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A nighttime photograph of a cityscape. In the foreground, a large, dark, industrial crane structure stands on a riverbank. The crane's reflection is clearly visible in the calm water below. In the background, modern city buildings are illuminated with warm lights, and their reflections are also visible in the water. The sky is dark with some light clouds. The overall scene is a blend of industrial heritage and modern urban development.

Fraser of Allander Institute & Scottish Centre for Employment Research **Scottish Labour Market Trends**

Vol 1 No. 1

Need to know

- On most headline indicators, Scotland's labour market continues to perform relatively well in what continues to be a challenging economic environment.
- Despite the Scottish economy growing by just 0.7% compared to 2.2% in the UK as a whole over the year, Scotland's unemployment rate (4.7%) is once again lower than that for the UK (4.8%).
- Although it has slipped back slightly over the past 18 months, employment in Scotland remains close to record highs.
- However, some of the positive statistics in recent months hide a number of more challenging trends. In particular, the recent sharp fall in unemployment appears to stem, not from people finding work, but from people exiting the labour force.
- Over the year, the drop in unemployment of 38,000 needs to be viewed in the context of both falling employment (down 12,000) and rising inactivity (up 54,000).
- The outlook for job prospects had been improving, but most forward indicators – in both the UK and Scotland – suggest 2017 and 2018 will be more challenging than was envisaged prior to the summer. Brexit and the continuation of fiscal consolidation in the public sector will not help.

Key Headline Labour Market Indicators: Jul–Sept 2016.

	Employment (16-64)	Unemployment (16+)	Inactivity (16-64)
Scotland	73.6%	4.7%	22.6%
England	74.8%	4.8%	21.3%
Wales	73.1%	4.4%	23.4%
N. Ire	69.9%	5.6%	25.8%
UK	74.5%	4.8%	21.7%

Source: ONS, Labour Force Survey (LFS)

- Arguably, the most significant development over the next 6 – 12 months will be the impact of inflation on earnings and wage demands. In their November Inflation Report, the Bank of England forecast inflation to rise sharply, and to stay above 2.5% well into 2019.
- This month's data also reaffirms some interesting longer-term trends. For example, we find that the majority of growth in employment over the past decade has been driven by growth in part-time employment. While at, or near, record numbers of people in employment is to be welcomed, the nature of that employment also needs to be considered.
- Finally, there has been an increasing trend of in work poverty; with over half of those in poverty now within households in which at least one adult is in employment. With inflation forecast to increase, and the inevitable lag in wage adjustment, the outlook for people in work is likely to dominate future trends in the labour market just as much as the prospects for those seeking work.

Summary

This new report – to be published on a quarterly basis – aims to provide an accessible summary of trends in the Scottish labour market and the implications for policy.

On key indicators, Scotland's labour market continues to hold up well despite a challenging economic environment.

Employment for example, remains close to record highs. Since the mid-2000s, there has been a rise in the number of women in the labour force, reflecting, in part, progress in knocking down barriers to equality of economic opportunity.

Youth unemployment, having risen substantially during the first years of the decade, has fallen back.

However, on other indicators, performance is more mixed.

Employment in the Scottish economy fell slightly this quarter (by 12,000), and Scotland's employment rate remains lower than for the UK as a whole.

The proportion of people working full-time and the number of hours worked on average has fallen. So in effect, whilst close to record numbers of people may be in work, as a whole they are working fewer hours (often not of their own choosing).

Relatively slow growth in the overall economy combined with high employment has damaged productivity. And on wider indicators, such as wage growth, underemployment, and job security, performance has been weak.

Over the last year, unemployment fell by 38,000 to 4.7% (for all those aged 16-64) – and back to rates close to those witnessed pre-2008.

However, the recent fall in unemployment appears to stem not from people finding work, but from a fall in the number of people actively looking for work.

If this reflects an increase in 'discouraged' workers then it is a concern. At the very least, it undermines comments by politicians who measure success solely by changes in unemployment and not the overall health of the labour market.

Labour market conditions have weakened in the areas most exposed to the slowdown in oil and gas – Aberdeen and Aberdeenshire. – although their rates of unemployment typically remain below the Scottish average.

Most forward indicators – at least at the UK level – suggest that the outlook for 2017 and 2018 is weaker than it was just 6 months ago.

Arguably, the most significant development over the next few months is likely to be rising inflation. The Bank of England forecast that prices will rise sharply in the months ahead reducing real incomes and fuelling wage demands.

With heightened economic uncertainty and ongoing fiscal restraint in the public sector, the near-time outlook for people in work is likely to be just as important an issue for policymakers as the prospects for those still seeking work.

Fraser of Allander Institute &
Scottish Centre for Employment Research
17th November 2016

Overview and Analysis

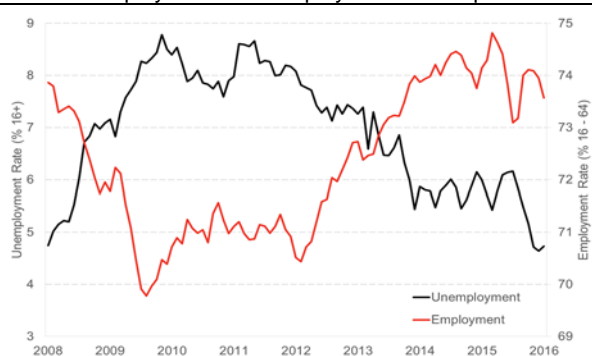
Headline trends paint a relatively mixed picture of Scotland’s labour market. Employment remains close to record highs but the fall in unemployment can be explained by a rise in inactivity rather than new jobs. Heightened global uncertainty since the EU referendum and the US election, coupled with rising inflation, make the next 18 months or so a critical time for Scotland’s labour market.

Table 1: UK Labour Market: Jul-Sep 2016

	Employment (16-64)	Unemployment (16+)	Inactivity (16-64)
Scotland	73.6%	4.7%	22.6%
England	74.8%	4.8%	21.3%
Wales	73.1%	4.4%	23.4%
N. Ire	69.9%	5.6%	25.8%
UK	74.5%	4.8%	21.7%

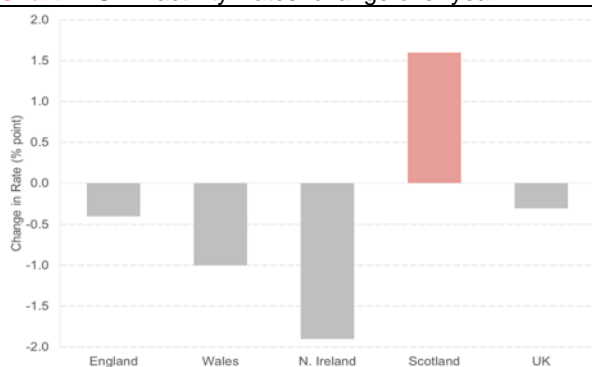
Source: ONS, Labour Force Survey (LFS)

Chart 1: Employment & Unemployment: Jul-Sep 2016



Source: ONS, LFS

Chart 2: UK Inactivity Rates: change over year



Source: ONS, LFS

Introduction

Scotland continues to perform broadly in line with the UK in terms of aggregate labour market trends.

In the most recent statistics, covering the period Jul-Sep 2016, Scotland has a marginally lower unemployment rate than the UK but also a slightly lower employment rate. However, the current differences are small, particularly given – for example – the measurement error in the underlying data.

Like the UK, the sustained growth in employment since 2012 has slowed over the past year.

Since late 2013, Scotland’s unemployment rate had been relatively stable around 5.5% to 6.0%. But over the last year, unemployment has fallen much more sharply than in the UK.

This may be, at first glance, somewhat surprising given Scotland’s recent relatively weak GDP growth. However what is evident from the data, is that whilst the fall in unemployment was initially associated with a rise in people finding work, more recently it is instead correlated with rising inactivity.

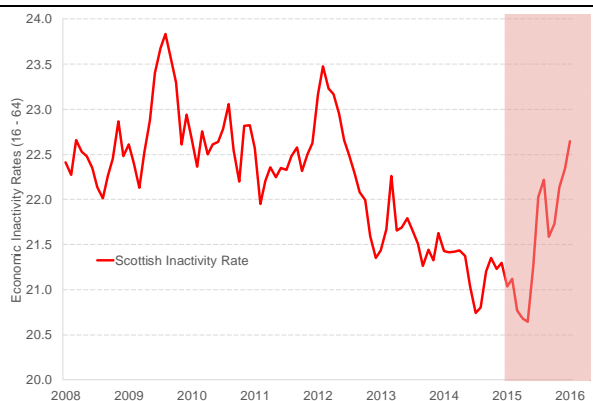
Indeed, whilst unemployment has fallen by 38,000 over the year, employment actually fell by 12,000 (both 16+). At the same time, inactivity levels have increased by around 54,000 (16-64).

Table 2: Inactivity Reasons: Jul 2015 - Jun 2016

Total	Student	Looking after family	Temp sick	Long-term sick	Retired & Other
780	194	154	19	214	195
<i>of total</i>	25%	20%	2%	27%	25%

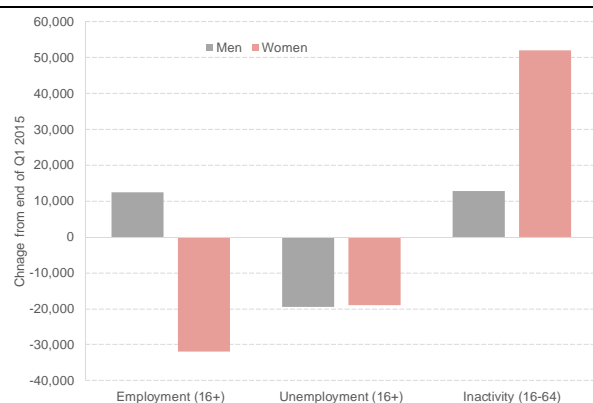
Source: ONS, Annual Population Survey (APS)

Chart 3: Scottish Inactivity Rates: 2008 – 2016



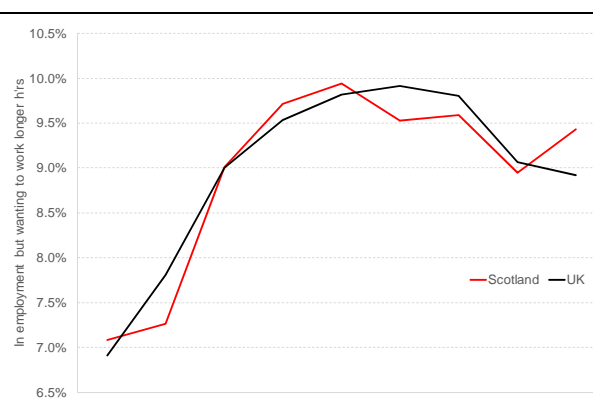
Source: ONS, LFS

Chart 4: Changes for Men and Women: Last 18 months



Source: ONS, LFS

Chart 5: Underemployment (hrs) rate: 07-08 – 15-16



Source: ONS, APS

Labour Market Trends: Wider Indicators

Our earlier discussion illustrates why it is important to look beyond the usual headline indicators of unemployment to assess the overall strength of the labour market.

Other measures, such as changes in economic activity, under-employment and hours worked are just as important.

Inactivity includes those who are not in work but who are also currently not *actively* seeking or available for work.

This includes students and those unable to work – e.g. the long-term sick, those caring for a member of their family, in early retirement, or some other reason. Within these groups are people who whilst not actively seeking work, might like to work if there was the opportunity to do so. On the latest data, 1 in 4 of those economically inactive want a job.

Inactivity rates had been relatively stable since the end of 2012, but they have increased over the past 18 months. What is interesting is that women account for much of the rise. The increase in female inactivity of over 50,000 (16-64) coincides with falling unemployment (-19,000) and employment (-32,000) (both 16+) over the past 18 months.

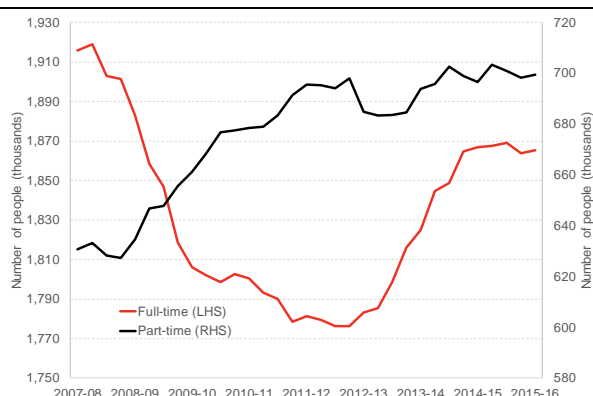
This could, in part, be driven by a reversion to trend. Female inactivity had been falling up until the start of 2015.

Interestingly, a similar trend is evident in the rate of underemployment in Scotland.

Underemployment in this context refers to the proportion of people, in work, who would like to work longer hours than they currently do at the same rate of pay.

After falling from 2011-12 onwards, this indicator has picked up during the period Jul 2015 to Jun 2016. It remains high by historical standards.

Chart 6: Full & Part-Time Employment: 07-08 to 15-16



Source: ONS, APS

Table 3: Reasons for temporary work: Jul 2015 - Jun 2016

Total	Could not find permanent job	Did not want permanent job	Other
139	48	30	62
%	34%	21%	44%

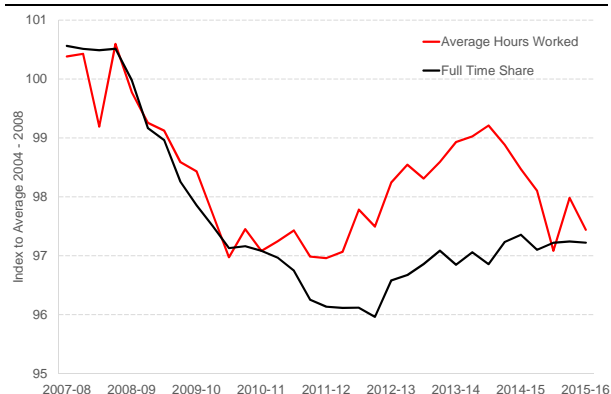
Source: ONS, APS

Chart 7: Rise in self-employment: 07-08 to 15-16



Source: ONS, APS

Chart 8: Hours Worked & full-time share pre-recession average: 07-08 to 15-16



Source: ONS, APS

A feature of recent years has been an increasing trend in part-time employment.

For example, data based on the Annual Population Survey (APS) up to June 2016, shows a sustained rise in the number of people employed in part-time work (Chart 6). At the same time, full-time employment fell during the financial crisis before picking up in 2012-13. In the past two years, it has remained relatively flat.

In addition, supplementary data from the LFS (non-seasonally adjusted) shows that over the decade to Jul-Sep 2016, over two thirds of the growth in total employment has been in part-time work.

Of those in part-time work, around 1 in 7 currently indicate that the key reason is that they cannot find full-time work (up from 1 in 10 a decade ago).

Concerns about the number of people in temporary work have gained attention in recent months. Although, at least in Scotland, the % of those in employment who are in temporary jobs has remained relatively stable over the past decade at around 5%. 1 in 3 temporary workers currently say that the main reason they are in such employment is because they cannot find permanent work, up from 1 in 4 a decade ago.

A key feature of the labour market since the financial crisis has been a rise in self-employment – Chart 7– a trend that shows no sign of dissipating.

Whilst Chart 8 highlights that, not only is the share of employment that is full-time lower than its pre-financial crisis average, the decline in mean hours worked also remains lower.

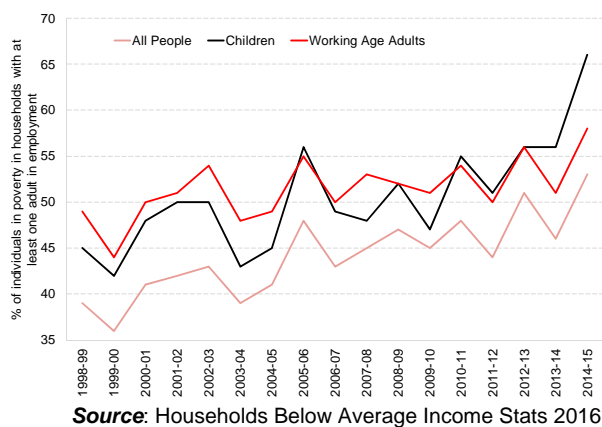
Taken together, these indicators suggest that the rapid rise in employment, which has been a key feature of the Scottish labour market in recent times, may be masking underlying challenges in terms of the type of employment.

Table 4: Median Gross Weekly Earnings, Scotland

	Median Earnings	% change	FT Median Earnings	% change	CPI
2014	£414.70	1.5%	£519.60	2.1%	1.8
2015	£422.60	1.9%	£527.00	1.4%	-0.1
2016	£432.00	2.2%	£535.00	1.5%	0.3

Source: ONS, Annual Survey of Hours and Earnings 2016

Chart 9: Rising in-work poverty (after housing costs)

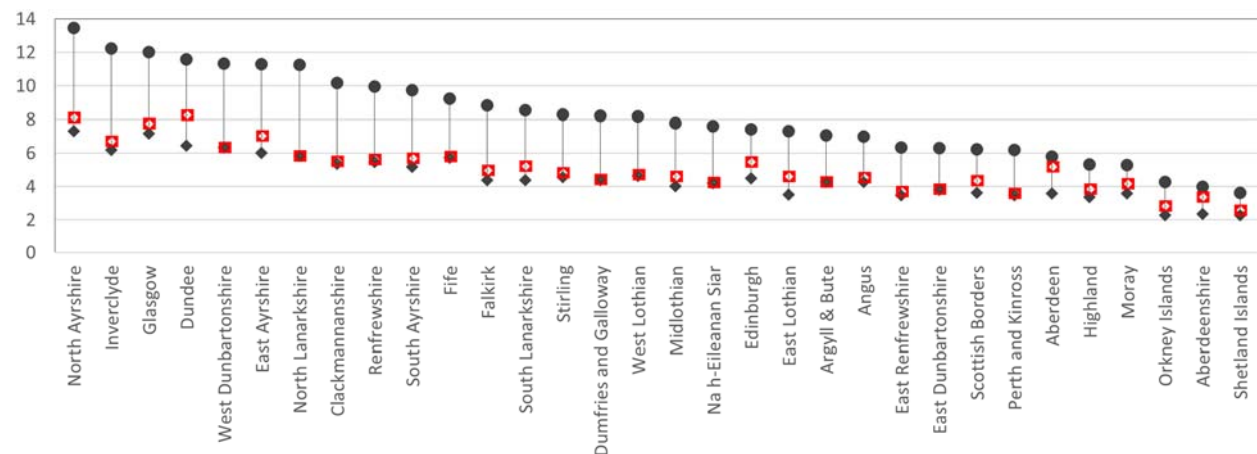


Source: Households Below Average Income Stats 2016

Chart 10 reports local unemployment rates across Scotland.

- i. It shows the highest the unemployment rate has been since 2008 (black circle);*
- ii. The lowest that the unemployment rate has been since 2008 (black square)*
- iii. And the latest figure (red shape).*

Chart 10: Local Authority unemployment rate relative to maximum and minimum since 2008



Source: ONS, Modelled Unemployment Rates, APS

Earnings and in-work poverty

Median weekly full-time real wages in Scotland fell 5% between 2008 & 2012. Earnings have since increased, although they remain 3% below their pre-financial crisis levels. Interestingly, the earnings of females have held up more robustly, narrowing the gender pay gap somewhat.

2016 was a better year for low earners. Hourly pay for the bottom 10 percent grew 5% in real terms, compared to 1% at the median. The main driver was the introduction of the 'national living wage' on 1 April.

This is important. Chart 10 highlights the recent growth of in-work poverty amongst households. Whether this trend continues will depend, not just on the growth of wages, but also inflation.

Over the last year, wage growth has been slower in Scotland than in the UK. One explanation is the downturn in the offshore economy. Indeed, median wages declined by 5% in Aberdeen and 4% in Aberdeenshire between 2015 and 2016. This is consistent with an overall weakening of the North East labour market; the Claimant Count increased at its fastest rate over the last 18 months in the North East. Although as Chart 12 shows unemployment remains well below the Scottish average.

Outlook

Brexit looms large over the economy. In the long run, the key issues for the labour market will be the implications for regulation, migration and trend growth of the UK exiting the EU.

However, in the short-run the outlook for demand will be the most important factor.

Overall, growth has held up better than predicted immediately after the referendum.

There are three key reasons. Firstly, businesses have tended to adopt a 'wait-and-see' response. Secondly, the stimulus by the Bank of England was greater than expected and not only helped support the economy directly, it also provided a degree of reassurance in a world of uncertainty. Thirdly, the scale of the depreciation in sterling has helped boost overseas earnings, tourism and manufacturing.

The average UK growth forecast for 2016 has improved. However, most predict growth will ease substantially in 2017 and 2018.

In the near term, employment growth – in both Scotland and the UK – is projected to slow, as companies respond to a subdued outlook and above-average levels of uncertainty.

The Bank of England forecasts UK unemployment to rise by $\frac{3}{4}$ percentage points to around 5.5%.

Forward indicators of the labour market in Scotland are relatively limited.

The main 'soft-indicator' is the IHS Markit Report on Jobs¹ The most recent (October) edition reported that the final quarter for 2016 has started on a weak footing, with recruiters reporting falls in both permanent and temporary positions. There was also a slowdown in salary growth, although demand for staff rose.

Table 5: Permanent Staff Placements: 2016

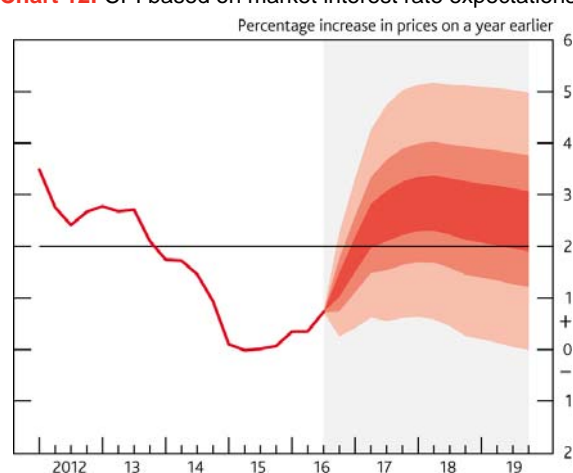
50 = 'no change'	Scotland Index	UK Index
Jul	47.1	45.4
Aug	53.3	51.1
Sep	55.2	51.0
Oct	49.8	54.6

Source: IHS Markit

Another indicator is consumer confidence, which continues to paint a relatively fragile outlook for the economy (and in turn employment prospects). The GfK index posted a value of -3 in October. This represents a decline relative to August, and down significantly on this time last year.

The substantial rise in inflation predicted by the Bank of England provides an added dimension to the labour market outlook. The Bank now predict that inflation will rise to 2.7% during 2017 and remain elevated throughout their forecast time horizon. This will erode the value of existing pay awards and with sluggish demand in the near term, this could translate into weak real earnings. With continued fiscal consolidation, the outlook for public sector workers looks particularly challenging.

Chart 12: CPI based on market interest rate expectations



Source: Bank of England, November 2016

¹ www.markiteconomics.com/Survey/Page.mvc/UKReportonJobs

LABOUR MARKET INSIGHTS

In addition to providing a summary and analysis of the Scottish Labour market, in this section of future reports we will provide a short summary of more in-depth research on the Scottish labour market from both the Fraser of Allander Institute and the Scottish Centre for Employment Research.

Future themes we will examine include the trend toward part-time working, the rise in self-employment, the rise in in-work poverty, local labour market resilience and topics in inclusive growth.

In this 1st edition, we have 3 contributions -

- *A guide to Scottish labour market statistics;*
- *A short discussion of the FAI's recent forecasts for Unemployment;*
- *A brief guide to (in)security in work*

A guide to Scottish labour market statistics

Understanding developments in the Scottish labour market is often not straightforward. A number of data sources are available and each has their relative strengths and weaknesses.

As this is the 1st edition of our new publication, we thought that it would be helpful to provide an introductory guide to Scottish labour market statistics, their interpretation and some key issues to watch for.

The Labour Force Survey

The principal source of data on the Scottish labour market is the Labour Force Survey (LFS), undertaken by the Office for National Statistics (ONS). It is compiled from a survey of households that aims to be representative of the population as a whole.

The statistics are 3-month moving averages – that is, they summarise information collected across the most recent 3-months where data are available. For example, this month's statistics (published in November 2016) cover survey results collected in Jul, Aug and Sep 2016.

The data is seasonally adjusted – that is, it is adjusted to account for typical trends/volatility in labour market activity that occurs throughout the year. For example, employment in certain industries can rise and fall simply between seasons (e.g. summer and agriculture; Christmas and retailers etc) whilst people leaving school generally do so at the same time of year.

Key Headline Scottish Labour Market Indicators: Jul –Sep 2016

	Economically active		Employment		Unemployment		Economically inactive	
	16+	16-64	16+	16-64	16+	16+	16-64	16-64
	Level	Rate	Level	Rate	Level	Rate	Level	Rate
Jul-Sept	2,733	77.4%	2,604	73.6%	129	4.7%	1,667	22.6%
Change over Quarter	-39	-0.9%	-25	-0.5%	-14	-0.4%	42	0.9%
Change over Year	-49	-1.6%	-12	-0.6%	-38	-1.3%	64	1.6%

Source: ONS, Labour Force Survey (LFS)

To avoid using the same month's data twice, it is important to compare the results in quarterly blocks – for example, the period Jul-Sept should be compared with the period Apr-Jun, Jan-Mar and Oct-Dec etc.

The data are compiled on a consistent basis, not only within the UK to allow comparisons between Scotland, Wales, Northern Ireland and the regions of England, but also internationally. It should be noted that regional data are based upon smaller samples and are therefore subject to greater volatility. Therefore, care should be exercised when comparing data over short time periods and/or interpreting small percentage point differences between the Scottish and UK series.

Scotland's Labour Market Performance in context: Jul-Sept 2016

	Employment Rate	Unemployment Rate	Economic Inactivity Rate
	16-64	16+	16-64
North East	71.1%	6.1%	24.1%
North West	72.2%	5.3%	23.6%
Yorkshire and The Humber	73.0%	5.6%	22.6%
East Midlands	75.1%	4.5%	21.2%
West Midlands	73.4%	5.2%	22.4%
East	77.1%	4.3%	19.3%
London	73.6%	5.6%	22.0%
South East	78.0%	3.6%	19.0%
South West	77.0%	3.9%	19.8%
Wales	73.1%	4.4%	23.4%
<i>Scotland</i>	73.6%	4.7%	22.6%
Northern Ireland	69.9%	5.6%	25.8%
United Kingdom	74.5%	4.8%	21.7%

Source: ONS, LFS

Other Sources of information

The LFS is the most regularly cited source of data. However, for some elements of the labour market the sample size can be too small to provide robust results. The Annual Population Survey (APS) is a larger series and better suited to detailed breakdowns – e.g. by local authority or reason for inactivity.

However, the APS compiles data over the entire year. It is therefore a less timely indicator of current conditions. It is also only available by calendar quarter.

Another indicator is the Claimant Count. Strictly speaking, this is not a measure of unemployment but of the number claiming Jobseekers Allowance (JSA) and out-of-work Universal Credit benefits. It is a less comprehensive indicator, as it excludes those who are not entitled to claim such benefits or those who do not take up their entitlement. This means that we can observe changes in the Claimant Count from alterations to benefits policy, as well as changes in the number of those unemployed.

In addition, data from ONS, in turn based on Employer surveys, Labour Force Survey and administrative sources can provide an estimate of changes in Workforce Jobs by sector. This contrasts with data on employment, which focuses on the status of the individual. Given that individuals may hold more than one job, additional information on the health of the economy can be gleaned from changes in actual job numbers.

As the table below highlights for example, jobs in manufacturing have fallen over the past year, much in line with the fall in manufacturing output which has been evident in recent GDP statistics.

% change in previous 12 months in workforce jobs in Scotland

	Manufacturing	Total services	All jobs
Jun 14	1.58%	3.17%	3.38%
Jun 15	8.29%	-0.54%	-0.07%
Jun-16	-5.26%	-0.50%	-0.15%

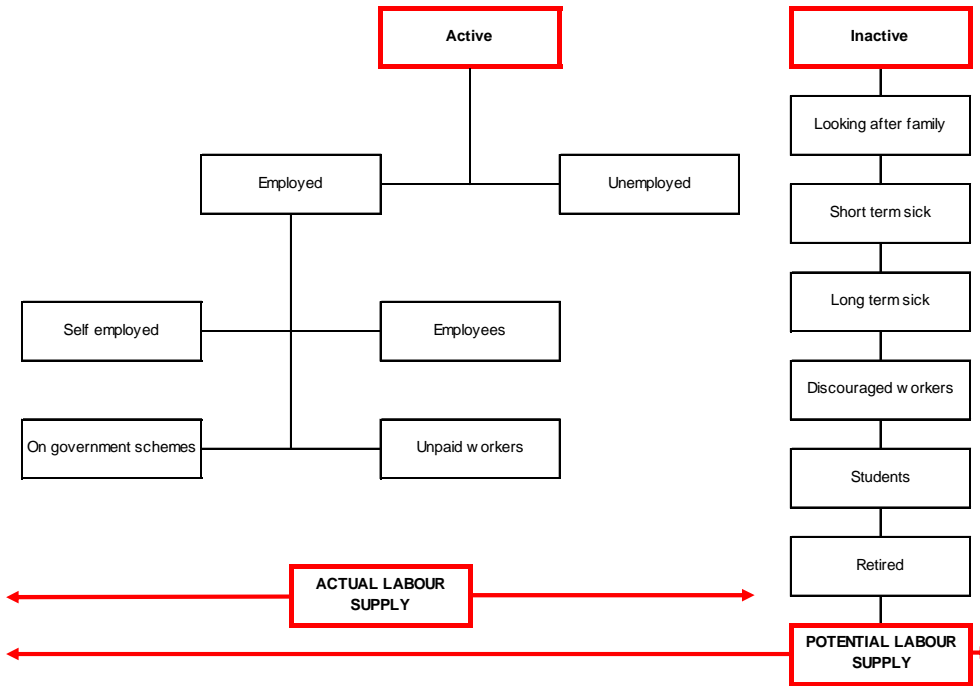
Source: ONS, Workforce Jobs

The Workforce Jobs series is the best available dataset for jobs by industry. However, care should be taken when using these data for analyses at a regional level. These numbers are largely based on modelling the underlying survey data to improve the overall reliability of the data. However, one consequence of this is that there can be challenges around regional sensitivity and interpretation.

Understanding the definitions of employment, unemployment and inactivity

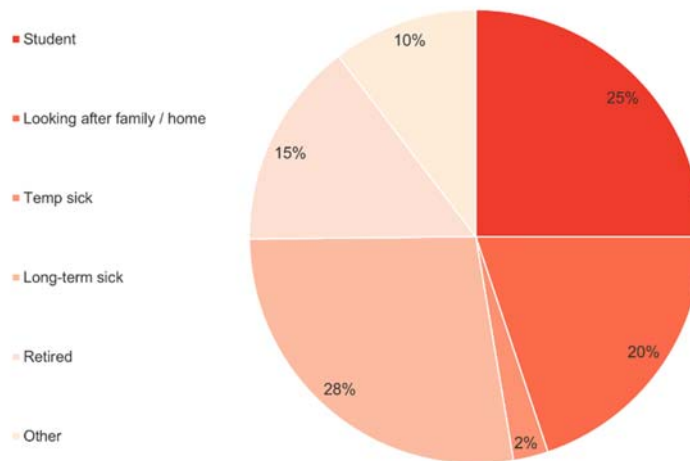
The definition of employment is relatively straightforward. It includes all people in work (full-time, part-time, permanent or temporary) as well as people who are self-employed. To be classified as unemployed – under the internationally recognised International Labour Organisation (ILO) definition – you must be out of work but actively seeking employment within the last four weeks and available to start work within two weeks. But there are other groups as well and the diagram below provides a useful illustration –

Flow Diagram of Labour Market Categories



Economic inactivity covers individuals who do not meet the above ILO definition of unemployment and are not participating in the labour market for one of the reasons indicated in the chart above. One thing to bear in mind in looking at regional data is that the small sample sizes in the key surveys mean that, for example, regional data on those discouraged from seeking work are too small to be reported by ONS.

Composition of inactivity in Scotland, Jul 2015 – Jun 2016



Source: ONS, Annual Population Survey (APS)

Care is also required in terms of reference groups. For example, employment levels are measured based on the total population aged 16+, but the employment rate refers to those aged 16-64. This is to ensure that retired workers do not have undue influence on the overall employment rate.

The key definitions are set out below –

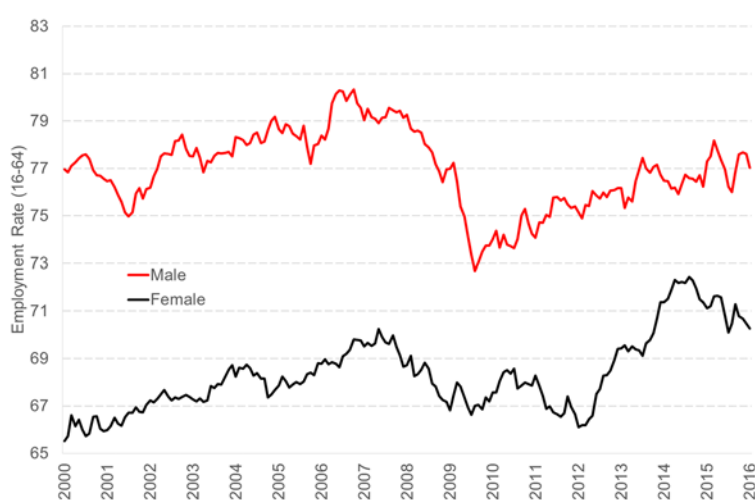
Employment	Aged 16+ employee or self-employed doing min of 1 hour of work per week
Employment rate (16-64):	Aged 16-64 in employment as % of population aged 16-64.
Unemployment:	Those not in employment, want a job, actively seeking work and available to start work within 2 weeks.
Unemployment rate (16+):	Unemployed 16+ as % of economically active 16+.
Economically inactive:	People not in employment, but who do not satisfy the criteria for unemployment – e.g. students.
Economic inactivity rate (16-64):	Economically inactive people aged 16-64 expressed as a percentage of population aged 16-64.

In recent years, the split between 16+ and 16-64 has become more challenging to interpret. As highlighted below, there has been a substantial increase in the number of people aged 65+ who are participating – for a variety of reasons – in the labour market. This would imply that the use of the 16-64 years group as the standard measure of the employment rate may have to be revisited.

Breakdowns by Age & Gender

Both the LFS and APS allow for a breakdown by gender. Employment rates have been higher for men than for women since the series began in 1992. However, much of the improvement in the national employment rate over the last fifteen years has been driven by an increase in female participation.

Male and Female Employment Rates

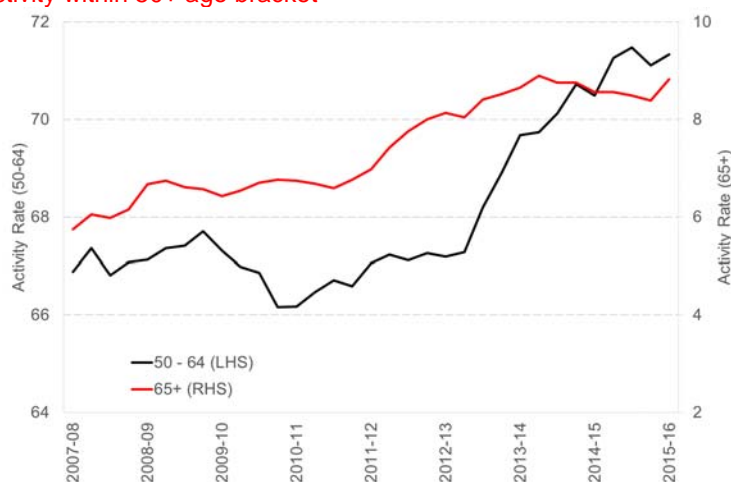


Source: ONS, LFS

The LFS and APS also both allow for a breakdown by age. Again, the APS is generally considered to be more robust if looking at a large number of age groups, but the Labour Force Survey has the advantage of being more timely. Unsurprisingly, labour market participation varies across age groups. Young people for example, tend to be more likely to be in 'full-time education' and therefore classified as 'inactive' (see below).

The activity rates of those aged 50-64 or 65+ are understandably lower than those of the 16-64 age group, since a large number will have retired. Nevertheless, activity rates among the older age groups have risen steadily in recent years.

Growth in Economic activity within 50+ age bracket

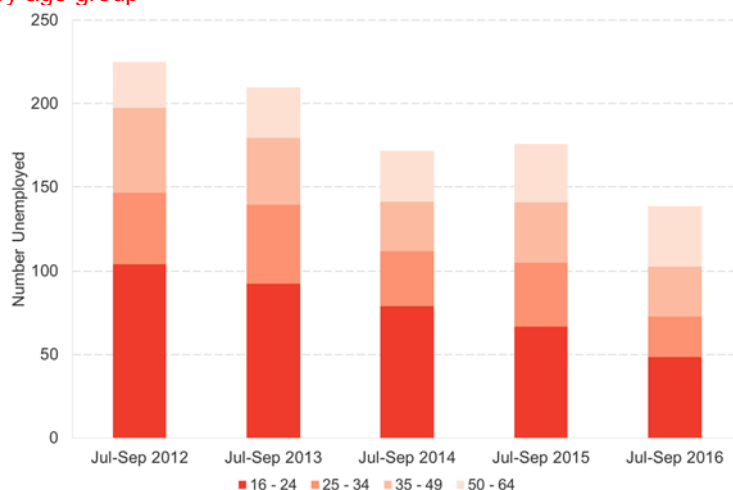


Source: ONS, APS

A higher employment rate for the over 65s raises a number of issues including the potential implications for the crowding out of younger workers but also understanding the reasons for this increase, not all of which may be positive (e.g. if driven by an increase in those needing to supplement falling pension income).

Unemployment also varies across age groups. In particular, young people tend to represent a larger share of the total number unemployed. Young people also tend to be more susceptible to changing economic circumstances and can be involved in weaker labour market outcomes, such as temporary work or low-paid employment. The UK and Scotland are not alone in facing significant challenges around the labour market outcomes of younger workers.

Unemployment levels by age group



Source: ONS, LFS

The data for young people requires particularly careful interpretation. A large number of young people are in full-time education. At the same time, a number of students are also in part-time employment – or in search of employment – to support their studies whilst remaining in education.

This is important because although these young people may be ‘unemployed’, if they are in full time education they are quite clearly in a different position from someone who is without employment and is not receiving training or education. The Scottish Government publishes – based on the Annual Population Survey – a useful breakdown highlighting the number of young people (16-24) unemployed and not in full-time education.

Numbers and proportion 16-24 unemployed and not enrolled in full-time education

	2009 - 10	2010 - 11	2011 - 12	2012 - 13	2013 - 14	2014 - 15	2015 - 16
Total	59,000	62,000	66,000	60,000	52,000	43,000	37,000
Of which: Male	61%	63%	62%	66%	60%	65%	61%
Female	39%	37%	38%	34%	40%	35%	39%
Unemployed more than 12 months	14,000	18,000	20,000	17,000	17,000	12,000	8,000

Source: ONS, APS

Full-time & Part-time Employment and rise in numbers of self-employed

Employment can also be split according to whether the job is full or part-time. It can also enable us to separate out those people in employment according to whether they are in permanent or temporary work. Once again, for most of the data the APS is more robust, although the ONS now publish a non-seasonally adjusted version of data from the LFS to allow more timely comparisons.

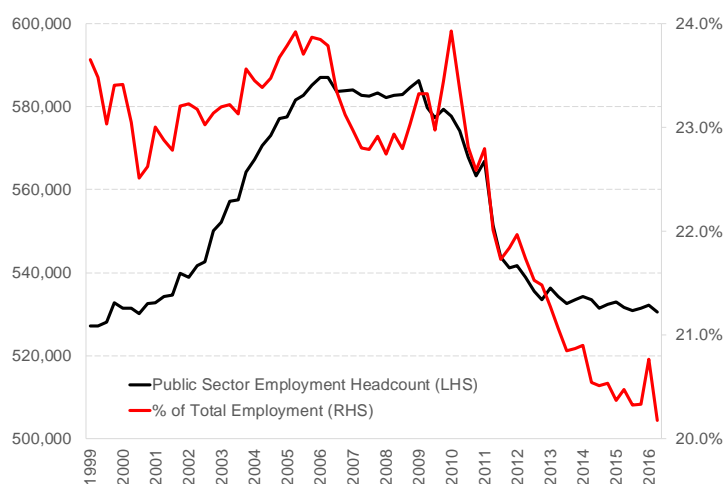
Ten years ago, part-time employment accounted for around 25% of total employment in Scotland. This figure has risen to around 27%. There has also been a rise in self-employment – with growth of around 20% over the decade.

Public/Private Employment Data

Data on the composition of employment according to public or private sector are available on a quarterly basis from the Scottish Government. There have been a number of major re-classifications between what is deemed private or public sector, although adjustments have been made to account for the most significant changes.

In Q2 2016, around 530,500 people were estimated to work in Scotland's public sector.

Public Sector Employment in Scotland – level and share of total employment since devolution



Source: Public Sector Employment Statistics, Q2 2016

During the first few years of devolution, the number of people employed in the public sector rose. However, private sector employment was also rising so the overall share of total employment accounted for by the public sector remained flat. However in recent years, both the number of people employed in the public sector and its share of total employment has fallen significantly. The key driver of this fall has been a decline in local government employment.

Regional Data

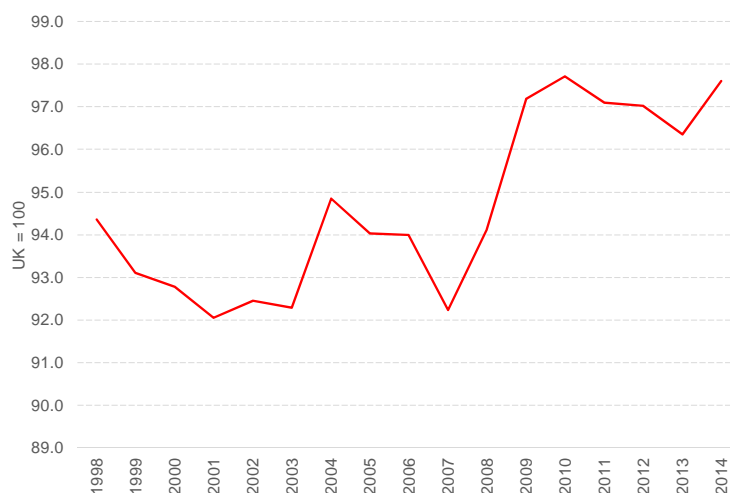
It is also possible to monitor labour market conditions at the sub-national level. Two sources are typically used.

Firstly, Claimant Count data is collected at the local authority level. This includes Jobseeker's Allowance (JSA) and out-of-work Universal Credit claimants. Secondly, the APS allows for a disaggregation of employment, unemployment and inactivity according to both UK and Scottish Parliamentary constituency.

Both datasets highlight the significant inequalities in labour market outcomes across Scotland. They also show different degrees of resilience to recession. The unemployment rate in some parts of Scotland – including parts of Ayrshire, Glasgow and Fife – is close to double the Scottish average. Inactivity rates in some parts of Glasgow are as high as 35%-40%. In contrast, employment rates in Orkney and Shetland are nearly 90%.

The Scottish Government publishes an annual series which includes comparisons with the UK³. In recent years, Scotland's labour productivity – as measured in terms of output per hour worked – has caught up with the UK to some degree. The latest data is up to 2014. Although the UK's productivity performance has been weak relative to key international competitors and Scotland continues to perform toward the middle of most cross-country rankings.

Labour Productivity: Scotland vs. the UK (100) 1998 to 2015



Source: Productivity Statistics, Scottish Government January 2016

Challenges with the Data

There are a number of challenges when using the labour market data for Scotland.

Firstly, there is no single accessible source of labour market data. The Scottish Government publishes a number of reports and summary information, but the underlying data is sourced from the ONS.

- Scottish Government labour market briefing:
[http://www.gov.scot/Topics/Statistics/Browse/Labour-Market/AnalyticalPapers#Labour Market Briefing Papers](http://www.gov.scot/Topics/Statistics/Browse/Labour-Market/AnalyticalPapers#Labour%20Market%20Briefing%20Papers)
- ONS Regional Labour Market Headline Indicators:
<http://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/headlinelabourforcesurveyindicatorsforallregionshi00>
- ONS Labour Market Statistics for Scotland:
<http://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/headlinelabourforcesurveyindicatorsforscotlandhi11>
- Public Sector Employment in Scotland: <http://www.gov.scot/Topics/Statistics/Browse/Labour-Market/PublicSectorEmployment>
- NOMIS, Official Labour Market Statistics, <https://www.nomisweb.co.uk/default.asp>

³ www.gov.scot/Topics/Statistics/Browse/Economy/PROD2014

Secondly, the sample size of many key Scottish key indicators is relatively small. Completion rates for the LFS for example, at the UK level, have fallen significantly in recent years. With sample sizes in Scotland already low this is a key concern and reduces confidence in the series.

Thirdly, release of data is slow compared to some other countries and much of the labour market data for Scotland is only available after a considerable lag. For example, the APS remains the most robust data set for examining youth unemployment rates in Scotland – however, the current data set covers the year up to the end of June 2016. As a result, data observations 15 months ago will still be influencing the most recent data available. This makes timely analysis, say at key turning points in the business cycle, more difficult. In contrast, US data is published on a monthly basis and almost immediately, whilst most European countries publish quarterly labour market statistics ahead of the UK.

Fraser of Allander labour market forecasts

The Fraser of Allander Institute provides forecasts of the Scottish economy in the Fraser of Allander Economic Commentary.

The new-look Economic Commentary will now be published on a quarterly basis. The next update will be in December with updates in March, June and September each year. Please email fraser@strath.ac.uk to be added to our mailing list.

Each quarter we provide forecasts of key Scottish labour market indicators. Historically, the main indicator that we have focussed upon has been the level of unemployment.

Our forecasts from our July Brexit update are presented below –

July 2016 FAI forecast of Scottish unemployment in central forecasts, 2016 to 2018

	2016	2017	2018
ILO unemployment	173,500	188,250	183,050
Rate (%) ¹	6.5	7.0	6.8

Note: Rounded to the nearest 50. ¹ = Rate calculated as total ILO unemployment by total economically active population 16+.

Source: Fraser of Allander Institute, July 2016

We will be providing a comprehensive update in December's edition including forecasts for GDP, the components of output and the labour market.

However, it is worth commenting specifically on our current unemployment forecasts and how/if we expect them to change.

Firstly, our labour market forecasts will clearly be impacted by the extent to which we may revise our forecasts for overall growth in the Scottish economy. There are a number of factors here.

- The first will be how well we believe the Scottish economy has coped with the uncertainty that immediately followed the EU referendum. Most forecasters have revised up their predictions for 2016. However, some, including the Bank of England, have actually lowered their forecasts for future years.
- The second will be our take on how the underlying Scottish economy is performing. Since July, we have had GDP data for the first half of 2016. Q1 was disappointing, with the revised figures published last month showing a marginal contraction over that quarter. In contrast, Q2 surprised on the upside with faster growth than predicted – albeit growth was still slower than the UK.

Secondly, back in July, unemployment in Scotland was 5.5% (for the period Mar-May) after having been around 6% at the start of the year.

As highlighted earlier in this report, since then there has been a sharp fall in unemployment that seems, at first glance, to lie at odds with our July forecasts for unemployment to rise to around 6.5% by the end of the year. However within our modelling, we explicitly link changes in the economy with changes in unemployment. So if the economy is growing relatively strongly this feeds directly through to lower

unemployment, and vice versa. What our current methodology cannot immediately pick-up are large (and unexplained) movements in the data between unemployment and inactivity and vice versa. As highlighted in the discussion above, this is certainly the case on this occasion with the recent sharp fall in unemployment accompanied by a rise in inactivity.

As an illustration of the impact, the table below highlights the labour market data at the time of the last Economic Commentary (Mar-May) for all those aged 16+ and compares it with the most recent data (Jul-Sept) published in November.

Comparison of Mar-May 2016 with Jul-Sep 2016 (16+)

	All aged 16 & over	Economically active	Total in employment ('000)	Unemployed	Economically inactive
Mar-May	4,395	2,778	2,625	152	1,618
Jul-Sep	4,400	2,733	2,604	129	1,667
<i>Change</i>	+5	-45	-22	-23	+49

Source: ONS, LFS

As a result of these changes, Scotland's unemployment rate has fallen from 5.5% to 4.7% in the most recent figures since our last forecasts. But crucially and at the same time, the participation or economic activity rate fell from 63.2% to 62.1%.

So whilst we have not seen the pick-up in unemployment we forecast, the fall in inactivity is much more consistent with our forecasts for a weakening labour market toward the end of the year. Remember both groups are people not in work, one is in the labour market looking for work; the other is not.

This can have a material impact on our forecasts. For example, if for instance the sharp rise in economic inactivity had instead been a rise in unemployment, *for the same level of employment*, Scotland's unemployment level would now be around 174,000 (i.e. 129,000 + 49,000). This would lead to an unemployment rate of around 6.3% - much closer to the rate we forecast in July.

This suggests, not an inaccuracy in our forecasts per se, but a challenge in dealing with volatile data movements between inactivity and unemployment. In December's Economic Commentary, we will provide updated forecasts to account for this unexpected change in the data and discuss any changes to our forecasting methodology and presentation.

A brief guide to (in)security at work

Security – of employment and income – is a key aspiration of many in the labour market, and is a core dimension of fair work in Scotland's Fair Work Framework. Job security remains the most valued aspect of work in a wide variety of countries and a top priority for people at the lower end of the labour market in Scotland as recent work by Oxfam Scotland has confirmed. Security at work matters not just to workers and their families: it is also a crucial support to stability in the economy and in society.

Standard and non-standard working

Many academic and policy debates in recent years have focussed, however, not on security but on insecurity. It used to be easier, relatively speaking, to research and understand security at work. While there was always variation, full time, regular employment in a fixed location was the archetypal model of work in the advanced economies for many decades. Much evidence suggests the 'dissolution' of this standard employment relationship since the 1970s. Newer forms of 'non-standard' labour are not just ad hoc responses to businesses' need for occasional flexibility, but are emerging as normalised business practice and driving new business models.

National surveys and national labour market data point to the rise of precarious and insecure work in many countries. Around 20% of UK workers are not in full-time regular employment. There has been a 6% rise in flexible employment in Europe over 1980-2011 (De Lange 2013). OECD data indicates that non-standard working has accounted for all UK net jobs growth since 2007, and in the UK self-employment now accounts for 15% of employment. 6.1% of employees in the UK are now temporary workers, though ONS data show little change over the past 15 years in the proportion of temporary, casual, agency or fixed term contract workers.

% of people in employment on a zero hour contract

		Scotland	UK
2000	October - December		0.8
2014	April - June	2.3	2.0
	October - December	2.3	2.3
2015	April - June	2.0	2.4
	October - December	2.2	2.5
2016	April - June	3.0	2.9

Source: ONS, Labour Force Survey, NSA

Scotland and the UK have witnessed substantial growth in no guaranteed hours (commonly referred to as 'zero hours') contracts since the start of the century, with 3% and 2.9% respectively of those in employment on contracts without guaranteed minimum hours, according to the most recent data. There are now over 903,000 people in the UK on zero hour contracts.

Women, young people, and employees in elementary and caring, leisure and other services occupations, are over-represented on ZHCs, while self-employment is most common in construction and building trades and for taxi/cab drivers and chauffeurs and carpenter/joiners.

Why does the growth in non-standard work matter?

Non-standard work is not necessarily insecure. But it often is insecure, with the burden of risk and uncertainty disproportionately falling on non-standard workers. In addition, non-standard working carries other negative dimensions of job quality. We know that non-standard working offers less access to paid leave, sick pay or maternity pay as well as to training opportunities and career development. In the UK, self-employment has been found to be associated with insecurity and with low pay.

Similarly, temporary agency workers are less satisfied with job security, skill utilization and development, pay, autonomy and influence at work than their counterparts. Non-standard workers have fewer employment rights and are less likely to be union members. According to the OECD, non-standard working is also fuelling inequality and income disparity.

It is worth highlighting, though, that patterns and trends are uneven across types of non-standard work, groups and sectors. For example, many dispute – with good reason - the inclusion of open-ended part-time work in classifications of non-standard employment. As labour economist Peter Cappelli has argued for the US, growth in forms and use of non-standard working challenges measurement and analysis as broad classifications of ‘non-standard’ or ‘atypical’ work mask important in-category differences. Measurement, analysis and understanding in this area is particularly challenging due to issues of data availability.

Put simply, there is a dearth of systematic labour market and workplace data that can shed light on the realities of different types of non-standard working and workers. Cappelli argues that surveys of employers provide the most accurate insights into non-standard work practices but are surprisingly rare. For the UK, the Workplace Employment Relations Survey (WERS) data series provides important insights in this regard, although with intervals of six or more years between surveys. The Skills and Employment Survey also provides data from employees on the experience of non-standard and standard working, though with intervals between surveys similar to WERS. Neither of these employer and employee surveys are representative for Scotland in their most recent versions.

Security for ‘standard’ workers

Despite these data challenges, it is important to understand better the impact of non-standard employment, particularly in relation to job security. But, what about the ‘standard’ workforce? Developments in contemporary working – for example, variable hours or distanced working - also change understanding and experience of ‘standard’ working. Greater relative insecurity for the non-standard workforce does not preclude worsening security for standard workers also. Two types of data help us to shed light on the job security of ‘standard’ workers: data on actual job tenure and data on perceived insecurity.

Looking at job tenure, it is clear that most people’s jobs are not contractually insecure and most people stay in jobs for quite a long time. The average amount of time people spend with an employer – average job tenure – did not shift greatly between the mid-1970s and the mid-2000s. Average job tenure in the UK – albeit one of the lowest in the OECD - was more than 9 years in 2011, having risen since 2001. In 2012, while 14% of men and 16% of women had been with their employer for less than a year, 55% of men and 52% of women had job tenure of more than 5 years. In addition, average job tenure appears to have increased slightly in recent years – consistent with falling job turnover, which in turn is likely to be driven by economic conditions that are encouraging employees to remain in jobs.

The table below shows, for the UK and for Scotland, the percentage of employees who have been with their current employer for different durations. We can see that slightly less than three quarters (74.2%) of workers in Scotland have worked for their present employer for more than two years. This is higher than for the UK as a whole (71.7%). Compared to the height of the financial crisis in 2007-08, a higher share of the labour force has been with their current employer for over one year, and over two years. Overall, current employment tenure in Scotland appears to be longer for most workers than in the UK as a whole.

Length of time with current employer, as a share of total employment

	Scotland		UK	
	2007-08	2015-16	2007-08	2015-16
Less than 3 months	4.9%	4.2%	4.9%	4.6%
3 months, but less than 6 months	4.8%	4.2%	5.0%	4.6%
6 months, but less than 1 year	7.8%	6.8%	7.8%	7.4%
1 year, but less than 2 years	11.3%	10.5%	11.5%	11.7%
2 years, but less than 5 years	20.8%	20.1%	22.0%	20.1%
5 years, but less than 10 years	18.3%	17.2%	18.9%	17.8%
10 years, but less than 20 years	18.6%	22.1%	17.7%	21.2%
20 years or more	13.6%	14.8%	12.4%	12.6%
More than 2 years	71.2%	74.2%	70.9%	71.7%
More than 1 year	82.5%	84.7%	82.4%	83.4%

Source: ONS, Annual Population Survey

While falling job turnover and rising job tenure is not always a positive signal – as it may, for instance, reflect the inability of workers to move to a better job – thinking about job tenure does provide some insight into job security for consideration alongside debates on contractually insecure work.

Turning to perceptions of employment security, which research suggests is a fairly reliable proxy for actual job insecurity, this increased in the UK over the period of global financial crisis, particularly in the public sector, but has since reduced. We have limited consistent survey data on how ‘insecure’ employees’ feel, but the CIPD ‘Employee Outlook’ survey (which gathers the views of some 2,500 to over 2,900 employees biannually) took a strong interest in this in the aftermath of the great recession. This survey deployed a series of questions to employees on whether ‘it is likely or unlikely that they could lose their jobs’ as a result of the crisis (although these questions have been discontinued since 2015, perhaps reflecting a perception that the UK economy is free of crisis).

The most recent data available from the Employee Outlook survey in Autumn 2014 (with Spring 2014 for comparison) is contained in the Table and Figure below, which indicates that 18% of survey respondents thought that it was ‘very likely’ or ‘likely’ that they were at risk of losing their jobs. Within this cross-sectoral survey, public sector workers felt most insecure, with 23% of the sample reporting the likelihood of job loss. The proportion of respondents in the ‘very likely’/‘likely’ perceived risk group has been largely consistent over the last two years of available survey data. Similarly, over recent years the proportion of all respondents believing that it was ‘very unlikely’ or ‘unlikely’ that they were at risk of losing their jobs did not fall below 50%, though the proportion of public sector employees fell marginally below 50%.

Employee expectations of job loss

Autumn 2014 (Spring 2014)

Proportion of employees saying it is likely or unlikely that they could lose their jobs as a result of the economic downturn (%)

	All	Private	Public	Voluntary
Very likely	4 (4)	4 (3)	5 (6)	4 (5)
Likely	14 (11)	13 (10)	18 (17)	14 (16)
Neither likely nor unlikely	27 (26)	27 (27)	26 (24)	25 (24)
Unlikely	31 (32)	32 (32)	29 (32)	32 (30)
Very unlikely	19 (21)	20 (22)	17 (17)	20 (20)
Don't know	5 (6)	5 (6)	5 (6)	6 (6)

Base (Autumn 2014): 2,918; private: 2,153; public: 547; voluntary: 143.

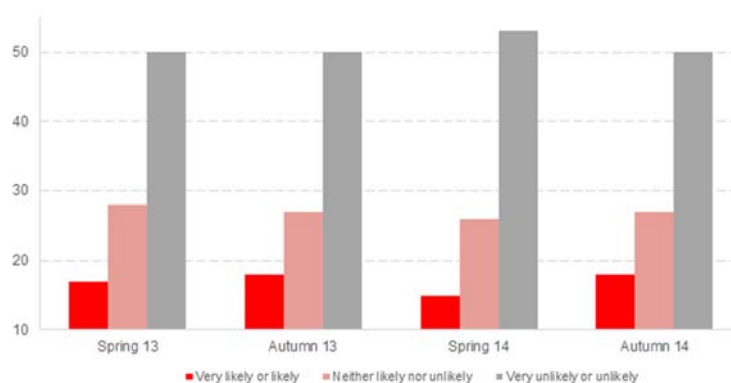
Base (Spring 2014): 2,523; private: 1,838; public: 479; voluntary: 103.

Source: CIPD Outlook Autumn 2014/Spring 2014

Persistent (perceived) job insecurity can damage health and wellbeing according to recent international studies. Glavin has recently published extensive survey work with more than 1,000 US workers which found that while 'episodic'/occasional experiences of perceived insecurity have little impact on some aspects of wellbeing – 'persistent job insecurity operates as a chronic stressor', with the persistently insecure reporting 'increased psychological distress and poorer self-rated health compared with those in secure work' (Glavin, 2015: 321). This research also finds that age matters, which some of the most negative impacts being on middle-aged workers.

Similarly, analysis by Griep and colleagues compared Finnish employees experiencing job insecurity with their long-term and short-term unemployed counterparts. Analysing almost 4,000 survey responses, these authors found that those experiencing job insecurity reported poorer wellbeing than those in short-term unemployment in terms of psychological complaints such as nervousness and reported physical health complaints. These studies add to a growing evidence base that persistent job insecurity can impact negatively on wellbeing.

% of employees reporting on whether they could lose their jobs as a result of the economic downturn



Source: CIPD, Employee Outlook surveys

Job status insecurity

Looking at contractual arrangements isn't enough to understand perceived job insecurity. More recently, a discussion has started about job status insecurity, that is, anxiety "... about the threat of loss of valued features of the job" (Gallie, Felstead, Green and Inanc, 2016: 2). Job status insecurity is driven by developments in management practice, frequent organisational change, increasing performance expectations, closer monitoring and stronger sanctions for underperformance, all of which can generate anxiety and uncertainty about valued job features.

Using UK data from 1986-2012, and controlling for personality characteristics, Gallie and colleagues report increasing job status insecurity over the period, with 38% of their sample reporting at least one form of job status insecurity, and with anxiety over pay and having less say in the job the most prevalent. Job status insecurity featured at every occupational level and was more frequently reported than job tenure anxiety, though those in lower class/occupational positions had significantly higher job status insecurity, arguably as they bear disproportionately the costs of internal flexibility. Particular HR practices such as performance appraisal and forms of autonomous-team working were significantly associated with job status insecurity that in turn reduced psychological well-being, though offering employees opportunities to participate could reduce this anxiety.

Implications for research and policy

As we have argued, national statistics allow for important insights into some aspects of job insecurity, particularly in relation to the use of non-standard employment or work arrangements and how these impact on pay, dimensions of job quality and other aspects of work experience. There are limits, however, to how much robust disaggregated analysis can be done using these statistics for industries and regions in Scotland, hampering the provision of a more nuanced picture of job security and insecurity.

Survey data provides broader and deeper insights into organisational practices relevant to employment and job security, and into how this is experienced by workers, but these are relatively infrequent, may not be representative for Scotland and are rarely capable of providing the specific insights relevant to policymaking and intervention. The issues of measurement, data and evidence are, however, currently being looked at closely by the Fair Work Convention and have been highlighted as an important area of development in Scotland's Labour Market Strategy. Given the importance of security to people in work, these are welcome developments.

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