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SOCIAL AND LABOUR MARKET POLICY RESEARCH USING THE SURVEY OF LABOUR AND INCOME DYNAMICS

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EXECUTIVE SUMMARY

The first wave of SLID data has now been collected, and the survey team's attention is turning to preparing the data for dissemination. This report describes major expected data uses, to set the scene for processing and dissemination activities.

Major research topics are grouped around five themes: employment and unemployment dynamics, life-cycle labour market transitions, job quality/quality of working life, family economic mobility and dynamics of low income. Each broad research area and its associated data needs, in terms of variables and units of analysis, are discussed.

Researchers are invited to comment on whether the views presented are consistent with the ways in which they expect to use the data.

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1. INTRODUCTION

The first wave of data from the Survey of Labour and Income Dynamics has now been collected. The survey team's attention has turned to preparing the data for dissemination. This report describes some of the policy research data needs the survey is expected to fill. Although it is clearly not possible nor desirable to predict all the uses, there are several reasons for trying to define expectations:

- It provides researchers with a starting point for assessing the appropriateness of the data for particular research projects.

- For the survey team, a good (and common) understanding of major uses can guide us in structuring the database and deriving variables.

- We need to balance the needs of data users against the risk of disclosure in the public use microdata files -- an understanding of these needs is crucial for making decisions on the best ways of protecting confidentiality.

- Longitudinal surveys typically require a major front-end investment on the part of researchers to learn about the survey and the properties of the data. We want to make this as painless as possible by providing good documentation and by offering workshops. The reference materials will be more effective if there is an analytical framework for their development.

This report describes our perception of the main ways in which SLID data will be used. Hopefully, it captures the views of many researchers who provided input during the various consultation activities.[1] Although the discussion is necessarily

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[1] In 1992, two documents describing the proposed survey content were made available to researchers (Picot, Poulin, Veevers and Biggs; Picot, Poulin, Giles and Allen). Since that consultation we have received input from many people on a number of specific issues (through workshops, phone calls, Statistics Canada Advisory Committees meetings, and

general, researchers may be able to spot potential problems. For example, will our approach facilitate (or cause problems) for certain research uses? Are we missing important derived variables? Simply put, are we on the right track?

For purposes of describing the expected data uses, major research topics were grouped around five themes:

- employment and unemployment dynamics
- life-cycle related labour market transitions
- job quality or quality of working life
- family economic mobility
- dynamics of low income

A few comments on this classification scheme: First, all categories, with the possible exception of the middle one, are inherently longitudinal. SLID can be used cross-sectionally but its primary purpose is to support longitudinal analysis. We are therefore striving to "think longitudinally" in designing the database that researchers will use. Second, the areas of research discussed in this report all have some potential for influencing social or labour market policy since, as noted in the early content documents, the survey is specifically intended to support policy research. Third, there are no clear dividing lines between the various categories -- they are intended only as a device for organising the discussion.

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so on).

In the sections that follow, each broad research area and its associated data needs are discussed in general terms. This is followed by a discussion of the variables. A list of SLID variables is also presented in Appendix 1; this list is partial in that many more derived variables will probably be identified. Finally, Appendix 2 provides a general description of the survey.

2. SOME GENERAL ISSUES IN THE ANALYSIS OF LONGITUDINAL DATA

A central feature of longitudinal data is the measurement of change at the level of the individual. From a temporal perspective, the SLID dataset will include three types of variables -- fixed, annual and dynamic -- and two of these provide measures of change. More specifically:

- Fixed variables refer to items that are collected once and are not inherently subject to change -- for example, date of birth, sex, visible minority status.

- Annual variables apply to a full reference year -- for example, income from a particular source, number of weeks employed during the year. They can also be used to pinpoint individuals who experienced a particular event at some time during the year -- for example, individuals who got married during the year. There is one value per year, and the final data for a full panel will thus contain six observations.

- All other variables are dynamic. They reflect a state (a labour market spell, a marital state, an occupation) which may change once or many times during the lifetime of the panel, or not at all. Start and end dates are attached to these spells and spell durations can be derived. An event of some sort (job loss, divorce, promotion) marks a transition from one state

to another. The length of these states is variable. Spells can begin in one year and carry over into the next year.[2]

In addition to these different types of variables, researchers may use various units of analysis. The main ones are:

- The person -- this is in a sense the most important unit and it is the one used to collect the data.

- The spell -- a person may experience several spells (for example, of unemployment) and some studies will treat the spell as the unit of analysis, generally attaching the person's sample weight to each spell. Demographic and other personal or labour market characteristics may be treated as attributes of the spell.

- The transition -- this refers to a change from one state to another. Transitions can be identified from dynamic variables, when one state ends and another begins.

- The person-job -- a person may occupy several jobs over a period of time and the analysis of occupation, wages, hours and so on is often done on a job-by-job basis. Again, the person's weight can be attached to each job.[3]

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[2] The survey is designed to provide good measures of spells that cross "the seam", that is the boundary between two reference years. Dependent interviewing -- feeding back information from the previous interview -- has been implemented for variables where spell analysis is likely to be important.

[3] Unlike the Labour Market Activity Survey (LMAS), SLID has no pre-defined entity called "a job"; researchers can define jobs (or more accurately person-jobs) using the information on duties, wages and hours -- see Section 5.

The family and the household are not proposed as units for longitudinal analysis because their composition is liable to change over time. Other surveys have investigated the possibility of defining "longitudinal" families or households but attempts to do so have not been very successful (see, eg, Duncan and Hill, 1985). Family and household variables in SLID are important, but will be generally be viewed as attributes of the person, and the person will be the unit of analysis (Butlin, 1994).

3. EMPLOYMENT AND UNEMPLOYMENT DYNAMICS

The term e*mployment and unemployment dynamics* refers to movements in the labour market experienced at the level of the individual. *Gross flow* studies track shifts between employment, unemployment and inactivity; *labour turnover* refers to shifts into and out of jobs. Studies in recent years indicate very large movements in the labour market over the period of a year or even a month.[4] Gross flow and labour turnover studies can improve our understanding of how the labour market functions, and are thus useful supplements to "snapshot" labour market data that measure net change. SLID will provide a basis for the continuation of analytical work undertaken using a variety of sources, including LMAS and linked records from the LFS.

A related area of study is the *concentration of unemployment* -- For example, to what extent is unemployment experienced repeatedly by the same individuals? How does the duration of unemployment spells vary over the business cycle? The

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[4] One study using data for 1988 states that "...almost 5% of employed persons separat(e) from their jobs on average each month. The number of hirings during 1988 was also large (5 million) and accounted for about one-third of all jobs held at any time during the year." (Lemaître, Picot and Murray, 1992)

survey's longitudinal design allows studies of this type using completed spells, which can yield superior results to those obtained using truncated spells.

One interesting question is what causes flows into employment and unemployment. For example, what are the major determinants of labour market withdrawal? What family events act as triggers for labour market transitions? What precedes a transition into self-employment? Do family income (both its level and stability) and wealth appear to have an impact on a worker's decision to become self-employed?

Finally, studies of *labour market adjustment* concern, from the worker's perspective, the steps taken following permanent layoff from a job. What steps lead to successful outcomes? How long does it take to find a new job? Are geographical and sectoral mobility important? What are the situations that result in long-term unemployment and discouragement? Are workers who accept a drop in wage successful in the longer term?

Data needs

This field is quite broad and different studies will require different units of analysis. Some will use spells as the unit of analysis. There will be spell data in SLID (that is, states that can be readily associated with a start and end date and for which durations can be derived), covering employment, unemployment, inactivity, joblessness, job search, multiple jobholding, attachment to an employer and school attendance, among others.

The dataset will also include a range of annual summary measures, such as annual labour force status (a variable reflecting all the statuses experienced during the year), number of weeks employed, unemployed and inactive each year, number of

employers and so on. These variables can also be used to identify transitions, where the reference period is the year.

Studies of employment and unemployment dynamics may also make use of data on how each new job was obtained and, for job separations, the reason for leaving or losing the job. They may relate to the whole economy, or focus on a particular industrial sector, occupation, demographic group, and so on. In some instances, subgroups of interest may be defined using demographic events rather than characteristics.

4. LIFE-CYCLE RELATED LABOUR MARKET TRANSITIONS

This group of studies deals with major labour market transitions that dominate particular stages of the life cycle. Compared to the transitions discussed in the previous section, there is more emphasis on the individual's family circumstances or living arrangements. There may also be considerable effort required to define the population of interest (since the transitions in question are not simple phenomena). Finally, the analytical interest is mainly on understanding determinants and outcomes.

One focus for studies of this type is *school-to-work transitions.* Long periods of inactivity and unemployment following school-leaving are a labour market policy concern, not only because of lost productivity in the short-term, but also because of the concomitant use of Social Assistance, the onset of discouragement and so on. The issues of interest include the labour market integration of high school dropouts, the time required for school leavers to find their first full-time job, the stability of the first full-time job, wage and occupation in relation to education and

major field of study, and back-to-school transitions following early ventures into the labour market.

Issues around *transitions from work to retirement* include the distribution of wealth among seniors and the pre-retirement group, and how wealth conditions retirement decisions. The potential exists for studying the labour market phasing-out process, for example, self-employment following retirement from a paid job, or shifts to part-time or lower-wage pre-retirement jobs. This area is an important data gap in the national statistical system and SLID is expected to play a part in filling it.

Work absences/temporary labour market withdrawal associated with childbirth or child-rearing are the third major area of life-cycle transitions. The six-year lifespan of SLID panels is sufficient to follow short-term absences and job separations to bear and raise a child through the very early years. It is possible to study reintegration patterns, for example, wages before and after the absence, work arrangements and hours worked on returning to work. There may be some interest in the patterns associated with various family types, in particular, lone-parent families. Another possible research area will be the labour market impacts of family dissolution as they relate to working mothers.

Data needs

The unit of analysis for these studies could be the transition or the person. Researchers will probably need data on both labour market flows and job characteristics to isolate populations of interest -- for example, a transition into retirement might be defined as a flow from employment to inactivity, among persons in a particular age group, where the state of inactivity was of a given minimum duration and the reason for job separation was retirement.

In any study where the person is the unit of analysis, but job attributes are needed, there may be difficult decisions to make because a person can hold many jobs -- to illustrate, a study of women's wage rates before and after a temporary withdrawal from the labour force would have to contend with multiple jobholders (different occupations, work schedules, wages...). Researchers may elect to define a main job or dominant job to resolve some of these problems. However, there are no plans in SLID to create a derived variable of this type.

A note on work absence data: absences are spells *within* the period of a person's attachment to an employer and they may extend from one year into the next. Long absences may be reported as such, or as a break in attachment -- it's somewhat arbitrary. This should not pose a major analytical problem because, the researcher can identify both returns to a former employer *and* returns to work after an absence.

5. JOB QUALITY/QUALITY OF WORKING LIFE

This broad category includes studies where the workplace is viewed in social or hierarchical terms, or where the central question concerns discrimination or inequality in a work setting. Many of the possible studies are essentially cross-sectional. SLID may be of interest because it has the right selection of job and personal characteristics for certain cross-sectional uses. However, the emphasis in the topics discussed below is generally on applications that would exploit the longitudinal capacity of the survey.

Wage gap studies incorporating measures of human capital are expected to be an important study area (particularly in relation to Employment Equity designated groups). One can, for example, follow groups of workers through time to analyze career progression.

Measures of underemployment, and of marginal jobs, including studies where the focus is either on insufficient hours or insufficient earnings: Interesting topics in this area include the methods workers use to compensate for insufficient hours of work (for example, multiple jobholding, Social Assistance); the characteristics of low-wage jobholders; the longer-term effects of accepting a low wage job (do workers gain marketable skills this way or does it create worker ghettoes that in effect become traps?); and the work arrangements of dual-earner families with small children.

Occupational segregation, occupational mobility, earnings growth and promotions are likely to be prominent areas of research. These may look at determinants of change or deal with barriers to advancement in the workplace. What are the patterns of earnings growth over the period of six years? What are the distinguishing characteristics of "winners" ? Do workers in low-skill, low-wage jobs show earnings growth? Among other things, longitudinal studies in this area may shed light on wage polarisation.

Data needs

In wage gap studies, the job is often the unit of analysis and the characteristics of jobholders are treated as attributes of the job. There is a need for measures of human capital, and for basic demographic data. In contrast, studies of underemployment might tend to use the person as the unit of analysis, in order to capture earnings and hours at all jobs during the reference period. Similarly, if the focus is on occupational mobility or wage mobility the person would perhaps be the logical unit of analysis, because of the need to consider both promotions within a firm and carry progression achieved through a change of employer.

Researchers who are familiar with LMAS will notice a difference in the way job information is structured in SLID. In LMAS, the data were organised by job. If the wage and occupation with a particular employer changed, a new job was "created" on the database. In SLID, data are structured by employer spell (which describes the period of a worker's continuous attachment to an employer). Changes in wages, hours, etc are recorded within the employer spell, along with the dates these changes occurred. Thus a researcher who wants to analyze promotions will need to impose a definition of promotion on the data. One of the reasons for this approach is to provide greater analytical flexibility. The database will also include an employer identification number, which can be used to link up discontinuous spells with same employer -- cases where a person works for an employer, leaves or gets "permanently" laid off, and is rehired at a later date.

Studies in this area will frequently make use of earning and hours data. The approach for deriving a wage rate is similar to LMAS, but improvements in accuracy are expected in SLID because changes in hours worked (which are used to derive wage rate) are recorded, along with the date the change occurred.

Data on the nature of work and on benefits will also be needed frequently. SLID covers (for each employer spell) up to two occupations per year and, in addition, annual information on supervisory and managerial responsibilities; industry, class of worker and firm size; union membership and pension plan coverage; job tenure (duration of employer spell) and first date ever worked for the employer.

6. FAMILY ECONOMIC MOBILITY

The title of this section is taken from Greg Duncan's *Years of Poverty, Years of Plenty*, based on the Panel Study of Income Dynamics (PSID). It refers to the measurement of stability vs. change in the economic well-being of families. An

important research topic in this area will be *family formation and dissolution.* The survey will track changes in family (and household) composition, and will provide a basis for studying family stability.

A major rationale for this survey is the need for information on the d*eterminants of change in family income*. How stable is family income? When changes in family income occur, what are the major causes? How much is attributable to change in family composition and how much to change in the labour market participation of family members? The above-noted study by Duncan indicated that changes in economic well-being are commonplace and that family composition changes are indeed a major determinant of a change in economic status, particularly among women and children. Similar findings for Sweden were obtained in a study by Fritzell (1990).

Seen from a different perspective, one can examine the financial outcomes of particular changes in family structure. What is the impact of marital breakdown on the income level of the partners? Economically mobile families can be either upwardly and downwardly mobile; by analyzing the mobility patterns, one might gain some insights into the mechanisms of income polarisation.

SLID is also intended as a research vehicle for examining *family-labour market interactions*. For example, what is the role of the labour market in reducing income inequality? What are the responses of a family when a major breadwinner becomes unemployed? What is the impact on total family income?

Data needs

The unit of analysis in these studies is likely to be the person, with the focus on family attributes, family events and labour market events of both the person and

others in the same family. Several researchers have emphasized the importance of being able to link up a respondent with other (both current and past) family members.

Our intention is to create two kinds of derived variables. First, variables that describe the major characteristics of other individuals the respondent has lived with over six years will be available as family characteristics relating to the individual. Second, there will also be derived annual variables at the family level (family type, income by source at family level, number of workers....); and family events, summarizing the types of demographic changes that occurred during the year.

The family income variable raises some conceptual and measurement questions in the case of families that have undergone a change in composition. The traditional approach is to sum the individual annual incomes of all persons living together at a point in time. In the case of the Survey of Consumer Finances, all persons forming a (census or economic) family in April are asked about their individual income during the previous calendar year; these amounts are summed to form family income whether or not they did live together throughout the year. In SLID's case, the comparable procedure would yield a family income total for persons living together in January or February, at the time of the labour interview.[5]

Is this a major concern? There is already some evidence in SLID that families are quite dynamic. The sample of 15,000 households was initially selected, and a preliminary interview conducted, in January 1993. During the first wave of labour interviews, in February 1994, over 1,000 new households were created as the

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[5] The income interviews are conducted in May, but from a design perspective these interviews are merely deferred from January because it is more practical to collect the data in May. In other words, income is collected in May for people who formed a family the previous January.

result of household splits. The survey also identified over 2,200 new *cohabitants* -- these are people now living with our longitudinal respondents, but who were not doing so when the sample was selected. Thus in the space of one year, a substantial proportion of all households experienced a change in composition and family income might accordingly be affected.

Should the SLID dataset include, in addition to the traditional measure of family income, one that seeks to adjust for changes in family composition? We can in theory produce an annual family income value for the respondent that adjusts for comings and goings of other family members. It requires assumptions about the distribution of income within the year -- would such assumptions make the measure too "synthetic"? We will be pursuing this question with researchers over the coming months.

7. DYNAMICS OF LOW INCOME

This theme is related to the previous one, but the emphasis is more clearly on low income. The survey information on the *incidence and duration of spells of low income* will perhaps be one of the most important outputs. We expect that the data will be used for estimating "turnover" in the low-income population, from year to year and over a longer period, which will allow us to answer some important questions on the nature of poverty in Canada.

Associated questions concern the *determinants of flows into and out of low income*. What are the demographic and labour market events that tend to trigger a movement into or out of low income? What role do government transfer payments play in flows out of low income?

Another major research area is the *patterns of Unemployment Insurance and Social Assistance receipt.* How much movement is there between UI and SA? The data are of potential use in studying the degree of economic dependency on these programs over time, and the part played by each in bolstering family income. PSID-based studies have indicated that the "welfare trap" view of social assistance is not borne out by the data.

Families that are economically disadvantaged in spite of their labour market involvement -- *the working poor* -- are a particular concern, in that their precarious position may trigger labour market withdrawal. The data may be of interest in income security policy research, especially given the move towards building work incentives into income support programs.

Data needs

The unit of analysis will most likely be the person. Studies will require measures of the family's status with respect to the relevant low income cut-off; that is, is the person in a family whose income falls below the cutoff? Researchers will need to consider the data issue addressed above, that is, how to deal with persons living in families whose composition changed during the year. Some may wish to exclude these families, but they may well prove to have atypical flows into and out of low income.

8. THE VARIABLES

The variables in SLID can be grouped in various ways. For purposes of this paper, they are divided into nine categories: demographic characteristics and events, human capital variables, nature and pattern of labour market activities, job characteristics, work absences, information on jobless spells, receipt of

compensation, activity limitation, income and wealth. In addition to the summary description below, a partial list of the variables in each category is presented in Appendix 1. The list is partial because a number of derived variables have yet to be identified.

Demographic characteristics and events are divided into four groups in Appendix 1:

- basic demographics and cultural variables -- date of birth, sex, marital status, marital history and Employment Equity designated groups

- geography and geographical mobility cover standard spatial variables and, in addition, information relating to moves (whether or not the move is associated with a household split)

- household characteristics are of two types -- attributes of the household as a whole (size, type, income...) and attributes of individuals the respondent has lived with at some time during the six-year period (age, sex, income, start and end dates of cohabitation spells...)

- economic family characteristics include attributes of the family as a whole, and descriptors of important life-events occurring during the year.

Most of the household and family-level variables have the potential to be updated once a year and reflect the perspective at the time of the labour interview, that is in January or February. In addition, changes in household composition are dated; the information is thus not limited to an annual snapshot of the household or family.

Human capital variables are divided into three groups:

- educational attainment, including years of schooling, degrees, certificates and diplomas and major field of study -- all variables collected at the outset which may be updated over six years

- educational activity, which can be used to identify full-time and part-time students and to anticipate future changes in attainment

- work history, identifying the number of years of full-time and part-time employment since the person first worked full-time, again, updated each year.

Job tenure information is also available for human capital studies but these variables are collected on an employer-by-employer basis and are therefore listed under *Job characteristics*.

The nature and pattern of labour market activity describes the employment and unemployment experiences of the individual over time. Some variables will be in the form of spells (for example, spells of joblessness, spells of absence from work), potentially crossing the seam and measured in weeks or months. Other variables summarise the person's labour market patterns on an annual basis (for example, weeks unemployed during the year, number of employers during the year).

Job characteristics, such as industry, occupation, work schedule and wage, are collected on an employer by employer basis. As noted earlier, researchers interested in analysing "person-jobs" will need to determine when a job change occurs within firms, using information on changes in occupation, wages, hours and supervisory responsibilities. On the data files, this information on change be presented as characteristics of the employer spell.

If the person is working as an employee, there are questions on *work absences of one week or more*. If there are more than two such absences, then details (duration, reason, etc) are collected on the first and last absence of each year. Absence information is recorded on an employer-by-employer basis.

Similarly, if the person did not work all year, there is information on *jobless spells*, relating to job search and the desire for employment. This information is used to assign the weekly labour force status variable, but may be of interest in its own right.

All respondents are asked about the *receipt of compensation* from three specific sources: Unemployment Insurance, Worker's Compensation and Social Assistance. If they indicate that compensation was received then the months in question are identified. (This information is collected during the labour interview; the amounts received are collected during the income interview.)

If the respondent identifies an *activity limitation*, there are a few questions on the work implications of the limitation.

Twenty-three sources of *income* are collected, along with total income and income tax paid. Our intention is to also provide a number of derived variables, including income for broad groupings of sources, as well as family status relative to low income measures.

Wealth information refers to the assets and debts of a person's family or household. We are examining the possibility of collecting a limited amount of information, perhaps fifteen categories for assets and five categories for debts (see

Appendix 1). This content has not yet been finalised[6]; nor has the frequency of collection, although we currently believe that twice in the six year lifespan of the panel might be optimal.

Although the proposed wealth content is limited, it could be a useful adjunct to the income data. For example, how does a family's wealth position affect the likelihood of a member launching a small business? How does it affect retirement decisions?

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6 There is particular concern about the feasibility of collecting the asset "value of pension" through a household interview and this item is potentially very important in terms of its contribution to total wealth. The feasibility of obtaining pension information via a link to Statistics Canada's pension file will be evaluated.

9. CONCLUSION

This paper has provided a very brief description of some of the major research areas for SLID data. We would be very interested to hear back from researchers planning to use SLID: do the directions presented in the paper accommodate their plans? For our part, we will need to draw tighter linkages between our "model" research topics, the units of analysis and the derived variables, to ensure that the right information is present in the proper form on the database. There are many decisions required, including what can be done in time for the release of the first wave and what needs to be postponed until a later wave. To the extent possible, desirable features will be present in the data for the first wave, but an incremental approach is inevitable -- there is much to learn and the feedback that we receive from researchers will lead to new derived variables and other changes in the early years of the survey.

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APPENDIX 1

SLID VARIABLES

The SLID output will include fixed, annual and dynamic variables:

- Fixed variables refer to items that are collected once and are not inherently subject to change -- for example, date of birth and sex.

- Annual variables apply to a full reference year -- for example, income from a particular source, number of weeks employed during the year. There is one value per year, and the final data for a full panel will thus contain six observations.

- All other variables are dynamic. They may reflect a state (a labour market spell, a marital state) to which start and end dates can be attached. An event of some sort (job loss, divorce) marks a transition from one state to another. The length of these states is variable. They can begin in one year and carry over into the next year.

The following are the main output variables for the full retrieval database identified at this point. (For reasons of confidentiality protection, not all will appear on public use microdata.) There will be many more derived variables. The dynamic variables are indicated by an asterisk:

Person identifier (allowing linkages to other current and to former household members)

Demographic and cultural variables:

- date of birth
- sex
- marital status*
- date current marital state began

- date of first marriage
- no. of children born/raised*
- mother tongue
- ethnic origin
- year of immigration and country of birth
- member of employment equity group
    - visible minority group member
    - aboriginal person
    - disabled*
- father's level of schooling
- mother's level of schooling

Geography and geographical mobility:

- moved during year:
    - move did/did not involve household split
    - date of move
    - reason for move
- country of residence*
- province/territory of residence*
- economic region*
- rural/urban*
- urban size group*
- type of community of residence*
- rural/urban and urban size group*

Household characteristics

- household size, by age group (annual)
- household composition (annual)
- number of economic families in hhld (annual)

- age of youngest hhld member (annual)
- relationship to all other household members*
- characteristics of every other household member (over entire survey period):
    - age
    - sex
    - annual income
    - annual labour force status
    - total annual hours worked
- household composition changed/did not change during year (annual)
- household income (annual)

Economic family characteristics and events (all annual variables)

- family size
- family composition
- blended/not blended, by type
- number of generations in family
- family income
- family events during year (y/n):
    - separation, not involving person
    - person separated
    - death in family, spouse
    - death in family, other
    - birth/adoption in family, person not parent
    - birth/adoption in family, person is parent
    - marriage in family, not person
    - person married
    - etc

Educational attainment

- years of schooling*
- high school completion*
- province of primary/secondary education
- degrees, certificates and diplomas*
- major field of study of highest degree*
- major field of study of most recent non-university, postsecondary diploma*
- program length of most recent non-university, postsecondary diploma*

Educational activity (annual variables, except months)

- enrolled in a school, college or university
- full-time or part-time
- months attended*
- type of educational institution

Work history

- years of full-time employment since first worked full-time*
- years of part-time employment since first worked full-time*

Nature and pattern of labour market activity

- spells of employment (start and end dates/duration)*
- spells of joblessness*
- spells of unemployment*
- spells of inactivity
- annual labour force status
- number of employers in year (up to 6)
- employer id numbers (to allow linkages of discontinuous employer spells over time)
- dates of attachment to each employer*

- total weeks employed in year
- total weeks unemployed in year
- total weeks inactive in year
- spells of multiple jobholding*
- absent from a paid job for one or more weeks during year:
    - total number of absences
    - total weeks of absence

Employer (job) characteristics (for up to six employers per year)

- employer id number
- hourly wage rate*
- if wage changed during year: increase or decrease
- annual earnings from this employer
- type of work arrangement (shift, weekend, etc)*
- average weekly hours*
- if change in hours during year (up to two recorded): annual work pattern (?)
- reason for working part-time
- total annual hours
- union membership*
- covered/not covered by pension plan*
- job tenure*
- first date ever worked for this employer
- industry
- firm size*
- class of worker (* if self-employed or unpaid family worker)
- occupation*
- supervisory/managerial responsibilities*
- how job was obtained

- reason for job loss

Work absences of one or more weeks (up to two per employer)

- start and end date
- reason for absence
- paid or unpaid
- (if temporary layoff) job search during absence
- (if no job search) desire for employment
- total number of absences during year from this job

Information on jobless spells

- job search during spell
- (if so) start and end date of job search spells*
- (if not) desire for employment during jobless spell

Receipt of compensation (by month)

- received UI*
- received Social Assistance*
- received Worker's Compensation*

Activity limitation (annual)

- limited at work/school or other activities
- any long-term disabilities or handicaps
- date of onset
- if limited and working:
    - impact of condition on getting work
    - satisfaction with hours
- if limited and not working:
    - impact of condition on ability to work or look for work

Income (annual, sources and amounts)[7]

- wages and salaries
- self-employment income -- farm
- self-employment income -- non-farm
- interest
- dividends
- net capital gains
- other investment income
- Child Tax Benefit
- OAS, GIS, Spouse's Allowance
- CPP/QPP
- UI benefits
- SA and provincial income supplements
- Workers' Compensation
- GST Credit
- provincial tax credits
- Veterans' Pensions, civilian war pensions and allowances
- Other income from government sources
- retirement pensions, superannuation, annuities
- RRSP annuities and RRIF withdrawals
- RRSP withdrawals
- alimony, separation allowance, child support
- money received from persons in other households (hhld transfers)
- other money income
- total income
- income tax paid

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[7] The income information for 1994 was collected by interview, but we are assessing the feasibility of a link to tax file data for 1995 and subsequent years (which would require respondent permission).

- income after tax
- LICO status (of individual or family)

Wealth (tentative, perhaps collected twice in six years)

- home owners: value of home
- value of other real estate
- value of cars, trucks, vans, motorcycles,etc
- value of boats, motor homes, trailers, snowmobiles
- farm owners: net value of farm
- deposits in bank accounts, GICs and other savings
- money invested in CSBs, treasury bills and other govt bonds
- money invested in mutual funds, stocks and bonds
- money invested in RRSPs
- money invested in employer-sponsored group RRSPs
- money invested in annuities
- money invested in RRIFs
- money owed by other persons (loans, etc)
- value of any other major assets
- value of pension (?)
- amount of mortgage on home
- amount of mortgage on other real estate
- amount owed on credit cards, charge accounts, deferred payment plans
- money owed in student loans
- money owed in personal loans

Response information

- longitudinal respondent/cohabitant
- labour/income interview expected (y/n, 12 observations)
- if not:

  - currently in institution
  - currently abroad
  - under age 16
  - former cohabitant
- labour/income interview completed (y/n, 12 observations)
- preliminary interview completed (y/n)
- Imputation flags

Longitudinal and cross-sectional weights

APPENDIX 2

SLID SURVEY OVERVIEW

The following is a short description of the Survey of Labour and Income Dynamics. Considerable documentation exists on survey plans, including a quarterly newsletter available at no charge.

Objectives The goal of the Survey of Labour and Income Dynamics is to support research on changes through time in the labour market experiences and economic well-being of Canadians. Two major design features flow directly from these objectives. First, SLID is a longitudinal survey; each panel has a lifespan of six years. Second, SLID covers full households and deals with a range of topics that is broad enough to capture family circumstances and important demographic events. This feature will allow research on the links that exist between demographic events, labour market behaviour and income.

Roots SLID was funded as an on-going survey to meet a gap in the social statistics program. The perception of a gap derives in part from a growing need to understand the determinants of labour market and income changes, and ultimately to use this knowledge in policy development. Also, past surveys, particularly the Labour Market Activity Survey (LMAS), indicated quite massive movements in the labour market, arousing interest in measures of gross change to complement the traditional measures of net change. The main content shortcoming of LMAS was the lack of family income data and this shortcoming has been addressed in SLID. The income categories in SLID are similar to the Survey of Consumer Finance (SCF).

Design features SLID is a household survey. The sample for the first panel was drawn from the Labour Force Survey (LFS). The LFS is a multistage probability area sample, covering the provinces, with the exception of Indian Reserves, the military and inmates of institutions. These selection criteria are all replicated in

SLID (at the point of initial sample selection) with one exception: Armed Forces personnel living out of barracks are covered.

Once selected, respondents are followed for six years. In that time, thirteen interviews are done: a preliminary interview at the point of sample selection to collect baseline information, plus six labour interviews (every January or February) and six income interviews (every May). The labour and income interviews both refer to the previous calendar year.

SLID is an on-going survey and will involve overlapping, rotating panels. Each panel is followed for six years. The first panel was introduced in January 1993, when the preliminary interview was conducted. (The first wave of labour and income interviews for this panel as completed in 1994.) The second panel will be introduced in 1996, and at that point the survey will be up to full sample. In 1999, the third panel will start up, and the first panel will be "retired".

The size of the first panel, at the outset is 15,000 households. This includes about 31,000 persons aged 16 and over who will be asked labour and income questions. (The size of the second panel has not yet been fixed.)

Following rules All household members in the dwellings originally selected for the survey will be followed through the six years (regardless of age), even if they move and form two or more separate households. These originally selected individuals are called *longitudinal respondents*. In addition, persons who move in with a longitudinal respondent (called *cohabitants*) are also interviewed, as long as they continue to live with a longitudinal respondent.

Operational features SLID data are collected using computer-assisted interviewing (CAI). Data collection is decentralized, in that interviewers generally

work out of their own homes, importing and exporting their caseloads through the phone lines. Interviews are conducted by telephone and proxy interviewing is accepted, as long as the proxy is knowledgeable. There are several advantages to CAI. It allows the interactive editing of dates being reported by the respondent, which is important because SLID is heavily oriented towards spell data. It also allows dependent interviewing - the feeding back of key pieces of information collected at the previous interview to improve recall and reduce "seam problems".