

Workplace Injury, and the Labour Force Survey (LFS) 1999/00 - 2002/03 [Revised Series]

Technical Report

Key Points

- Estimates and rates (number of injuries per 100,000 workers) of workplace injury have been revised following the release of re-weighted Labour Force Survey (LFS) microdata (incorporates revised population estimates and drops the employment edit). At the same time HSE has made other changes: to account for non-response to the injury screening question in the LFS; and to remove assumptions (following a review) about the job relating to the injury, where job details are not collected within the LFS interview (i.e. when injured in other than 'main' or 'second' job).
- Overall, estimates of all workplace injury (excluding road accidents) and reportable injury (resulting in 4 or more days absence from work) have increased, by around 2% and 1.5% respectively, while trends are unaffected. Rates of all workplace injury and reportable injury are relatively unaffected (generally less than 1%) as the all industry revisions (population estimates and injury non-response adjustment) affect both the injury and employment estimates. Trends in both published and revised rates show similar reductions over the four years, around 7.5% for all workplace injury, and around 4% for reportable injury.
- The changes in rates of injury by industry sector are greater than those seen for all industry (between 6% and 28%) due to the added impact of removing assumptions about the job where the injury occurred, in cases where information is not collected in the LFS.

Introduction

In March 2004 ONS released LFS micro data re-weighted to post-2001 Census population estimates, and at the same time removed the employment edit following changes introduced with the move to SOC2000 occupation codes. These changes are described in an article in Labour Market Trends, April 2004*. Later revisions to population estimates for 1992 - 2002 were not available when the LFS re-weighting exercise commenced.

LFS workplace injury estimates have been revised to allow for these and other methodological changes, including adjustment of sample weights to account for non-response to HSE's work-related injury screening question, and a review of assumptions relating to the job in which the respondent was injured.

* Labour Force Survey re-weighting and seasonal adjustment review, Labour Market Trends, April 2004 p167-172.

The non-response adjustment and Census reweighting affect all previously published estimates and rates of injury. The employment edit affects published figures for employees and self-employed, and any job related breakdowns are affected by the change in assumptions relating to the job in which the person was injured. The 'revised' figures presented within the charts and tables in this report represent all changes applicable to the particular series, unless otherwise stated.

This technical report focuses on the impact of the revisions. The revised figures will be represented in *Health and Safety Statistics Highlights 2004/05*[±], along with the LFS estimates for the latest year, in November 2005.

Background to the LFS & HSE module on workplace accidents

The LFS is a continuous household sample survey, which collects information on around 60,000 households every quarter. Since those responses collected reflect only a sample of the total population, the responses from the LFS are then weighted on the basis of sub national population totals by age and sex to provide estimates for the entire population.

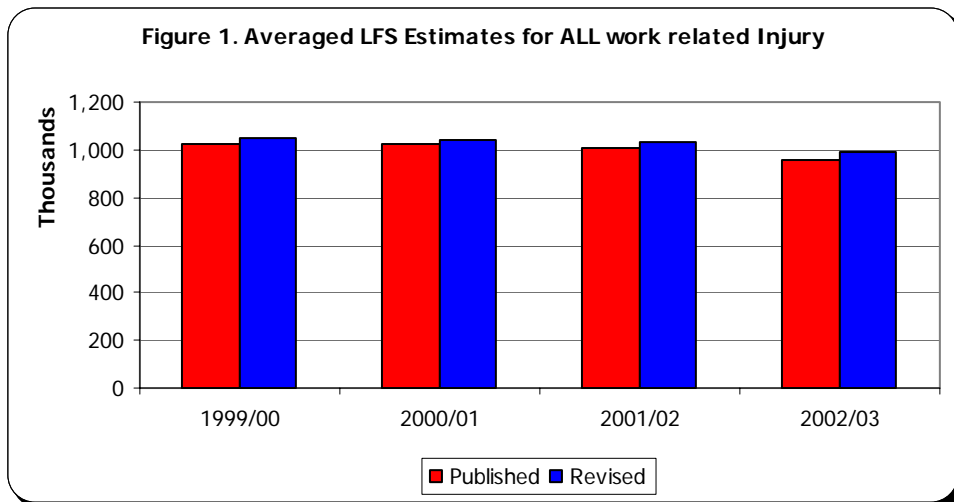
HSE developed the Labour Force Survey (LFS) as a source of information on workplace injury to complement the flow of the injury reports made by employers and others to HSE. HSE placed a supplement of detailed questions on workplace injury in the 1990 LFS, and has placed a limited set of injury questions annually since 1993. The section of questions on accidents at work is included in the winter quarter (December – February). The LFS gives estimates of the levels of workplace injury that are not subject to under-reporting, and together with the rates of reported injury, gives estimates of the levels of reporting of injuries. LFS injury rates are presented as three year moving averages (referred to as 'averaged' rates), to reduce annual fluctuations that stem from sampling error. Further detail is available in the Technical Annex.

Total levels of workplace injury to workers

The LFS module on workplace accidents identifies all non-fatal work-related injuries, work-related road traffic accidents, and non-fatal injuries resulting in four or more days off work (which are reportable to HSE).

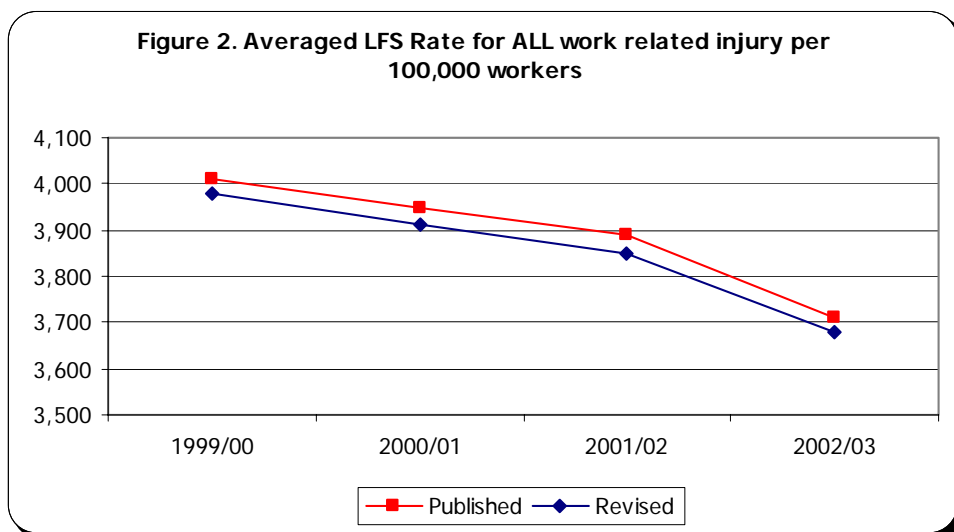
Figure 1 (and supplementary table 1) below shows the averaged LFS estimates for ALL work related injury (arising out of or in connection with a work activity), excluding injuries resulting from road traffic accidents.

[±] This document will be available on HSE's website at: <http://www.hse.gov.uk/statistics/overpic.htm> in November 2005.



The revised estimates of workplace injury are around 2% higher up to 2001/02, and 4% higher in 2002/03 (as the Census re-weight does not affect all three years), while the rates per 100,000 workers are around 1% lower than previously published. This is because the post-2001 Census re-weighting and the adjustment for injury non-response affect both estimates of injuries and employment.

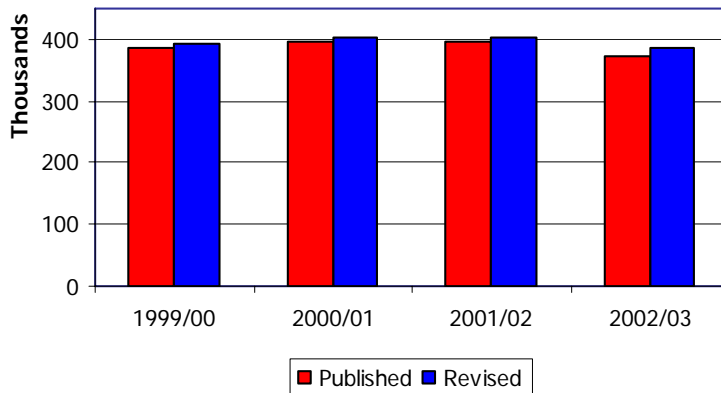
The difference between previously published and revised rates of non-fatal injury is approximately 1%. Trends are unaffected – both show reductions of around 7.5% over the four years. In 2002/03 the published rate per 100,000 workers is 3710 compared with 3680 for the revised methods (<1% change), as shown in Figure 2 (and supplementary table 2).



Reportable non-fatal workplace injury to workers

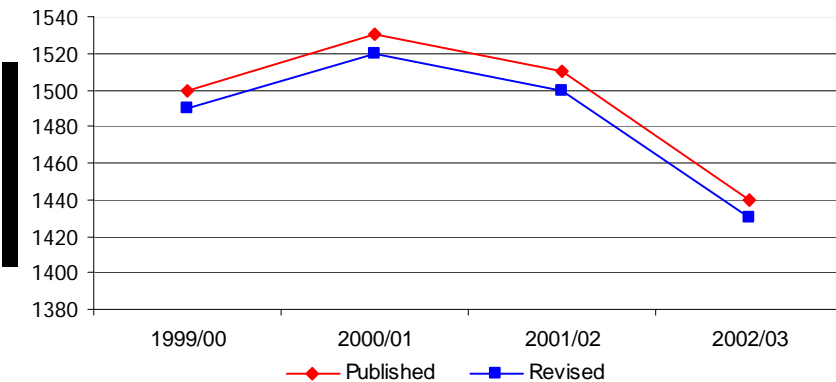
Figure 3 (and supplementary table 3) shows the differences between the previously published and revised estimates of REPORTABLE non-fatal injury. The net changes in the estimates are around 1.5% each year up to 2001/02 and around 3.5% in 2002/03, which suggests that the Census re-weight reduces the estimate (as expected) but there is a larger increase due to adjustment for non-response to the injury screening question leading to an overall net increase.

Figure 3. Averaged LFS Reportable Injury Estimates



Reportable injury rates (as shown in Figure 4 and supplementary tables 4 & 5) display a similar picture to all work related injury. There is no significant change in the trend, and a minor downward shift in levels of the revised rates. This small reduction is driven by a slightly larger relative increase in employment compared with injuries as a result of the Census re-weights and adjustment for non-response to the injury screening question.

Figure 4. Averaged LFS rate of reportable non-fatal injury per 100 000 workers



Reportable non-fatal injury by industry sector

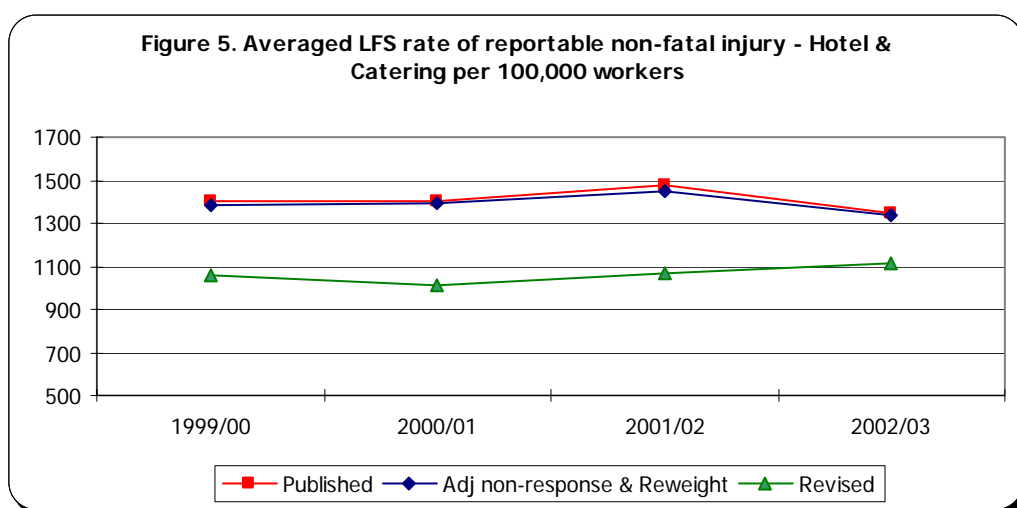
LFS respondents, who have been injured in the past 12 months at time of interview, state in which job they were injured: main job, second job or some other job. This is used to determine a number of key variables relating to the job in which the person was injured; including industry, occupation and employment status. The LFS does not collect this information for persons injured in 'some other job'. Previously published injury estimates assumed that details relating to the respondent's 'main job' would provide a suitable proxy for other unknown jobs.

However, recent analysis of employment data available in the 2001 spring quarter of the LFS shows that, for those persons who have changed job within the past 12 months, only 45% stayed within the same industry sector (varies between 16% in Energy & Water supply, to 57% in Construction – see table A1 in Technical Annex). This indicates that for respondents who had changed jobs, the previous assumption was no longer reliable. In terms of those reporting injuries in 'some other job', around two thirds had changed jobs within the past 12 months.

A similar picture is found for the remaining third with additional jobs (see Technical Annex).

Based on these results, no job related details have been allocated to those workers injured in 'some other job'. This means around 7-8% of injury cases are not allocated an industry. As a result all previously published estimates involving job related variables have been revised.

Generally the revised injury rates by industry sector reduced more than all industry rates because this specific revision only affects industry, and other job related breakdowns. The revisions vary by industry depending on the proportion of cases previously affected by this assumption. The affects for the averaged LFS injury rates by industry and type of revision are shown in Table 1 (and supplementary tables 6-17). The trends across each industry generally remain the same.



Around one fifth of injuries to people currently working in Hotel & Catering occur in 'some other job'. In the past, these injuries would have been assumed to be in Hotel & Catering but this is no longer a valid assumption.

The Census re-weight and adjustment for non-response to injury screening question has a minimal impact on the rates (see Figure 5 and supplementary table 11), as was found overall. Therefore the difference between the published and revised rates is primarily due to the removal of the assumption about the job in which the respondent was injured. The revised figures suggest that the rates have increased in each of the past two years, but over the four years both published and revised rates show little change in the overall trend.

Table 1. Averaged LFS Reportable non-fatal Injury Rates by Industry

LFS	Averaged LFS rate of reportable injury per 100,000 workers				
		1999/00	2000/01	2001/02	2002/03
Agriculture	Published	2520	2760	2670	3020
	Revised	2230	2470	2430	2710
	% Change	-11.5%	-10.5%	-9.0%	-10.3%
Energy & Water Supply	Published	1390	1500	1770	1860
	Revised	1310	1320	1500	1520
	% Change	-5.8%	-12.0%	-15.3%	-18.3%
Manufacturing	Published	2110	2080	2070	1930
	Revised	1910	1870	1850	1750
	% Change	-9.5%	-10.1%	-10.6%	-9.3%
Construction	Published	2530	2580	2510	2280
	Revised	2320	2330	2280	2090
	% Change	-8.3%	-9.7%	-9.2%	-8.3%
Distribution & Repair	Published	1430	1490	1430	1380
	Revised	1240	1290	1250	1180
	% Change	-13.3%	-13.4%	-12.6%	-14.5%
Hotel & Catering	Published	1400	1400	1480	1350
	Revised	1060	1010	1070	1110
	% Change	-24.3%	-27.9%	-27.7%	-17.8%
Transport & Communication	Published	2130	2220	2210	2160
	Revised	1880	2000	1940	1920
	% Change	-11.7%	-9.9%	-12.2%	-11.1%
Finance & Business	Published	570	580	570	540
	Revised	480	480	470	440
	% Change	-15.8%	-17.2%	-17.5%	-18.5%
Public admin.	Published	1550	1570	1400	1420
	Revised	1460	1460	1280	1340
	% Change	-5.8%	-7.0%	-8.6%	-5.6%
Education	Published	810	820	880	810
	Revised	750	730	790	720
	% Change	-7.4%	-11.0%	-10.2%	-11.1%
Health	Published	1470	1420	1430	1430
	Revised	1380	1330	1330	1320
	% Change	-6.1%	-6.3%	-7.0%	-7.7%
Consumer/ Personal	Published	1200	1450	1620	1520
	Revised	980	1230	1450	1390
	% Change	-18.3%	-15.2%	-10.5%	-8.6%
TOTAL	Published	1500	1530	1510	1440
	Revised	1490	1520	1500	1430
	% Change	-0.7%	-0.7%	-0.7%	-0.7%

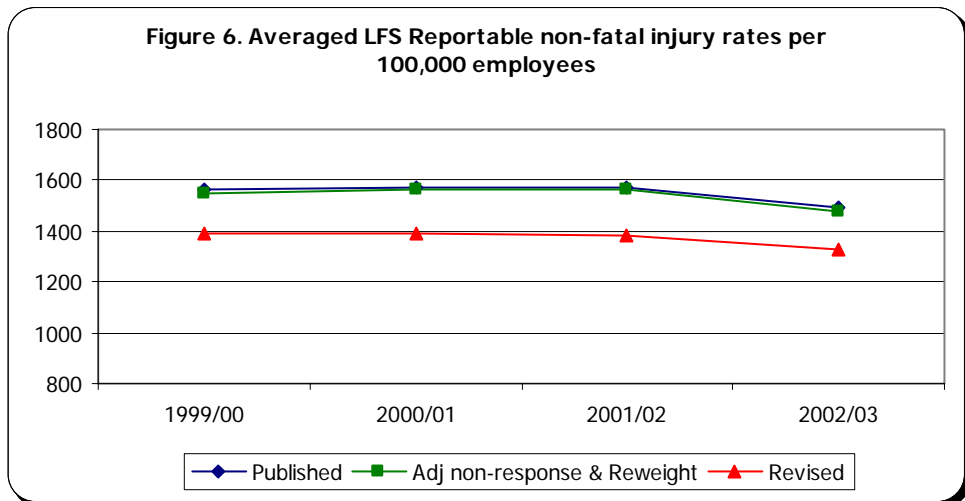
The trends across industries are generally unaffected. In Energy & Water Supply the trends are similar, but revised figures show that up to 2001/02 rates in Energy & Water Supply were not increasing as much as previously thought. In Consumer/Personal, rates did not drop as much as previously thought between 2001/02 and 2002/03. The relatively small numbers of injury cases for these industries results in less reliable estimates and therefore more variation is expected.

Reportable non-fatal injury by employment status

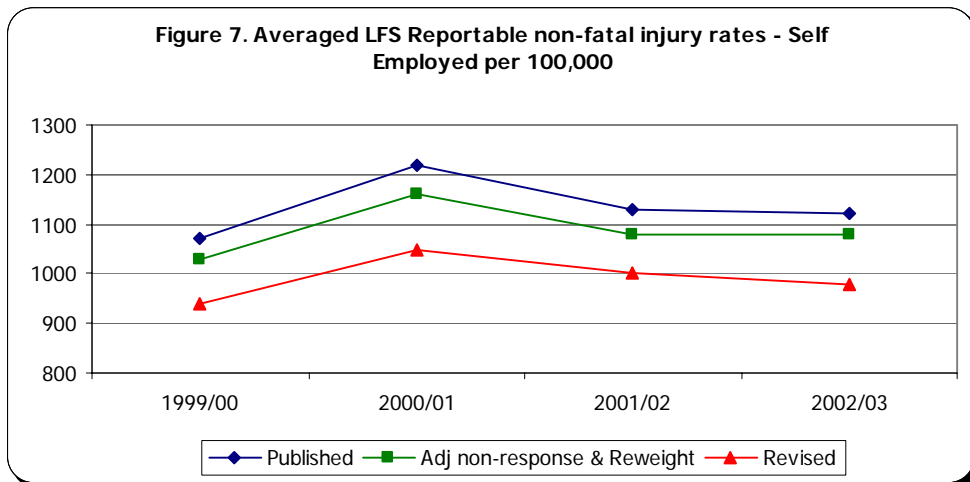
Following the introduction (2001) of the new occupation classification (SOC 2000), estimates of the number of employees and the self-employed have been recalculated back to spring 1992 without the employment edit check previously used. The reason for dropping the employment edit check was due to the number of incompatible combinations of occupation and employment being greatly reduced with the introduction of SOC 2000. In order to provide a consistent time series, revised estimates of employed and self-employed were produced during the Census reweighting exercise.

This has led to upward revisions of around 180,000 in LFS estimates of self-employed in main jobs and corresponding downward revisions in employee estimates. LFS estimates of total employment are not affected by this change.

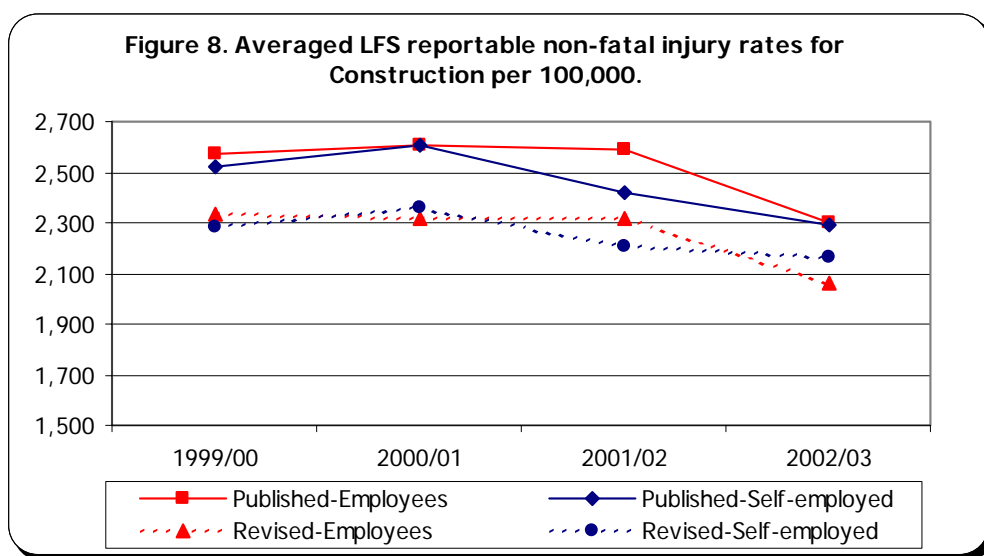
As with other changes, the affect of the Census re-weight, employment edit check and adjustment for non-response to the injury screening question had little impact on the rate of reportable non-fatal injury to employees (<1%). However, employment status is linked to the person's job and thus is also affected by issues surrounding the job in which they were injured. Reduction in rates for employees (approx. 11%) is driven by the removal of the assumption about employment status for those injured in 'some other job'. The trend is not affected by changes as shown in Figure 6 (and supplementary table 18).



A slightly different picture emerges for the self-employed, where the difference between previously published and revised figures is in part due to the removal of the employment edit check (approx. 4%), but more so the removal of the assumption about employment status in 'some other job' (approx. 12%), although again the trends are unaffected by the changes as shown in Figure 7 (and supplementary table 19).



The ratio of employed to self-employed varies by industry. Construction generally has a larger proportion of self-employed (around 30%). Figure 8 (and supplementary tables 22 & 23) illustrates that the previously published rates for employees and the self-employed are much closer than across industry, as are the revised rates.

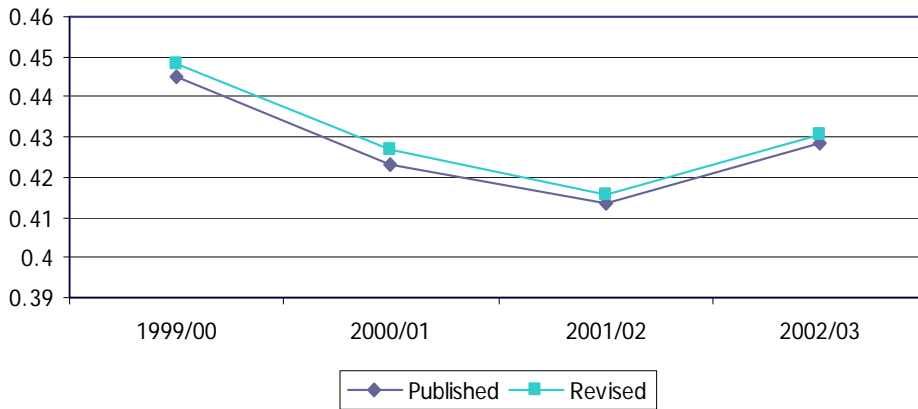


Again the difference in levels is driven by the removal of the assumption about employment status for those who say they were injured in 'some other job'. Once more it has no effect on the trends, for both employed and self-employed.

Reporting Levels

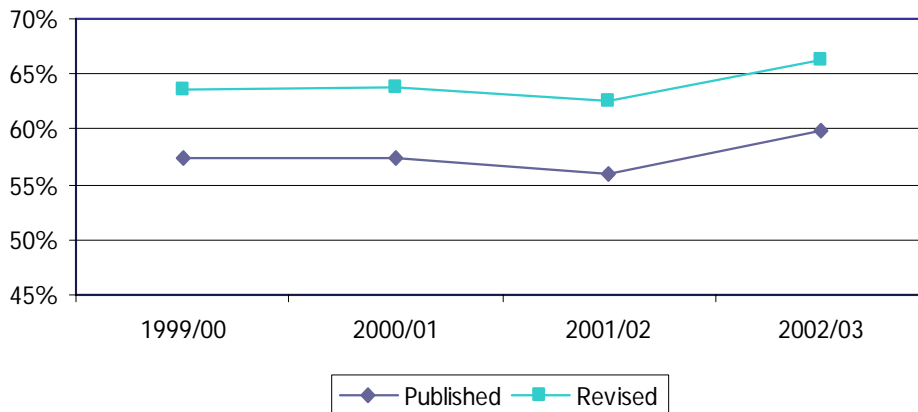
The estimate of the level of reporting of non-fatal injuries by employees and others is also affected by the revisions to the LFS injury rates. The small reduction in LFS reportable injury rates (see Figure 9) has led to a small increase in overall reporting (around 1%). However, there is a greater change in the reporting levels by industry (see supplementary table 24). This replicates the changes in the rates of reportable non-fatal injury by industry sector due to the removal of the assumption about industry for those injured in 'some other job'. Once more the revisions generally have no effect on the trends.

Figure 9. Averaged Reporting Levels based on comparison of rates of reported non-fatal injury & LFS reportable non-fatal injury



Again the impact varies somewhat between industries. For Manufacturing, as shown in Figure 10, the change due to the revisions is approximately 10%, and again the revisions have no affect on the trend. The trends across industries are generally unaffected. However, in Hotel & Catering revised figures are increasing in the latest two years, whereas published figures were falling slightly, this reflects the changes in the revised rates. Table 24 in the supplementary tables provides a breakdown of reporting levels by industry sector.

Figure 10. Averaged Reporting Levels based on comparison of rates of reported non-fatal injury & LFS reportable non-fatal injury - Manufacturing



TECHNICAL ANNEX

THE LABOUR FORCE SURVEY (LFS)

The survey of accidents at work is conducted in conjunction with the LFS, to take advantage of existing arrangements for sampling and interviewing a large nationally representative sample. The LFS provides a rich source of information about the labour force using internationally agreed concepts and definitions. It collects data on employment, self-employment, hours of work, unemployment, redundancies, education and training and many other topics. The LFS includes demographic, industrial and occupational information on the national population, providing consistent denominator data for information collected in the Health and Safety Executive's module for the calculation of rates.

The LFS is a survey of households living at private addresses in Great Britain conducted by the Office for National Statistics (ONS). Since 1992 a full LFS has been carried out quarterly in Great Britain. The quarterly design allows good estimates for each quarter to be produced as well as changes over consecutive quarters. The survey is designed to produce a sample of about 60 000 responding households in Great Britain. Each quarter's sample is made up of 5 "waves", each of approximately 12 000 private households. Each wave is interviewed in 5 successive quarters, such that in any one quarter one wave will receive their first interview, one their second, and so on, with one receiving their fifth and final interview. Thus there is an 80% overlap in the samples for successive quarters.

The LFS allows interviewers to take answers to questions by proxy if a respondent is unavailable, usually from another related adult who is a member of the same household. About one third of LFS responses are from proxies, and the results here are not adjusted for proxy response.

HSE MODULE ON WORKPLACE ACCIDENTS

The module of workplace accident questions is administered to individuals aged 16 or over who are currently employed or who have been employed in the previous 12 months. These questions are asked in the winter quarter each year (December, January and February), and cover the 12 months prior to interview.

The sample is structured in five "waves" therefore one-fifth of respondents are asked the module of questions at their first LFS interview, one-fifth at their second interview, and so on.

The first question in the module (screening question) identifies adults who have suffered from any workplace accident resulting in injury in the 12 months prior to interview. If they respond positively, whether about themselves or another household member, they are then asked whether the injury resulted from a road accident or not, and whether the injury occurred in their current, most recent (for those not working), or some other job. The respondent is then asked how soon they returned to work following the accident. The questions on 'road accident' and 'when returned to work' are used to identify 'reportable' injuries, i.e. those where the person had four or more days off work, and hence comparable with the administrative reporting system RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations). In some years, an additional question is asked to determine, in more detail, how many days elapsed to their return to work (see 'working days lost', later).

On average, around one third of all LFS interviews are by proxy, and rates of injury can be lower in interviews with people who act as a proxy compared with personal interviews. The effect of proxy interviews on LFS rates of injury is relatively small. For example, the rate of reportable non-fatal injury in manufacturing is about 7% lower than the rate excluding proxy responses in 2002/03. No adjustment for proxy responses is made in this report, as the effect of proxy responses is relatively consistent each year.

CENSUS REWEIGHTING AND REVISIONS TO PUBLISHED LFS FIGURES

The LFS collects information on a sample of the population using a systematic random sample design. To convert this information into estimates for the population each person is assigned a weight or "grossing factor" related to the person's age, sex and region of residence. Any revisions to published population estimates result in revisions to the LFS weights and, following re-weighting, possible revisions to the LFS injury estimates, as described in this document. Population estimates were revised following the 2001 Census and showed that the UK population was around 1 million lower than previously estimated. A project was launched to re-weight the LFS micro data using the population estimates published in spring 2003. Revised LFS weighting factors were released in March 2004. As a result, LFS accident estimates have been revised and the estimates described here are based on post-2001 population estimates. Changes to the injury rates are small, and overall patterns are broadly unchanged. It is worth noting that since spring 2003 further revisions have been made to population estimates, and the LFS accident estimates may be subject to revision when the fully re-weighted LFS micro data are released.

Following the introduction of the new occupation classification, SOC 2000, the number of incompatible combinations of occupation and employment status (e.g. self-employed policemen) was greatly reduced. ONS took the opportunity of the re-weighting exercise to remove the employment edit check back to spring 1992 in order to provide a consistent time series for users. The removal of the edit check has resulted in estimates of self-employment increasing by around 180,000, with corresponding reductions in the employee estimates. LFS estimates of total employment are not affected by this change.

ADJUSTING WEIGHTS FOR NON-RESPONSE TO INJURY SCREENING QUESTION

Each year, around 4% of eligible respondents say they had a work related accident in the last 12 months. Around a further 5% did not respond to the accident question (most of whom were unavailable for questioning). This non-response is not accounted for in the standard LFS weighting procedure, and an adjustment is made to the weights for work-related accident cases (positive responses) to take account of this non-response and provide more reliable estimates.

For the non-response adjustments, a procedure is implemented (using the software 'SPSS AnswerTree') to identify LFS demographic and employment-related variables and codes that best describe the pattern of response to the injury screening question. The procedure progressively splits the sample into groups, between which the response rates differ to a statistically significant extent. The adjustment for non-response then involves multiplying the standard weights by the reciprocal of the response rate within each of the groups identified.

JOB IN WHICH THE RESPONDENT IS INJURED

Of those saying they had an injury in the last 12 months, just over 90% had the injury in their current, or most recent job (for those not currently working). The remainder had an injury in a 'second job' (< 1%), for which less detailed job related information is available, or in 'some other job' (7-8%), where no job details are collected.

In the past, details relating to the individuals current or most recent job have been used as a 'proxy' for other unknown jobs. However, recent analysis of employment data available in the 2001 spring quarter of the LFS shows that, for those persons who have changed job within the past 12 months, only 45% stayed within the same industry sector (varies between 16% in Energy & Water supply, to 57% in Construction – see table A1).

This indicates that for respondents who had changed jobs, the previous assumption was no longer reliable. In terms of those reporting injuries in 'some other job', around two thirds had changed jobs within the past 12 months.

The remaining third had not changed jobs within the previous 12 months, so we assume that 'some other job' refers to an additional job, for which details are not collected in the LFS.

Looking at data for those workers with second jobs, in addition to the current or most recent job, less than one third work in the same industry sector in both jobs (varies between 11% in Transport & Communication to around 48% in Health & Social Work - see table A2). A similar picture is found for occupation e.g. In Spring 2001, 57% of those who had changed job in the past 12 months stayed within the same major occupation group. As with industry, this varies by occupation group.

Based on these results no job related details have been allocated to those workers injured in 'some other job' (around 7-8% of injury cases). As a result all previously published estimates involving job related variables have been revised. Note that this does not affect the all industry results or estimates for personal or demographic variables.

Table A1. Number of cases of workers who have changed job in the past 12 months and stayed in the same industry

Industry		Spring 2001		
		Same Industry	Total	% Same
A,B	Agriculture	*	50	30.0%
C,E	Energy & Water Supply	*	58	15.5%
D	Manufacturing	497	948	52.4%
F	Construction	250	436	57.3%
G	Distribution & repair	496	1015	48.9%
H	Hotel and catering	160	347	46.1%
I	Transport & communication	157	479	32.8%
J,K	Business	512	1220	42.0%
L	Public admin.	68	248	27.4%
M	Education	144	349	41.3%
N	Health	328	663	49.5%
O,P,Q	Consumer/personal	106	346	30.6%
A-Q	TOTAL	2718	6159	44.5%

* Sample numbers too small to provide reliable estimates.

Table A2. Number of cases in industry of main job versus second job, for those workers with second jobs

Industry		2000/01		
		Same Industry	Total	% Same
A,B	Agriculture	*	32	21.9%
C,E	Energy & Water Supply	*	*	~
D	Manufacturing	27	207	13.0%
F	Construction	*	70	14.3%
G	Distribution & repair	58	302	19.2%
H	Hotel and catering	*	102	19.6%
I	Transport & communication	*	82	11.0%
J,K	Business	72	321	22.4%
L	Public admin.	36	164	22.0%
M	Education	197	429	45.9%
N	Health	213	448	47.5%
O,P,Q	Consumer/personal	63	197	32.0%
A-Q	TOTAL	666	2354	30.1%

* Sample numbers too small to provide reliable estimates.

CALCULATION OF ANNUAL INJURY ESTIMATES AND RATES

For comparison with reported non-fatal injuries (RIDDOR), the LFS reportable non-fatal injury rate is defined as:

The estimated number of people with an injury resulting in four or more days off work, at any time during the 12 month reference period; divided by those currently employed. This is usually expressed per 100 000 workers.

Note for 'currently employed'. As individuals move in and out of employment in a given year, an estimate of the average working population is required. This would often be taken as population at the mid-point. Current workers (i.e. worked in the LFS reference week) provide the best available estimate of the number of people at risk during the 12 month period.

STANDARD ERRORS AND POOLED YEARS

Estimates based on sample surveys are subject to error. The main factor that determines the width of the margin of error around a given estimate is the number of sample cases it is based on. Errors on estimates involving some form of measurement of individuals e.g. time taken off work, are also affected by the variability of the measure from person to person. Aspects of the survey design also affect all errors, in particular whether the sample is stratified or clustered. The LFS is both stratified (by post code sector) and clustered (at household level).

To minimise the effect of sampling error on rates of injury, LFS rates from 1993/94 onwards are usually displayed as three-year moving averages (quoted as 'averaged' LFS rates in the text). For example, combining the three surveys 1998/99, 1999/2000, and 2000/01 gives estimated rates of injury centered on 1999/2000. Then, for each subsequent year, the first year is dropped, and the latest year added. Rates of injury for individual industries produced as three year moving averages typically have coefficients of variation of between 5% and 18%, whereas for single years the figures are typically in the range 9% to 37% (the lower the figure, the smaller the margin of error).

When pooling data from different years, a problem can exist where coding frameworks change, for example occupation. As differing codes often cannot be 'mapped' then for these years the relevant data cannot be pooled.

An added complication arises, when pooling data from 'wave 1' of one year, with 'wave 5' of the following year, as there is the potential for a respondent to report the same workplace injury twice, due to recall issues ('waves' are described above). Investigation into individuals reporting an injury in two successive winter quarters suggests that this problem is small, and that the maximum potential overstatement is around 4%. It is likely to be much less than this, but limited information is collected on the injuries themselves from which to discount them as potential duplicates.

WORKING DAYS LOST ESTIMATES AND RATES (FULL-DAY EQUIVALENT)

For some years of the survey, individuals employed in the last 12 months, reporting a work-related injury, are asked how many actual days they took off work because of their injury, in the 12 month period prior to interview. The LFS is the only source of data on working days lost due to workplace injury.

To account for the variation in the daily hours worked (for example part-timers who may work a shorter day or people who work particularly long hours), working days lost are expressed in the form of full day equivalent (FDE) working days. This is calculated by adjusting the days lost estimates, using the ratio of the individual's usual weekly hours to the average usual weekly hours of all full-time workers estimated using the LFS.

For this purpose, hours of work excludes overtime and meal breaks in line with the New Earnings Survey definition of full-time/part-time.

Furthermore, the LFS only collects information on hours of work for current workers. Therefore, appropriate usual hours, based on employment characteristics, are imputed for people who worked in the last 12 months but who were not working at the time of interview. Usual hours are also imputed for those current workers who did not answer the relevant usual hours of work question. This is consistent with methods used for the calculation of estimates of self-reported work-related ill health, also based on the LFS.

In addition, estimates of working days lost have been imputed for those respondents not answering the days off work question, those who are still off at the time of interview, and a few cases who say they never expect to work again. The main discriminator here is 'age'.

Rates presented in this report are in the form of annual full-day equivalent working days lost due to workplace injury, divided by full-time equivalent workers, in the 12 month period. Note for 'worked in the 12 month period'. As individuals move in and out of employment in a given year, an estimate of the average working population is required. This would often be taken as population at the mid-point. Current workers (i.e. worked in the LFS reference week) provide the best available estimate of the number of people at risk during the 12 month period.

Revised 'working days lost' estimates.

When comparing revised working days lost estimates for 2000/01 with previously published figures (see Health and Safety Statistics Highlights 2003/04: <http://www.hse.gov.uk/statistics/overall/hssh0304.pdf>), there appears to be an increase. Imputing for those 'still off work' because of their injury at the time of the LFS interview accounts for a large part of the increase, around 1.1 million days lost. Previously, such cases were not imputed for. Further imputation for missing cases amounts to around 230 000 days lost. The total days lost due to workplace injury to 8.9 million, but after a final adjustment for 'full day equivalent' basis, the revised figure for 2000/01 is 8.1 million (full day equivalent) working days lost, 0.8m higher than the previously published figure. The equivalent figure for 2003/04 is 8.8million.

Estimates of working days lost due to workplace injury by industry sector are provided as a supplementary table to this report (see <http://www.hse.gov.uk/statistics/overpic.htm>). In addition to the changes described here, the revised estimates are also affected by the issues relating to the removal of the assumptions about job related details for those persons injured in 'some other job' (described earlier).

Supplementary Tables

Table 1. Averaged LFS estimates by Employment Status for ALL work related non-fatal injury

	Emp Status	1999/00	2000/01	2001/02	2002/03
Published non-fatal injury estimates	Employed ^a	929,400	917,700	911,200	860,500
	Self Employed	97,600	102,700	97,800	95,800
	Total (workers)	1,027,000	1,020,400	1,009,000	956,300
Revised non-fatal injury estimates	Employed ^a	946,300	933,400	929,800	893,800
	Self Employed	100,600	105,300	100,500	100,200
	Total (workers)	1,046,900	1,038,700	1,030,300	994,000

^a Excludes government schemes & unpaid family workers

Table 2. Averaged LFS rates by Employment Status for ALL work related non-fatal injury

	Emp Status	1999/00	2000/01	2001/02	2002/03
Published rate per 100,000	Employed ^a	4,100	4,010	3,970	3,790
	Self Employed	3,300	3,490	3,290	3,120
	Total (workers)	4,010	3,950	3,890	3,710
Revised rate per 100,000	Employed ^a	4,080	3,990	3,940	3,770
	Self Employed	3,200	3,350	3,160	3,040
	Total (workers)	3,980	3,910	3,850	3,680

^a Excludes government schemes & unpaid family workers

Table 3 Averaged LFS reportable non-fatal injury estimates to workers 1999/00 – 2002/03

	1999/00	2000/01	2001/02	2002/03
Published non-fatal injury estimates	386,300	397,500	395,200	373,700
Revised non-fatal injury estimates	391,800	402,500	402,200	387,100

Table 4 Reported non-fatal injury rate to employees and averaged LFS Rate of reportable non-fatal injury to workers 1999/00 – 2002/03

Averaged Year	Rate			Reporting Level	
	Published rate per 100,000 workers	Revised rate per 100,000 workers	Reported non-fatal Injury	Published	Revised
1999/00	1,500	1,490	667	44.5%	44.9%
2000/01	1,530	1,520	647	42.3%	42.7%
2001/02	1,510	1,500	624	41.4%	41.5%
2002/03	1,440	1,430	618	42.9%	43.0%

Table 5 Annual LFS reportable non-fatal injury rates to workers 1999/00 – 2002/03

	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
Published rate per 100,000 workers	1430	1550	1530	1520	1500	1310
Revised rate per 100,000 workers	1420	1530	1520	1500	1490	1310

Supplementary Tables

Averaged LFS reportable non-fatal injury rates to workers by Industry (supplementary tables 6-17) showing previously published rates, rates adjusted for Census re-weighting and non-response to the injury screening question, and revised rates incorporating all changes.

Table 6 Agriculture

	1999/00	2000/01	2001/02	2002/03
Published rates per 100,000 workers	2520	2760	2670	3020
Adj non-response & Reweight rates per 100,000 workers	2420	2700	2610	2990
Revised rates per 100,000 workers	2230	2470	2430	2710

Table 7 Energy & Water Supply

	1999/00	2000/01	2001/02	2002/03
Published rates per 100,000 workers	1390	1500	1770	1860
Adj non-response & Reweight rates per 100,000 workers	1370	1490	1790	1870
Revised rates per 100,000 workers	1310	1320	1500	1520

Table 8 Manufacturing

	1999/00	2000/01	2001/02	2002/03
Published rates per 100,000 workers	2110	2080	2070	1930
Adj non-response & Reweight rates per 100,000 workers	2090	2080	2060	1930
Revised rates per 100,000 workers	1910	1870	1850	1750

Table 9 Construction

	1999/00	2000/01	2001/02	2002/03
Published rates per 100,000 workers	2530	2580	2510	2280
Adj non-response & Reweight rates per 100,000 workers	2510	2570	2490	2270
Revised rates per 100,000 workers	2320	2330	2280	2090

Supplementary Tables

Table 10 Distribution & Repair

	1999/00	2000/01	2001/02	2002/03
Published rates per 100,000 workers	1430	1490	1430	1380
Adj non-response & Reweight rates per 100,000 workers	1420	1480	1430	1360
Revised rates per 100,000 workers	1240	1290	1250	1180

Table 11 Hotel & Catering

	1999/00	2000/01	2001/02	2002/03
Published rates per 100,000 workers	1400	1400	1480	1350
Adj non-response & Reweight rates per 100,000 workers	1380	1390	1450	1340
Revised rates per 100,000 workers	1060	1010	1070	1110

Table 12 Transport & Communication

	1999/00	2000/01	2001/02	2002/03
Published rates per 100,000 workers	2130	2220	2210	2160
Adj non-response & Reweight rates per 100,000 workers	2110	2200	2190	2150
Revised rates per 100,000 workers	1880	2000	1940	1920

Table 13 Finance & Business

	1999/00	2000/01	2001/02	2002/03
Published rates per 100,000 workers	570	580	570	540
Adj non-response & Reweight rates per 100,000 workers	570	570	560	530
Revised rates per 100,000 workers	480	480	470	440

Table 14 Public Administration

	1999/00	2000/01	2001/02	2002/03
Published rates per 100,000 workers	1550	1570	1400	1420
Adj non-response & Reweight rates per 100,000 workers	1520	1540	1390	1420
Revised rates per 100,000 workers	1460	1460	1280	1340

Supplementary Tables

Table 15 Health

	1999/00	2000/01	2001/02	2002/03
Published rates per 100,000 workers	1470	1420	1430	1430
Adj non-response & Reweight rates per 100,000 workers	1470	1430	1440	1420
Revised rates per 100,000 workers	1380	1330	1330	1320

Table 16 Education

	1999/00	2000/01	2001/02	2002/03
Published rates per 100,000 workers	810	820	880	810
Adj non-response & Reweight rates per 100,000 workers	850	840	880	800
Revised rates per 100,000 workers	750	730	790	720

Table 17 Consumer/Personal

	1999/00	2000/01	2001/02	2002/03
Published rates per 100,000 workers	1200	1450	1620	1520
Adj non-response & Reweight rates per 100,000 workers	1160	1400	1600	1520
Revised rates per 100,000 workers	980	1230	1450	1390

Averaged LFS reportable non-fatal injury rates by Employment Status (supplementary tables 18-19) showing previously published rates, rates adjusted for Census re-weighting, employment edit and non-response to the injury screening question, and revised rates incorporating all changes.

Table 18 Employed ^a

	1999/00	2000/01	2001/02	2002/03
Published rates per 100,000 employees	1560	1570	1570	1490
Adj non-response, reweight & emp edit rates per 100,000 employees	1550	1560	1560	1480
Revised rates per 100,000 employees	1390	1390	1380	1330

^a Excludes government schemes & unpaid family workers

Supplementary Tables

Table 19 Self Employed

	1999/00	2000/01	2001/02	2002/03
Published rates per 100,000 self-employed	1070	1220	1130	1120
Adj non-response, reweight & emp edit rates per 100,000 self-employed	1030	1160	1080	1080
Revised rates per 100,000 self-employed	940	1050	1000	980

Averaged LFS reportable non-fatal injury estimates by Employment Status (supplementary tables 20-21) showing previously published estimates, estimates adjusted for Census re-weighting, employment edit and non-response to the injury screening question, and revised estimates incorporating all changes.

Table 20 Employed ^a

	1999/00	2000/01	2001/02	2002/03
Published non-fatal Injury Estimates	353,500	359,700	359,900	337,600
Adj non-response, reweight & emp edit non-fatal Injury Estimates	341,000	346,300	346,300	327,700
Revised non-fatal Injury Estimates	305,500	307,600	307,300	293,700

^a Excludes government schemes & unpaid family workers

Table 21 Self Employed

	1999/00	2000/01	2001/02	2002/03
Published non-fatal Injury Estimates	31,600	35,900	33,700	34,300
Adj non-response, reweight & emp edit non-fatal Injury Estimates	30,300	34,000	32,300	34,000
Revised non-fatal Injury Estimates	27,500	31,000	30,000	30,900

Averaged LFS non-fatal reportable injury rates (per 100,000) by Industry and Employment Status Breakdown:

Table 22 Employed ^a

		1999/00		2000/01		2001/02		2002/03	
	EMPLOYED	Published	Revised	Published	Revised	Published	Revised	Published	Revised
A&B	Agriculture	2,700	2,290	2,620	2,190	2,730	2,360	3,440	2,910
C&E	Energy & Water Supply	1,430	1,350	1,540	1,360	1,820	1,480	1,800	1,490
D	Manufacturing	2,170	1,960	2,140	1,920	2,130	1,920	1,980	1,800
F	Construction	2,570	2,330	2,610	2,320	2,590	2,320	2,300	2,060
G	Distribution & Repair	1,520	1,330	1,550	1,350	1,530	1,330	1,450	1,240
H	Hotel & Catering	1,490	1,120	1,460	1,060	1,520	1,110	1,410	1,160
I	Transport & Communication	2,280	2,010	2,360	2,130	2,340	2,060	2,360	2,100
J/K	Finance & Business	600	510	620	500	600	480	570	460
L	Public Admin	1,550	1,460	1,570	1,450	1,390	1,290	1,420	1,350
M	Education	830	770	840	750	910	810	840	750
N	Health	1,560	1,470	1,510	1,420	1,510	1,410	1,510	1,410
O,P,Q	Consumer/Personal	1,400	1,170	1,720	1,470	1,900	1,730	1,700	1,600

^a Excludes government schemes & unpaid family workers

Supplementary Tables

Table 23 Self Employed

		1999/00		2000/01		2001/02		2002/03	
SELF EMPLOYED		Published	Revised	Published	Revised	Published	Revised	Published	Revised
A&B	Agriculture	2380	2150	3020	2810	2640	2510	2,600	2,480
F	Construction	2520	2280	2610	2360	2420	2210	2,290	2,160
G	Distribution & Repair*	710	540	970	790	680	540	790	720
I	Transport & Communication*	1100	910	1200	1000	1220	1100	830	650
J/K	Business*	380	340	390	350	420	400	390	330
O,P,Q	Consumer/Personal*	480	390	590	480	670	590	910	750

* Sample cases are between 20 and 30 and therefore provide a less reliable estimate. Industries that are not included, this is due to sample cases too small to provide reliable estimates.

Reporting Levels by Industry

Table 24 Average Reporting Levels by Industry 1999/00 – 2002/03

LFS		Reporting Levels			
Three Year Pooled		1999/00	2000/01	2001/02	2002/03
Agriculture	Published	28.2%	25.6%	32.0%	28.3%
	Revised	31.9%	28.7%	35.3%	31.5%
Energy & Water Supply	Published	107.8%	108.1%	75.0%	63.1%
	Revised	114.8%	123.1%	88.4%	79.0%
Manufacturing	Published	57.4%	57.4%	56.0%	59.9%
	Revised	63.6%	63.8%	62.5%	66.2%
Construction	Published	51.9%	46.9%	46.0%	50.1%
	Revised	56.7%	51.9%	50.7%	54.6%
Distribution & repair	Published	30.6%	28.3%	28.0%	30.8%
	Revised	35.4%	32.7%	32.3%	35.9%
Hotel and catering	Published	19.1%	18.2%	17.0%	18.9%
	Revised	25.2%	25.1%	23.3%	23.0%
Transport & communication	Published	74.7%	76.4%	75.0%	79.2%
	Revised	84.8%	84.9%	84.8%	88.9%
Business	Published	21.6%	18.4%	26.0%	29.3%
	Revised	25.6%	22.4%	32.1%	35.9%
Public admin.	Published	82.4%	81.6%	86.0%	82.3%
	Revised	87.5%	87.9%	93.9%	87.5%
Education	Published	39.0%	36.3%	32.0%	32.2%
	Revised	41.9%	40.6%	35.1%	36.0%
Health	Published	42.2%	41.0%	39.0%	36.9%
	Revised	45.0%	43.8%	41.8%	39.9%
Consumer/ Personal	Published	40.2%	33.0%	26.0%	25.9%
	Revised	49.2%	38.9%	29.5%	28.5%
TOTAL	Published	44.5%	42.3%	41.4%	42.9%
	Revised	44.9%	42.7%	41.5%	43.0%

^a Excludes government schemes & unpaid family workers