamics (SLID) and the Survey of Household Spending (SHS, formerly FAMEX). Conducting the Asset and Debt Survey as a supplement to one of these surveys would maximize the amount of information available for analysis. But, because of respondent burden, which is significant for each of these surveys, such an option is not possible. Every attempt will, however, be made to keep the concepts used in these surveys similar, so that the data from each can be interrelated (by looking at those in similar age and income groups, for example).

4.2 Defining and accumulating wealth

Wealth, commonly referred to as net worth, is a stock concept defined as the net asset position (total assets less total debts) of a family or individual at a particular point in time. An individual's or a family's net worth can be either positive or negative. It is based on the following accounting identity:

$$\text{Wealth (Net Worth)} = \text{Total Assets} - \text{Total Debts}$$

Assets are the resources that a family can use to fulfill its economic functions (including the generation of income and cash flow). *Debts* are the obligations of a family at a particular date used to acquire the assets or satisfy current consumption. Both relate to a particular point in time but reflect past events leading up to that point. Although conceptually simple to describe, there are serious practical issues in the measurement of wealth, which will be discussed later.

Information on net worth is important because income (e.g., total income, disposable income) does not measure long-term, sustainable resources that can be considered the logical point of departure for assessing future income or consumption possibilities. Net worth, on the other hand, does capture the idea of future consumption possibilities by providing a money link between different periods of the wealth holder's life. It is

important to understand the relationships between income and net worth; the former is a flow, the latter is a stock, and they are interconnected through the function of savings.

To describe the idea of access to economic resources, the following simple characterization may be useful. First, it is helpful to distinguish between income, expenditure and wealth. In any given year, a person receives resources from many different sources, including: earnings, investment income, and transfers from government. After allowing for direct and indirect taxes and any investment losses, a person can dispose of the remaining resources, if any, in three main ways: pass them on to others as a transfer, spend them, or augment the existing stock of assets, adding to wealth (i.e., through savings or purchase of assets such as a home). Savings would affect a person's investment income in the following year.

4.3 A potential asset and debt accounting framework

There are many ways to account for assets and debts. The framework used for this survey is, to some extent, influenced by the constraints of the surveying procedure. For example, it would be useful to adopt the conventional financial statement accounting framework of the balance sheet for an enterprise since, in theory, one can view the family in an analogous fashion to a business enterprise. This framework breaks out assets and liabilities into a current portion and a long term, or fixed, portion providing a rich body of information to assess liquidity and solvency. However, in a survey setting this framework is impractical.² Moreover, there are many definitions of wealth. For example, wealth can be defined to include only marketable assets over which the individual family has control, or can be expanded to incorporate non-marketable assets as well. As is shown in the following table, this survey will attempt to define assets in the broader sense. (This is not an exhaustive list of all assets and debts, as it is presented primarily for illustrative purposes.)

²For example, if it were possible to accurately break total debts into a current portion (i.e. the amount of total debt due within one year) and a long term portion (i.e. that portion of total debt that is not current), we would be able to appropriately assess the solvency position of families. However, this is an extremely difficult task in a household survey setting, and greatly increases the possibility of double counting some components of net worth.

Classification of Individual / Family Assets and Debts		
Assets	Marketable (assets over which control exists, i.e. they can be sold, spent, re-invested or exchanged for other assets)	Financial assets such as: <ul style="list-style-type: none"> - chequing and savings accounts - term deposits, investment certificates - bonds (savings and other types) - stocks, mutual funds - non-locked-in pension savings in RRSPs, RRIFs , DPSPs Non-financial assets such as: <ul style="list-style-type: none"> - owner occupied real estate - vacation home and other real estate - durables (e.g. vehicles - see discussion below) Equity in business
	Semi-marketable (assets over which some investment control exists but which cannot be sold)	Locked-in pension savings in certain defined contribution RPPs, locked-in RRSPs (LIRAs), LIFs, LRIFs, annuities Cash value of permanent life insurance
	Non-marketable (assets over which little or no investment control exists and which cannot be sold)	Locked-in pension savings in most RPPs Face value of term life insurance policy
Debts		Amount owing on: <ul style="list-style-type: none"> - credit cards - charge cards - loans Mortgage debt on: <ul style="list-style-type: none"> - owner occupied real estate - vacation home and other real estate

Certain items referred to, either explicitly or otherwise, in the table above warrant additional comment:

1) **Pensions / retirement savings**

These savings can constitute one of the largest assets of many individuals / families and for that reason must fall within the scope of the survey. That being said, establishing a value for certain types of pension savings is not a straight-forward task. Pension savings can take the following forms:

- i - **Non-locked-in Registered Retirement Savings Plans (RRSPs), Registered Retirement Income Funds (RRIFs).** Savings in RRSPs are made voluntarily by the contributor; contributions and investment earnings are tax-sheltered. (Contributions can also be made by a person to their spouse's RRSP.) The current value of RRSPs should be known, from statements received from financial institutions or brokers. The individual can, with a few exceptions, withdraw the money from their RRSP and use it for other purposes, although there are tax implications for doing so. Once the individual reaches 69, the amount in an RRSP must be converted to an RRIF or an annuity and payments must begin. The individual has a good deal of control over the money in an RRIF, both in deciding how it will be invested and determining the pay out amount.

In addition, amounts remaining in an RRIF at the time of death become part of the person's estate. It is therefore proposed that the value of RRSPs and RRIFs be considered marketable assets.

- ii - **Locked-in RRSPs (often called Locked-in Retirement Accounts (LIRAs)), Life Income Funds (LIFs), Locked-in Retirement Income Funds (LRIFs) and annuities.** Conceptually, a LIRA is similar to an RRSP and both the LIF and LRIF are similar to an RRIF, with one important difference: the money generally originates from an employer pension plan and is locked-in. For that reason, the person has less control over this money. These assets cannot be cashed in but the individual has some control over the investment of the money. Any money remaining in these plans at the time of death would become part of the individual's estate. It is proposed, therefore, that they be considered semi-marketable. In fact, the respondent may not be able to differentiate the amounts from those in (i) above. An individual has much less control over the amount in an annuity. The investment of the money is determined by the insurance company from which it was purchased. Also, when the annuitant dies, the money reverts to the insurance company (except any amount that was guaranteed in the annuity). The amount in annuities will also be considered semi-marketable, although they do not precisely fit that definition. They are, however, identifiable amounts that can be associated with an individual.
- iii - **Registered (employer-sponsored) Pension Plans (RPPs).** These plans are generally not voluntary; they are often provided as a condition of employment. There are two types of RPPs: defined benefit (DB) and defined contribution (DC). After a specified period of plan participation (generally two years), these assets are locked-in and must be used to provide a stream of income at retirement. Depending upon the type of pension an individual chooses, a spouse's benefit may or may not be provided. As well, there may or may not be money remaining at the time of death to become part of the individual's estate. It is proposed that these monies be considered non-marketable wealth. For certain DC plans (which cover about 10% of all RPP members), the individual may have some control over the investment of the money, but this is not always the case. The amounts in these plans would more appropriately be considered semi-marketable.
- iv - **Canada/Quebec Pension Plans (C/QPP).** These plans provide an important source of retirement income to all eligible, working Canadians. Individuals/families do not have access to these forms of wealth until retirement or death (other than in the event of disability) and cannot exchange them for other forms of wealth. As well, the value of the pension an individual receives from the C/QPP is dependent on the provisions of existing legislation. If those provisions should change, the value of the benefit could also change. It is proposed that this value be considered non-marketable wealth.

Issues related to the valuing of RPP and C/QPP benefits will be discussed in more detail later.

2) **Equity in business**

Another important issue to consider is the valuation of equity ownership, especially in light of the rising incidence of self-employment. The value of equity ownership in corporations is simply the value of the voting shares. Shareholders of a corporation have no liability for the corporation's debts and there can be no additional levy on shareholders if the debts of a bankrupt corporation exceed the realizable value of its assets. In contrast, ownership in partnerships and sole proprietorships carries unlimited personal risk: these owners are personally liable to the creditors for all debts of the business. Thus, the value of ownership in these unincorporated businesses is the pro rata share of the businesses' net worth. A special case of the partnership is a limited partnership. Limited partners are not liable for the debts of the corporation beyond the capital contributed by them to the partnership. Thus, the value of ownership in a limited partnership is the value of the shares held by the owner.

Although it should be possible for persons to isolate the assets they have in incorporated businesses, this may not be as easily done in the case of unincorporated businesses. Frequently these assets are for both business and personal use, for example, a car. We will need to establish rules to ensure that, as much as possible, respondents report these assets in a consistent manner,

3) Durables

Durables, such as jewellery, art and collectibles, can represent a significant portion of a household's assets. In fact, certain individuals/families may choose to hold much of their wealth in this manner. Other durables, such as furniture and household appliances and equipment may well constitute the largest asset for the lower income group, particularly if they are renters and do not belong to a registered pension plan. As important as these items are conceptually, a substantial degree of subjectivity is required to value these items. There is no standard measure of their worth as there is for the current value of mutual funds or of used vehicles. Moreover, they could present extensive recall problems for respondents as these items can be numerous. The extent to which we are able to capture information on durables, other than motorized vehicles, requires further investigation. One measure of the value of other durable goods could be the insured value of household effects; unfortunately this is often calculated as a standard percentage of the value of the property and would, therefore, not be an accurate measure of the value of those goods.

4) Leased items

The issue of leasing (for example, leasing of automobiles) is important to consider for several reasons:

- i - leases are becoming, for many Canadians, an increasingly important method of acquiring goods / assets;
- ii - leases constitute an ongoing debt for the lessee;
- iii - national accounting practices in Canada account for specific personal sector leases on the national balance sheets; and,
- iv - other countries, such as the United States, capture certain leases on their household wealth surveys.

Some leases are correctly treated as expenses (i.e. operating leases) while for others, it may be more appropriate to treat them as assets (i.e. capitalized leases). This treatment depends on the characteristics of the lease contract.

The Asset and Debt Survey will take into consideration the method used by the Canadian System of National Accounts (SNA) to account for leased items - this method is still under discussion at this time. This would mean, at a minimum, the determination of the number of major assets (specifically, vehicles) that are acquired through leasing arrangements. All other leased items would be considered expenses, akin to rent, and would not be captured by the survey. Why is it justified to treat certain leased items as assets? A long-term lease often contains the presence of a *purchase option* which essentially transfers property rights and the risks of ownership to the lessee.³ In essence, capitalizing a lease treats the asset as if it were purchased on credit. Thus, an equal amount of debt should be recorded on the balance sheet. All other leases would be considered expenses.

³ A lease contract containing a bargain purchase option allows the lessee to purchase the leased asset for a stated, and usually discounted, price at the end of the lease term.

5) Value of life insurance policies

The value of a life insurance policy is not an asset in the same sense as a home or a bank account. It can, however, have important implications for the beneficiaries of the policy. For that reason, it is proposed to include insurance within the contents of the survey. There are two types of life insurance:

- i - **Term insurance:** It pays a death benefit to the beneficiary on the policy, if the person dies within the term of the policy. Except for participating policies, it has no other value. It is therefore proposed that it be considered a form of non-marketable wealth.
- ii - **Permanent insurance:** It is also called whole life or straight life. It remains in effect for life and is usually used to provide dependants with death protection; it can also be used to provide retirement income. This type of policy builds up a cash value; it is possible to borrow against this value or to acquire it, by surrendering the policy. As the individual has some control over the use of these funds, it is proposed this be considered a semi-marketable asset.

Acquiring reliable information on the value of life insurance policies, however, may be difficult. There is little evidence to confirm whether people can accurately report information on the details of their insurance policy.

6) Inherited assets / debts

The extent to which assets and debts are passed from one generation to the next has important implications for the transfer and acquisition of wealth. It is proposed that, for major items such as owner-occupied real estate, a question be included to determine whether the asset was inherited. As well, the survey, by producing information on the net worth of different age cohorts, can be used to estimate the amount potentially available for transfer to the next generation(s). The extent to which the survey will include specific questions on inheritances - received or expected - will depend on cost and response burden considerations.

4.4 Principle for valuing assets and debts

Whenever possible, assets and debts should be valued based on the *realization principle*. It suggests that the realization value of wealth is based on the amount obtained if assets were sold on the open market. Employing the realization principle to value many assets is relatively straight forward. For example, to value holdings of publicly traded equities based on the realization principle, all one would need to do is consult any business section of a daily newspaper and find the price at which the stock traded on a particular day. However, some assets, such as real estate holdings, cannot be as easily valued using this principle as there is no readily available liquid market for the asset. In the case of owner occupied real estate, which is often the largest asset owned, it will be particularly important to consider any additional information that can be used to verify the value reported (e.g. value established for municipal tax purposes).

For assets that cannot be sold (e.g., the value of RPP and C/QPP benefits), valuation must take into consideration guidelines recommended by such groups as the Canadian Institute of Actuaries.

4.5 Reference period for data

The survey will take place in May and June of 1998. Although the income data collected will be for the most recent calendar year (1997), it will be very difficult to collect information on the value of assets and debts for that same period (i.e., December 31), because of the additional demand it places on respondents. Previous asset and debt surveys conducted by Statistics Canada, and the asset and debt survey carried out by the Federal Reserve Board in the United States, all had similar lags between the timing of the income and the asset/debt

data. These surveys did not adjust assets and debts because of this lag, primarily because the increased processing costs would not warrant what, in most cases, would be a small adjustment to assets / debts. Unfortunately, it is not possible to conduct the survey in January or even February due to the heavy workload of Statistics Canada's interviewers. In any event, income data, also an important part of this survey, would not be readily available then, as income tax returns need not be filed until the end of April. It is, in part, for that reason that collection will take place beginning in May.

4.6 The unit of observation

The 1984 SCF produced net worth information for the family unit, which included both unattached individuals and families. Families were defined much as economic families are today, that is, as a group of individuals sharing a common dwelling and related by blood, marriage, common-law union or adoption. The United States SCF also produces information for economic units. They are termed "primary economic units" and are defined as "the economically dominant single individual or pair of individuals (who may be married or living as partners) and all other persons who are financially dependent on that person or those persons" (Kennickell, Arthur B., Martha Starr-McCluer and Annika E. Sunden, 1997).

It is proposed that this survey also produce information by family unit, which would include both unattached individuals and economic families. The economic family was selected because it was the unit preferred by most people who commented on the content discussion paper and because it permits comparability with a number of other Statistics Canada surveys.

Response to the content discussion paper also suggested that there is considerable interest in producing information by individuals, particularly to permit the analysis of the situation of men versus women. Although it was hoped that this would be possible, further research and reflection has demonstrated the problems with this approach. For one thing, ownership of an asset/debt is often affected by tax legislation or by practicalities and may have little to do with the way in which the asset is used/shared or the debt is paid. As well, legal ownership of an asset/debt may bear little relationship to the way in which these items would be divided upon separation or divorce. To establish this, a series of questions would be required on the date of acquisition of assets/debts and the date of the union. Although such matters are not insignificant, they are considered beyond the primary objectives of this survey. Consideration can be given to changing this approach, if this survey is repeated.

Other considerations in selecting the unit of observation relate to data collection. In family situations where it may be most important to determine the ownership of assets/debts by each individual, the designation of such ownership may have undesirable consequences for respondent relations, thereby jeopardizing the survey response rate.

These family definitions do not address how one is to capture economic links with related persons in other dwellings. In practice, it is extremely difficult to trace the flow of financial resources between family members. However, the survey will identify the incidence of family units either receiving financial support from or providing it to persons outside the household.

4.7 Challenges with surveying wealth

There are several challenges/problems associated with surveying wealth. They are briefly discussed below, together with the proposed method of dealing with each.

Non-response - Past experience with Canadian surveys and with the United States SCF indicate that the expected response rate is approximately 75% for a general sample of households and as low as 33% for a high income/wealth sample. The sample will be selected with that in mind. Data collection documents for the survey will be designed so that respondents can, if they desire, be left with a statement of their financial situation. In that way the survey can be promoted not just on the basis of the need for this information, but also by emphasizing the advantages to the respondents themselves. It is hoped that this will help to increase response rate.

Inaccurate valuing of assets/debts - One important source of bias is due to under- or over reporting of assets, although under-reporting is a more commonly reported problem in wealth reconciliation studies. Based on Canada's 1984 survey of assets and debts, Oja (1986) reports that the survey data represent about fifty percent of the aggregate estimates of wealth based on comparable national balance sheet data. Under-reporting was most severe for stock holdings where the survey data comprised thirteen percent of Canadian national balance sheet estimates. Under- or over-reporting of assets / debts may be due to poor recall, an unwillingness to consult records or a tendency to over-estimate assets to present a brighter picture than may actually be the case. Two methods will be used to deal with this problem. Firstly, wherever possible, for the larger assets, information will be requested to help confirm the value reported. This was already mentioned with respect to owner-occupied real estate. Secondly, respondents must be encouraged to consult records and be given the opportunity to report in the manner most comfortable for them (e.g., without the necessity of having an interviewer in the home). As an aid to respondents, prior to the interview they will receive, in the mail, a guide to the survey which can be used to locate and record the required information.

Underestimation of assets for high wealth group - Some of the apparent under-reporting on household surveys may be due to the failure of these surveys to adequately capture the holdings of the wealthiest few, who by all indications hold a very large and disproportionate share of wealth in most developed nations. To combat this problem the 1977 Canadian survey and the United States SCF over-sampled the top of the income distribution. By most accounts, this significantly improved the reconciliation between national accounts and household survey values of net worth in the United States. For example, the agreement between survey and Flow of Funds (FOF) accounts rises from about fifty percent to ninety-three percent for all stocks, when the high-income group is over-sampled. Avery and Elliehausen (1986) argue that the inclusion of the high income sample, appropriately weighted, significantly reduces differences between survey-based and FOF account estimates of many wealth aggregates. It is planned, therefore, that a separate high-income sample be used for this survey.

5. Data requirements

5.1 Process for determining content

To a large extent, the thinking in developing the content of this survey was guided by the content of the previous asset and debt surveys conducted by Statistics Canada, as well as the Survey of Consumer Finances carried out by the Federal Reserve Board in the United States.⁴

As was mentioned in the Introduction, the first step in the development of this proposal was the preparation of a content discussion paper containing the initial thinking on the information that this survey should generate. The feedback from this discussion paper has helped to refine our thoughts on content. This section describes the proposed content.

5.2 Overview of content

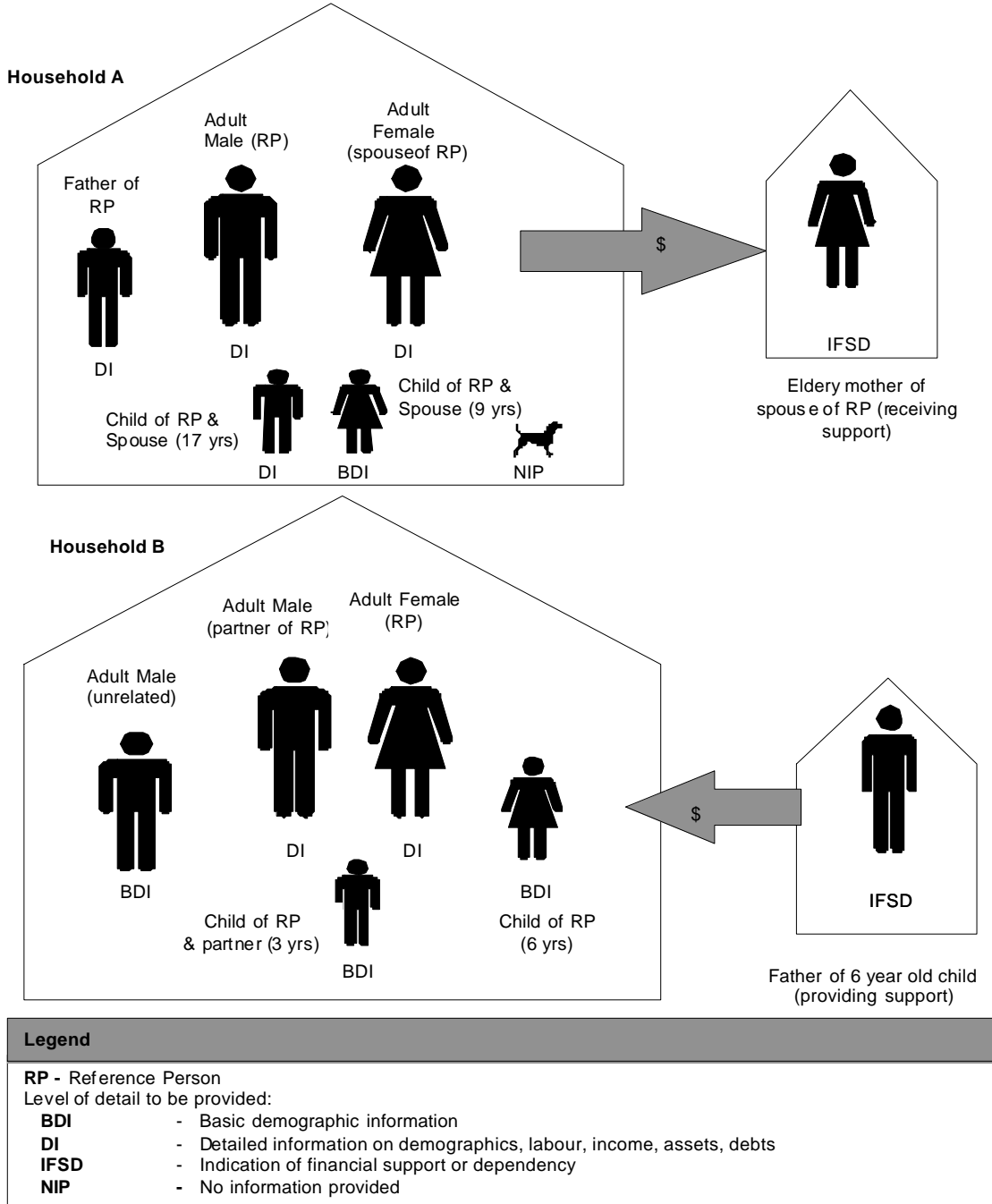
Before outlining the information that this survey will collect, it would help to describe the survey respondents and the general approach to data collection. The survey will seek information from a sample of Canadian households. It will be conducted as a voluntary survey. Requiring mandatory participation, although it might improve the response rate, could have a negative effect on data quality. The first step in the data collection process will be the determination of household composition, followed by the selection of the economic family to be included in the survey. Specifically, the steps involved are:

- a) listing, and collecting basic demographic information on, all household members. This would include identifying a reference person for each economic family and establishing the relationship of other family members to that reference person. The reference person would be defined as in SHS (previously FAMEX), i.e., the member of the household mainly responsible for its financial maintenance.
- b) selection of one economic family or unattached individual per household, if there is more than one. (Only 4% of households contain more than one economic family.) This would be done randomly. Detailed information will be collected only for the selected economic family.
- c) collection of detailed demographic, labour market and income information from members of the economic family 15 years of age or older as of December 31, 1997. Asset and debt data will be requested for the economic family as a whole.

An illustration of who, in each household, will provide information and the level of detail required can be found in Figure 1.

⁴The co-operation of those involved with the United States SCF in providing information on the content and operation of their survey is very gratefully acknowledged.

Figure 1 - Level of detail to be collected



The following briefly outlines the information that we propose to collect. Income would be for the latest reference year (1997). All other information would be as of the time of the survey (May and June, 1998) or for the most recent period available. (The reasons for this were explained previously in section 4.5.) Cost and respondent burden considerations require that we collect this information in an interview lasting, on average, not much more than one hour. A test of the content and interview process scheduled for the Fall of 1997 will provide feedback in this regard. If necessary, content will have to be somewhat streamlined.

Demographic Information

Basic Demographic Information	Collected for all household members	
	Data Elements	Use
	Name Age Sex Marital status Family Composition (e.g., number of persons in family, presence of children, lone-parents)	To provide a basic description of the family members to place the survey data in context.
Other Demographic Information	Collected for all members of selected economic family 15 years and over	
	Data Elements	Use
	Aboriginal status Visible minority status Immigrant status Year of immigration Mother tongue Highest level of education Current school attendance (full-time versus part-time) Activity limitations Disability status	To provide opportunities for further analysis on factors that may influence wealth differences. To provide a social and cultural profile by level of net worth.

Labour Market Characteristics

Collected for all members of selected economic family 15 years and over		
	Data Elements	Use
Current employment	Reason not working -or- Employer name Type of job Industry Occupation Date began Class of worker Usual weekly hours worked Participation in DPSP RPP member / number Interruptions in RPP membership Past service purchased Amount of RPP benefit split with former spouse/ partner, if applicable	To establish current labour force characteristics. To permit the analysis of net worth position for persons with different labour market characteristics. To identify self-employed. To identify part-time / full-time. Information on RPPs will be used to estimate the value of these benefits (together with other information on the plan).
Employment History	<i>1997 employment:</i> Number of weeks worked Weeks not employed Weeks not looking for work Weeks worked full-time Number of employers <i>Long-term participation:</i> Year last in school full-time in past 10 years or since last in school full-time: - Years working - Number of employers	To identify employment situation during the income reference period of 1997. To determine workforce stability. To study work patterns and their impact on pension accumulation.

Pension Plan Benefits

Collected for all members of selected economic family 15 years and over		
<p>RPPs from prior employment</p>	<p><i>Detail for up to two previous employments (only if respondent belonged to an RPP through that employment and employment lasted at least two years):</i> Disposition of accumulated pension money / credits Plan number Employer name Industry Occupation Date began Date ended Interruption in RPP membership Past service purchased Earnings in last year Amount of RPP benefit split with former spouse / partner, if applicable Number of other previous employments</p>	<p>To calculate the value of RPP benefits from previous employment (together with other information about the plan). To derive length of time with employer and period covered by plan.</p>
<p>RPP benefits in pay</p>	<p><i>Detail for up to two pensions:</i> Type of pension (own / survivor) Bridge benefit included Orphan's pension included Monthly amount Indexation of benefit Number of other pensions in pay</p>	<p>To estimate the value of RPP benefits in pay. Interest rate and life expectancy assumptions must also be established.</p>
<p>RPP credits received following divorce / separation</p>	<p>Any benefits split? Money already received?</p>	<p>To identify incidence of receipt of pension credits following divorce/separation.</p>

Income

Collected for all members of selected economic family 15 years and over for the reference year 1997. Respondents may provide information through the interviewing process or authorize access to their income tax data.		
	Data Elements	Use
Employment Earnings	Wages / salaries Self-employment Farm self-employment	To establish relationship between income and accumulated wealth. To generate income information compatible with SLID, SCF and SHS (FAMEX) to permit studies of the relationship of wealth to other variables not collected by this survey (e.g., household expenditures).
Investment	Interest Dividends Taxable capital gains Other	
Government transfers	Child tax benefits OAS / GIS / SPA C/QPP Employment insurance benefits Worker's Compensation Social assistance GST credits Provincial tax credits Other	
Pension income	Retirement pensions, annuities Matured RRSP/RRIF income	
Other	RRSP withdrawals Alimony, child support Other	
Total income		
Other tax form data	Income tax (federal and provincial) Pension adjustment RPP contributions RRSP contributions	

Intra-household transfers / Behaviours and Attitudes

Intra-household transfers	Collected for economic family as a whole	
	Data Elements	Use
	Financial support provided to persons outside household during past 12 months - relationship of recipient - frequency of support - amount Financial support received from person outside household during past 12 months - relationship of supporter - frequency of support - amount	To determine the extent to which money is transferred between family members and others living in different households.
Behaviours and Attitudes	Collected for economic family as a whole	
	Data Elements	Use
	Pay off credit cards monthly Debt payments missed by two months or more Sale of assets to pay debts in last three years Withdrawal of money from RRSP (other than for retirement) Use of pawn broker Declaration of bankruptcy Guarantor for any loans Access to financial assistance Use of financial budget/plan Planning period Method of financing purchases >\$500 Method of financing purchases >\$5000 Adequacy of government pensions Adequacy of other sources of retirement income Spending in relation to income last year	To identify types of families potentially having difficulty paying their debts. To measure attitudes and behaviours and to correlate this information with net worth profile. To determine expectation of having adequate income in retirement.

Net Worth

Assets (current market value or balance)	Collected for economic family as a whole	
	Data Elements	Use
	<p><i>Financial:</i> Registered Savings Plans: - RRSPs (not locked-in) - LIRAs (locked-in RRSPs) - RRIFs, LIFs, LRIFs - DPSPs - RHOSP - RESP Deposit accounts Term deposits/GICs Savings bonds Bonds / debentures Treasury bills Mortgaged-backed securities Stocks Mutual funds Annuities Trust Funds Other - futures, brokerage accounts, etc - money owing to respondent - cash on hand, uncashed cheques RPP and C/QPP benefits</p> <p><i>Non-financial:</i> Principal residence (for owners) - dwelling type Other real estate Licensed vehicles (cars, trucks, vans) Other motorized vehicles Household contents</p>	<p>To value a comprehensive portfolio of family assets.</p> <p>To identify the asset distribution of families and unattached individuals.</p> <p>To determine how asset composition differs for different sub-populations.</p> <p>To determine extent to which families and unattached individuals are prepared for or are saving for retirement.</p>
	<p><i>Equity in businesses:</i> Legal status of business % of business owned Value of business assets Sale value Amount of business debts and liabilities Whether business debt secured by personal assets</p>	<p>To identify the amount of personal net worth associated with the ownership of incorporated and unincorporated businesses.</p>

Debts (amount owed on)	Collected for economic family as a whole	
	Data Elements	Use
	<p>Mortgages and major loans Mortgages / loans on principal residence Amount owing to RRSP used for purchase of home Mortgages / loans for other real estate Vehicle loans Loans for other motorized vehicles</p> <p>Credit Cards and Loans Credit cards (amount owing after last payment) Charge accounts Lines of credit Student loans Loans from financial institutions (not otherwise mentioned) Loans on life insurance policy Loans from family, friends (outside household) Other loans</p>	To determine the amount of total liability in the calculation of net worth. To determine the number and characteristics of families who are heavily indebted. To examine non-productive debt (not associated with an asset).

Ongoing expenses / income protection

Ongoing expenses	Collected for economic family as a whole	
	Data Elements	Use
	<i>Principal residence expenses</i> Rent Condominium fees Property taxes Insurance Fuels (for residence) Electricity Water <i>Leased vehicles</i> Lease payment	To determine the ongoing financial obligations of families and unattached individuals associated with their principal residence and with leased vehicles, to aid in assessing potential financial vulnerability. Leased vehicles are included because leasing is becoming an increasingly common way of obtaining the use of this asset.
Life insurance policies	Collected for economic family as a whole	
	Data Elements	Use
	Number of policies Type of policy Face value Cash value	To determine the extent to which families will be protected in the event of the death of a family member.

5.3 Valuing pensions from RPPs and the C/QPP

For many of the assets and debts listed on the preceding pages, respondents will be able to provide the required information from statements they have received from different institutions. This is not the case, however, for the value associated with registered pension plan (RPP) and Canada and Quebec Pension Plan (C/QPP) benefits. In almost all cases, respondents will not be able to provide this value and it must therefore be estimated. This section will discuss the process for generating this value.

Given that generating the value of RPP benefits was considered to be a priority for this survey, consideration was given to a two-staged collection process. During the respondent's interview those belonging to RPPs would be asked for their authorization to obtain the value of their benefit from their employer. This would add considerably to both the cost and the time required to conduct the survey. Although plan sponsors are required to monitor the liability of the plan as a whole, they would not have to calculate the value of the benefit of a particular individual, except under special circumstances (such as divorce or termination of employment). As this will be a voluntary survey, requesting additional information from other parties could further reduce response rate, or necessitate the development of an estimation procedure to be used as a backup measure. As well, if information were requested from employers, it would be necessary to ask them to derive the estimate of the value of the benefit using a common set of assumptions for the survey; this may present a problem for some employers. It was concluded that such a strategy for valuing benefits would not be effective. The value of the benefit will therefore be estimated as described below.

Several different types of benefits can be valued; each will be dealt with in turn.

- 1) **Accrued benefit of current member of RPP** - Currently employed respondents will be asked if they participate in an RPP. If they do, they will be asked for the registration number of the plan (which appears on their T4). Using this number a match will be made to Statistics Canada's Pension Plans in Canada (PPIC) database, which contains information on the contribution and benefit rates of all RPPS, as well as other information on the plan. This plan data, together with survey information about the respondent's current salary, years of service and age, will be used to generate an estimate of the value of the accrued benefit. Assumptions must be made about life expectancy, interest and inflation rates in order to make these estimates. In generating the estimate, only pension benefits accrued up to the time of the survey will be considered; no assumptions would be made about future service. The process of deriving the estimate for members of defined benefit plans is more difficult than for members of defined contribution plans; the latter, however, constitute only 10% of all RPP members.
- 2) **Deferred benefit from prior participation in an RPP** - This is the value of the benefit resulting from prior employment. To determine this value, questions on employment history must be included in the survey, to determine, firstly, if the respondent belonged to an RPP and, secondly, if the value of the benefit was transferred to a locked-in RRSP, left in the plan to be paid at a later date or transferred to a new plan. If the money was transferred to a locked-in RRSP, no further questions are required, as the respondent would report that amount with their RRSP holdings. If the money was either left in the plan or transferred to a new plan, a process similar to the one described above for current members would have to be done. Unfortunately, there is no information available to estimate the magnitude of this amount. It can be assumed to be small, relative to the work required to generate it.
- 3) **Pension benefits split on divorce / separation** - Estimating the value of these benefits would require a series of questions on marital history and the employment of an ex-spouse; this would add to the already sensitive nature of the information required for this survey. It is recommended that the survey attempt to determine the extent to which respondents report sharing RPP benefits on divorce but, for those receiving such pension credits, not attempt to collect the information required to generate the actual value.
- 4) **Value of RPP benefit in pay** - The amount of income received from an RPP will be requested. The present value of this stream of income can be estimated using assumptions about life expectancy and interest rates. As well, it will be necessary to make assumptions about certain characteristics of the pension if the respondent does not have this information, for example, whether the pension benefit is indexed or a subsidized survivor benefit is provided.
- 5) **Value of benefit from the C/QPP not yet in pay** - The C/QPP is a mandatory program to which all workers, whether paid or self employed, must contribute. To estimate this value, it would be necessary to have information on the respondents' entire work history. This would significantly add to response burden and potentially jeopardize response rate. The required information is available from files maintained by the administrators of the two plans. With the respondents' authorization, and that of the administrators of these plans, links could be made to these files and the present value of the benefit estimated. Without this authorization, it may not be possible to do this estimation.
- 6) **Value of C/QPP in pay** - In theory, this value could be estimated in the same way as RPPs in pay.

5.4 Data from other sources

To minimize response burden, data from other sources will be used wherever possible. For example, rather than reporting income data, respondents will be given the option of authorizing the use of their tax data. SLID now provides respondents with this alternative; about 75% choose this option. This does have an impact on data processing. The survey will be conducted in May and June of 1998, and 1997 income data will be requested. For those who authorize the use of their tax data, this information will not be available until October 1998.

As mentioned above, respondents will also be asked for their permission to link to information on the C/QPP files.

6. Sample design

6.1 Survey frame

One of the major objectives of the Asset and Debt Survey will be to determine how wealth is distributed among the Canadian population. Because a disproportionate amount of wealth is held by the higher-income earners⁵, it is crucial that the sample for this survey not under represent that group. Multi-stage cluster sampling of the type used by the Labour Force Survey (LFS) tends to result in the under-coverage of the high-income population. A comparison of 1990 data from tax filers and from the Survey of Consumer Finances (which relies on the LFS frame) indicates an 84% under coverage of people with an income of \$250,000 or more. (This income group represented just .2% of the population.) The LFS was redesigned in 1994; there are now strata with higher income groups. Although this should improve the coverage of high-income people, there is still likely to be under-coverage at the high end.

Table 1. Comparison of SCF and tax filer data in four provinces, 1990

(In thousands of dollars)	# respondents in sample (SCF)	weighted estimate (SCF)	# tax filers	difference
\$100k +	302	141,591	197,162	-28.2%
\$150k +	76	34,153	83,430	-59.1%
\$250k +	12	4,744	29,388	-83.9%

To solve this problem it is proposed that a dual-frame approach be used. The main component of the sample would be drawn from an area frame (using the LFS sample design). However, this sample would be supplemented by a second one, intended to target the high-income group. For this purpose the tax file from Revenue Canada would be used. These two frames are discussed briefly, as is another frame option which was considered.

6.1.1 LFS frame

The LFS frame excludes residents of Indian reserves and Crown lands, inmates of institutions and full-time members of the Canadian Armed Forces. As well it excludes from its coverage the Northwest Territories and the Yukon. The frame could be used in one of the following ways:

- a) **conducting the survey as a supplement to the LFS.** The advantage of this alternative is that much of the background demographic and employment data would be available from the LFS. However, because of the heavy response burden associated with the Asset and Debt Survey, and the possible affect this might have on the response rate to the LFS, this alternative was immediately rejected.
- b) **selecting a sample of groups that have rotated-out of the LFS.** The LFS sample consists of six rotation groups; each remains in the sample for six consecutive months. Every month one rotation group is dropped and replaced by a fresh one. This option would involve the use of the groups that have been dropped from the LFS sample, the ones that have "rotated-out". Once again, the advantage of drawing

⁵ Results of the 1984 survey indicate that 30% of wealth was held by the highest income decile.

the sample from “rotates-out” is that much of the background demographic and employment data would be available. It would have to be updated, however. Another possible advantage is that these households would be familiar with Statistics Canada surveys and hopefully have established some “trust” in our interviewers. The significant disadvantage in using “rotates-out” is response burden; not only had they been a part of the LFS for six consecutive months, most of them would also have participated in at least two supplementary surveys.

- c) **selecting a “fresh” sample from the LFS frame.** This would involve sampling dwellings that have not participated in the LFS. It requires, first, selecting geographic clusters from which the actual sample will be drawn and, then, for some of these clusters, listing the addresses in the cluster. Using a “fresh” sample means that, in addition to collecting the asset and debt detail, it is also necessary to collect the background demographic and employment detail. The major advantage in selecting a “fresh” sample is that, overall, it minimizes the response burden for these households, and should therefore improve response rates. There are additional costs involved in selecting the sample and listing addresses but these costs are estimated at less than \$50,000.

The importance of minimizing response burden, particularly to ensure that the response rate is not compromised, leads to the conclusion that the Asset and Debt Survey should be conducted using “new” respondents. Approach “c”, above, is therefore recommended.

6.1.2 Tax filer frame

The tax file will be used to select a high income sample. As previously stated, this is necessary both because of the under representation of the high income group in a multi-stage sampling design of the type used by the LFS and because of the importance of adequately representing this group, given they hold a disproportionate amount of the country’s wealth.

The tax filer frame could not be used as the sole frame, because it tends to under represent other important groups, i.e., those whose income is very low and, therefore, may not file a tax return. (This is becoming less of an issue, as low income people would in most cases file to obtain tax credits.) As the tax-filer frame is a frame of individuals⁶ it will be necessary to make certain adjustments, as the main sample (from the LFS frame) would be a sample of households, not individuals. The tax file would be used only to identify high income people for the survey sample; it would be critical to reassure respondents of the confidentiality of their tax data.

The intent in using a high-income sample is to ensure that the sample properly represents the high wealth group. Can it be assumed that selecting those with high income would accomplish that aim? Using 1984 asset, debt and income data from the Survey of Consumer Finances indicates that 84% of heads of households with high income (\$100,000 or more) also had high wealth (\$200,000 or more: the 90th wealth percentile).

6.1.3 Random Digit Dialling (RDD) sample

Random Digit Dialling surveys are done using banks of valid telephone numbers. These banks provide excellent coverage of the population with telephones. The technique has been accused of having potential bias for certain kinds of estimates, if the population of people that have a telephone is different from the one that does

⁶ Consideration was given to using the family file (T1FF) generated from individual tax filer data (T1 file). This file is prepared and maintained by Statistics Canada’s Small Area and Administrative Data Division. However, this file is available 18 months after the data on individual tax filers and would therefore require substantially more updating.

not. This option can be much less costly than using the LFS frame because the phone number provides a relatively cheap means of access to the household. (Using the LFS frame would provide only an address, not a phone number.) However, if personal visits are required to collect the information, this option provides no cost savings and could potentially lower the response rate, given it can be much more difficult to persuade people to co-operate on the telephone. For the Asset and Debt Survey, it is felt that personal visits will help both to improve response rates and to aid respondents in providing the required information. This will be discussed more fully in the next section. The option of RDD was therefore not considered to be a practical one.

6.2 Response rate

In the 1984 asset and debt survey, the response rate for net worth information was approximately 72%. This is very similar to the response rate achieved in the 1995 U.S. Survey of Consumer Finances. In that survey, about 70% of families in the area-probability sample (the LFS frame would constitute the area frame for the Canadian survey) completed interviews. Only about 34% of their list sample (their high wealth sample drawn from tax records) did. (The 1977 Canadian survey included a high-income sample; a similar response rate was achieved from that sample.)

Two things are worthy of note in considering the extent to which we can expect similar response rates. Firstly, the 1984 Canadian survey was a mandatory survey; the current survey will be voluntary. Secondly, the U.S. survey, although voluntary, provided small cash incentives to respondents.

Clearly it would be desirable to exceed these historical response rates. This can be done only by placing considerable emphasis on respondent relations, and by designing the survey in such a way that the respondent also feels that he/she has benefited. (Focus group testing will be used, among other things, to determine how this can best be done.)

6.3 Sample size

Two sample sizes were considered: a responding sample of 15,000 (option 1) and 30,000 (option 2) households. These numbers are net of non-respondents and include the high-income sample. In the 1995 U.S. survey, the responding sample contained approximately 4,400 households, 66% from the area sample and 33% from the tax sample. For the purposes of this survey a similarly skewed high-income sample is not required; approximately 2,000 high-income individuals will be selected for the ADS.

As a point of comparison, in the 1984 Canadian survey, there were 14,155 sampled family units; this allowed for the provision of data for five geographic regions, but not for each of the provinces.

6.4 Level of precision

The precision of the estimates that can be expected from a sample of 15,000 and 30,000 households is presented in Appendix A. The estimates presented are a crude approximation of the expected co-efficients of variation (CVs).⁷ These were calculated using data from the 1984 survey.

⁷The CV is a measure commonly used to express the precision of survey estimates. It is the standard error expressed as a percentage of the actual estimate. If an estimate has a coefficient of variation of 16.5% it means that the 95% confidence interval for the estimate is +/- 33%. For example, if the estimate of the percentage of families owning stocks is 10% and this estimate has a CV of 16.5, it means that the 95% confidence interval for this estimate would be 6.7/13.3. Estimates with a CV of 16.5% are flagged and users are instructed to treat the estimates with caution. Estimates with a CV of less than 16.5 can be released without such a warning.

To produce provincial data, a sample of 30,000 households will likely be required. No provincial estimates were released from the 1984 survey. Table 5 in Appendix A presents the CVs for the five geographic regions. They range between 5% and 8% for the variable average wealth. Further breakdown in any subgroup of variables would likely yield CVs higher than those that can be released without restriction (i.e., 16.5).

The additional cost of conducting the ADS with a sample of 30,000 rather than 15,000 has been estimated at approximately \$1,000,000. In order to keep survey costs to as close as possible to \$3,000,000, it will be necessary to opt for the smaller sample size. Wherever possible, gross estimates of wealth will be produced at the provincial level. Detailed analysis by smaller sub-populations, however, will likely not be possible by province.

7. Collection methodology

7.1 Informing respondents

One of the biggest challenges in conducting the Asset and Debt Survey (ADS) will be gaining the trust and co-operation of respondents. The survey is demanding; it requires respondents to provide detailed information that may not readily be available. It also asks for information that most regard as highly private. Respondents will likely need some coaching to ensure they are providing the correct information and much reassurance that the information is strictly confidential. It will be very important to indicate to the respondent why the information is needed.

The sampled households will be sent an introductory package that spells out the reasons for conducting the survey and the information required. It will be important to provide the respondent with sufficient information to allow them to prepare for the interview but not so much that it will discourage them from participating. Material used by other Statistics Canada surveys such as SLID and SHS (previously FAMEX) will be used as models, when appropriate. SHS in particular has many of the same collection challenges as the ADS in that it requires both a long and demanding interview. Methods of gaining co-operation that have been successfully employed by that survey will be adopted wherever possible.

7.2 Collection method

It is recommended that SHS interviewers collect the ADS information. The survey is to be conducted in May and June of 1998; these interviewers would have completed collection for SHS by the end of March, allowing time for training on the ADS in April. Another advantage in using these interviewers is that they are familiar with very demanding interview situations.

To help gain the co-operation of respondents it will be important to allow them to report the information in the manner in which they are most comfortable. Because the sample selection process will, in many cases, provide an address and not a telephone number, the first contact with those respondents must be a personal visit. A personal visit adds substantially to the cost of conducting the survey, but it is considered essential. A survey of this type could not be done by mail; the questionnaire would be sufficiently daunting to seriously affect the response rate. At the first visit it is possible the interview could be completed in full. It is more likely that some of the information would be collected and the remainder provided at a subsequent visit or by telephone. The respondent should also be given the option of completing the questionnaire without the interviewer being present. This option is considered necessary as many families may prefer to report the information in private. The survey questionnaire must be designed with this possibility in mind.

For those respondents for whom we can obtain a telephone number, the first contact following the receipt of the introductory package would be by telephone. Either an appointment would be made for a personal interview or, if possible, the information would be collected on the telephone. Although it should be feasible to obtain the background demographic and employment data in this manner, the asset and debt data could only be reported on the telephone if the individual's / family's income and wealth picture were not complex or if the respondent had prepared the information in advance.

Respondents will be encouraged to consult records when reporting this information. To provide accurate data it would be necessary to refer to completed tax forms (unless authorization is given to use the information reported to Revenue Canada) and statements from financial institutions on outstanding mortgage debt, bank balances, credit card balances, etc..

For budgeting purposes, it will be assumed that it will be necessary to make, on average, 1.5 visits to each respondent and that it will take, on average, 70 minutes to acquire the information. This includes unsuccessful attempts to reach the respondent, telephone follow-up, follow-up with other family members, etc.. These assumptions are similar to those used by other Statistics Canada surveys of comparable complexity / length.

7.3 Interviewer training

The success of the survey will, to a large extent, depend on the ability of the interviewers to persuade the respondent of the importance of the survey and to assist them in reporting the information. Training will therefore constitute a very important part of the data collection strategy. Training for the 1996 FAMEX survey was three days, plus one additional day for senior interviewers and for new interviewers. It is expected that a similar amount of training will be required for this survey. The senior interviewers will need additional training on methods for approaching the high-income group, as this group's financial situation will be more complex and, in many cases, the interviewers may be referred to the family's accountant.

7.4 Proxy response

Households will be required to provide basic demographic information on all household members and more detail, for persons in the selected economic family, on education, employment, income, assets and debts. The person asked to report on behalf of the household will be the person most knowledgeable about the family's financial situation. If, however, that person is unaware of the financial situation of another family member, the interviewer will attempt to contact that other person directly. If it can be determined that the income, assets and debts of the person are not significant, this follow-up may not be necessary.

7.5 Computer-assisted interviewing (CAI) versus paper questionnaire

The preferred option for the ADS, given the data are to be collected in May and June of 1998, is the use of a paper questionnaire, called paper and pencil interviewing (PAPI). There are several reasons for this. There is insufficient time to develop and properly test a full-scale CAI application of the type required for this survey. In addition, the SHS interviewers are not trained in CAI; the data for that survey are also collected using PAPI. There would be a significant added expense in conducting CAI training and in supplying the interviewers with the required hardware.

If the ADS is repeated, it is recommended that a CAI approach be used, even if the need exists, in some cases, to leave the questionnaire with the respondent for completion. Evidence from the U.S. SCF survey indicates that data quality was considerably improved by the move from PAPI to CAI.

7.6 Voluntary versus mandatory survey

This survey will be a voluntary survey. Although there is the risk that this will somewhat lower the response rate, there is a greater risk of jeopardizing the respondents' goodwill if they are told they must co-operate.

7.7 Incentives

In the past, Statistics Canada has periodically used incentives to both encourage and thank respondents. These incentives have most often taken the form of items such as clip-boards, a Statistics Canada publication, etc. Studies have found that such incentives have not had a significant effect on response rates (Kumar and Durning, 1992). By the very nature of the information that respondents are required to report, the ADS may be in a position to provide an incentive that relates directly to the family (or unattached individual) being interviewed. It is unlikely that most families would have taken the time to do a full accounting of their asset and debt situation, as will be required for ADS. Several possibilities exist; one is to provide the respondent with a notebook in which they can record their responses, and which they can keep. In this way, the survey would help the respondent

to develop a much more complete picture of their financial situation than they are likely to have. There is a risk that this would not be suitable for families whose debts greatly exceed their assets. This would have to be taken into account in planning the survey.

7.8 Required authorization from respondent

Both to minimize response burden and to improve the quality of the data, it may be preferable to seek the respondent's authorization to acquire the information from another source. Examples of the need for such authorization are:

- Respondents will be asked if they wish to authorize the use of their tax data, rather than providing the income information at the time of the interview.
- In order to estimate the value of C/QPP benefits, respondents will be asked to authorize access to their C/QPP files. In fact, without this authorization, the only way to make such an estimate would be to ask each respondent to provide detailed information on employment history. This both adds to response burden and presents significant recall demands on the respondent.
- Certain individuals/families may prefer to authorize the interviewer to seek the asset and debt information from their accountant, who might be better able to provide some of the required detail.

The interview process must be designed to allow for such authorization to be acquired.

8. Testing

8.1 Issues to be resolved by testing

Testing of the collection methods and the questionnaire itself will be a critical part of the survey development process. In addition, testing will be needed to better understand if/how respondents keep their financial records. This will help the interviewers to guide respondents to the appropriate records, if required.

Some of the questions that need to be answered through testing are:

Collection related:

- how do respondents prefer to report: by telephone, personal interview or completing the questionnaire on their own?
- what type of introductory material is mostly likely to encourage respondents to participate in the survey?
- how much information should be given to respondents to aid them in preparing for the interview?
- what incentives are most likely to have a positive impact?
- how long does it take to complete the interview or report the information?
- is a different approach required for the high-income group? What type of additional interviewer training is needed for this group?
- what is the best order in which to ask the questions?

Content related:

- are the questions clearly understood?
- how frequently would respondents have to consult records to provide the required information? Are these records readily available?
- how much are respondents likely to know about their employer pension plan, if they belong to one? What records have they kept on the plan?

8.2 Timing of testing

Testing will be done in the fall, using the focus group approach. Participants in the focus groups will be asked to go through the entire interview process. That means they will first be sent the introductory survey material. The questionnaire will then be administered to them, either in person or on the telephone. Where possible, SHS interviewers will be used to conduct these interviews. Both the focus group participants and the interviewer will then participate in focus group sessions. Both the survey content and the interview process will be tested. It will provide feedback on the clarity of the questions, the length of the interview, the flow of the questions, the utility of the respondent relations material, the extent to which households keep their financial records, etc.

9. An Overview of System Development

9.1 Introduction

This chapter provides an overview of the system development activity associated with the Asset and Debt Survey. System development will be concentrated on 6 major functional components. These are:

- Sample Selection
- Capture and Edit
- Edit and Imputation
- Reweighting and Variance Estimation
- Creation of Confidential and Public Use Microdata Files
- Dissemination

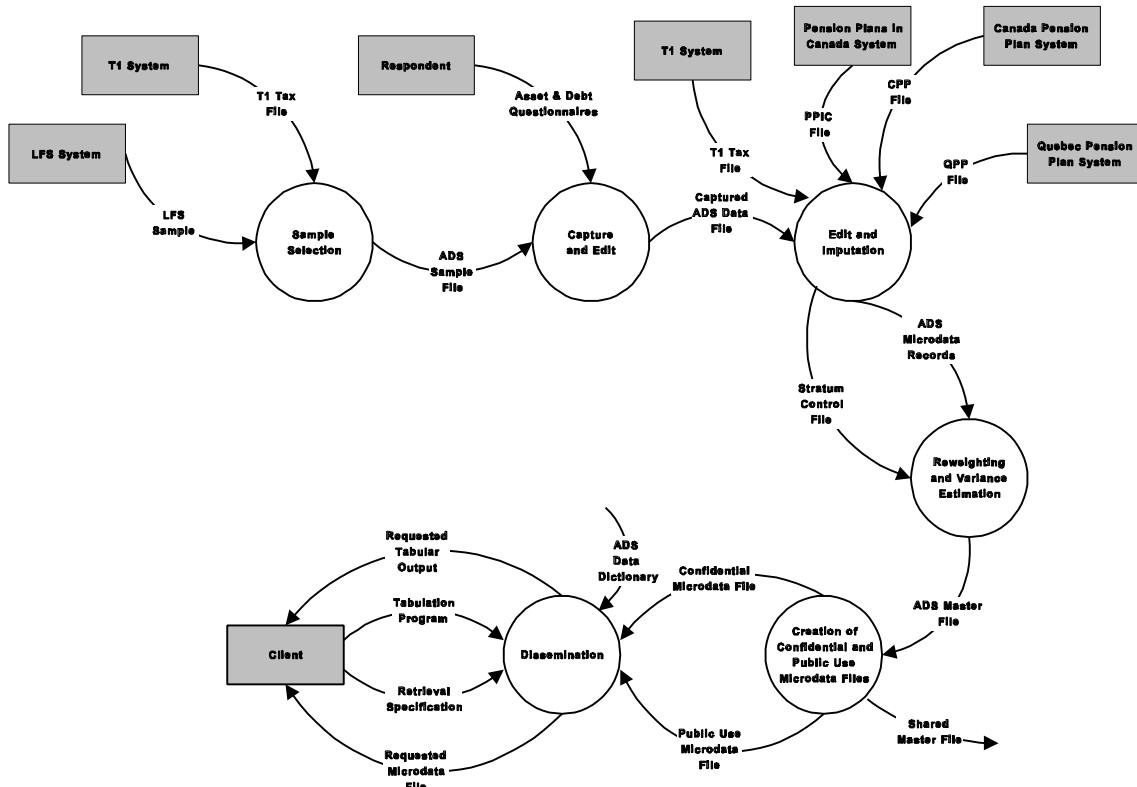
Figure 1 provides a high level schematic of the Asset and Debt (ADS) System. Short descriptions of each functional component (i.e., circle) accompany the diagram. Detail is also provided on services which provide clients with access to *public-use* microdata files and which facilitate analyses of *confidential* microdata files. Development costs for the ADS System are based on the schematic presented in Figure 1 and on systems with similar functionality which have been developed previously in Statistics Canada.

9.2 Core System Description

Sample Selection will be carried out using two different sampling frames. First, the T1 Tax File will be used as the source for identifying the *high wealth* component of the sample. Functionality for identifying persons living in the same dwelling will prevent a dwelling from being selected more than once. The Labour Force Survey sampling frame will be used as the source of dwellings for the remainder of the Asset and Debt Survey sample.

Capture and Edit of the questionnaires will be carried out at Head Office (i.e., in Statistics Canada's offices in Ottawa, not in the Regional Offices). This will minimize the amount of follow-up that can be done with respondents. Scanning is being considered as a method of capturing the data.

Figure 1 - A High Level Schematic of the Asset and Debt Survey System



The primary objective of the *Edit and Imputation* System is to produce a completely edited and clean microdata file at the Economic Family level. The first step is to further update the Captured ADS Data File by matching it with a variety of administrative data files (i.e., the T1 Tax File, the Pension Plans in Canada File, the Canada and Quebec Pension Plan Files). This will make each return as complete as possible. Edit and imputation of the resulting ADS Data File will produce a clean microdata file. Finally, a variety of counts will be developed at the stratum level and recorded on the Stratum Control File. These counts will be used to modify the sampling weights assigned to microdata records.

Reweighting and Variance Estimation consists of the following major functions:

- Each microdata record will be assigned modified weights.
- Variance estimates are produced.

The output of this function is an edited and weighted ADS Master File of microdata records which represent *complete returns*.

The *Creation of Confidential and Public-Use Microdata Files* function will create both *confidential* and *public-use* microdata files. Derived variables will be created. The public-use version of the microdata file will have a variety of transformations (e.g., suppression of values, collapsing of category values, rounding of quantitative data values) applied which prevent the identification of any one person or family. Finally, there may be a need to provide a shared master file for some clients which is a hybrid of the confidential and public-use microdata file types. A *shared* master file is one containing a mixture of confidential and public-use microdata records. In this case respondents would have agreed to share their confidential data.

The *Dissemination* function will provide two distinct user groups with access to ADS microdata. First, *external clients* will purchase the public use microdata file itself and conduct their initial analyses on flat files derived from this dataset. User friendly interface software which uses the ADS Data Dictionary will be provided with the purchased microdata file. It will enable clients to easily create flat file outputs which can be processed by a variety of software (e.g., SAS, SPSS) packages. These flat files will be customised to a client's specific needs. Subsequently, external clients may wish to forward their customised tabulation software and retrieval specification to Statistics Canada and have tabular outputs produced from the confidential microdata file. Second, *internal Statistics Canada personnel* will be provided with the same interface software, but will be able to access the confidential microdata file directly.

10. Analysis and dissemination

10.1 Staging of release of data

The data from this survey will very likely be released in several stages. Some of the variables require significant additional processing and estimation; this work should not prevent the rest of the information from being released. The estimation of the value of pension wealth held in registered pension plans (RPPs) and in the C/QPP would most likely not be made available in the first release of the survey data.

10.2 Data/analytical products

Two different types of output will be produced from this survey. They are:

1) Analytical products

Statistics Canada, and the other partners in this survey, would analyse the results of the data. In some cases this output would be produced jointly and, in others, independently. This would depend on the nature of the analysis being done. In all cases, the partners in this process would be recognized.

Several analytical/descriptive outputs should be prepared in the early stages of data release. They are:

- **an evaluation and assessment of the data.** This would involve a look at response rates, magnitude of imputation of missing data, comparison of survey estimates with their counterparts from other sources, etc. A reasonable assessment of the data would be necessary prior to releasing the financial estimates.
- **highlights of the data** and detailed statistical tables in paper and electronic form. Such a product could build on those produced from the earlier asset and debt surveys conducted by Statistics Canada in 1984 and 1977. It would also contain a description of the survey methodology and definitions of the concepts used.

These products would be followed by *issue-oriented analytical products* which could be prepared by one or more of the survey partners. Issues could range from an analysis of RRSP holders and holdings, debt load carried by post-secondary students, variation in wealth holdings by families in different provinces/areas, indebtedness of Canadians, wealth of the growing self-employed community, and so on.

2) Microdata files

A screened or public-use microdata file will be produced and made available to the public on a cost recovery basis. Purchasers of microdata products must sign a licensing agreement with Statistics Canada.

The information on this file will be screened to ensure that no individuals can be identified, either directly or indirectly. Approval for the release of such files must be given by Statistics Canada's Microdata Release Committee (MRC). Variables which directly identify a respondent, such as name, address and telephone number, are suppressed on all files. Other variables, such as demographics, labour force activity or language, must be reviewed to ensure that unique combinations or rare characteristics will not directly or indirectly identify any individual. The most problematic variables in terms of data confidentiality are geographic identifiers and socio-demographic variables.

10.3 Other means of disseminating data

1) Custom-retrieval service

Statistics Canada would have the capability of generating, from the data files, custom tabulations or products in response to requests for this information. It is expected that such a service would be of interest to a wide range of users, including social policy analysts/researchers, federal / provincial government departments, educational institutions, consulting/brokerage firms, financial institutions such as banks and trust companies, etc.. This service would be provided on a cost recovery basis.

2) Remote access

A facility called remote access is also available to users. If the public-use microdata file will not provide the required information, a description of the contents of the confidential master file can be provided to users who can then generate their own computer code for producing custom tabulations directly from the confidential master file. This code can be submitted to Statistics Canada via the Internet. The results of the tabulation must of course be vetted for confidentiality. This procedure is available on a cost recovery basis but has the advantage of saving both the user and Statistics Canada time and resources.

11. Survey costs and major milestones

The cost to conduct the survey described in this proposal have been estimated to be between \$3,200,000 and \$3,400,000. These costs assume the following:

- a responding sample of about 15,000 households;
- data collection in most cases by personal interview (every effort will be made to accommodate respondents who prefer to complete this information on their own or to report it on the telephone);
- interview length of about 70 minutes;
- output to be made available: standard publication and tables (in hard copy or electronic form), microdata files, custom tabulation service. These are described more fully in the previous section.

Major milestones for this survey are:

Activity	Completion date
Development	
Draft questionnaire / respondent relations material	August 29, 1997
Focus group testing	October 31, 1997
Refine questionnaire / respondent relations material / content frozen	November 14, 1997
Define sampling requirements	August 29, 1997
Listing new clusters for sample	November to February 28, 1998
Forms design and printing	February 28, 1998
Collection	
Interviewer training material	March 15, 1998
Interviewer training	April 30, 1998
Data collection	April 27 to June 20, 1998
Processing	
Capture system (including testing)	April 30, 1998
Edit / imputation system	May 30, 1998
Data processing	June 1, 1998 to January 31, 1999
Incorporate tax data	November 30, 1998
Output systems	October 31, 1998

Output	
Initial data release	April 30, 1999
Release of public-use microdata file	April 30, 1999
Release of publication	August 31, 1999

12. Management co-ordination approach**12.1 Project team approach**

Household Surveys Division will be responsible for conducting the survey, using an interdisciplinary team approach. Apart from the sponsoring agencies, the team would also consist of Statistics Canada field operations, survey methodology, survey management, system development and analysis divisions.

Representatives from the sponsoring agencies would work together with the project team to review questionnaire content, wording and other aspects of the project.

12.2 Steering Committee

The overall direction of the project team would be guided by a Steering Committee of managers from Statistics Canada and senior representatives from the other agencies participating as survey partners. The Steering Committee would meet periodically to approve survey schedule, cost estimates and design details.

Appendix A - Estimates of CVs assuming sample size of 15,000 and 30,000

Table 1. Coefficient of variation for average wealth by income groups

Income groups (in thousands of dollars)	Sample size: 14,029 Based on SCF 1984			Sample size: 30,000		
	All families and unattached	Families	Unattached	All families and unattached	Families	Unattached
<5k	20.11%	27.42%	13.79%	13.75%	18.75%	9.43%
5 - 9	8.36%	11.00%	9.79%	5.71%	7.52%	6.69%
10 - 14	4.55%	5.58%	6.11%	3.11%	3.82%	4.18%
15 - 24	3.51%	4.06%	8.61%	2.40%	2.78%	5.89%
25 - 34	3.70%	3.97%	11.03%	2.53%	2.72%	7.54%
35 - 44	4.12%	4.21%	16.58%	2.82%	2.88%	11.34%
45 - 59	3.02%	2.96%	18.85%	2.06%	2.02%	12.89%
60 +	8.10%	8.40%		5.54%	5.74%	
Total	2.99%	2.96%	5.83%	2.04%	2.03%	3.99%

Table 2. Coefficient of variation for average income by wealth groups

Wealth groups (in thousands of dollars)	Sample size: 14,029 Based on SCF 1984			Sample size: 30,000		
	All families and unattached	Families	Unattached	All families and unattached	Families	Unattached
Negative	1.81%	3.12%	3.19%	1.24%	2.14%	2.18%
0 - 0.9 k	2.51%	2.55%	5.59%	1.71%	1.74%	3.82%
1 - 4 k	2.10%	2.30%	3.31%	1.44%	1.57%	2.26%
5 - 14 k	1.49%	1.73%	2.24%	1.02%	1.18%	1.53%
15 - 29 k	1.87%	1.46%	3.86%	1.28%	1.00%	2.64%
30 - 49 k	1.56%	1.47%	4.79%	1.07%	1.01%	3.28%
50 - 74 k	1.25%	1.20%	4.65%	0.85%	0.82%	3.18%
75 - 99 k	1.61%	1.31%	5.80%	1.10%	0.90%	3.97%
100 - 149 k	2.69%	2.16%	10.41%	1.84%	1.48%	7.12%
150 - 199 k	2.03%	1.89%	6.76%	1.39%	1.29%	4.63%
200 - 299 k	2.43%	2.62%		1.66%	1.79%	
300 k +	5.17%	5.14%		3.54%	3.52%	
Total	0.74%	0.68%	1.74%	0.50%	0.46%	1.19%

Table 3. Coefficient of variation for average wealth by age of the head of the family.

Age of head	Sample size: 14,029 Based on SCF 1984			Sample size: 30,000		
	All families and unattached	Families	Unattached	All families and unattached	Families	Unattached
≤24	15.42%	17.41%	24.17%	10.55%	11.91%	16.53%
25 - 34	4.00%	4.91%	7.60%	2.74%	3.36%	5.20%
35 - 44	3.94%	3.69%	24.37%	2.70%	2.52%	16.66%
45 - 54	6.93%	6.87%	22.36%	4.74%	4.70%	15.29%
55 - 64	4.30%	4.69%	8.45%	2.94%	3.21%	5.78%
65 +	4.83%	5.30%	6.67%	3.30%	3.63%	4.56%
Total	2.99%	2.96%	5.83%	2.04%	2.03%	3.99%

Table 4. Coefficient of variation for average wealth by sources of income.

Sources of income	Sample size: 14,029 Based on SCF 1984	Sample size: 30,000
	All families and unattached	All families and unattached
Wages and salaries	2.90%	1.98%
Self employed	6.56%	4.47%
Transfer	4.40%	3.00%
Other	9.69%	6.61%
Total	2.98%	2.04%

Table 5. Coefficient of variation for average wealth by regions

Regions	Sample size: 14,029 Based on SCF 1984	Sample size: 30,000
	All families and unattached	All families and unattached
Atlantic	5.31%	3.63%
Québec	4.95%	3.38%
Ontario	6.22%	4.25%
Prairies	6.86%	4.69%
British Columbia	5.48%	3.75%
Canada	2.99%	2.04%

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