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LABOUR FORCE CLASSIFICATION IN SLID: EVALUATION OF TEST 3A RESULTS

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EXECUTIVE SUMMARY

One of the objectives of SLID is to produce information on labour market flows, adhering as far as possible to the concepts and definitions of the LFS. Where differences arise, it is important to understand and document them. This report reviewed the results from Test 3A, conducted in January 1993, with a view to identifying any necessary changes to the questions or to the algorithm used to derive labour force status. Test 3A involved two test sites (province of Newfoundland and seven CMAs in southern Ontario) with very different labour markets, allowing us to assess how well the questions and procedures worked in different environments.

The results of the SLID test are compared to the monthly estimates from the Labour Force Survey (LFS). As a benchmark, a similar comparison was undertaken between Labour Market Activity Survey (LMAS) and LFS data for 1990, the most recent year for which LMAS data are available. In addition, the SLID sample for Test 3A was selected from former LFS respondents and a micro-level comparison between the status assigned in the LFS and SLID was undertaken.

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1. INTRODUCTION

In January 1993, the planned demographic and labour content for SLID was tested on a sample of about 1400 households in southern Ontario and Newfoundland. One of the central objectives of the test (called Test 3A) was to try out the questions and algorithms for deriving labour force status. This variable labels respondents as employed, unemployed or not in the labour force during each week of the reference year.

There were several reasons for focusing on this variable in the test:

- SLID is designed to support research on labour market transitions, for example, movements into and out of unemployment, and on the duration of employment and unemployment spells. Measurement errors in assigning labour force status will thus be of interest to researchers.

- The Labour Force Survey (LFS) is a benchmark for many if not most researchers interested in labour force classification. If SLID results deviate substantially from the LFS, it may be perceived as a shortcoming in the SLID data. We should understand and where possible minimize these differences. At the same time, we should keep in mind that a survey with a one-year reference period, and ultimately six years of data on each respondent, will tend to have different properties and uses from a monthly cross-sectional survey.

- It is impossible to replicate the LFS classification rules exactly in an annual survey. The aim is rather to devise a measurement approach for SLID that approximates the LFS. SLID's predecessors, the

Annual Work Patterns Survey (AWPS) and the Labour Market Activity Survey (LMAS), were valuable learning opportunities and many of the procedures to be used in SLID come directly from these earlier surveys. However, evaluation and analysis of AWPS and LMAS data also surfaced certain problems, and the SLID test was an opportunity to try out new ideas that might resolve these.

! Similarly, the experience with LMAS heightened awareness of the "seam problems" that tend to arise in panel surveys. These result from reporting errors and cause problems in matching up the activities at the end of one reference period with those at the beginning of the next. LMAS experimented in the use of dependent interviewing -- feeding back previously reported information -- to reduce seam problems. With computer-assisted interviewing (CAI), SLID can push the use of this technique much further. The test gave us an opportunity to study the impact of dependent interviewing on labour force status. For example, would it reduce recall problems that contribute to the under-reporting of short unemployment spells?

This report reviews the results of Test 3A from two perspectives. First, the aggregate monthly estimates of employment and unemployment resulting from the test are compared with estimates from the LFS for 1992, which was the reference year for the test. To provide a benchmark, similar data comparing Labour Market Activity Survey results to LFS data are provided. In this case, the reference year is 1990, the last year for which LMAS data are available.

Second, the SLID test sample consisted of former LFS respondents. More precisely, it consisted of households that had rotated into the LFS in December

1991 and rotated out in May 1992. In Test 3A, we returned to these individuals and queried them on their labour force activities throughout 1992. It was therefore possible to conduct a micro-level comparison between SLID and LFS for the first five months of 1992 when the two reference periods overlap.

Before presenting the data, the following section outlines briefly the labour force classification procedure used for the test. This generally follows the approach recommended by researchers with a particular interest in this area. SLID Research Paper 92-06 entitled *Labour Force Classification in SLID* provides a detailed explanation of the procedure.

2. DEFINITION OF LABOUR FORCE STATUS GROUPS

For each SLID respondent aged 16 to 69, a labour force status was assigned for each week in the year.[1] As in the LFS, SLID defines three labour force statuses: employed (E), unemployed (U) and not in the labour force (N). In assigning labour force status, E takes priority over U, which in turn takes priority over N. For example, if a person looks for work in a week when he or she was also working, the labour force status is E for the entire week. Again, this principle is consistent with the LFS.

SLID identifies all employers the respondent worked for at some time during the year (to a maximum of 6), along with start and end dates. These dates bound the period of a person's attachment to the employer. *Within* this employer spell, however, there may be periods of not working. The respondent's status during these periods of not working will depend on a number of factors.

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[1] A week runs from Sunday to Saturday. A year has 53 weeks. Week 1 starts January 1 and ends on the first Saturday in January; Week 53 starts on the last Sunday in December and ends December 31.

Definition of "employed"

A person is classified E for a given week if he or she had an employer during that week *and* meets one of the following conditions:

- paid worker, except for on-call workers (see below) and workers on an unpaid absence due to temporary or seasonal layoff;

- self-employed or unpaid family worker (excluding own-account worker);

- own-account worker (that is, self-employed, unincorporated, with no paid help) who worked at some time during the month in question;

- on-call paid worker[2] who worked at some time during the month in question.

Before knowing if a person is employed in a given week, it is necessary to check the above conditions for all employer spells in progress during the week in question. A person holding two jobs concurrently might be on a temporary layoff from one while actually working at the other. In such cases, the rule regarding precedence of E over U over N applies.

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[2] An *on-call worker* is an employee who has no arrangement to work set hours every week or month; for example, supply teachers. In the LFS, they are treated as employed only in weeks when they are actually working. In SLID we cannot ask them week by week whether they worked, so we will treat them as employed if they worked at some time during the month.

Definition of "unemployed"

In a given week, a person will be classified as U if he or she is not E and if one of the following conditions is satisfied:

- absent from work without pay because of a temporary (non-seasonal) layoff;
- absent from work without pay because of a seasonal layoff *and* looked for work at some time during the month in question;
- jobless and looked for work at some time during the month in question;
- jobless and did not look during that month but had a job to start within the next four weeks.

Definition of "not in labour force"

The third status is defined residually: in a given week, a person will be classified as N if he or she is neither E nor U.

Other definitions

Jobless -- the person is without a job, that is, not attached to any employer during the week in question.

Absent from work -- the person was not working (for a range of possible reasons) but an attachment to the employer remains -- in other words, the employer is

committed to accepting the return of the employee at some time in the future. In practice, the distinction between an unpaid absence and job separation followed by re-hiring is nebulous.[3]

Employer start and end dates -- the dates that bracket the person's attachment to an employer during the reference year. An employer start date of 01/01/92 generally indicates a job that started prior to the reference year. Similarly an end date of 12/31/92 generally indicates that the job is continuing into the next year.[4]

Employer spell -- The period of time between an employer start and end date. A year can be fully accounted for by one employer spell, one jobless spell or a combination of employer and jobless spells of varying lengths. An absence occurs within an employer spell.

3. AGGREGATE COMPARISONS TO LFS AND LMAS

SLID monthly estimates of employment and unemployment were compared with corresponding LFS estimates for 1992, for the two test sites (Newfoundland and southern Ontario CMAs). As a benchmark, the same comparison was made between LMAS and LFS for 1990, which is the last available year of LMAS data.

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[3] In the SLID test, a job was considered as ended if the respondent answered "No" to this question: "At the beginning of January 1993, did you still have a job with ....?" However, for all ended jobs, we also asked if the person expected to return to this employer at a future date and over half expected they would.

[4] Because SLID is a longitudinal survey, the names of employers to whom the respondent is attached at the end of one year will be fed back the following year. The names of all employers identified since the beginning of the panel will be kept in a roster and, any "new" employers identified during the interview are checked against the roster. If it is a former employer, the person's status as a "returner" is flagged.

When evaluating the SLID/LFS results, the small size of the SLID sample (839 respondents aged 16 to 69 in Newfoundland and 1175 in Ontario) should be kept in mind. The results presented in Charts 1 to 6 and in Tables 1 to 4 are based on weighted data. The tables show the coefficients of variation (CVs) for the LFS and SLID estimates to provide an indication of reliability.

Sources of difference between SLID and LFS

In addition to the impact of recall, there are a number of reasons to expect differences between SLID and LFS estimates:

- There is no attempt in SLID to determine whether the person is available for work during the week in question. Other things being equal, this will yield higher unemployment estimates in SLID.

- SLID deals with the full year while the LFS treats one week of the month as representative of the month. The LFS is bound to miss a proportion of short unemployment spells, which SLID in theory should identify.

- The LFS reflects current activities while SLID looks back on a full year and respondents have the benefit of hindsight in answering questions. Certain labour market situations may be particularly sensitive to this difference in perspective, for example, "future starts" -- people not seeking work who are nevertheless classified in the LFS as unemployed because they believe they have a job to start within four weeks. Another situation that may look different in hindsight concerns layoffs. A *temporary* layoff in the LFS is classified as unemployed, but persons who are *permanently or*

seasonally laid off will be counted as unemployed only if they are actively seeking work. Hindsight could affect the reporting of temporary layoffs who are subsequently informed that they will not be called back. Similarly, a person who is permanently laid off may be rehired. It would be unrealistic to expect SLID to track changes in the respondent's perception of the situation as such events unfold.

Employment results

The employment-population ratio was used as a measure for comparing employment results. For Newfoundland, the maximum monthly difference between the SLID and LFS rates was 3.1 percentage points (in June, 50.4% for LFS vs. 53.5% for SLID). The seasonal pattern of the two series is roughly comparable. For Ontario, the LFS and SLID employment population ratios, month by month, are very close. Based on these comparisons, involving very different labour markets, it would appear that the SLID approach for defining employment performs reasonably well.

Unemployment results

Charts 3 and 4 show unemployment as a percentage of population and Charts 5 and 6 refer to the unemployment rate. The discussion below focuses on unemployment as a percentage of population.

For Newfoundland, SLID produced unemployment levels that were, for most months, above the LFS. The general seasonal pattern was substantial overestimation until May, with the gap between the series closing from June

onward. The year-end "telescoping" evident in the LMAS/LFS comparison for 1990 is absent.

We suspect that our definitions, and the way dependent interviewing was done, are a major factor in the overestimation of unemployment early in the year. We fed back to respondents their search status ("looking" or "not looking") in January 1992, based on the LFS. We thought it would be safer to use a broad definition of "looking", that is, one that includes discouraged workers. It seemed risky to treat this group as "not looking", as this could be interpreted as "not wanting" work.

In SLID, wherever dependent interviewing is used, a capacity is provided for respondents to deny what is being fed back -- in other words, we explicitly ask them if our information about the situation one year ago is correct. Thus, respondents could deny that they were "looking" in January 1992. In fact the vast majority agreed. This accounts for part of the SLID/LFS difference early in the year. However, it appears that in answering SLID questions on job search undertaken later in the year, respondents were in fact using a narrower definition, corresponding to active job search and thereby yielding estimates closer to the LFS. If this explanation is correct, the discrepancy should be reduced by conforming to a narrower definition of "looking" in feeding back last year's information.

In the case of Ontario, the SLID/LFS unemployment differences were smaller. Curiously, the SLID data in Chart 4 show a seasonal pattern against the essentially flat LFS line. The reason for the pattern is unclear, but the important point is that the SLID approach appears to work reasonably well. Unemployment is inherently more difficult to measure than employment and it is not surprising that classification errors should have a greater effect on unemployment.

The LMAS experience

There are numerous differences between the labour force classification procedures used in LMAS and those developed for SLID. What follows is a very brief resume of the major differences.

LMAS used a four-category typology for assigning labour force status. In addition to the three conventional categories, a "marginal attachment (M)" category was identified. In LFS terms, M is a subset of N. In SLID we have not attempted to assign this status because of the difficulty of tracking transitions between M, N and U. Instead, there is a "want work" question for persons classified as N. A data user can *substitute* M for a complete N spell, or use the information on marginal attachment qualitatively.

Second, SLID is using dependent interviewing far more extensively than LMAS ever could, given that it was a paper-based operation. However, it should be remembered that LMAS did use dependent interviewing, and that it would have had an impact on the data shown in Charts 1 to 6. Specifically, after 1986, LMAS fed back employer name. Evaluation of LMAS results indicated that this technique did in fact reduce the magnitude of false employment to non-employment transitions at the seam. Otherwise one might have expected more evidence of recall problems in the estimates for the early part of the year.

Third, the questionnaire structure for SLID is somewhat different, largely because CAI makes it possible to derive jobless spells automatically. Although it is difficult to measure its impact, the biggest difference is probably that information on jobless spells is collected, on a spell-by-spell basis, *after* the information on jobs has been completed. LMAS "hinged" the questions on bounded jobless spells to the subsequent employment spell.

Fourth, SLID is attempting to simulate "future start" situations. In the LFS, a person with a job to start within the next four weeks is counted as unemployed even if not actively seeking work. In a survey like LMAS or SLID, there is a risk that short unemployment spells are entirely missed, particularly in cases where a person who knows that one job is coming to an end looks for work and finds a second job before the first one ends. The labour market flows for such cases may end up looking like this: E ---> N ---> E. If the person's status as a future start is identified, a short interval of joblessness will more reasonably look like this: E ---> U ---> E.

Finally, for any new job identified, SLID includes questions on how the job was obtained. The rationale is that these questions will encourage respondents to recall any job search activity that preceded the job and thus encourage the reporting of short spells of unemployment.

CHART 1

Employed as a Percentage of the Population aged 16 to 69: LFS/LMAS/SLID comparison, NEWFOUNDLAND

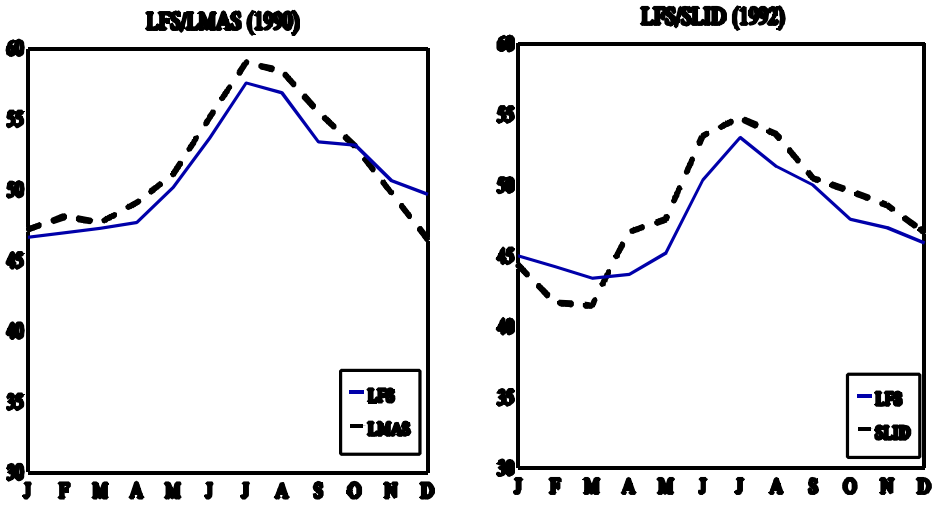

CHART 2

Employed as a Percentage of the Population aged 16 to 69: LFS/LMAS/SLID comparison, ONTARIO

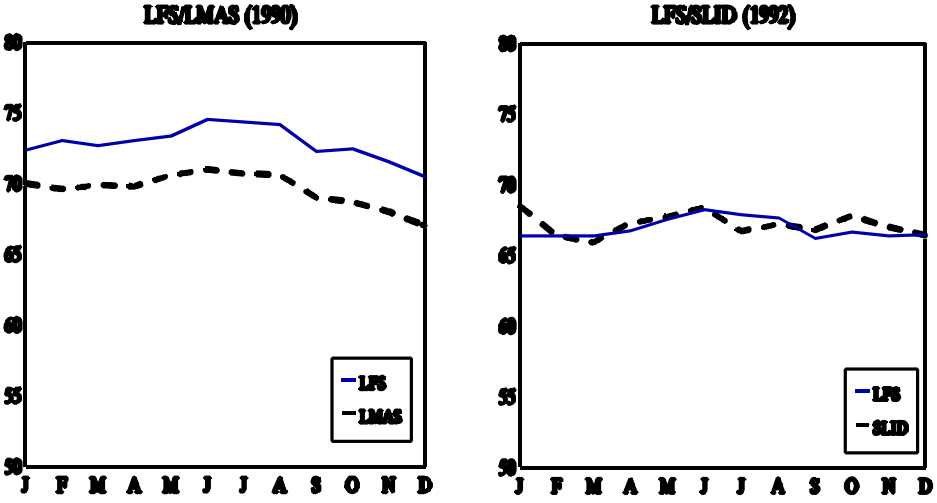

CHART 3

Unemployed as a Percentage of the Population aged 16 to 69: LFS/LMAS/SLID comparison, NEWFOUNDLAND

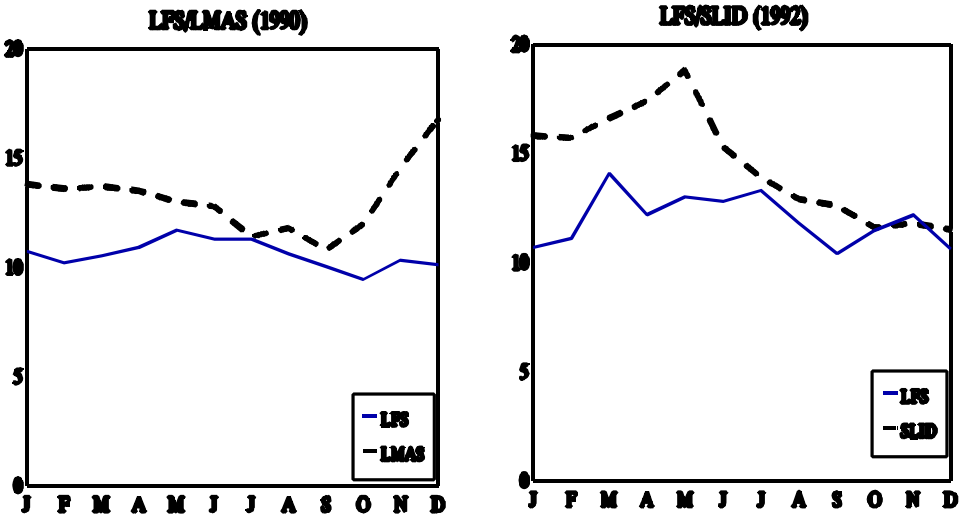

CHART 4

Unemployed as a Percentage of the Population aged 16 to 69: LFS/LMAS/SLID comparison, ONTARIO

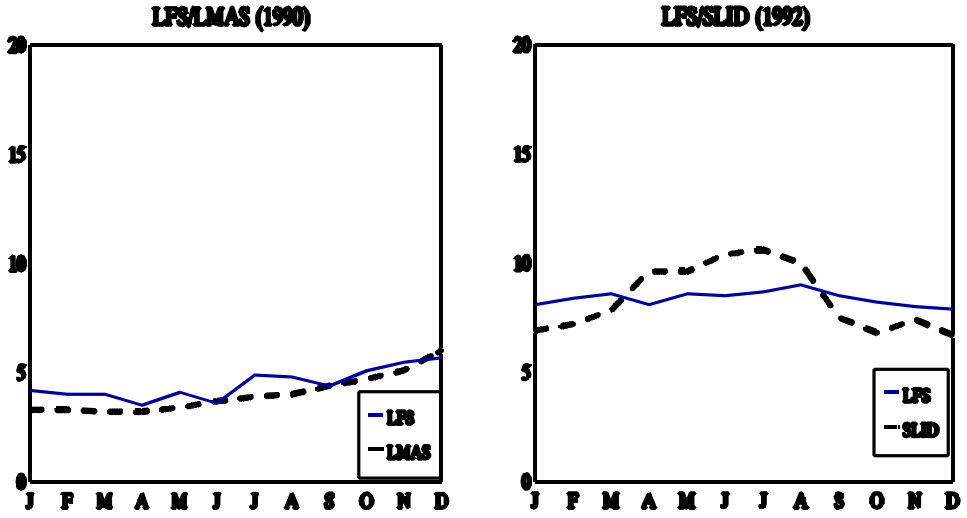

CHART 5

Unemployment Rate, Persons Aged 16 to 69: LFS/LMAS/SLID comparison, NEWFOUNDLAND

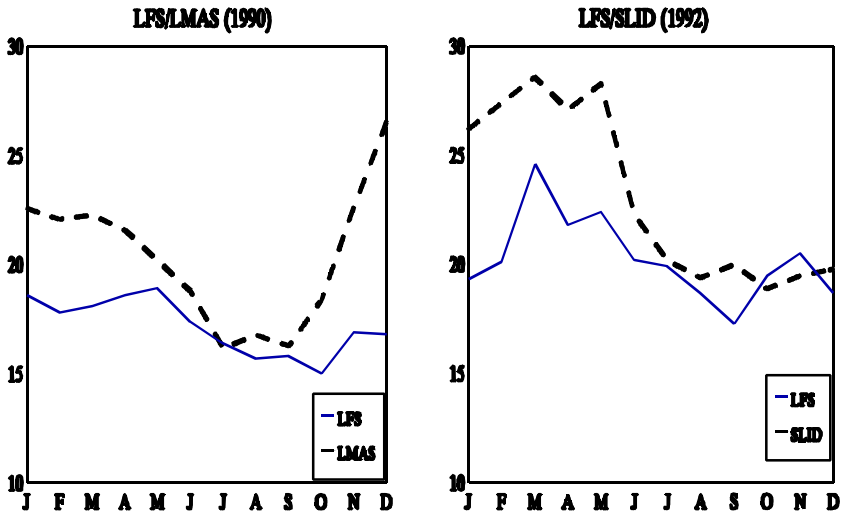

CHART 6

Unemployment Rate, Persons Aged 16 to 69: LFS/LMAS/SLID comparison, ONTARIO

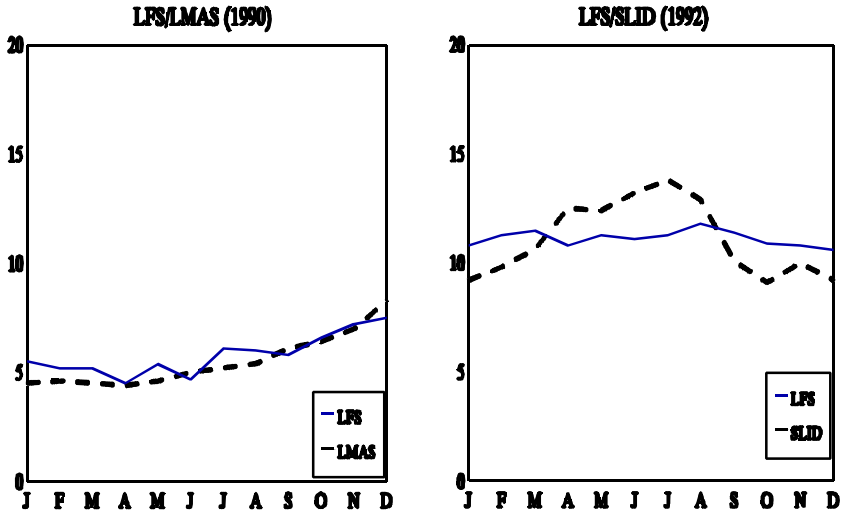

TABLE 1A: EMPLOYED AS A PERCENTAGE OF POPULATION AGED 16 TO 69;
LFS/SLID 1992 COMPARISON, NEWFOUNDLAND.

MONTH	LFS		SLID	
	Estimate	C.V.(%)*	Estimate	C.V.(%)*
JAN	45.0	2.6	44.4	4.1
FEB	44.2	2.5	41.7	4.2
MAR	43.4	2.3	41.5	4.6
APR	43.7	2.1	46.7	3.8
MAY	45.2	2.3	47.6	4.1
JUN	50.4	2.1	53.5	3.3
JUL	53.4	2.0	54.8	3.0
AUG	51.3	1.6	53.6	3.1
SEPT	50.0	1.6	50.5	3.2
OCT	47.6	2.0	49.6	3.7
NOV	47.0	1.9	48.6	3.9
DEC	45.9	2.0	46.7	4.7

* The CVs in these and subsequent tables were included as an indication of the magnitude of sampling error, which is particularly important given the small test sample. However the reader is cautioned against using these statistics to determine if observed differences are significant. The interpretation is not straightforward because the SLID sample is a subset of the LFS sample. Moreover, one-sixth of the LFS sample is replaced each month whereas the SLID monthly data are based on recalled information collected in January 1993.

TABLE 1B: EMPLOYED AS A PERCENTAGE OF POPULATION AGED 16 TO 69;
LFS/SLID 1992 COMPARISON, ONTARIO.

MONTH	LFS		SLID	
	Estimate	C.V.(%)	Estimate	C.V.(%)
JAN	66.4	1.0	68.5	2.9
FEB	66.4	0.9	66.4	2.8
MAR	66.4	0.9	65.9	2.9
APR	66.7	0.9	67.3	3.1
MAY	67.6	0.9	67.7	2.6
JUN	68.3	0.8	68.4	2.2
JUL	67.9	0.9	66.7	2.1
AUG	67.7	0.9	67.2	1.7
SEPT	66.1	0.9	66.8	2.2
OCT	66.7	1.0	67.8	2.1
NOV	66.4	0.9	67.0	2.4
DEC	66.5	1.0	66.4	2.4

TABLE 2A: UNEMPLOYED AS A PERCENTAGE OF POPULATION AGED 16 TO 69;
LFS/SLID 1992 COMPARISON, NEWFOUNDLAND.

MONTH	LFS		SLID	
	Estimate	C.V.(%)	Estimate	C.V.(%)
JAN	10.7	5.2	15.8	9.8
FEB	11.7	5.2	15.7	8.3
MAR	14.1	3.9	16.6	8.1
APR	12.2	4.5	17.4	7.4
MAY	13.0	3.6	18.8	8.3
JUN	12.8	4.1	15.3	8.2
JUL	13.3	4.3	13.9	7.4
AUG	11.8	5.3	12.9	10.0
SEPT	10.4	5.1	12.6	10.3
OCT	11.5	4.8	11.6	11.9
NOV	12.2	5.2	11.8	11.5
DEC	10.6	5.7	11.5	14.0

TABLE 2B: UNEMPLOYED AS A PERCENTAGE OF POPULATION AGED 16 TO 69;
LFS/SLID 1992 COMPARISON, ONTARIO.

MONTH	LFS		SLID	
	Estimate	C.V.(%)	Estimate	C.V.(%)
JAN	8.0	4.8	6.9	12.9
FEB	8.4	5.0	7.2	12.5
MAR	8.6	5.2	7.8	10.4
APR	8.1	5.8	9.6	12.8
MAY	8.6	4.1	9.6	12.7
JUN	8.6	4.6	10.4	13.2
JUL	8.6	4.6	10.6	14.2
AUG	9.0	4.6	10.0	13.6
SEPT	8.5	4.6	7.5	11.8
OCT	8.2	4.5	6.8	14.8
NOV	8.0	4.7	7.4	13.5
DEC	7.9	4.8	6.7	10.8

TABLE 3A: UNEMPLOYMENT RATE AMONG PERSONS AGED 16 TO 69;
LFS/SLID 1992 COMPARISON, NEWFOUNDLAND.

MONTH	LFS		SLID	
	Estimate	C.V.(%)	Estimate	C.V.(%)
JAN	19.3	5.3	26.2	9.3
FEB	20.1	5.1	27.4	8.2
MAR	24.5	4.0	28.6	8.2
APR	21.8	4.5	27.1	7.6
MAY	22.4	3.9	28.3	8.4
JUN	20.2	4.6	22.3	8.1
JUL	19.9	4.3	20.2	7.3
AUG	18.7	4.6	19.4	9.8
SEPT	17.3	4.5	20.0	10.3
OCT	19.5	4.4	18.9	12.1
NOV	20.5	4.8	19.5	11.7
DEC	18.8	5.3	19.8	14.5

TABLE 3B: UNEMPLOYMENT RATE AMONG PERSONS AGED 16 TO 69;
LFS/SLID 1992 COMPARISON, ONTARIO.

MONTH	LFS		SLID	
	Estimate	C.V.(%)	Estimate	C.V.(%)
JAN	10.8	4.8	9.2	12.5
FEB	11.2	4.9	9.8	12.6
MAR	11.5	5.1	10.6	11.0
APR	10.8	5.6	12.5	13.4
MAY	11.3	4.0	12.4	12.8
JUN	11.1	4.5	13.2	13.2
JUL	11.3	4.5	13.8	13.6
AUG	11.8	4.5	12.9	12.7
SEPT	11.4	4.6	10.0	11.1
OCT	10.9	4.6	9.1	14.2
NOV	10.8	4.7	10.0	13.0
DEC	10.6	4.8	9.2	10.0

4. MICRO-LEVEL COMPARISONS BETWEEN LFS AND SLID

The comparison of aggregate estimates can highlight biases in the data but even if the results look good at that level there could be a large number of classification errors cancelling each other out.

The test was designed to allow micro-level comparisons as well. The test sample consisted of a subset of households that rotated into the LFS in December 1991 and rotated out in May 1992. It is therefore possible to compare what respondents reported in the LFS in the first five months of 1992 to what was reported in hindsight during the SLID interview in January 1993.

In this analysis, the labour force status -- employed (E), unemployed (U) or not in the labour force (N) -- assigned by the LFS was compared to the value assigned by SLID. Since SLID assigns a status for every week of the year while the LFS assigns only one per month, the SLID status for the LFS reference week was used for the comparison.

Table 5 shows the agreement rate -- the proportion of respondents who received the same status in both surveys -- by month and test site. In Ontario, the agreement rates are remarkably high, ranging from 89% to 94%. The Newfoundland agreement rates are somewhat lower (78% to 89%) and generally decline as the year advances. Presumably, if we had microdata for the full year, we would begin to see an improvement -- the impact of recall errors should diminish as we approach the end of the reference year. Dependent interviewing could explain why the agreement rate is higher in January than in later months.

Classification errors between employment and unemployment

Tables 6 to 10 show how respondents were classified in the two surveys; the off-diagonal cells represent classification errors. In interpreting these errors, it should be remembered that they may be due either to definitional differences or to incorrect replies to questions.

With respect to various types of misclassification, errors between employment and unemployment are generally small and uniform -- cases classified as E in the LFS but as U in SLID were roughly in balance with the number classified as U in the LFS but as E in SLID.

Classification errors between employment and inactivity

Errors between employment and inactivity were quite small for Ontario. In any month, the highest proportion of records classified as E in SLID but as N in LFS was 1.9%. The reverse error -- N in SLID but E in LFS accounted for at most 2.4%. In Newfoundland, the number of cases classified as E in SLID but as N in the LFS accounted for about 3% of all cases on average for the 5 months, and this was comparable to the average for the reverse error. However, the monthly pattern of errors is somewhat bizarre:

	% of case in Newfoundland classified as ...	
	E in SLID but N in LFS	N in SLID but E in LFS
Jan.	1.0	1.6
Feb.	1.9	4.7
Mar.	2.2	4.8
Apr.	4.7	2.0
May	5.2	2.4

Assuming LFS to be accurate, the second column reflects cases when SLID failed to identify the existence of a job in the LFS reference week. The lower rate in January could be attributable to the feedback process.

In principle, the first column refers to cases where a job was reported in SLID but not in the LFS. It is not clear why this phenomenon should increase from January to May.

Classification errors between unemployment and inactivity

The distinction between unemployment and inactivity is generally harder to measure than is the case for any other pair of statuses. Considering this, it is quite remarkable that, for Ontario, classification errors between U and N were roughly parallel to other errors. Unfortunately, this was not the case for Newfoundland:

	% of cases in Newfoundland classified as ...	
	U in SLID but N in LFS	N in SLID but U in LFS
Jan.	6.7	1.0
Feb.	7.9	1.8
Mar.	6.2	2.5
Apr.	8.4	1.8
May	8.4	2.3

The issue of concern here is the relatively high proportion of cases identified as unemployed in SLID but as not in the labour force in the LFS. A major cause of these errors is probably the broader definition of "looking" we used in feeding back the respondent's job search status as of January 1992. As noted above, this can and will be amended.

TABLE 5A: AGREEMENT RATE (PROPORTION OF CASES WHERE SAME STATUS WAS ASSIGNED IN SLID AND LFS) AND KAPPA STATISTIC: NEWFOUNDLAND *

Month	Total	Agreement (%)	KAPPA** (%)
January	839	88.7	81.2
February	838	82.5	70.6
March	837	82.7	71.6
April	834	80.7	68.4
May	832	78.2	65.0

TABLE 5B: AGREEMENT RATE (PROPORTION OF CASES WHERE SAME STATUS WAS ASSIGNED IN SLID AND LFS) AND KAPPA STATISTIC: ONTARIO *

Month	Total	Agreement (%)	KAPPA** (%)
January	1 175	93.6	86.5
February	1 166	90.7	80.5
March	1 162	89.4	78.0
April	1 157	90.2	79.3
May	1 150	90.5	79.8

* Based on unweighted data. The number of records changes each month because of non-response in the LFS.

** This is an adjusted agreement rate, that takes into account agreement that could be due to chance.

TABLE 6A: LABOUR FORCE STATUS ASSIGNED IN LFS AND SLID, JANUARY 1992, NEWFOUNDLAND

	LFS		
SLID	E	U	N
E	41.4	1.0	1.0
U	0.2	7.9	6.7
N	1.6	1.0	39.5
Agreement rate = 88.7% N = 839			

TABLE 6B: LABOUR FORCE STATUS ASSIGNED IN LFS AND SLID, JANUARY 1992, ONTARIO

	LFS		
SLID	E	U	N
E	66.0	1.2	1.9
U	0.1	5.9	1.4
N	0.8	1.1	21.8
Agreement rate = 93.7% N = 1175			

TABLE 7A: LABOUR FORCE STATUS ASSIGNED IN LFS AND SLID, FEBRUARY 1992, NEWFOUNDLAND

	LFS		
SLID	E	U	N
E	37.8	0.6	1.9
U	0.7	6.3	7.9
N	4.7	1.8	38.3
Agreement rate = 82.4% N = 838			

TABLE 7B: LABOUR FORCE STATUS ASSIGNED IN LFS AND SLID, FEBRUARY 1992, ONTARIO

	LFS		
SLID	E	U	N
E	64.6	1.6	1.5
U	0.7	4.6	2.0
N	2.2	1.3	21.5
Agreement rate = 90.7% N = 1166			

TABLE 8A: LABOUR FORCE STATUS ASSIGNED IN LFS AND SLID, MARCH 1992, NEWFOUNDLAND

	LFS		
SLID	E	U	N
E	37.2	0.8	2.2
U	0.8	8.7	6.2
N	4.8	2.5	36.8
Agreement rate = 82.7% N = 837			

TABLE 8B: LABOUR FORCE STATUS ASSIGNED IN LFS AND SLID, MARCH 1992, ONTARIO

	LFS		
SLID	E	U	N
E	63.6	2.1	1.5
U	0.6	4.4	2.7
N	2.4	1.3	21.4
Agreement rate = 89.4% N = 1162			

TABLE 9A: LABOUR FORCE STATUS ASSIGNED IN LFS AND SLID, APRIL 1992, NEWFOUNDLAND

	LFS		
SLID	E	U	N
E	39.4	1.4	4.7
U	1.0	7.2	8.4
N	2.0	1.8	34.1
Agreement rate = 80.7% N = 834			

TABLE 9B: LABOUR FORCE STATUS ASSIGNED IN LFS AND SLID, APRIL 1992, ONTARIO

	LFS		
SLID	E	U	N
E	65.4	1.7	1.6
U	0.5	4.8	3.2
N	1.8	0.9	20.0
Agreement rate = 90.2% N = 1157			

TABLE 10A: LABOUR FORCE STATUS ASSIGNED IN LFS AND SLID, MAY 1992, NEWFOUNDLAND

	LFS		
SLID	E	U	N
E	39.1	2.3	5.2
U	1.2	8.5	8.4
N	2.4	2.3	30.6
Agreement rate = 78.2% N = 832			

TABLE 10B: LABOUR FORCE STATUS ASSIGNED IN LFS AND SLID, MAY 1992, ONTARIO

	LFS		
SLID	E	U	N
E	66.0	1.2	1.4
U	1.4	5.0	2.5
N	1.4	1.6	19.5
Agreement rate = 90.5% N = 1150			

Classification errors attributable to errors in the dating of events

Retrospective surveys like SLID are affected by recall errors, but clearly some states and phenomena are more prone to recall error than others. For example, it's hard to imagine how a completely non-existent job could be reported, so under-reporting of employment is a more plausible scenario than over-reporting. Similarly, the existence of a job should be easier to recall than its exact start and end dates. Errors in dates may account for a large share of the discrepancies between SLID and the LFS.

To check the impact of slight errors in dates, discrepant records from the micro-comparison were examined to see if the SLID status in the two weeks before and after the LFS reference week agreed with the LFS status.

Tables 11A and 11B show the cases where the SLID status did not agree in the LFS reference week, but where it did agree in the two weeks before or after the reference week (third column). In other words, the SLID data indicate that a transition did occur at a point near the LFS reference week. The number of cases involved is modest. If they were treated as correctly classified, the SLID/LFS agreement rates would rise by at most 4.0 percentage points in Newfoundland (to 86.7% in March) and 2.4 percentage points in Ontario (to 93.1% in February).

The evaluation of errors in exact dating brought to light an interesting problem. Tables 12A and 12B look more closely at the misclassified cases where the SLID status did agree with the LFS somewhere in the five-week band around reference week. The tables show the number of cases agreeing one week before and after reference week, and the number agreeing two weeks before and after. The distribution is far from uniform, with most cases concentrated in a few cells.

This pattern reflects the way labour force classification is derived. There are two procedures that have an impact. First, job search during jobless spells and unpaid absences is collected on a monthly basis and then mapped onto weeks -- Sunday to Saturday periods, some of which bridge two months.[5] The large cells in Tables 12A and 12B are for the following weeks of 1992, all of which bridge two months:

January 26 to February 1
March 29 to April 4
May 31 to June 6

Second, when a respondent can identify the month in which a job started or ended, but not the exact date, the interviewer probes for an approximate date. If the respondent cannot provide an estimate, start dates are automatically set to the first day of the month and end dates are automatically set to the last date of the month. As a result, transitions into and out of employment may be concentrated in the weeks that bridge two months.

In principle, these procedures could impart lumpiness to the weekly labour force status data for SLID. At the extreme, the data could look somewhat like a staircase, with increases and decreases occurring every four weeks or so and plateaus in between. Fortunately, Charts 7 to 10 show that this is not the case. These charts show, by week, the percentage of the population employed and unemployed for the two test sites. The vertical lines mark all the weeks that bridge two months. On the whole, these weeks do not appear to mark major turning points and, apart from the February employment results for Newfoundland, the patterns look quite reasonable.

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[5] The use of a one-month period for identifying job search is conceptually consistent with the LFS. The LFS uses a criterion of job search at any time in the four weeks preceding the mid-month survey week.

TABLE 11A: PROPORTION OF CASES WHERE SLID STATUS AGREED WITH LFS STATUS IN REFERENCE WEEK AND IN 5-WEEK BAND AROUND REFERENCE WEEK: NEWFOUNDLAND

Month	Total cases	SLID status matched LFS in reference week	Non-match in reference week but matched in 2 weeks before or after	Agreement Rate (%)	
				Based on reference week	Based on 5-week band
January	839	744	6	88.7	89.4
February	838	691	31	82.5	86.2
March	837	692	34	82.7	86.7
April	834	673	9	80.7	81.8
May	832	651	15	78.2	80.0

TABLE 11B: PROPORTION OF CASES WHERE SLID STATUS AGREED WITH LFS STATUS IN REFERENCE WEEK AND IN 5-WEEK BAND AROUND REFERENCE WEEK: ONTARIO

Month	Total cases	SLID status matched LFS in reference week	Non-match in reference week but matched in 2 weeks before or after	Agreement Rate (%)	
				Based on reference week	Based on 5-week band
January	1175	1100	4	93.6	94.0
February	1166	1058	27	90.7	93.1
March	1162	1039	19	89.4	91.0
April	1157	1044	4	90.2	90.6
May	1150	1041	13	90.5	91.7

TABLE 12A: SLID CASES MISCLASSIFIED IN LFS REFERENCE WEEK BUT CLASSIFIED CORRECTLY IN TWO WEEKS BEFORE OR AFTER: NEWFOUNDLAND

Month	Cases misclassified in reference week but matched in 2 weeks before or after	Weeks when classification agreed with LFS *			
		2 weeks before reference week	1 week before reference week	1 week after reference week	2 weeks after reference week
JAN	6	4	4	2	3
FEB	31	31	2	0	0
MAR	34	1	0	1	33
APR	9	4	3	0	5
MAY	15	13	2	3	3

TABLE 12B: SLID CASES MISCLASSIFIED IN LFS REFERENCE WEEK BUT CLASSIFIED CORRECTLY IN TWO WEEKS BEFORE OR AFTER: ONTARIO

Month	Cases misclassified in reference week but matched in 2 weeks before or after	Weeks when classification agreed with LFS *			
		2 weeks before reference week	1 week before reference week	1 week after reference week	2 weeks after reference week
JAN	4	3	3	1	1
FEB	27	26	3	1	1
MAR	19	3	0	1	15
APR	4	3	1	0	1
MAY	13	10	0	1	1

* Rows do not add to row totals because, by design, the same case can appear in more than one cell.

CHART 7
Employed as a Percentage of the Population aged 16 to 69
Newfoundland

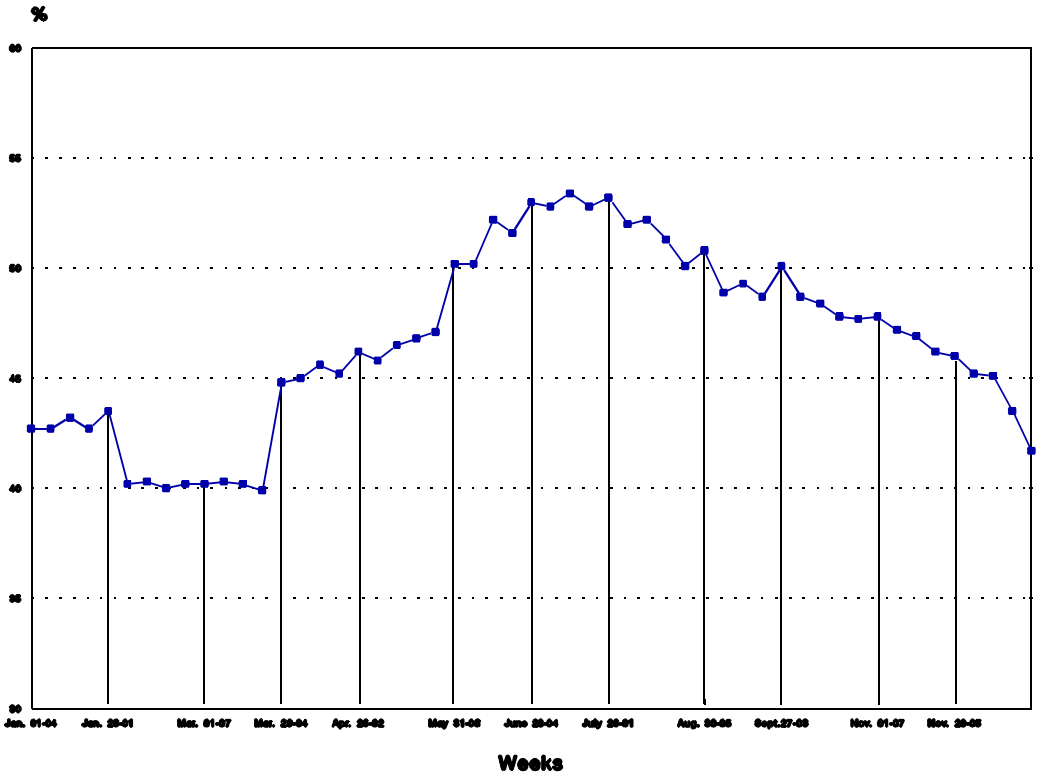


CHART 8
Employed as a Percentage of the Population aged 16 to 69
Ontario

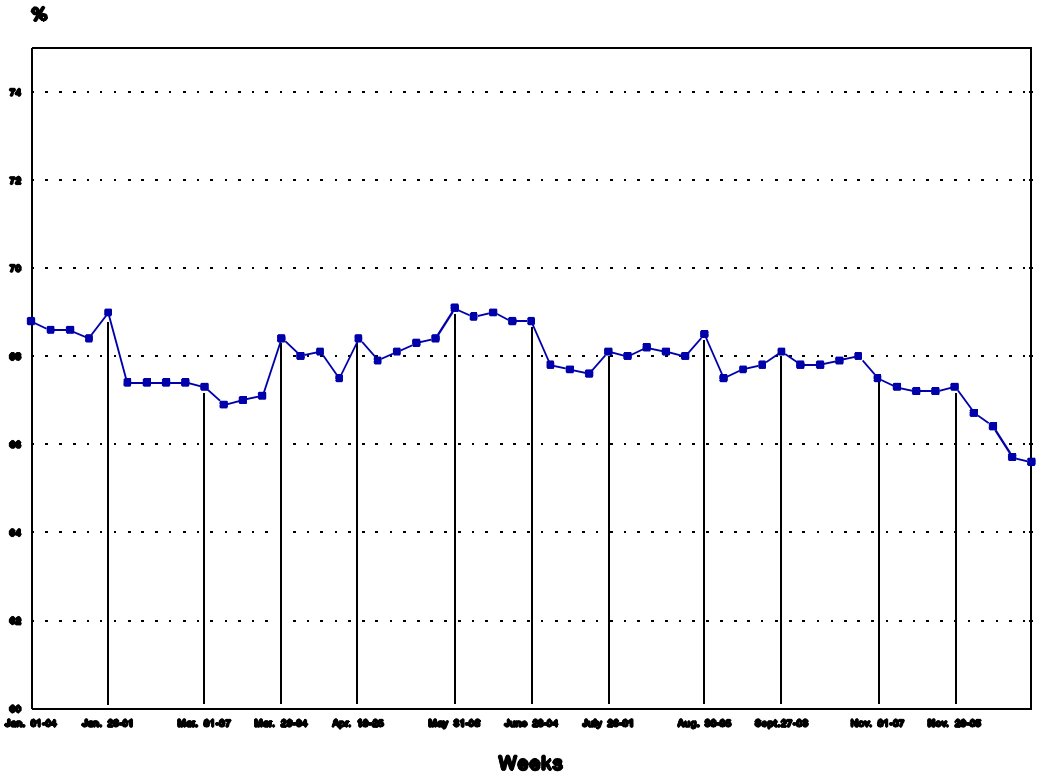


CHART 9
Unemployed as a Percentage of the Population aged 16 to 69
Newfoundland

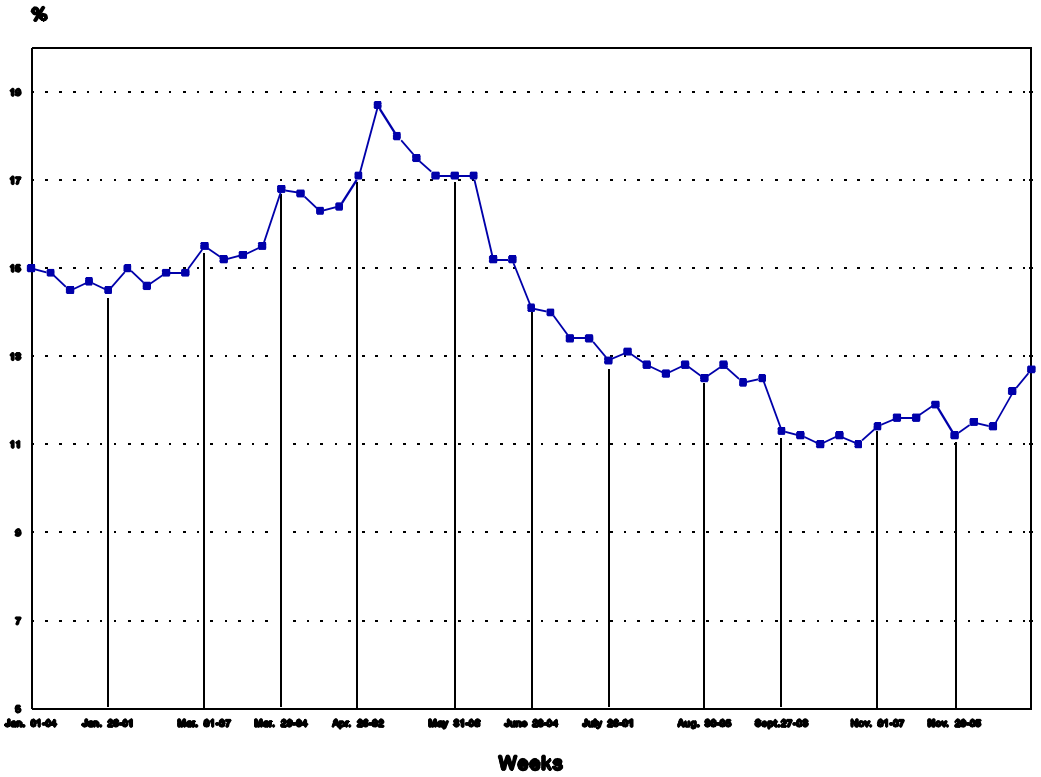
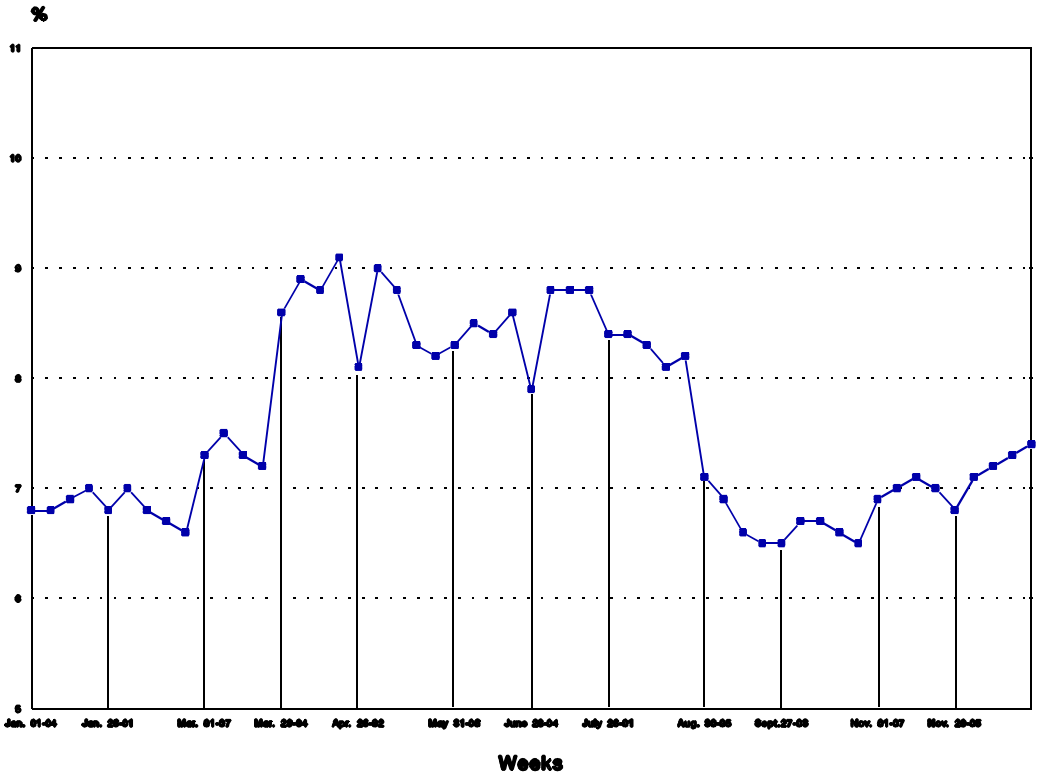


CHART 10
Unemployed as a Percentage of the Population aged 16 to 69
Ontario



5. CONCLUSION

One of the objectives of SLID is to produce information on labour market flows, adhering as far as possible to the concepts and definitions of the LFS. Where differences arise, it is important to understand and document them. This report reviewed the results from Test 3A, with a view to identifying any necessary changes to the questions or to the algorithm used to derive labour force status. Test 3A involved two test sites with very different labour markets, allowing us to assess how well the questions and procedures worked in different environments. The results for the two test sites turned out to be quite different and so they were kept separate throughout the evaluation.

The approach used in the test worked very well for the estimation of employment. For unemployment, the results were excellent for Ontario, but overestimation occurred in the early months of the year for Newfoundland. This appears to be the result of the broad definition of "looking for work" that was used in feeding back the respondent's search status as of the beginning of the year. The definition was broad in that discouraged workers were counted as "looking". In the 1994 labour interview, we will use a definition of "looking" that corresponds more precisely to active job search. The possibility of alienating respondents who want work but are not looking by feeding back their "not looking" status will not arise because we will only feed back search status for respondents who were looking.

By feeding back job search spells in progress at the end of the previous year we will have fewer spells erroneously shown as ending right at the "seam" between the two years. However, there is nothing in the approach to discourage the "backward telescoping" of job search spells, so we may still end up with an artificially high proportion of spells *beginning* at the seam. The testing leads us to believe that it is

better to live with this problem than to confuse and possibly alienate respondents by feeding back the status of "not looking".

While the general approach has been worked out, some fine-tuning is required. The main outstanding issues are outlined below.

Full-time students seeking work -- In general, SLID makes the assumption that job seekers are available for work because it is not really feasible to track availability for work on a month-by-month basis for all job seekers. However, large numbers of full-time students look for summer jobs during the spring and this could distort our unemployment data. The LFS automatically classifies full-time students seeking full-time work as inactive; other things being equal, full-time students seeking part-time work are counted as unemployed. In SLID, all full-time students seeking work may be counted as unemployed, or all may be counted (while attending school) as inactive. Both approaches will be tested empirically when 1994 data become available, and the approach producing the best estimates, relative to LFS, will be used.

On-call workers -- In the test, on-call workers were classified as employed if they worked during the month and as inactive if they did not. (No absence information is collected because the on-again off-again nature of the work arrangement would result in meaningless absence data.) SLID will identify on-call workers through a question on the type of work schedule, similar to one asked in the Survey of Work Arrangements. This suggests that about 3% of all paid jobs may be identified as an on-call arrangements. We are evaluating the merits of counting this population as unemployed while not working, on the assumption that these arrangements are mainly due to lack of demand. A similar rationale is used in classifying temporary layoffs as unemployed.

Self-employed -- During a spell of self-employment, there are once again no questions on absence or job search. Instead, SLID will identify the months in which some work was done. The question is how to classify the self-employed in months during the employment spell when no work was done. For the test, own-account workers were counted as inactive in months of not working; other self-employed persons were counted as employed for the duration of the employer spell. This may be the best approximation of the LFS.

The aggregate level comparison presented in this report will no doubt be repeated using data for the 1993 reference year. It will be possible at that time to evaluate the results for finer subgroups of the population.