

FEATURE

Nick Barford
Office for National Statistics

Revisions to workforce jobs: December 2007

SUMMARY

This article was first published on the National Statistics website on 12 December 2007, to coincide with the Labour Market Statistics First Release and the planned revisions made to the workforce jobs (WFJ) series. The revisions are mainly due to benchmarking the short-term employee jobs series to the latest estimates from the Annual Business Inquiry (ABI/1). The article describes the changes the Office for National Statistics has made to ABI/1 methods in the transition to the new Business Register and Employment Survey, and the discontinuities these changes have caused between December 2005 and September 2006. Estimates of change across this period are now unreliable, but the new methods have improved the levels and changes moving forward. Revisions to other sources that feed into WFJ are also explained.

The Office for National Statistics (ONS) released revisions to the workforce jobs (WFJ) series on 12 December 2007. WFJ is a quarterly measure of the number of jobs in the UK and is the preferred measure of jobs by industry. It is the sum of employee jobs measured by surveys of employers, self-employment jobs from the Labour Force Survey (LFS) and government-supported trainees and HM Forces from administrative sources.

The revisions are mainly due to benchmarking the short-term employee jobs series for Great Britain (GB) to the latest estimates from the Annual Business Inquiry (ABI/1). Revisions to other sources that feed into WFJ have also been incorporated, for GB public sector employment, GB self-employment jobs and Northern Ireland jobs.

Table 1 to Table 4 show the revisions to UK WFJ back to 1996. The level has been revised downwards by 196,000 (0.6 per cent) in December 2006. The annual change to December 2006 has been revised downwards by 172,000, of which 130,000 is due to the benchmarking process. Methodological changes to ABI/1 have caused a discontinuity between December 2005 and September 2006 and estimates of change across this period are now unreliable. It is estimated that the annual change to December 2006 is 150,000 to 350,000 higher than published. Despite the discontinuity, the new methods are an improvement to both the levels and changes moving forward, and the annual change to September 2007 is on a continuous basis.

Public sector employment revisions account for the majority of the remaining 42,000 of the total 172,000 downward revision to the annual change to December 2006. This is not part of the discontinuity.

Annual benchmarking

Each year, the GB short-term employee jobs series are aligned to successive benchmarks from ABI/1 estimates (also released in December). In order to maintain the short-term path, the revisions are interpolated back over preceding months or quarters to the previous benchmark. There are some series that are not benchmarked because the source data are believed to be a better estimate than the ABI/1. The public sector components within public administration and defence, education, health and social work (sections L, M and N), post and telecommunications (division 64) and recreation, cultural and sporting activities (division 92) are not benchmarked. The agriculture series (section A), from the LFS, is also not benchmarked.

The revised benchmark for December 2005 and the new benchmark for September 2006 have been applied, revising WFJ back to the start of 2005. This alone has caused a downward revision of 160,000 to the level in December 2006 and 130,000 to the annual change. Benchmarking usually revises the annual change in the short-term series upwards by around 100,000 (a range of 32,000 to 214,000 over the last seven years), because the short-term estimator tends to underestimate the change in employment. The downward revisions this year are due

Table 1
Workforce jobs:¹ revisions to levels

United Kingdom	Thousands, seasonally adjusted				
	Workforce jobs	Employee jobs	Self-employment jobs	HM Forcessupported	Government-trainees
Mar 96	-4	-4	0	0	0
Jun 96	9	-4	14	0	0
Sep 96	9	-5	14	0	0
Dec 96	9	-5	14	0	0
Mar 97	9	-4	14	0	0
Jun 97	7	-4	11	0	0
Sep 97	7	-5	11	0	0
Dec 97	6	-5	11	0	0
Mar 98	7	-4	11	0	0
Jun 98	3	-4	7	0	0
Sep 98	3	-4	7	0	0
Dec 98	2	-5	7	0	0
Mar 99	3	-5	7	0	0
Jun 99	6	-4	10	0	0
Sep 99	6	-4	10	0	0
Dec 99	4	-6	10	0	0
Mar 00	5	-5	10	0	0
Jun 00	2	-5	6	0	0
Sep 00	2	-4	6	0	0
Dec 00	-3	-9	6	0	0
Mar 01	0	-7	6	0	0
Jun 01	4	-6	11	0	0
Sep 01	5	-6	11	0	0
Dec 01	0	-11	11	0	0
Mar 02	5	-6	11	0	0
Jun 02	7	-6	12	0	0
Sep 02	8	-5	12	0	0
Dec 02	-1	-14	12	0	0
Mar 03	7	-6	12	0	0
Jun 03	9	-3	12	0	0
Sep 03	8	-3	12	0	0
Dec 03	-6	-18	12	0	0
Mar 04	13	1	12	0	0
Jun 04	-6	-6	0	0	0
Sep 04	-4	-5	0	0	0
Dec 04	-16	-20	4	0	0
Mar 05	11	6	5	0	0
Jun 05	-2	-8	6	0	0
Sep 05	-4	-11	7	0	0
Dec 05	-24	-31	7	0	0
Mar 06	-46	-54	8	0	0
Jun 06	-115	-115	0	0	0
Sep 06	-182	-183	0	0	0
Dec 06	-196	-206	10	0	0
Mar 07	-171	-174	2	0	0
Jun 07	-153	-160	7	0	0

Note:

1 Workforce jobs figures are a measure of jobs rather than people. For example, if a person holds two jobs, each job will be counted in the workforce jobs total. For this reason, self-employment jobs (which come from LFS) will not equal the figures for self-employed persons from the LFS. Workforce jobs figures come from a variety of sources, and where possible, from the employer rather than the individual. Employee jobs (which is much the largest component of workforce jobs) come from quarterly surveys of employers carried out by ONS, and administrative sources.

to methodological changes to the ABI/1, which have caused a large discontinuity between December 2005 and September 2006.

Developments to the Annual Business Inquiry (ABI/1)

ONS has changed the way in which it

constructs annual employment estimates from the ABI/1, as part of the first phase in the transition to the Business Register and Employment Survey (BRES). BRES will replace the ABI/1 and the Business Register Survey (BRS) for the 2009 survey period. In preparation, three major changes have been introduced this year that affect ABI/1

estimates. These are:

- a change in the reference period from December in 2005 to September in 2006, in line with the BRS reference period. This implements a recommendation from the Employment and Jobs Quality Review (see ONS 2006)
- the use of individual BRS returns from businesses for the first time, which is now the primary source for ABI/1 estimates. This means a switch in the data sources, for large units at least. Previously, ABI/1 used individual returns collected by the Short-Term Employment Surveys (STES). The switch to BRS data improves the quality of industry and regional employment estimates, because it enables the direct use of the detailed, local unit information the BRS collects. This change also reduces compliance costs, and
- an improvement to the minimum domains method. Minimum domains group together certain industries and geographical areas in order to proportion regional estimates at a more detailed, local unit level. This only affects estimates at a detailed industry and geographical level, and not the whole economy series

The first two changes have combined to cause a large discontinuity. The STES and BRS questionnaires ask for employment on the same date (mid-September) but, in practice, businesses tend to return employment for STES based on a later date. This incongruence is because STES is dispatched after BRS. Also, STES collects turnover information (used for the short-term output indicators), and so businesses tend to wait until the turnover information is available before completing the employment section. This timing difference can lead to sizeable differences in the returned employment from the same businesses between the two surveys. The effect is exacerbated by the change in reference period to September, especially for highly seasonal industries such as retail, where employment increases through September ahead of Christmas. Therefore, ABI/1 estimates for September 2006 are lower for using BRS responses than if STES responses had been used.

This discontinuity in the annual aggregate estimates is transmitted to the short-period estimates via the benchmarking process. This year's downward revision, plus the

Table 2
Workforce jobs:¹ revisions to annual changes

United Kingdom	Thousands, seasonally adjusted				
	Workforce jobs	Employee jobs	Self-employment jobs	HM Forces	Government-supported trainees
Dec 97	-3	0	-2	0	0
Dec 98	-4	0	-4	0	0
Dec 99	2	-1	3	0	0
Dec 00	-7	-3	-4	0	0
Dec 01	3	-2	4	0	0
Dec 02	-1	-3	2	0	0
Dec 03	-5	-4	-1	0	0
Dec 04	-10	-2	-8	0	0
Dec 05	-8	-12	3	0	0
Mar 06	-57	-60	3	0	0
Jun 06	-113	-107	-6	0	0
Sep 06	-178	-172	-7	0	0
Dec 06	-172	-175	2	0	0
Mar 07	-125	-120	-5	0	0
Jun 07	-38	-46	8	0	1

Note:

1 See note 1 to Table 1.

usual upward revision, would suggest the discontinuity is in the range of 150,000 to 350,000 for the annual change to December 2006. Ideally, the discontinuity would be removed, at least for WFJ, which should be a continuous time series. However, there is insufficient information to do this, particularly for detailed breakdowns by industry and region. Users should note that estimates of change across December 2005 to September 2006 are now unreliable. Despite the discontinuity, the new methods are an improvement to both the levels and changes moving forward, and the

annual change to September 2007 is on a continuous basis.

Revisions to other WFJ sources

ONS has incorporated revisions to other sources that feed into WFJ, in line with the revisions policy. Revisions previously made to the Public Sector Employment First Release (ONS 2007c) have now been taken on within WFJ. This has caused a downward revision of 47,000 to the level in December 2006, and 40,000 to the annual change. This is mainly due to revisions to NHS estimates. There are also revisions caused by the

annual re-referencing of the local authority series for England and Wales, to bring the historical time series in line with the latest survey levels. This causes a small revision of 7,000 to the level, back to the start of the WFJ series in 1959.

Revisions to Northern Ireland employee and self-employment jobs have been incorporated back to June 1996. GB self-employment estimates from the LFS have also been revised back to September 2000, following revisions to population estimates.

The comparison of WFJ and LFS estimates of jobs, located in Annex 1 of the Labour Market Overview (ONS 2007a) that accompanies the First Release (ONS 2007b), has been updated to reflect revisions to both measures.

CONTACT

✉ elmr@ons.gsi.gov.uk

Table 3
Workforce jobs¹ by industry: revisions to annual changes

United Kingdom	Thousands, seasonally adjusted									
	All jobs	Agriculture and fishing	Production	Construction	Distribution, hotels and Catering	Transport and communications	Finance, real estate, renting and business activities	Public administration, education and health ²	Other services	
SIC 2003 sections	A-O	A,B	C-E	F	G,H	I	J, K	L-N	O	
Dec 97	-3	0	1	1	-1	0	-1	-1	-1	-1
Dec 98	-4	0	-1	-3	0	0	0	0	0	0
Dec 99	2	0	1	2	0	0	0	0	0	0
Dec 00	-7	-2	-1	0	0	0	-2	-3	0	0
Dec 01	3	2	0	-1	1	0	-1	0	0	0
Dec 02	-1	0	1	2	0	0	-3	-1	0	0
Dec 03	-5	-1	0	1	-1	-1	0	-2	-1	-1
Dec 04	-10	2	-2	-6	-1	-1	-1	-1	-1	-1
Dec 05	-8	0	8	0	0	-2	-10	-4	1	1
Mar 06	-57	1	-9	-6	-18	-11	7	-18	-5	-5
Jun 06	-113	-1	-27	-12	-41	-19	25	-27	-12	-12
Sep 06	-178	0	-44	-20	-58	-29	37	-44	-20	-20
Dec 06	-172	4	-49	-20	-61	-27	45	-44	-21	-21
Mar 07	-125	-5	-34	-13	-41	-20	21	-17	-16	-16
Jun 07	-38	0	-13	-5	-11	-10	17	-9	-7	-7

Notes:

1 See note 1 to Table 1.

2 Includes both public and private sectors.

Table 4
Workforce jobs¹ by industry: revisions to levels

United Kingdom										Thousands, seasonally adjusted
SIC 2003 sections	All jobs	Agriculture and fishing	Production	Construction	Distribution, hotels and Catering	Transport and communications	Finance, real estate, renting and business activities	Public administration, education and health ²	Other services	
	A-O	A,B	C-E	F	G,H	I	J, K	L-N	O	
Mar 96	-4	0	0	0	0	0	0	-4	0	
Jun 96	9	-2	2	4	3	1	2	-3	2	
Sep 96	9	-2	2	5	3	1	2	-3	2	
Dec 96	9	-1	2	4	3	1	2	-3	2	
Mar 97	9	-2	2	5	2	1	2	-3	2	
Jun 97	7	-2	3	6	2	0	1	-4	1	
Sep 97	7	-2	2	6	1	0	1	-4	1	
Dec 97	6	-1	3	6	1	0	1	-4	1	
Mar 98	7	-2	3	6	1	0	1	-4	1	
Jun 98	3	-2	2	3	2	0	1	-3	1	
Sep 98	3	-2	1	3	1	0	2	-4	1	
Dec 98	2	-2	1	3	1	0	1	-4	1	
Mar 99	3	-2	1	4	1	0	1	-4	1	
Jun 99	6	-2	2	4	2	0	2	-4	1	
Sep 99	6	-2	2	5	1	0	2	-4	1	
Dec 99	4	-2	2	4	1	1	1	-4	1	
Mar 00	5	-2	2	6	1	0	1	-4	1	
Jun 00	2	-4	2	4	1	0	1	-4	1	
Sep 00	2	-3	2	4	1	0	2	-4	1	
Dec 00	-3	-3	1	4	1	1	-1	-7	0	
Mar 01	0	-3	2	6	0	0	1	-7	1	
Jun 01	4	-2	2	4	2	1	3	-6	1	
Sep 01	5	-1	1	5	2	0	3	-6	1	
Dec 01	0	-1	2	4	2	1	-2	-7	1	
Mar 02	5	-1	2	6	0	0	3	-7	2	
Jun 02	7	-2	2	5	3	1	3	-6	1	
Sep 02	8	-1	1	7	1	0	4	-5	1	
Dec 02	-1	-1	3	6	2	1	-5	-7	0	
Mar 03	7	-1	3	7	-1	0	4	-7	2	
Jun 03	9	-3	2	6	3	1	3	-5	1	
Sep 03	8	-2	1	8	1	0	5	-5	0	
Dec 03	-6	-3	3	7	1	0	-5	-9	0	
Mar 04	13	-1	4	9	2	0	6	-8	2	
Jun 04	-6	-1	-1	0	-1	1	2	-6	0	
Sep 04	-4	1	-1	-1	0	0	-1	-2	0	
Dec 04	-16	-1	1	1	0	0	-6	-10	-1	
Mar 05	11	2	4	2	2	-1	3	-3	2	
Jun 05	-2	-1	3	0	-2	-1	-1	-1	1	
Sep 05	-4	2	4	-2	0	0	-12	5	0	
Dec 05	-24	-1	8	1	0	-2	-16	-14	-1	
Mar 06	-46	2	-5	-4	-16	-11	11	-21	-3	
Jun 06	-115	-2	-24	-12	-42	-19	24	-28	-11	
Sep 06	-182	1	-41	-22	-57	-29	24	-39	-20	
Dec 06	-196	3	-41	-19	-61	-29	29	-58	-21	
Mar 07	-171	-3	-38	-17	-57	-32	32	-38	-18	
Jun 07	-153	-2	-37	-17	-53	-29	40	-36	-18	

Notes:

1 See note 1 to Table 1.

2 Includes both public and private sectors.

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