

28 May 2003





#### Quarterly National Household Survey

Seasonally Adjusted Series Q1 1998 to Q1 2003

#### Seasonal components most evident in Summer months

Quarter 1 2003 marks the introduction of seasonal adjustment in the Quarterly National Household Survey. The employment and unemployment figures contained in tables 1 and 2b of the main QNHS release have now been seasonally adjusted and results for Q1 1998 to date are provided in this release.

The seasonal factors are based on the recommended minimum of five years data – in this case 1998 to 2002 inclusive. Since this period involved substantial and unprecedented change in the Irish labour market, users should exercise caution in interpreting movements in the adjusted series particularly over the short term. It should also be noted that all sub-totals and totals have been adjusted directly in their own right i.e. they have **not** been calculated as the sum of their component parts seasonally adjusted. This can result in the sum of the seasonally adjusted components not adding up to the seasonally adjusted total.

Many of the QNHS series are affected by seasonal factors. These seasonal factors are particularly evident in the third quarter (June–August) of each year. Unadjusted employment figures are consistently at their highest in the third quarter and at their lowest in the first quarter (December-February) of each year. Unemployment tends to be highest in the third quarter and in recent years lowest in the second quarter (March-May). *See Table 1*.

### Quarterly seasonal factors for Employment and Unemployment, 1998 - 2003

	1998	1999	2000	2001	2002	2003
Employment						
Q1	98.851	98.879	98.936	99.011	99.090	99.144
Q2	99.132	99.129	99.113	99.094	99.070	
Q3	102.246	102.222	102.180	102.127	102.084	
Q4	99.755	99.747	99.737	99.732	99.731	
Unemployment						
Q1	96.844	97.050	97.223	97.609	97.929	98.330
Q2	96.065	95.971	95.896	95.739	95.573	
Q3	107.980	107.875	107.657	107.361	107.186	
Q4	99.012	99,060	99.082	99,182	99,139	

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The seasonally adjusted series show the numbers in employment have risen consistently quarter on quarter from 1,500,300 in Q1 1998 up to 1,787,300 in Q1 2003, an increase of 287,000 (+19.1%) over the last five years. The one exception to this upward movement is a quarterly fall of 8,100 in Q3 2002. Seasonally adjusted unemployment figures show the numbers unemployed fell from 143,100 in Q1 1998 to a low of 67,200 in Q1 2001. The numbers classified as unemployed in Q1 2003 is 86,300. *See Table 2*.

Seasonality is also evident in the employment figures when looked at by sector. Numbers in employment in the retailing, hotels and restaurants, and agriculture sectors show consistent seasonal increases in the third quarter each year. *See table 1*.

The seasonally adjusted figures show the numbers in all sectors with the exception of *Agriculture, forestry and fishing* (-14.5%) increasing over the last five years. The *Construction* (+51.6%), *Health* (+43.5%) and *Financial and other business services* (+34.2%) sectors have shown the largest percentage increases over this time. *Other production industries* (+0.8%), *Other services* (+13.8%) and *Hotels and restaurants* (+14.2%) show the lowest growth rates over the same period. *See table 2.* 

While seasonal factors do not affect annual comparisons of QNHS results they do however affect the quarter on quarter comparisons within a given year. The provision of seasonally adjusted figures help to reveal the underlying trend movements and so add to the analysis of the data. *See graphs opposite.* 

In Labour Force, All Persons







# Table 1Persons aged 15 years and over classified by sex, ILO economic status and<br/>NACE Economic Sector

							<sup> </sup> 000
	Dec- Feb 98	Mar- May 98	Jun- Aug 98	Sep- Nov 98	Dec- Feb 99	Mar- May 99	Jun- Aug 99
Males							
In labour force	978.2	978.7	1,014.2	994.4	991.6	1,006.7	1,048.3
In employment :	894.5	899.9	934.9	928.4	931.6	947.3	989.5
A-B Agriculture, forestry and fishing	118.8	119.1	120.2	121.2	121.8	120.4	126.7
C-E Other production industries	207.3	210.8	218.5	216.6	214.2	215.7	222.3
F Construction	119.1	120.7	127.2	130.7	133.5	135.9	143.7
G Wholesale and retail trade	118.5 40.3	117.1	121.0	115.3	118.1	118.2	125.7
I Transport, storage and communication	40.3 65.6	40.5 65.6	68.8	70.6	72.6	72.0	74.0
J-K Financial and other business services	84.5	85.5	91.2	90.8	92.9	99.2	104.3
L Public administration and defence	43.3	43.2	44.6	43.6	44.6	45.1	47.4
M Education	32.9	32.3	32.6	33.0	32.6	32.6	31.6
N Health	25.6	25.9	26.7	24.9	23.0	24.9	26.1
O Other services	38.8	39.2	40.9	41.5	39.0	41.5	42.6
Unemployed	83.7	78.8	79.3	66.0	60.0	59.4	58.8
Unemployment rate % Participation rate %	8.6 69.7	8.1 69.4	7.8 71.6	6.6 69.8	6.0 69.4	5.9 70.2	5.6 72.8
	09.7	09.4	71.0	09.0	03.4	70.2	72.0
Females							
In labour force	643.4 588 5	642.4 594.6	674.4 624.8	656.3 616 3	658.5 623 3	681.4 643 9	722.0
A D A prioriture forestry and fishing	15.5	15.0	15.0	45.4	15.5	45.5	45.5
A-B Agriculture, lorestry and lishing	15.5	15.9	15.3 95.6	10.1	15.5 01.2	15.5	15.5 QQ ()
F Construction	5.3	5.4	5.7	6.0	5.8	6.1	7.2
G Wholesale and retail trade	95.6	94.3	103.4	99.9	101.2	105.1	110.7
H Hotels and restaurants	54.4	57.6	65.1	60.3	58.9	60.8	71.6
I Transport, storage and communication	20.3	21.3	22.7	23.3	24.1	23.9	25.9
J-K Financial and other business services	83.3	86.2	90.7	93.6	94.2	96.6	103.7
L Public administration and defence	27.1	27.5	27.8	26.8	26.4	29.3	30.4
N Health	88.2	87.9	92.2	90.7	91 4	95.1	99.2
O Other services	45.6	45.5	48.7	48.9	48.4	50.3	54.3
Unemployed	54.9	47.8	49.6	40.0	35.2	37.5	42.2
Unemployment rate %	8.5	7.4	7.4	6.1	5.3	5.5	5.9
Participation rate %	44.3	44.0	46.0	44.5	44.5	46.0	48.5
All persons							
In labour force	1,621.6	1,621.1	1,688.6	1,650.7 1 544 7	1,650.1	1,688.1	1,770.3
A B Agriculture forestry and fishing	124.4	125.0	125.5	126.2	127.2	125.0	1/0 2
C-F Other production industries	300.3	302.0	314 1	305.6	305.4	308 9	321.3
F Construction	124.3	126.2	132.9	136.7	139.3	142.1	150.9
G Wholesale and retail trade	214.1	211.4	224.4	215.3	219.4	223.3	236.4
H Hotels and restaurants	94.7	98.1	108.4	100.4	98.0	102.6	116.7
I Transport, storage and communication	85.8	86.9	91.5	93.9	96.8	96.0	99.9
J-K Financial and other business services	167.8	171.8	181.9	184.4	187.0	195.8	208.0
L Public auministration and defence M Education	70.4 02 1	10.1 Q2 2	72.4 QN 1	70.4 95 7	70.9 ar a	74.4 100 5	02 E
N Health	113.8	113.8	118.8	115.6	114.4	119.9	125.4
O Other services	84.4	84.7	89.7	90.4	87.4	91.8	97.0
Unemployed	138.6	126.6	128.9	106.0	95.1	96.9	101.1
Unemployment rate %	8.5	7.8	7.6	6.4	5.8	5.7	5.7
Participation rate %	56.8	56.5	58.5	57.0	56.7	57.9	60.5

## Table 1 continued - Persons aged 15 years and over classified by sex, ILO economic status and NACE Economic Sector

							<sup> </sup> 000
	Sep- Nov 99	Dec- Feb 00	Mar- May 00	Jun- Aug 00	Sep- Nov 00	Dec- Feb 01	Mar- May 01
Males							
In labour force	1,030.5	1,029.3	1,034.9	1,069.7	1,048.8	1,046.9	1,053.7
In employment :	977.5	979.8	989.9	1,023.0	1,007.4	1,008.0	1,013.9
A-B Agriculture, forestry and fishing	124.4	118.8	116.3	116.6	109.4	108.1	107.2
C-E Other production industries	214.6	213.2	213.1	223.1	220.4	220.8	222.3
F Construction	148.0	151.9	159.2	168.2	169.8	1/1.1	1/2.0
H Hotels and restaurants	41.9	43.5	44.0	47.1	44.9	43.4	43.1
I Transport, storage and communication	74.7	75.7	75.5	77.7	78.0	79.6	80.9
J-K Financial and other business services	103.1	104.1	107.1	107.9	105.8	109.7	110.5
L Public administration and defence	46.7	45.9	45.8	47.0	45.8	45.1	45.4
M Education	31.9	32.8	33.4	31.9 27.8	34.0 29.6	32.9	32.3
O Other services	43.1	43.1	42.7	44.4	42.5	40.4	42.1
Unemployed	53.0	49.5	44.9	46.6	41.4	38.9	39.8
Unemployment rate %	5.1	4.8	4.3	4.4	3.9	3.7	3.8
Participation rate %	71.1	70.7	71.0	73.1	71.0	70.6	70.9
Females							
In labour force	705.6	702.8	710.8	745.9	730.3	728.6	728.1
In employment :	669.9	670.8	680.8	714.8	702.9	701.9	702.5
A-B Agriculture, forestry and fishing	15.6	15.0	14.6	14.1	13.3	13.5	12.9
C-E Other production industries	99.4	100.3	96.8	103.3	100.6	97.5	94.8
Construction     G Wholesale and retail trade	0.8 106.3	7.8 108.6	7.2 110 1	7.3 122 1	8.3 115.3	8.8 118.3	8.2 117 1
H Hotels and restaurants	63.2	61.9	65.0	71.1	65.1	63.2	61.6
I Transport, storage and communication	25.2	25.5	25.2	28.2	27.2	27.6	29.5
J-K Financial and other business services	102.2	102.7	105.0	111.0	110.5	108.4	107.8
L Public administration and defence	31.6	30.9	32.0	31.7	32.7	33.3	35.0
N Health	100.8	100.0	105.2	106.4	109.6	111.5	115.1
O Other services	52.0	50.2	50.8	53.2	51.5	50.2	50.1
Unemployed	35.7	32.0	30.0	31.1	27.4	26.7	25.6
Unemployment rate %	5.1	4.6	4.2	4.2	3.8	3.7	3.5
Participation rate %	47.1	46.8	47.2	49.4	47.9	47.6	47.5
All persons							
In labour force	1,736.1	1,732.1	1,745.6	1,815.6	1,779.1	1,775.5	1,781.9
In employment :	1,647.4	1,650.6	1,670.7	1,737.9	1,710.3	1,709.9	1,716.5
A-B Agriculture, forestry and fishing	140.0	133.8	130.9	130.7	122.7	121.7	120.1
F Construction	154.8	159.7	166.3	320.4 175.5	178.1	179.9	180.2
G Wholesale and retail trade	229.3	233.5	235.8	253.4	242.6	246.5	247.8
H Hotels and restaurants	105.1	105.4	109.0	118.3	110.0	106.6	104.8
I Transport, storage and communication	99.9	101.2	100.8	105.9	105.2	107.2	110.4
J-K Financial and other business services	205.3 78 3	206.8 76.9	212.1 77 8	218.8 78.9	216.3	218.1 78.4	218.3
M Education	98.8	100.8	102.3	98.3	102.6	102.6	102.7
N Health	127.1	125.9	132.4	134.1	139.2	140.0	142.6
O Other services	95.1	93.2	93.4	97.6	94.1	90.7	92.3
Unemployed	88.7	81.5	74.9	77.7	68.8	65.6	65.4
Unemployment rate %	5.1	4.7	4.3	4.3	3.9	3.7	3.7
Participation rate %	58.9	58.6	58.9	61.0	59.2	58.9	59.1

## Table 1 continued - Persons aged 15 years and over classified by sex, ILO economic status and NACE Economic Sector

							<sup>1</sup> 000
	Jun- Aug 01	Sep- Nov 01	Dec- Feb 02	Mar- May 02	Jun- Aug 02	Sep- Nov 02	Dec- Feb 03
Males							
In labour force	1,094.6	1,069.1	1,065.1	1,066.0	1,094.9	1,083.4	1,082.2
In employment :	1,047.2	1,024.2	1,015.1	1,017.2	1,042.2	1,031.8	1,028.1
A-B Agriculture, forestry and fishing	114.1	112.4	109.4	108.4	109.9	107.6	102.2
C-E Other production industries	229.4	220.7	216.9	213.1	222.7	214.7	215.8
F Construction	177.3	1/5.5	1/4.1	1/2.3	180.5	181.5	1/9.5
H Hotels and restaurants	46.1	43.7	45.5	44.7	46.1	46.0	46.9
I Transport, storage and communication	83.1	81.9	80.3	81.4	85.0	83.9	82.8
J-K Financial and other business services	114.9	113.0	111.6	114.0	112.8	113.4	113.9
L Public administration and defence	46.5	44.2	43.7	48.2	47.9	46.9	48.9
M Education	33.2	33.1	33.0	33.8	33.3	34.0	34.8
O Other services	44.7	43.6	43.9	45.1	43.8	42.7	42.3
Unemployed	47.4	44.9	50.0	48.8	52.6	51.7	54.1
Unemployment rate %	4.3	4.2	4.7	4.6	4.8	4.8	5.0
Participation rate %	73.3	71.1	70.5	70.4	72.1	70.8	70.4
Females							
In labour force	771.5	756.5	760.3	761.0	786.7	771.3	774.8
In employment :	739.4	728.7	730.4	732.7	752.6	738.9	743.9
A-B Agriculture, forestry and fishing	13.3	12.0	12.3	12.4	12.8	12.2	12.1
C-E Other production industries	101.3	97.3	93.6	89.8	91.3	87.5	87.4
G Wholesale and retail trade	9.1 122.6	9.3 118.6	9.1 121 7	0.0 120.8	9.5 127 1	9.3	9.0 123.7
H Hotels and restaurants	70.2	65.5	63.2	60.1	70.5	66.3	63.6
I Transport, storage and communication	29.5	29.0	28.6	28.8	29.2	28.4	28.1
J-K Financial and other business services	115.8	115.2	114.8	115.1	116.2	111.9	112.8
L Public administration and defence	37.6	37.2	38.3	41.0	42.1	40.2	39.7
N Health	119.2	120.2	124.2	125.8	127.4	128.8	133.3
O Other services	52.2	51.2	51.0	53.9	54.8	55.0	54.0
Unemployed	32.1	27.7	30.0	28.3	34.1	32.4	30.9
Unemployment rate %	4.2	3.7	3.9	3.7	4.3	4.2	4.0
Participation rate %	50.1	48.6	48.7	48.8	50.2	48.9	48.9
All persons							
In labour force	1,866.1	1,825.5	1,825.4	1,827.0	1,881.5	1,854.7	1,857.0
In employment :	1,786.6	1,752.9	1,745.5	1,749.9	1,794.8	1,770.7	1,772.0
A-B Agriculture, torestry and fishing	127.3	124.4	121.7	120.7	122.7	119.8	114.3
F Construction	186.4	184.8	183.2	181.1	190.0	190.8	188.5
G Wholesale and retail trade	253.4	245.6	249.1	245.9	257.1	250.3	252.3
H Hotels and restaurants	116.3	109.1	108.7	104.8	116.6	112.4	110.5
I Transport, storage and communication	112.6	110.9	108.9	110.2	114.2	112.3	110.9
J-N Financial and other business services	230.7 84 2	228.2 81 4	∠20.4 82 0	229.1 89.2	229.1 90.0	∠∠5.3 87 1	220.0 88.6
M Education	101.8	106.3	106.6	110.0	104.9	111.6	115.0
N Health	146.3	149.4	153.4	157.0	157.8	161.1	165.7
O Other services	96.9	94.9	94.9	99.0	98.6	97.7	96.3
Unemployed	79.5	72.6	80.0	77.2	86.7	84.1	84.9
Unemployment rate %	4.3	4.0	4.4	4.2	4.6	4.5	4.6
Participation rate %	61.5	59.7	59.4	59.4	61.0	59.7	59.5

## Table 2Seasonally Adjusted Series\* of persons aged 15 years and over classified by sex,ILO economic status and NACE Economic Sector

		CIOI					<sup> </sup> 000
	Dec- Feb 98	Mar- May 98	Jun- Aug 98	Sep- Nov 98	Dec- Feb 99	Mar- May 99	Jun- Aug 99
Males							
In labour force	988.5	987.4	992.0	997.5	1,001.9	1,015.7	1,025.5
In employment :	903.6	907.2	916.5	930.4	940.9	955.0	970.2
A-B Agriculture, forestry and fishing	120.2	121.0	117.5	120.8	123.3	122.3	123.9
C-E Other production industries	209.9	212.8	213.3	217.0	216.9	217.8	217.0
F Construction	119.8	122.0	125.6	130.2	134.3	137.4	141.8
G Wholesale and retail trade	119.0	118.4	117.7	116.8	118.6	119.5	122.4
H Hotels and restaurants	41.0	41.0	41.2	40.9	39.8	42.4	43.0
I Transport, storage and communication	65.5 85.7	00.2 85.3	00.2 80.3	70.5 Q1 Q	72.0 94.1	72.7 99 N	102.1
I Public administration and defence	43.7	43.6	43.6	43.9	45.0	45.4	46.3
M Education	32.7	32.2	32.8	33.0	32.5	32.5	31.8
N Health	26.1	25.9	26.7	24.4	23.4	24.9	26.2
O Other services	39.7	39.4	39.9	41.4	39.9	41.6	41.6
Unemployed	85.7	81.3	74.5	66.7	61.3	61.3	55.3
Unemployment rate %	8.7	8.2	7.5	6.7	6.1	6.0	5.4
Participation rate %	70.5	69.9	69.9	70.2	70.1	70.8	71.2
Females							
In labour force	652.3	650.5	654.8	659.0	667.3	690.0	701.3
In employment :	596.5	600.5	609.0	618.2	631.5	650.2	662.7
A-B Agriculture, forestry and fishing	15.5	15.8	15.2	15.3	15.5	15.4	15.5
C-E Other production industries	93.8	94.4	92.9	88.7	91.9	95.5	96.2
F Construction	5.3	5.6	5.7	5.8	5.8	6.4	7.2
G Wholesale and retail trade	96.1	96.1	99.3	101.6	101.7	107.1	106.5
H Hotels and restaurants	57.1	59.6	60.0	60.7	61.6	63.0	66.0
I I ransport, storage and communication	20.5	21.0	22.0	23.4	24.5	24.2	25.2
I Public administration and defence	27.8	27.2	27.4	93.0 26.8	95.7 27 1	97.9 29.0	29.9
M Education	59.1	59.6	60.3	62.4	65.1	66.5	64.9
N Health	89.0	87.7	91.7	90.7	92.1	94.8	98.7
O Other services	46.7	46.2	47.1	48.7	49.6	51.1	52.5
Unemployed	57.6	50.0	44.9	40.7	36.7	39.4	38.2
Unemployment rate %	8.8	7.7	6.8	6.2	5.5	5.7	5.4
Participation rate %	44.9	44.5	44.6	44.8	45.1	46.5	47.0
All persons							
In labour force	1,640.9	1,637.9	1,646.9	1,656.6	1,669.2	1,705.7	1,726.9
In employment :	1,500.3	1,507.6	1,525.4	1,548.5	1,572.6	1,605.1	1,632.9
A-B Agriculture, forestry and fishing	135.7	136.8	132.5	136.1	138.8	137.8	139.2
C-E Other production industries	303.4	307.2	306.3	305.9	308.5	313.4	313.3
F Construction	125.0	127.7	131.2	136.1	140.1	143.8	148.9
G Wholesale and retail trade	215.8	214.1	216.8	218.5	221.0	226.2	228.6
H Hotels and restaurants	98.6	100.2	101.6	101.3	101.7	105.0	109.4
I I ransport, storage and communication	86.U	88.0 170 7	90.2 177.0	93.8	97.1 190.6	97.1	98.4 202 e
L Public administration and defence	71.5	70.7	71 0	70 7	72 1	74.4	203.0
M Education	91.7	91.7	93.6	95.1	97.4	98.9	97.2
N Health	115.5	113.4	118.1	115.0	115.9	119.5	124.8
O Other services	86.5	85.7	86.9	90.0	89.6	92.8	94.0
Unemployed	143.1	131.8	119.4	107.0	98.0	101.0	93.7
Unemployment rate %	8.7	8.0	7.2	6.5	5.9	5.9	5.4
Participation rate %	57.5	57.0	57.0	57.3	57.4	58.4	58.9

\* See Background Notes

## Table 2 continued - Seasonally Adjusted Series\* of persons aged 15 years and over classified by sex, ILO economic status and NACE Economic Sector

			Sector				<sup>1</sup> 000
	Sep- Nov 99	Dec- Feb 00	Mar- May 00	Jun- Aug 00	Sep- Nov 00	Dec- Feb 01	Mar- May 01
Males							
In labour force	1,033.8	1,039.7	1,044.2	1,046.6	1,052.3	1,056.9	1,063.4
In employment :	979.6	989.3	998.1	1,003.3	1,009.5	1,017.4	1,022.3
A-B Agriculture, forestry and fishing	123.8	120.2	118.3	113.9	108.7	109.7	108.9
C-E Other production industries	215.1	215.7	215.4	217.6	221.1	223.1	225.1
F Construction	147.3	152.8	161.0	166.1	169.0	172.1	174.2
G Wholesale and retail trade	124.4	125.4	127.0	128.0	128.6	128.8	132.0
H Hotels and restaurants	42.7	44.2	44.6	45.1	45.8	43.9	43.8
I Transport, storage and communication	74.6	75.8	76.3	76.8	77.9	80.0	81.6
J-K Financial and other business services	104.1	105.4	106.8	105.9	106.7	110.9	110.2
M Education	47.1	40.3	40.1	40.0	40.3	40.0	40.7
N Health	25.8	26.3	27.1	28.0	29.0	28.9	27 2
0 Other services	43.1	44.1	42.7	43.4	42.6	41.4	42.1
Unemployed	53.6	50.5	46.3	44.0	41.9	39.5	41.1
Unomployment rate %	5.2	10	10.0	10	1.0	27	20
Participation rate %	71.4	71.5	71.6	71.4	71.3	71.3	71.5
Foundation							
	700 0	744 5	710.0	705 1	700 4	700.0	707 7
In labour force	708.6 672.1	711.5 678.0	719.9 687.6	725.1 607 /	733.4	736.8	737.7
	072.1	070.9	007.0	097.4	/05.4	709.0	109.1
A-B Agriculture, forestry and fishing	15.7	14.9	14.5	14.0	13.5	13.5	12.9
G-E Other production industries	99.1	1.0	99.3	0.4	0.3	98.1	97.3
G Wholesale and retail trade	108.1	109.1	112.1	117 7	117.2	0.0 118.8	110.0
H Hotels and restaurants	63.5	64.4	67.9	65.6	65.2	65.5	64.8
I Transport, storage and communication	25.3	25.8	25.5	27.5	27.4	28.0	29.7
J-K Financial and other business services	101.8	104.2	106.4	108.4	110.2	109.8	109.1
L Public administration and defence	31.7	31.7	31.7	31.1	32.9	34.2	34.6
M Education	66.5	66.8	67.5	69.4	68.2	68.4	69.0
N Health	100.9	100.6	104.9	105.9	109.9	111.9	114.7
O Other services	51.8	51.4	51.4	51.4	51.4	51.4	50.7
Unemployed	36.3	33.3	31.6	28.2	27.9	27.7	27.1
Unemployment rate %	5.1	4.7	4.4	3.9	3.8	3.8	3.7
Participation rate %	47.4	47.4	47.8	47.9	48.2	48.2	48.1
All persons							
In labour force	1,742,3	1.751.4	1,764.0	1.771.8	1,785.5	1,794.0	1.801.0
In employment :	1.651.6	1.668.3	1.685.7	1.700.8	1.714.8	1.727.0	1.732.2
A-B Agriculture forestry and fishing	139.6	135.2	132.8	127.8	122.3	123.2	121.8
C-F Other production industries	314.4	316.6	314.7	318.1	321.4	321.2	322.3
F Construction	154.0	160.6	168.6	173.2	177.2	180.9	182.7
G Wholesale and retail trade	232.6	235.1	238.6	245.5	246.0	248.0	250.7
H Hotels and restaurants	105.9	108.8	112.1	111.1	110.7	109.5	108.2
I Transport, storage and communication	99.8	101.6	101.9	104.2	105.1	107.9	111.6
J-K Financial and other business services	205.9	209.4	213.3	214.5	217.0	220.4	219.6
L Public administration and defence	78.7	78.2	77.7	77.0	79.1	79.8	80.1
M Education	98.2	99.3	100.7	102.0	101.9	101.1	101.2
N Health	126.6	127.3	131.9	133.7	138.9	141.0	141.9
	94.8	95.5	94.3	94.7	93.9	92.8	93.0
Unemployed	89.6	83.9	/8.1	/2.2	69.5	67.2	68.3
	5.1	4.ð	4.4	4.1	3.9	3.7	3.8
ranucipation rate %	59.2	59.3	59.5	59.5	59.5	59.6	59.6

\* See Background Notes

# Table 2 continued - Seasonally Adjusted Series\* of persons aged 15 years and over classified by sex, ILO economic status and NACE Economic Sector

							000
	Jun- Aug 01	Sep- Nov 01	Dec- Feb 02	Mar- May 02	Jun- Aug 02	Sep- Nov 02	Dec- Feb 03
Males							
In labour force In employment :	1,071.3 1,027.4	1,072.8 1,026.4	1,074.7 1,024.2	1,076.0 1,025.7	1,071.8 1,022.8	1,087.3 1,033.8	1,091.5 1,037.0
A-B Agriculture, forestry and fishing	111.4	111.6	111.1	110.1	107.3	106.8	104.0
C-E Other production industries	223.6	221.5	218.9	216.0	216.8	215.7	217.7
F Construction	175.0	174.6	175.0	174.6	178.2	180.5	180.4
G Wholesale and retail trade	127.7	128.1	128.1	126.2	127.0	129.7	129.3
I Transport, storage and communication	81.9	81.8	80.9	82.1	83.7	83.7	83.6
J-K Financial and other business services	113.0	114.0	112.7	113.8	111.1	114.2	114.9
L Public administration and defence	45.5	44.7	44.0	48.3	46.8	47.6	49.1
M Education	33.5	33.0	32.9	33.7	33.6	33.9	34.7
N Health	27.5	28.7	29.5	30.9	31.0	31.7	32.8
O Other services	43.7	43.7	44.9	45.0	42.8	42.9	43.3
	44.8	45.5	50.5	50.4	49.9	52.5	54.4
Unemployment rate %	4.2	4.2	4.7	4.7	4.6	4.8	5.0
Participation rate %	/1./	71.4	/1.2	71.0	70.6	/1.0	71.1
Females							
In labour force	750.6	759.7	767.9	771.4	765.9	774.8	781.6
	721.9	/31.0	131.4	740.4	735.3	742.0	750.5
A-B Agriculture, forestry and fishing	13.1	12.2	12.3	12.4	12.6	12.4	12.1
E Construction	90.0	97.0	94.1	92.2	00.0 9.4	9.0	07.9 9.0
G Wholesale and retail trade	118.3	120.5	122.1	122.8	122.8	123.6	124.0
H Hotels and restaurants	64.8	65.3	65.2	63.6	65.2	66.0	65.5
I Transport, storage and communication	28.7	29.2	29.0	28.9	28.5	28.6	28.6
J-K Financial and other business services	113.2	115.1	116.2	116.4	113.7	111.9	114.0
L Public administration and defence	36.9	37.5	39.3	40.5	41.1	40.6	40.7
N Health	/ I.0 118.8	12.8	12.3	74.9 125.3	/4./ 107 1	120.7	/8.8 133.1
0 Other services	50.6	51.1	52.2	54.5	53.2	54.9	55.2
Unemployed	29.2	28.1	31.0	30.1	31.0	32.8	31.8
Unemployment rate %	3.9	3.7	4.1	3.9	4.0	4.2	4.1
Participation rate %	48.7	49.0	49.2	49.3	48.9	49.2	49.4
All persons							
In labour force	1.822.0	1.832.0	1.843.1	1.847.2	1.837.8	1.861.4	1.873.7
In employment :	1,749.4	1,757.7	1,761.5	1,766.3	1,758.2	1,775.4	1,787.3
A-B Agriculture, forestry and fishing	124.5	123.9	123.3	122.5	119.9	119.2	116.0
C-E Other production industries	322.3	318.4	313.1	308.1	305.8	302.7	305.8
F Construction	183.9	183.8	184.2	183.7	187.4	189.6	189.5
G Wholesale and retail trade	245.8	248.9	250.4	248.6	249.8	253.7	253.3
H Hotels and restaurants	109.5	109.5	111.1	108.8	110.0	112.6	112.6
J-K Financial and other business services	226.4	228.9	228.4	230.6	225.0	225.9	228.4
L Public administration and defence	82.3	82.2	83.5	88.7	87.9	88.2	90.2
M Education	105.6	105.6	105.0	108.5	108.8	110.8	113.3
N Health	146.3	149.4	154.0	156.2	158.1	161.3	165.8
O Other services	94.1	94.9	97.1	99.6	95.8	97.9	98.4
Unemployed	74.0	73.2	81.7	80.7	80.9	84.8	86.3
Unemployment rate %	4.1	4.0	4.4	4.4	4.4	4.6	4.6
Participation rate %	60.0	60.0	60.1	60.0	59.5	60.0	60.1

\* See Background Notes

#### Background Notes

- **Reference period** Information is collected continuously throughout the year, with 3,000 households surveyed each week to give a total sample of 39,000 households in each quarter. The reference quarters for survey results are: Q1 December to February, Q2 March to May, Q3 June to August and Q4 September to November.
- Purpose of surveyThe Quarterly National Household Survey (QNHS) began in September 1997, replacing the annual<br/>April Labour Force Survey (LFS). The purpose of the survey is the production of quarterly labour<br/>force estimates and occasional reports on special social topics. The survey meets the requirements<br/>of Council Regulation (EC) No. 577/98, adopted in March 1998, which requires the introduction of<br/>quarterly labour force surveys in EU Member States.

International labour<br/>Office (ILO) LabourThe primary classification used for the QNHS results is the ILO labour force classification. Labour<br/>Force ClassificationForce ClassificationForce Survey data on this basis have been published since 1988. The ILO classification<br/>distinguishes the following main subgroups of the population aged 15 or over:

**In Employment**: Persons who worked in the week before the survey for one hour or more for payment or profit, including work on the family farm or business and all persons who had a job but were not at work because of illness, holidays etc. in the week.

**Unemployed:** Persons who, in the week before the survey, were without work and available for work and had taken specific steps, in the preceding four weeks, to find work.

Inactive Population (not in labour force): All other persons.

The labour force comprises persons employed plus unemployed.

**NACE Industrial Classification The QNHS sectoral employment figures are based on the EU NACE classification as defined in Council Regulation (EEC) No. 3037/90. Eleven NACE sub-categories are distinguished in this release. About half of these categories correspond exactly or very closely with the sectoral breakdown formerly used in the LFS. However, there are some discontinuities between the old and new series. The CSO can provide tables showing the correspondence between the two classifications, using LFS data, to interested users.** 

The QNHS unadjusted sectoral series, in each quarter up to quarter one of 1999, were revised following improvements to the activity and occupation coding procedures in the survey. This had a marginal effect on the allocation of the employment figures between sectors but did not alter the main trends at sectoral level.

**Seasonality** Quarter 1 2003 marks the introduction of seasonal adjustment within the QNHS. All of the headline series and the sectoral data (tables 1 and 2 of the main QNHS release) have been seasonally adjusted. It should also be noted that all series have been seasonally adjusted independent of one another which can result in the sum of the seasonally adjusted components not adding to the seasonally adjusted total. The tables presented in this release cover all quarters from Quarter 1 of 1998 to Quarter 1 2003 inclusive.

Seasonal factors do not affect annual comparisons of LFS/QNHS results. However, they do affect the sub-annual comparisons and the effects of seasonal variation in labour supply and demand are evident from the QNHS results.

Seasonal factors are most clearly visible in the results for the June-August quarter, when the number of persons in employment is at its highest. Unemployment also increases in that quarter, when more people are available and looking for work. Other summer seasonal effects can be seen in the sectoral employment figures with strong results for retailing, hotels and restaurants. There is also evidence that employment and unemployment are both lower in the winter months.

#### Seasonal Adjustment Methodology

The data from the QNHS was adjusted using the X-11-ARIMA procedure. This procedure is an adaptation of the U.S. Bureau of the Census X-11 seasonal adjustment programme developed by Statistics Canada.

The first task in the process is to identify whether the series being adjusted is best considered additive or multiplicative for seasonal adjustment purposes. All of the QNHS series analysed were found to be multiplicative.

Once the series has been identified as being either additive or multiplicative the method fits an ARIMA (Autoregressive Integrated Moving Average) model to the unadjusted series and then uses the model forecast to extend the unadjusted series. The extended series is then seasonally adjusted using the standard X-11 seasonal adjustment method. The extension of the series improves the estimation of the seasonal factors and reduces revisions to the seasonally adjusted series as new data becomes available. To be able to use X-11-ARIMA you must have at least 5 years data.

The essential difference between X-11 and X-11-ARIMA is the use of ARIMA (Autoregressive Integrated Moving Average) models to improve the adjustment at the end of the time series by extending the series. In the ARIMA model identification phase an attempt to determine the type of underlying probabilistic process that governs the behaviour of the time series is made. The choice of ARIMA model in this process was restricted to the 5 pre-defined models which were identified by Statistics Canada as fitting the majority of well behaved time series.