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**DEPENDENT INTERVIEWING:
IMPACT ON RECALL AND
ON LABOUR MARKET TRANSITIONS**

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EXECUTIVE SUMMARY

This paper was presented in March 1995 at ARC 1995, the Annual Research Conference sponsored by the U.S. Bureau of the Census.

The Survey of Labour and Income Dynamics, a new Canadian longitudinal survey, is using dependent interviewing in the collection of several labour market variables. This technique will be used to derive spells, for example, spells of employment, absence from work and educational activity. By feeding back information to respondents on their status at the time of the previous labour interview -- that is, one year earlier -- effects like telescoping and under-reporting of activity early in the reference period should be reduced. However, the technique is not without its detractors: there is concern that dependent interviewing will result in an under reporting of transitions. The 1994 SLID labour interview implemented dependent interviewing on its first panel. This paper evaluates the effects on the data using some early results.

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1. INTRODUCTION

The Survey of Labour and Income Dynamics is a longitudinal survey which covers full households and deals with a range of topics broad enough to capture family circumstances and important demographic events. Once selected for the SLID sample, 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.

A number of studies have looked at the “seam problem” in surveys with a relatively long recall period (Lemaître, (1992), Murray, et. al. (1990), Burkhead and Coder (1985)). Because respondents tend to forget or misplace events which occurred at the beginning of the reference period, there are quality problems with spells that start in one year and end in the next. At the time of the annual SLID labour interview respondents are asked to recall events which happened more than a year ago. The information from SLID is heavily oriented toward spells - employment and unemployment spells, work absence spells, etc. Without dependent interviewing (the feeding back of information collected in previous interviews), we feel that we would have too many spells starting and ending at the interface of the two reference years plus we would miss events of short duration, such as short periods of employment, early in the reference year. Dependent interviewing techniques are also used in the SLID labour interview as a way of probing for changes in job characteristics since the last interview, so the respondent can compare the information reported a year ago with their current circumstances.

The extensive use of dependent interviewing in SLID is feasible because the survey is collected using computer-assisted interviewing (CAI). With CAI it is possible to

tailor the method of feedback to the individual's circumstances a year ago. In this paper, we will look at some early results of the use of dependent interviewing in the first SLID labour interview. Approximately 25,000 individuals between the ages of 16-69 years of age were interviewed and the information collected a year earlier in the preliminary interview was fed back.

2. METHODS OF FEEDBACK

Two approaches of feeding back information are used by SLID. The first approach consists of proactively reminding respondents of their situation a year ago. This is used in feeding back information about employment held at the time of the last interview (employer, occupation, class of worker) and school attendance a year ago.

Example -

BASED ON OUR INTERVIEW OF A YEAR AGO, [respondent's name] WAS WORKING FOR [employer's name] AROUND THE BEGINNING OF JANUARY 1993. IS THIS CORRECT?

Note that with this approach the respondent is being asked to confirm the accuracy of our "historical records". In some cases (for occupation and class of worker) this is also used as a lead into questions asking about changes over the past year.

The second approach is to verify that an apparent change did in fact happen and is not a reporting or capture error. The interviewer is alerted to a change since last year, and asked to probe to confirm its validity. This is used in the collection of wage information.

Example-

Screen Header: *Old Wage \$ _____ New Wage \$ _____*

Interviewer: Change in wages from last year. If this wage should be corrected, go back to the previous question, otherwise record reason for change below.

Real Change
Error Last Year
Some other reason

3. RESPONDENT REACTION

Although we initially had some concerns, the reaction by respondents to dependent interviewing has been favourable. In fact, respondents expect the interviewer to have all the information collected a year ago at their fingertips. The data from the 1994 labour interview for the more than 23,000 respondents who had data fed back does confirm this, as shown in Table 1. When dependent interviewing is used, the respondent is always given the opportunity to disagree with the information reported a year ago. Confirmation rates indicate the proportion of respondents who agree that the information being fed back is correct (or at least, was correct as of one year ago).

Table 1. Confirmation Rates - 1994 SLID Labour Interview

Employer (respondent at work a year ago)	99%
Employer (respondent had a job but was absent a year ago)	96%
Class of Worker	94%
Occupation	97%
School Attendance	94%

The information on the feeding back of the name of an employer is divided into two types - those who were actually working a year ago and those who had a job but were absent (for reasons other than paid vacation). It is not too surprising that the confirmation rate for the latter is lower (96% for those absent from the job vs. 99% those who were working a year ago). In fact, half of these 'denials' were cases of the denying of the fact that they were absent from the job. In subsequent probing, the respondent reported that they were actually working for the employer a year ago bringing the confirmation of the employer to 98% for these cases.

One can speculate on why a person may deny the information being fed back. For example, the person responding for the household could be different this year (SLID allows for proxy reporting if the respondent feels they are knowledgeable about the other person's activity in the past year). Alternatively, the event could have been misplaced either last year or this year.

The results on the feeding back of wage do give a bit of insight into reasons for the denial of information from a year ago. We used a different approach to the feedback of wage data because of the concern that feeding this information back proactively would prevent the reporting of changes (i.e., the respondent would just think that the dollar amount the interviewer was feeding back was "close enough").

In SLID, both a dollar amount and unit are collected (i.e., per hour, week, year, etc.). If the wage unit is the same from one year to another in work for the same employer, any decrease in the amount reported or an increase of more than 10% causes a message to be displayed asking the interviewer to enter the reason for the difference. This approach was taken since it was felt that in many instances the difference would just be due to a data entry error by the interviewer (for example, one too many zeroes). The interviewer would just go back to the previous

question, correct the wage entry and continue on with the interview (the edit message would now only appear if the reentered wage was still a decrease or 10% increase from a year ago). Despite the fact that the previous interview had been collected via the conventional method of a paper form (more error prone than CAI), only 8.3% of respondents reported a change in wage from a year ago (based on the criteria mentioned above). Of these changes, more than two thirds reported that it was a real change in wage from a year ago. Twenty-eight percent reported that the change was due to an error in the wage one year ago and the rest (9%) reported some other reason.

Whenever the feeding back of information to respondents is considered, there is always a fear that while it does help to remind respondents it may also repress change. The fact that a portion of respondents denied the information being fed back is an indication that respondents are not blindly confirming whatever the interviewer says.

4. IMPACT ON RECALL - COMPARISON OF CROSS-SECTIONAL AND RETROSPECTIVE DATA

The main purpose of dependent interviewing is to try to prevent spurious changes; i.e., changes that did not actually happen. The sample design of SLID does allow us to look at this. The respondents in the initial SLID sample were also part of the monthly Labour Force Survey in January and February 1993. As such, a unique opportunity is provided to compare the information collected in the Labour Force Survey (cross-sectional labour force data referring to the four weeks prior to the interview) with the labour information collected in SLID for the same time period but one year later. All SLID longitudinal respondents have one month of LFS data (data for January 1993) for comparison and half have a second month (data for February 1993).

We will concentrate on comparing data collected in the January and February 1993 LFS with that collected retrospectively for the same months in the 1994 SLID labour interview. Since we are looking at the data from SLID as it was collected (prior to processing and assigning of derived variables, such as labour force status), we will only look at instances of obvious discrepancies.

First we will look at persons who had reported that they either were working in LFS or SLID - approximately 14,000 of the SLID respondents fall into this category (see Table 2). The data for January 1993 show the most benefit from feedback, since the data being fed back is for that month. Because the processed SLID data were not available for this analysis a broad definition of working was used (generally, reported an attachment to an employer). The data from LFS was based on the more restrictive definition of being employed, therefore in general the percent of persons who were working in SLID should be higher. This, along with the fact that people tend to misplace events when asked to recall them retrospectively, helps to explain the cases of persons who report work in January 1993 in SLID but did not report it a year earlier in the LFS. The small number of those who reported working in January 1993 in the LFS but not in SLID illustrates the benefit of dependent interviewing. These would be instances when the respondent has denied information fed back and are saying they were not working for the employer early in 1993.

Table 2. Data on Working - Discrepancy between LFS and SLID

	Overall	Working in LFS but not in SLID	Working in SLID but not in LFS
For January, 1993	3.4%	1.3%	3.7%
For February, 1993	4.8%	2.7%	4.4%

It is not too surprising that the disagreement increases in February 1993, with a 4.8% discrepancy rate. It appears that some of the positive effects of feedback 'wear off' as you get further away from the reference point used in feedback. This is confirmed by a previous study done on data from an early SLID test. Cross-sectional information was compared to the one-year recall data for the first five months and even though feedback helped at the seam (i.e., the reference point used in feedback), the agreement rate of the two data sources decreased steadily (Hiemstra, et al., 1993).

A similar pattern emerges when the information on school attendance in the LFS and SLID are compared. However, in more than 15% of the cases where the respondent reported attending school in SLID these same people had not reported attending school in the LFS. It appears that respondents have a higher propensity to misplace school attendance than work. This was also uncovered in analysis of school attendance data collected retrospectively in an earlier longitudinal survey conducted by Statistics Canada (Lemaître, 1990).

Between the January and February data, the discrepancy, between attending school in SLID but not in LFS, did not increase as much as for working. This is probably due to the fact that in SLID school attendance is most often reported for complete terms (Spring or Fall) rather than on a month by month basis.

Table 3. Data on School Attendance - Discrepancy between LFS and SLID

	Overall	Attending school in LFS but not in SLID	Attending School in SLID but not in LFS
For January, 1993	3.7%	6.6%	15.9%
For February, 1993	4.8%	8.6%	16.0%

There is concern that dependent interviewing will result in an under-reporting of transitions and the above data does indicate that even with feedback, SLID will miss some spells of employment and school attendance. But the question is, how better off are we with feedback? Looking at information that was NOT fed back but collected in both LFS and SLID will give us an indication of what happens without feedback. In the 1994 SLID labour interview, the fact that a person had been looking for work a year earlier was not fed back; the questions on job search were asked “cold”. This gives us a chance to compare LFS and SLID data regarding job search to see what happens when dependent interviewing is not used. (Though the fact that information on employment was fed back has an indirect impact because job search questions are only asked for periods when the person is not working.) The results of the comparison are shown in Table 4. The first column (labelled ‘Overall’) is for the population in general, whereas in the last two columns we are focusing on the subset of the population who reported searching for work in either LFS or SLID.

Table 4. Data on Job Search - Discrepancy between LFS and SLID

	Overall	Searching in LFS but not in SLID	Searching in SLID but not in LFS
For January, 1993	9.1%	39.7%	57.3%
For February, 1993	8.7%	39.2%	55.9%

The large number of cases reporting job search in early in 1993 in the LFS but not in SLID when asked about the same time period a year later certainly corroborates the use of feedback. That is, if feedback had been used for job search, the number

of respondents who reported job search in LFS but not SLID would undoubtedly have been much lower. The fact that a large number of SLID respondents reported job search one a year later but had not reported in the month the search occurred (more than 55%) could be attributed to the fact that 1) the LFS uses a much stricter definition of job search and 2) retrospectively, respondents may tend to overestimate the amount of job search during a jobless spell.

5. IMPACT OF FEEDBACK ON LABOUR MARKET INFORMATION

Another way of looking at the benefits of dependent interviewing is to compare the data for those cases with feedback to those without. Information for January and February 1993 was collected in 1994 for persons who had moved in with a longitudinal respondent since the preliminary interview (referred to as 'cohabitants'). Therefore, we now have a group of respondents who were not exposed to dependent interviewing.

In this analysis, we will consider the results from the LFS to be the 'true' value, since the data was collected close to when the event actually occurred (within a month). We will now compare the SLID data for longitudinal respondents (those who would have had the full benefit of feedback) with the data for cohabitants (those who did not have had any information to be fed back). If the feeding back of information decreases the chance of missing or misplacing information then the data for longitudinal respondents should be closer to what actually happened (i.e., the LFS data). Again we will only look at very broad categories and this time only at data for persons between the ages of 16 and 30 (since cohabitants tend to be in this age group). This left us with a sample of over 7000 respondents, of whom approximately 800 were cohabitants (i.e., new respondents to SLID at the time of the 1994 labour interview).

The data are summarized in Table 5. First, we will look at the data on whether or not a person was working in early 1993. As mentioned earlier, the percentage of persons who reported working in SLID should be higher than in LFS. As shown in Table 5, this is the case for persons with feedback but not for those without. Regarding the data on attending school, it is not surprising that this group has a high percentage attending school, since we are only looking at people less than 30 years of age. Without feedback, we are probably missing about 5% of the school attendance (the difference between the data with and without feedback). This of course assumes that the characteristics of cohabitants are similar to those of longitudinal respondents.

Table 5. LFS VS. SLID - With and without feedback

	January 1993			February 1993		
	LFS	SLID- with feedback	SLID-no feedback	LFS	SLID-with feedback	SLID-no feedback
Yes, working	53.1%	58.3%	53.3%	52.8%	58.3%	53.1%
Yes, attending school	43.6%	45.9%	39.4%	44.5%	45.6%	39.7%

All of which confirms SLID's position that we should be using feedback to help us to collect data that otherwise might be forgotten rather than worry about feedback preventing the reporting of change.

This position has also been validated by the results of the feeding back of information between the labour and income interview (Dibbs, et al., 1995). Flags

derived from the labour information collected early in the year are used at the time of the income interview in May of the same year to help the reporting of income. For example, if a respondent reports having received social assistance in the reference year at the time of the labour interview but does not report social assistance income during the income interview, the flag triggers a probe question. In general, this approach has allowed SLID to reduce substantially the under reporting of some income items. This has been confirmed through micro-comparisons to tax file data (Grondin and Michaud, 1994).

6. WHERE DO WE GO FROM HERE?

The use of dependent interviewing was expanded with the 1995 SLID labour interview conducted early in 1995. We added the feeding back of job search a year ago. Also if the respondent was receiving unemployment insurance, workers' compensation or social assistance at the end of the previous reference year, this information is fed back. (The feeding back of the receipt of these sources of income could only begin with the 1995 interview since this information was collected for the first time in the 1994 interview.) Also, since we would like to be able to link job information for cases when a respondent returns to work for a former employer, we have added a function where the interviewer can indicate this by highlighting the name of the employer from a list of all the old employers that have been collected in previous interviews.

However, this is probably as far as we will go. There is a large amount of data collected in the labour interview much of which, in theory, could be fed back. However, we feel this would only make the interview tedious. As a result of testing done in 1993 (Webber, 1994) we already know that dependent interviewing is viable if the information being fed back is straightforward and not considered to be negative. For example, we are not feeding back the fact that persons were **not**

looking for work at the end of the previous reference year since this had the potential of being considered insulting by some respondents. We do feel that, used judiciously, dependent interviewing will help to produce sensible longitudinal data.

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