



A National Statistics publication for Scotland



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## ECONOMY AND LABOUR MARKET

# Regional Employment Patterns in Scotland:

## Statistics from the Annual Population Survey 2016

### Key findings for 2016

#### Employment

The employment level (16+) in Scotland increased to the highest level on record at 2,579,700 while the employment rate for 16-64 year olds decreased by 0.1 percentage points over the year to 72.9 per cent.

#### *Gender*

The employment level for men of 1,334,300 has increased by 13,900 over the year and is the highest level since 2008.

The gender employment gap in Scotland, the employment rate for men of 76.9 per cent minus the employment rate for women of 69.2 per cent, was 7.6 percentage points, 2.2 percentage points lower than the UK.

#### *Age*

The employment rate for older workers (65+) has increased from 5.2 per cent in 2004 to 9.1 per cent in 2016. Over half of workers over state pension age (65+) in Scotland said they had not yet retired because they were not ready to stop working.

#### *Equality Groups*

The employment rate of Equality Act disabled (42.9%) is 37.3 percentage points lower than non-disabled people (80.1%), this gap increases with age.

Minority ethnic women had substantially lower employment rates (45.0%) than white ethnic women (70.5%), whereas the employment rate for Minority ethnic males (71.6%) was more similar to white ethnic males (77.1%).

## *Types of Work*

Full-time employment levels increased to 1,885,800 – the highest level of full-time employment since 2008.

2016 had the highest self-employment level and rate on record, with 327,200 people self-employed (12.7% of all employees).

The decrease in underemployment over the year, from 9.2 per cent in 2015 to 8.4 per cent in 2016, was mainly driven by decreases in underemployment for women aged 16-49 in part-time work. The underemployment rate is still higher in 24 of the 32 local authorities than it was at the start of the 2008 recession.

Gender segregation remains a persistent issue across several industry sectors and occupational groups in Scotland.

Private sector employment in 2016 increased by 9,900 over the year to 1,888,000 - the highest level on record since the series began.

## *Education*

A record high 49.2 per cent of working people (aged 16-64) have Further or Higher education qualifications in Scotland.

35.8 per cent of workers in Scotland aged 25-64 were graduates in 2016 – the highest percentage on record.

## **Unemployment**

The unemployment rate (16+) in Scotland decreased by 1.0 percentage point over the year to 4.8 per cent in 2016, lower than the UK rate (4.9%).

40.3 per cent of all unemployed people in Scotland have been unemployed for more than 6 months, the lowest since 2008.

## *Age*

The youth unemployment rate in Scotland decreased by 2.3 percentage points over the year to 12.0 per cent in 2016.

10.7 per cent people aged 16-19 were NEET in 2016, an increase of 1.1 percentage points over the year, although lower than 11.3 per cent in 2013.

## **Economic Inactivity**

The economic inactivity rate for those aged 16-64 in Scotland increased by 0.9 percentage points over the year to 23.2 per cent in 2016, higher than the UK (22.3%).

The increase in the economic inactivity rate for Scotland over the year to 23.2 per cent was driven by increased rates for women, increasing from 26.1 per cent in 2015 to 27.5 per cent in 2016.

The largest increases in the economic inactivity level over the year were for those aged 16-24 and 35-49.

### *Reasons for Inactivity*

Over 50 per cent of the 793,700 economically inactive people in Scotland were inactive because they were long-term sick or students.

The increase in economic inactivity levels since 2008 is driven by increases in the number of students.

### *Want to Work*

23.7 per cent (188,400) of economically inactive people aged 16-64 in Scotland wanted to work, but were unavailable for work or not actively seeking work.

### *Never Worked*

Excluding students aged 16-24 in full-time education, 149,600 people in Scotland in 2016 aged 16+ had never been in employment.

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## About this publication

The Annual Population Survey (APS) is the primary source for information on local labour markets providing headline estimates on employment, unemployment and economic inactivity in Scotland. It combines results from the Labour Force Survey (LFS) and the English, Welsh and Scottish Labour Force Survey boosts. The boosts increase the sample size, which means the APS can provide more robust labour market estimates for local areas compared to the main LFS. The Scottish Government funds the boost to the LFS sample in Scotland, taking the sample size from approximately 5,000 households each year to 17,000 households

This is the fourteenth publication of the series (known as Local Area Labour Markets in Scotland prior to 2016). It aims to provide reliable and up-to-date headline information for local area labour markets and covers employment, equality characteristics of those in employment, underemployment, inactivity and youth participation in the labour market within Scotland and its local authorities. Results are provided for the calendar years (January to December) 2004 to 2016, based on the data released by the Office for National Statistics (ONS) on 16 March 2017. ONS also release rolling quarterly datasets covering the periods April-March, July-June and October-September. The data for these time periods have not been used or presented within this publication or associated tables. The data for these is available at: <https://www.nomisweb.co.uk/>

This year's publication highlights the key statistics for Scotland's labour market from the APS as well as providing trends over time. The supporting data tables have also been updated to include a user selectable local area summary which allows a number of local authority areas to be easily compared across different indicators.

### Notes:

1. All statistics, charts and tables presented in this publication are sourced from the Annual Population Survey January-December datasets produced by the Office for National Statistics (ONS).
2. Map data: © Crown copyright and database right 2012. All rights reserved. Ordnance Survey Licence number 100024655

Supporting data for all indicators at local authority level are available in the publication [web-tables](#)

# 1 Economic Activity

The number of people aged 16 and over who were economically active in Scotland in 2016 was 2,711,100. Over the year, the economic activity level decreased by 25,200. This was mainly due to a decrease in the number of 16-24 and 35-49 year old women who were economically active.

Economically active individuals are those who are in employment or have been actively seeking work and are available to start work, the International Labour Organisation (ILO) definition of unemployment.

Of those who were economically active in 2016, 95.2 per cent were in employment (2,579,700) while 4.8 per cent were unemployed (131,400).

Chart 1: Economic Activity Rate (16-64), Scotland and UK



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## 1.1 Employment

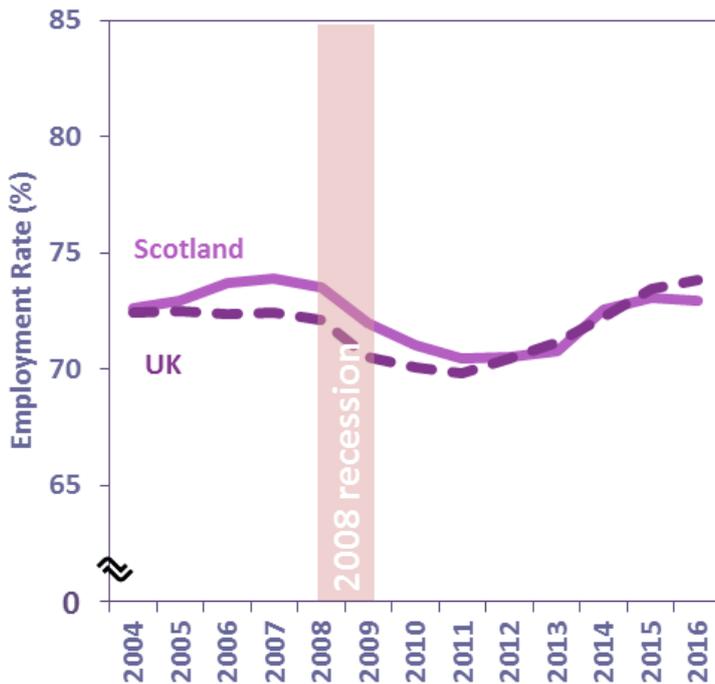
People are classed as being in employment if they are over 16 years old and have done at least one hour of paid work in the week prior to their Labour Force Survey (LFS) interview or have a job that they are temporarily away from.

People who are employees, self-employed, unpaid workers in a family business or on Government-supported training and employment programmes are classed as being employed under the ILO definition.

### Employment level (16+) in Scotland was highest level on record at 2,579,700

In 2016, the employment level (16+) in Scotland increased by 2,400 over the year to 2,579,700, the highest level since comparable records began in 2004. Over the year, the increase in the overall employment level was driven by increases in the number of men who were employed. However, the employment rate (16-64) is still below the rates seen prior to the 2008 recession.

**Chart 2: Employment Rate (16-64), Scotland and UK**



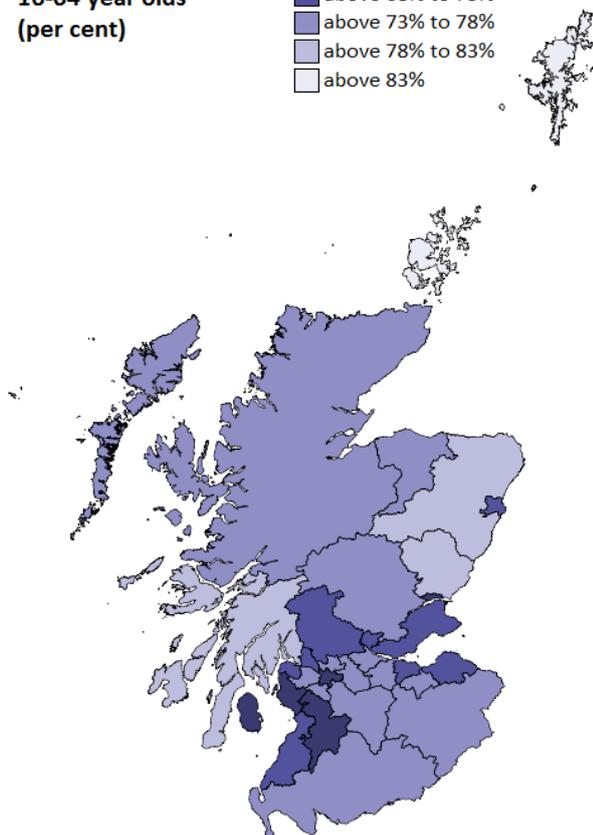
The employment rate for those aged 16-64 in Scotland was higher than that of the UK until 2011. Since 2012, Scotland's employment rate has followed a similar trend to that of the UK with the rates diverging in 2016.

Over the year, the employment rate decreased by 0.1 percentage points in Scotland and increased by 0.4 percentage points in the UK.

## Employment rates increased in 16 local authority areas in Scotland over the year

**Employment Rate 2016**  
16-64 year olds  
(per cent)

- 68% and below
- above 68% to 73%
- above 73% to 78%
- above 78% to 83%
- above 83%



There is considerable variation in employment rates for those aged 16-64 across Scotland's local authorities. The highest employment rates were seen in Shetland Islands (86.6%), Orkney Islands (86.0%) and Argyll & Bute (78.4%) while the lowest employment rates were seen in North Ayrshire (64.4%), Dundee City (66.0%) and East Ayrshire (66.3%).

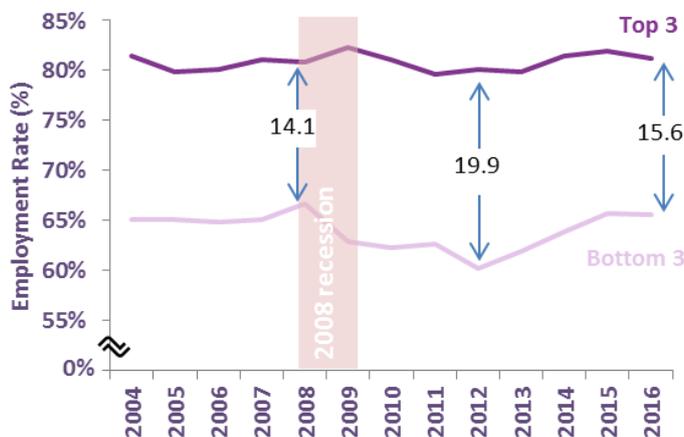
Over the year, 16 of the local authority areas in Scotland saw an increase in their employment rate while 15 saw a decrease and one remained unchanged.

Statistically significant<sup>1</sup> changes in employment rates were seen in Aberdeen City (down 6.3 percentage points from 76.5% to 70.2%) and Angus (up 4.6 percentage points from 73.7% to 78.2%).

<sup>1</sup> An explanation of the term statistically significant can be found in Annex C.

## Gap between employment rates of the top and bottom 3 performing local authorities in Scotland reduced by 0.6 percentage points over the year

**Chart 3:** Employment Rates (16-64) for Top and Bottom 3 Performing Local Authorities Scotland and UK



The gap between the employment rates of the top and bottom three performing local authorities in Scotland reduced by 0.6 percentage points over the year<sup>2</sup>.

Over the year, the gap between the employment rates of the top and bottom three performing local authorities, as measured by the Cohesion Purpose Target, reduced from 16.2 to 15.6 percentage points. The gap is still wider than the 14.1 percentage points seen at the start of the recession.

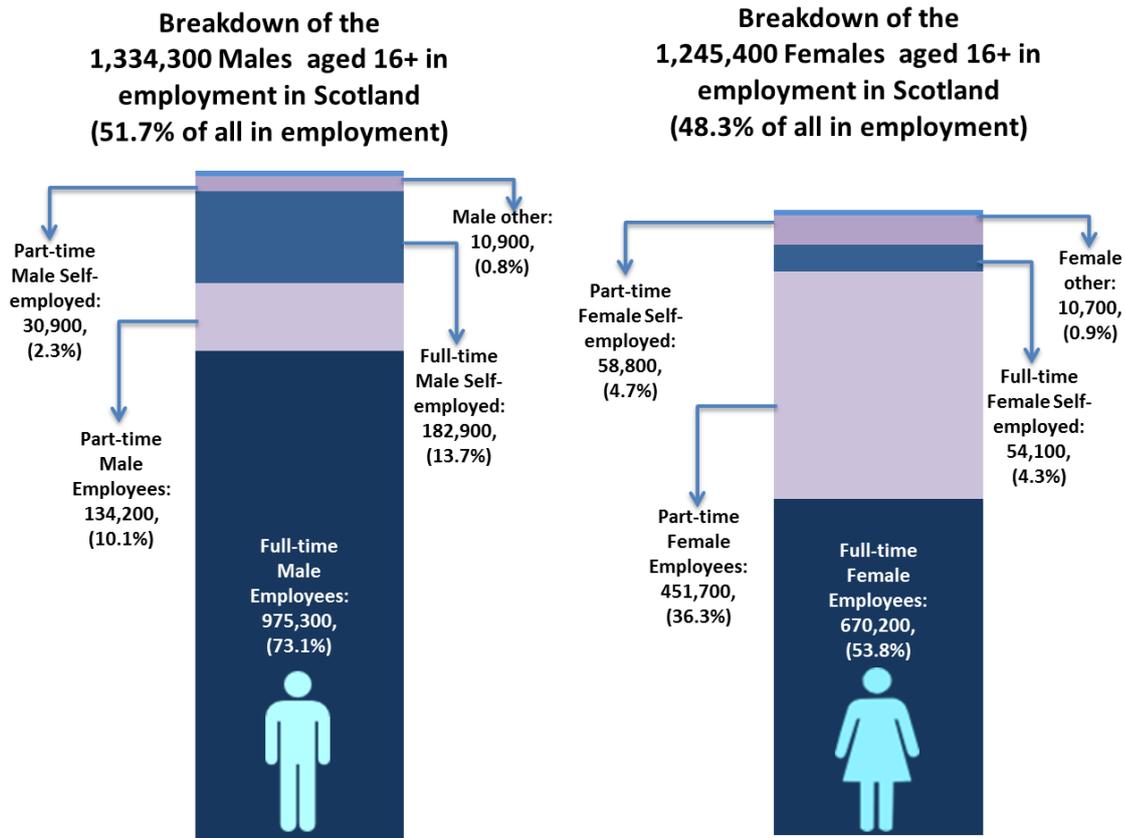
Further information about the Cohesion Purpose Target is available at:

<http://www.gov.scot/About/Performance/scotPerforms/purposetargets/cohesion>

<sup>2</sup> The gap between Scotland's best and worst performing regions is calculated by taking the difference between the employment rate calculated for the 3 local authorities with the highest employment rates in Scotland and the employment rate calculated for the 3 with the lowest.

### 1.1.1 Gender

The diagram below presents the composition of those in employment by gender in 2016.



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<sup>3</sup> Note: Other includes unpaid workers in a family business, those on Government-supported training and employment programmes and those employees and self-employees who did not report their working pattern.

## Employment level for men of 1,334,300 is the highest level since 2008

The employment level (16+) for men in Scotland has increased by 13,900 over the year to reach 1,334,300, the highest employment level for men since 2008.

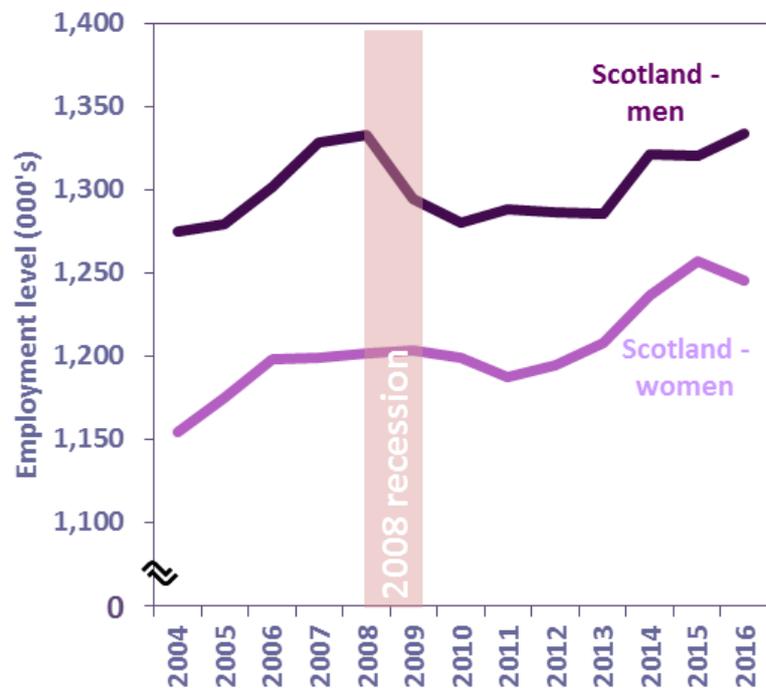
Over the same period, the employment level for women decreased from 1,256,900 to 1,245,400 (down by 11,500). However, it is still higher than the employment levels seen before and following the 2008 recession.

The employment (16-64) rate for women in Scotland decreased by 0.9 percentage points from 70.1 per cent in 2015 to 69.2 per cent in 2016, driving the decrease in the overall employment rate over the same period (down 0.1 percentage points from 73.1% to 72.9%). However, the employment rate for men increased by 0.7 percentage points from 76.2 per cent to 76.9 per cent.

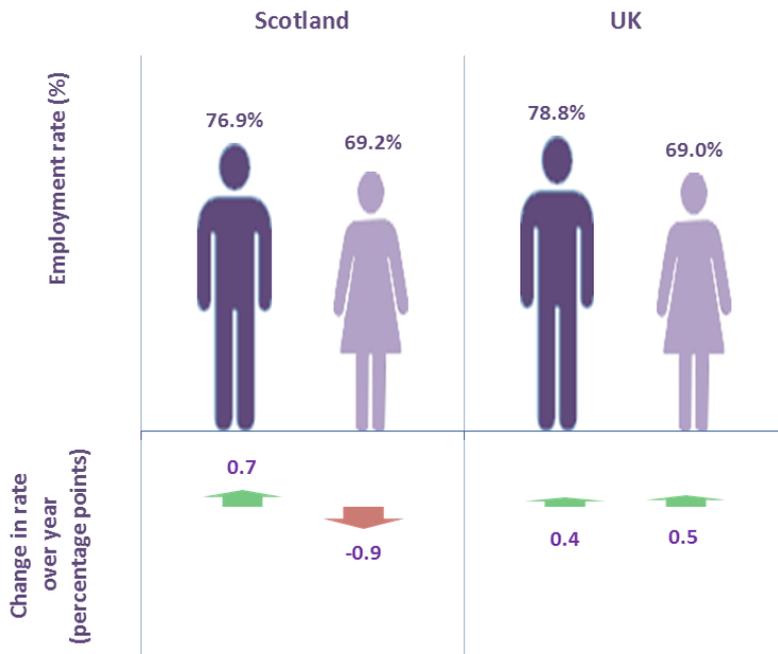
Of the 32 local authority areas of Scotland, 15 saw increases in their employment rates for women over the year, with the remaining 17 seeing decreases. Statistically significant changes over the year were seen in Aberdeen City (down 8.5 percentage points from 76.4% to 67.9%) and Dundee City (up 8.9 percentage points from 60.4% to 69.3%).

For the employment rates for men across Scotland, 19 local authorities saw increases in their employment rates over the year, with the remaining 13 seeing decreases. Statistically significant changes over the year were seen in Angus (up 6.3 percentage points from 77.7% to 84.1%) and Highland (down 6.8 percentage points from 85.0% to 78.1%).

**Chart 4:** Employment Level (16+) by Gender, Scotland



**Chart 5: Employment Rate (16-64) by Gender, Scotland**



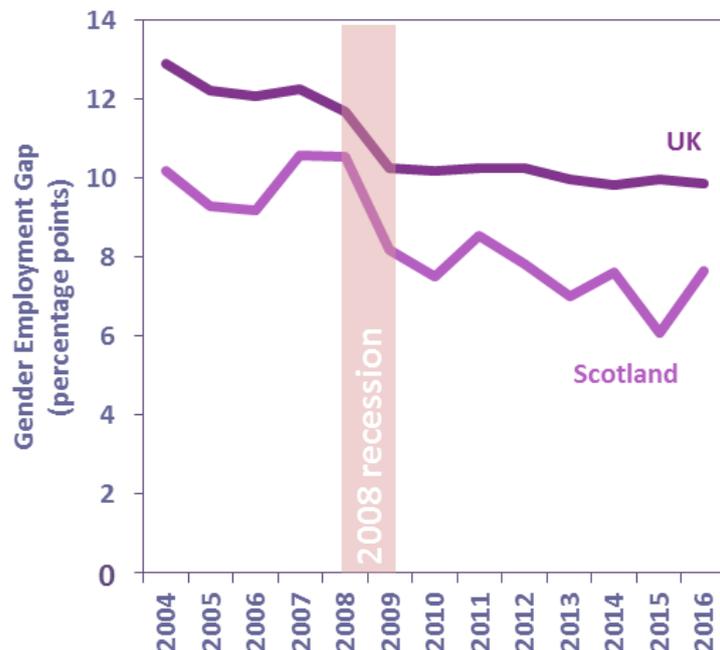
The employment rate for men in Scotland was 76.9 per cent, 0.7 percentage points higher than the rate in 2015. Since the UK rate for men increased by 0.4 percentage points, i.e. slower growth over the year, the gap between the Scotland and UK employment rates for men has decreased to 2.0 percentage points, from 2.3 percentage points the year before.

The employment rate for women in Scotland was higher than the UK rate. However, over the year the employment rate for women decreased by 0.9 percentage points in Scotland while it increased by 0.5 percentage points for the UK.

**Gender employment gap in Scotland was 7.6 percentage points, 2.2 percentage points lower than the UK**

Between 2004 and 2016, the gender employment gap for Scotland has been lower than the gender employment gap for the UK. The gender employment gap for Scotland has increased over the year to the same gap seen in 2014. The increase in the gap over the year is due to a decrease of 0.9 percentage points in the employment rate for women while the employment rate for men increased by 0.7 percentage points.

**Chart 6: Gender Employment Gap (16-64), Scotland and UK**



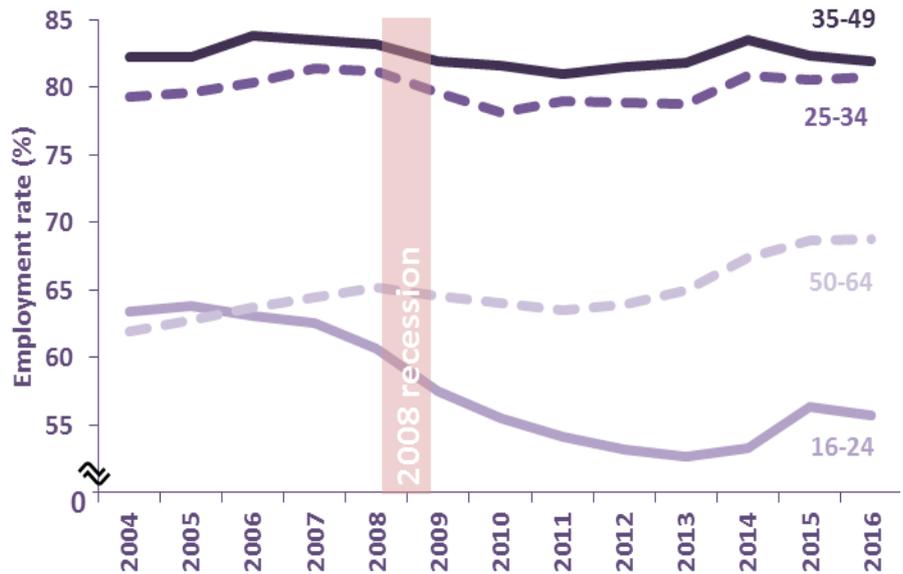
## 1.1.2 Age

### Decrease over the year in the 16-24 and 35-49 age groups was driven by women

Employment rates for 25-34 and 35-49 year olds have remained around 80 per cent from 2004 to 2016, indicating a fairly high resilience to economic change. In 2016, the employment rate for 25-34 year olds was 80.8 per cent while 35-49 year olds had the highest employment rate at 81.9 per cent.

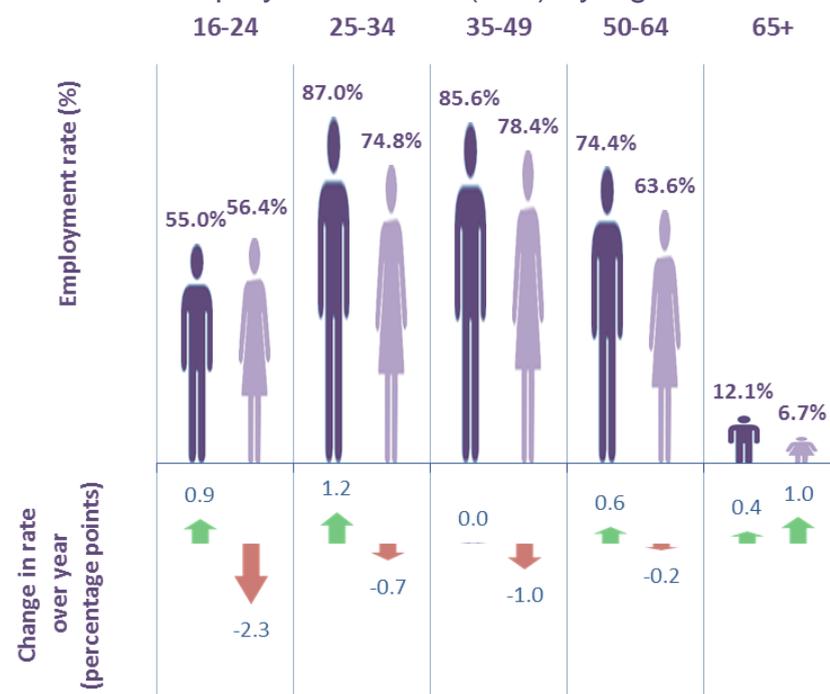
Young workers (16-24) saw the main impact of the recession with their employment rates reducing from 60.7 per cent in 2008 to 52.6 per cent in 2013, starting to recover until 2015 and then decreasing slightly to 55.7 per cent in 2016. In contrast, employment rates for those aged 50-64 have increased through the recovery remaining fairly constant over the last year (68.8 per cent in 2016).

Chart 7: Employment Rates (16-64) by Age, Scotland



Over the year, women are driving the decrease in the employment rate for those aged 16-24 and those aged 35-49.

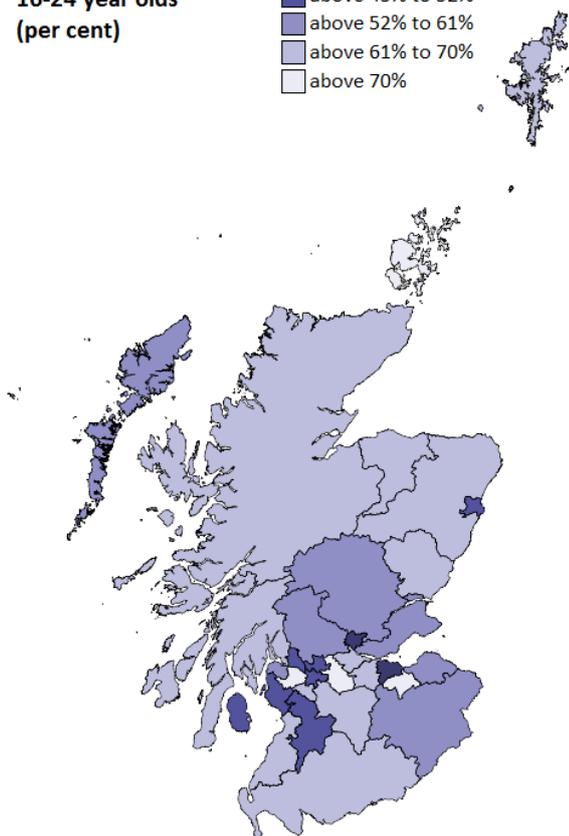
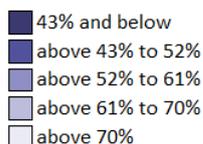
Chart 8: Employment Rates (16+) by Age and Gender, Scotland



## Highest youth (16-24) employment rates were seen in the Orkney Islands, Midlothian and Renfrewshire

The youth employment rate in Scotland during 2016 decreased by 0.7 percentage points over the year from 56.4% to 55.7%, while the UK rate decreased by 0.1 percentage points from 53.6% to 53.5%. The current youth employment rates in both Scotland and the UK remain lower than the rates in 2008 (down 5.0 and 2.4 percentage points respectively).

**Employment Rate 2016**  
16-24 year olds  
(per cent)



Across Scotland, the highest youth employment rates were seen in the Orkney Islands (78.1%), Midlothian (76.9%) and Renfrewshire (71.8%) while the lowest rates were seen in Clackmannanshire (35.4%), Edinburgh City (39.9%) and East Ayrshire (44.7%).

Over the year, 19 of the local authority areas in Scotland saw an increase in their youth employment rates while the remaining 13 saw a decrease.

Statistically significant changes over the year were seen in Aberdeen City (down 19.1 percentage points from 63.9% to 44.8%), Midlothian (up 19.7 percentage points from 57.2% to 76.9%) and North Lanarkshire (up 13.2 percentage points from 57.0% to 70.2%).

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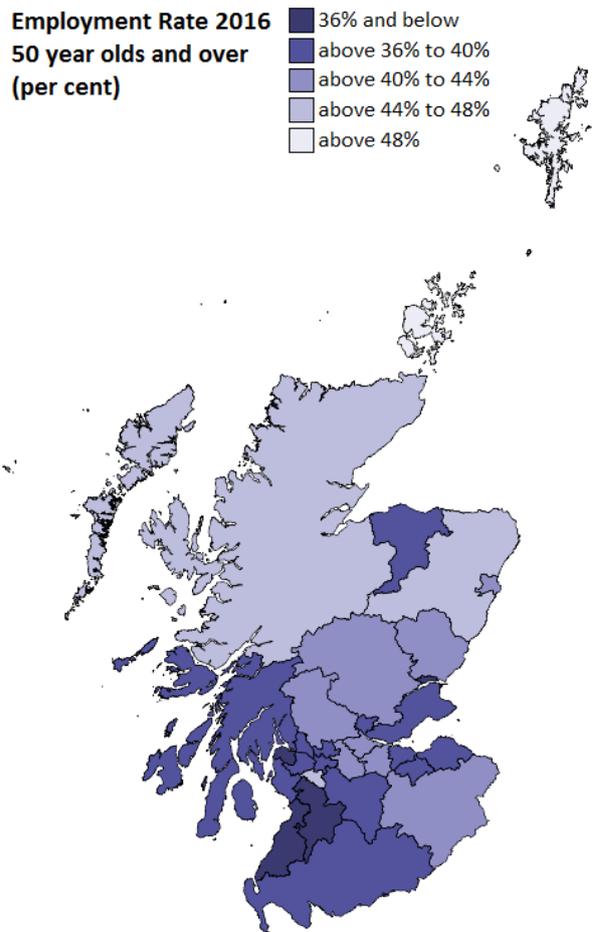
## Over half of workers over state pension age (65+) in Scotland said they had not yet retired because they were not ready to stop working

The employment rate for older workers (50+) in Scotland has been increasing steadily from 35.7% in 2004 to 40.3% in 2016, driven by:

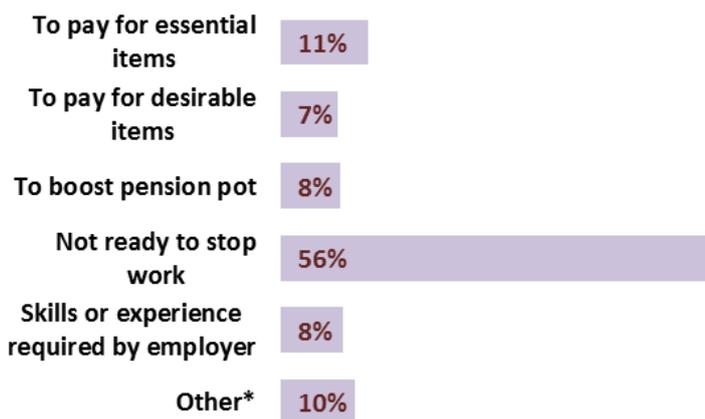
- the employment level for 50-64 year olds rising from 573,200 to 742,400, with their employment rate increasing from 61.9% to 68.8%
- the employment level for those aged 65 and over rising from 41,200 to 89,300, with their employment rate increasing from 5.2% to 9.1%

Women accounted for 54 per cent of the increase in those aged 50-64, whilst men accounted for around 55 per cent of the increase in those aged 65+. The shift in both cases is mainly from inactivity to employment (delaying retirement or moving back into work from either retirement or sickness)

The local authorities with the highest employment rates for older workers (50+) – Shetland Islands (50.1%), Orkney Islands (49.5%), Aberdeenshire (47.0%), Highland and Na h-Eileanan Siar (both 46.7%).



**Chart 9: Main Reason for Remaining in Work, Scotland**



In 2016, there were 89,300 workers in Scotland who were over the state pension age (65+), up 8,800 over the year.

The main reason given for remaining in work was that they were not ready to stop work yet (56.2%)<sup>4</sup>.

11.2 per cent had chosen to remain in work to pay for essential items (e.g. bills) while 7.6 per cent had remained in work to boost their pension pot.

<sup>4</sup> Other includes opportunities to work more flexible hours, wanting to stay mentally/physically fit and a wide range of personal reasons

### 1.1.3 Disability

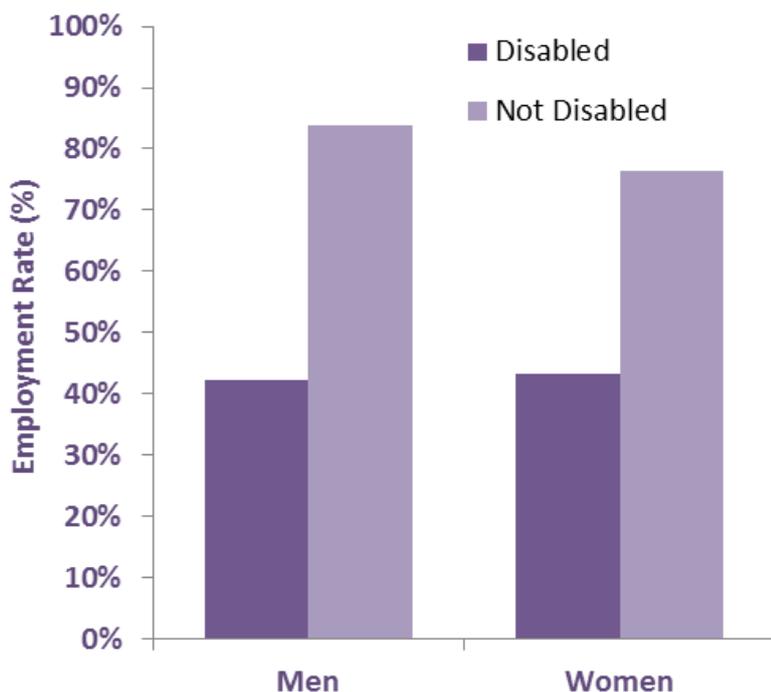
#### Gap between employment rates of disabled and non-disabled people increases with age

In 2016, the employment rate for those classed as disabled under the Equality Act 2010<sup>5</sup> was 37.3 percentage points lower than the employment rate for those not classed as disabled.

The gap between the employment rates for disabled and non-disabled people has decreased over the year by 1.1 percentage points, which is due to the employment rate for disabled people increasing by 0.9 percentage points and the employment rate for those not classed as disabled decreasing by 0.1 percentage points.

The Equality Act Disabled employment rate was 42.9 per cent in Scotland overall. The highest rates were seen in the Shetland Islands (72.5%), East Dunbartonshire (58.6%), Argyll and Bute (57.1%), Perth and Kinross (55.6%) and Angus (53.9%).

**Chart 10:** Employment Rates (16-64) by Equality Act Disabled and Gender, Scotland



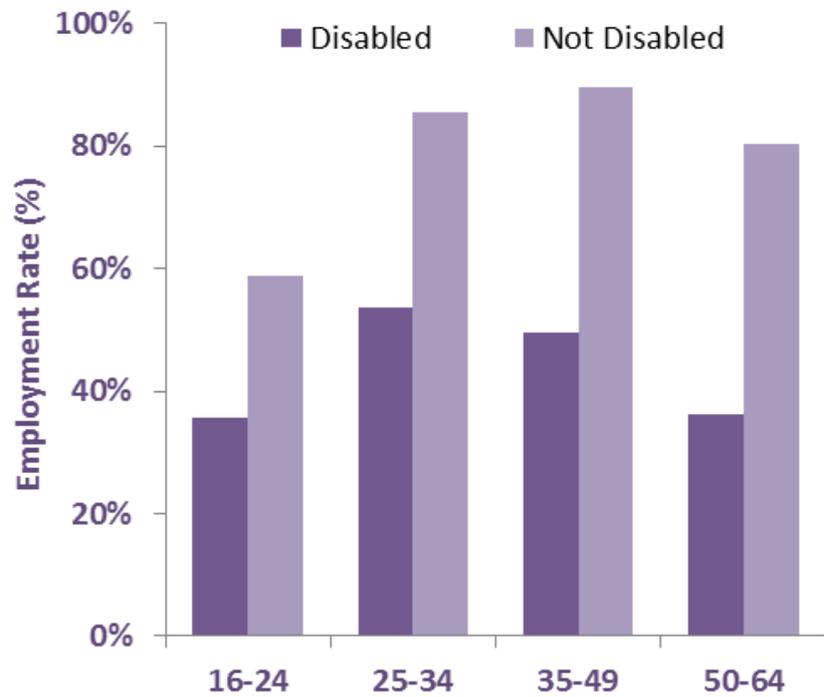
The employment rate gap between Equality Act Disabled and not Equality Act Disabled women was lower than the gap for men in 2016 (33.2 and 41.5 percentage points respectively).

The employment rate gap for Equality Act Disabled and not Equality Act Disabled people increases with age.

<sup>5</sup> Further information about how disability is defined under the Equality Act 2010 can be found [here](#)

Young (16-24) disabled people have the lowest employment rate gap at 23.0 percentage points. However, they have the lowest employment rates for Equality Act disabled (35.7%) and not Equality Act disabled (58.7%) people. Older workers (50-64) have the largest employment gap at 44.1 percentage points, reflecting greater health issues faced by those in this age group.

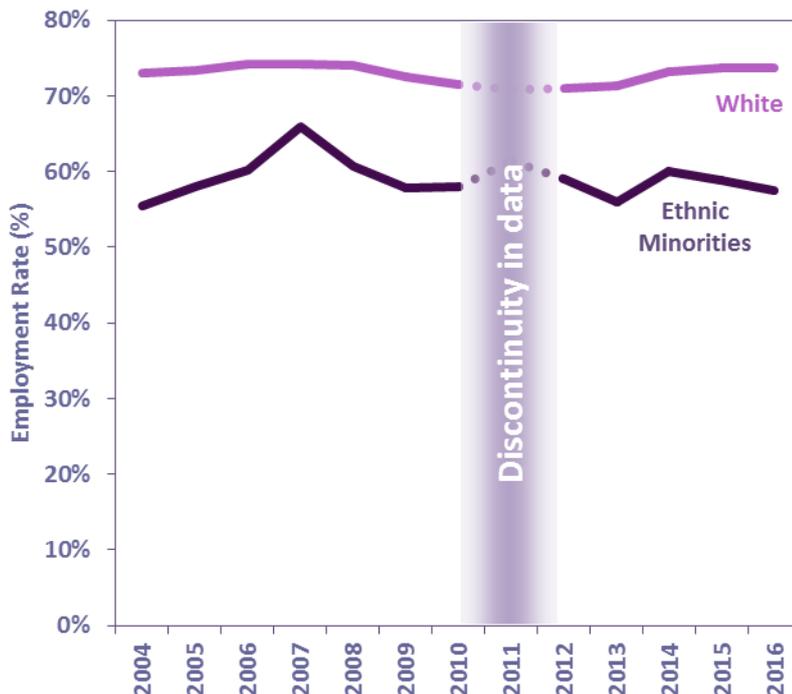
**Chart 11: Employment Rates (16-64) by Equality Act Disabled and Age, Scotland**



### 1.1.4 Ethnicity

#### Minority ethnic women had substantially lower employment rates than white ethnic women

**Chart 12: Employment Rates (16-64) by Ethnic Group, Scotland**

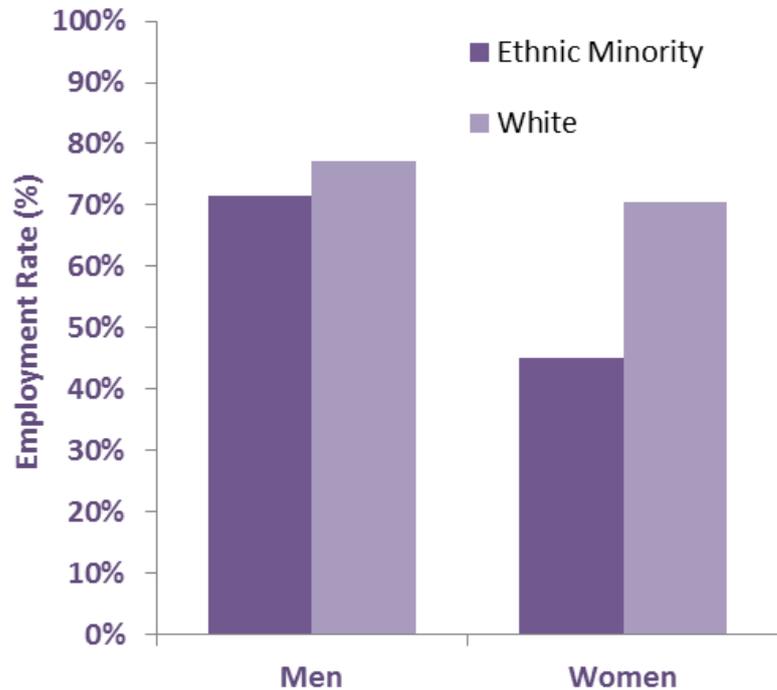


From 2004 to 2016, the employment rate for ethnic minorities aged 16-64 in Scotland is continually lower than the employment rate for ethnic white people. In 2016, the employment rate for ethnic minorities was 57.6 per cent (down 1.3 percentage points from 58.9% in 2015) compared to an employment rate of 73.7 per cent for ethnic white people (up 0.1 percentage points), an employment rate gap of 16.2 percentage points.

The employment rates for ethnic minorities varied across Scotland with the highest rates being seen in Lanarkshire (75.1%) and the Highland and Islands (73.3%)<sup>6</sup>.

**Chart 13: Employment Rates (16-64) by Ethnic Group and Gender, Scotland**

The employment rate gap is mainly driven by the much lower employment rate for minority ethnic women compared to the employment rate for ethnic white women, an employment rate gap of around 26 percentage points. In contrast, the gap in employment rates between minority ethnic men and ethnic white men is around 6 percentage points<sup>7</sup>.



**Chart 14: Employment Rates (16-64) by Ethnic Group and Age, Scotland**



Looking at the minority ethnic and white ethnic employment rates broken down by age, it can be seen that the employment rate for ethnic minorities aged 16-24 is 38 percentage points lower than the white ethnic group of the same age. This employment rate gap decreases with age with the oldest age group (50-64) having higher employment rates in the minority ethnic group than in the white ethnic group<sup>7</sup>.

<sup>6</sup> Data are not available by Local Authority for Minority Ethnic Employment rates. Table 1.6 provides employment rates and levels for ethnic minority by regions which are composed of a number of local authorities as defined in Table 1.6.

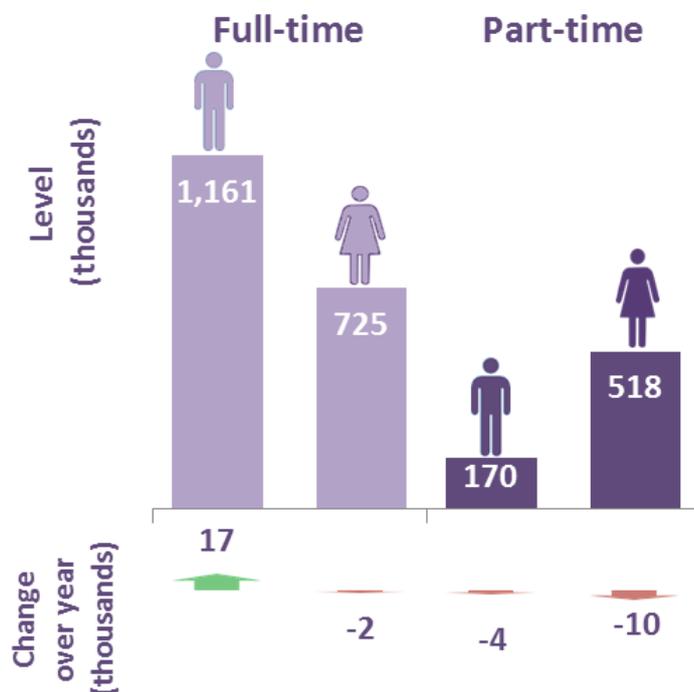
<sup>7</sup> Due to small sample sizes within the minority ethnic group in Scotland, these estimates are quite volatile.

## 1.1.5 Working Patterns/Types of Work

### Full-time employment levels increased to 1,885,800 – highest level since 2008

The proportion of people aged 16+ in full-time employment was fairly constant until the start of the recession. Following the recession, the proportion in full-time employment gradually decreased until 2012 when it started to recover. However, it is yet to recover to proportions seen prior to 2008.

**Chart 15:** Employment Level (16+) by Working Pattern, Scotland



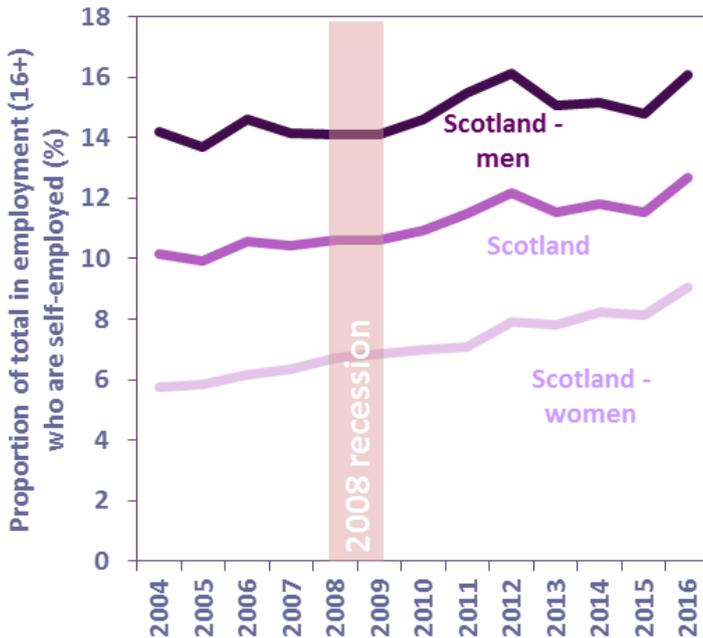
The full-time employment level increased by 14,700 over the year to reach 1,885,800 in 2016. This increase was driven by an increase in the number of men who were in full-time employment (up 16,700 over the year). The current level is still 18,000 lower than the level seen in 2008 (1,903,800).

The part-time employment level decreased from 701,900 in 2015 to 688,300 in 2016 (down 13,600 over the year). This was driven by a decrease in the number of women who were in part-time employment (down 10,000 over the year). The part-time employment level is still 63,200 higher than the level seen in 2008.

Of the part-time workers who gave a reason for working part-time, 67.6 per cent stated they did not want a full-time job while 14.1 per cent stated they could not find a full-time job.

## Highest self-employment level and rate on record

**Chart 16:** Proportion of all in Employment who are Self-employed (16+) by Gender, Scotland



The number of people aged 16+ who are self-employed in Scotland has increased by 29,800 over the year to reach 327,200, the highest self-employment level on record.

This was driven by record high self-employment levels for men and women (up 19,300 for men and 10,500 for women).

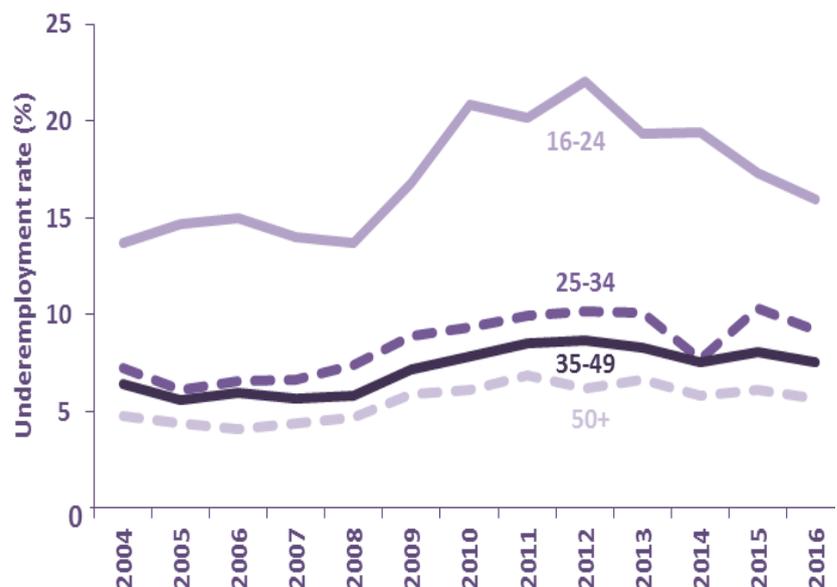
## Decrease in underemployment driven mainly by decreases for women aged 16-49 in part-time work

One of the National Indicators in the Government's National Performance Framework is to reduce the proportion of workers who are underemployed.

The underemployment<sup>8</sup> level for those aged 16 and over in Scotland decreased by 20,100 over the year to 213,100, with the rate decreasing by 0.8 percentage points from 9.2 per cent to 8.4 per cent.

The decrease in underemployment over the year was mainly driven by decreases in levels for women working part-time (down 19,400) although smaller decreases were

**Chart 17:** Underemployment Rate (16+) by Age, Scotland



<sup>8</sup> Underemployment refers to those who are in work but who would prefer to work more hours for the same rate of pay and provides a measure of underutilisation of labour. It is also used to refer to underutilisation of skills, but the APS only gathers information on hours based underemployment

also seen for women in full-time work.

All age groups saw decreases over the year in underemployment, with 16-24, 25-34 and 35-49 year olds seeing the largest decreases (down 6,400; 5,900 and 5,200 respectively).

### **Underemployment is still higher in most local authorities than it was prior at the start of the 2008 recession**

The local authority areas with the highest underemployment rates in 2016 were Shetland Islands (21.3%), Na h-Eileanan Siar (11.7%) and Highland and North Ayrshire (both 11.3%), while the lowest rates were seen in North Lanarkshire (5.1%), East Dunbartonshire (5.6%) and Clackmannanshire (5.8%).

Underemployment rates reduced in 20 local authority areas over the year, while 11 saw increases and one remained unchanged. Statistically significant changes were seen over the year in the Scottish Borders (down 3.7 percentage points from 13.2% to 9.5%), Shetland Islands (up 10.7 percentage points from 10.6% to 21.3%), West Lothian (up 2.8 percentage points from 5.0% to 7.8%) and for Scotland overall (down 0.8 percentage points from 9.2% to 8.4%).

However, underemployment remains higher in most local authority areas than in 2008, with 24 local authorities having a higher rate and 6 having a lower rate than in 2008. Statistically significant changes in the underemployment rates between 2008 and 2016 were seen in Aberdeenshire (up 3.4 percentage points from 5.9% to 9.3%), East Renfrewshire (up 2.9 percentage points from 4.1% to 7.0%) and for Scotland overall (up 1.4 percentage points from 7.0% to 8.4%).

Further information about the Underemployment National Indicator is available at: <http://www.gov.scot/About/Performance/scotPerforms/indicator/underemployment>

### 1.1.6 Industry/Occupation/Sector

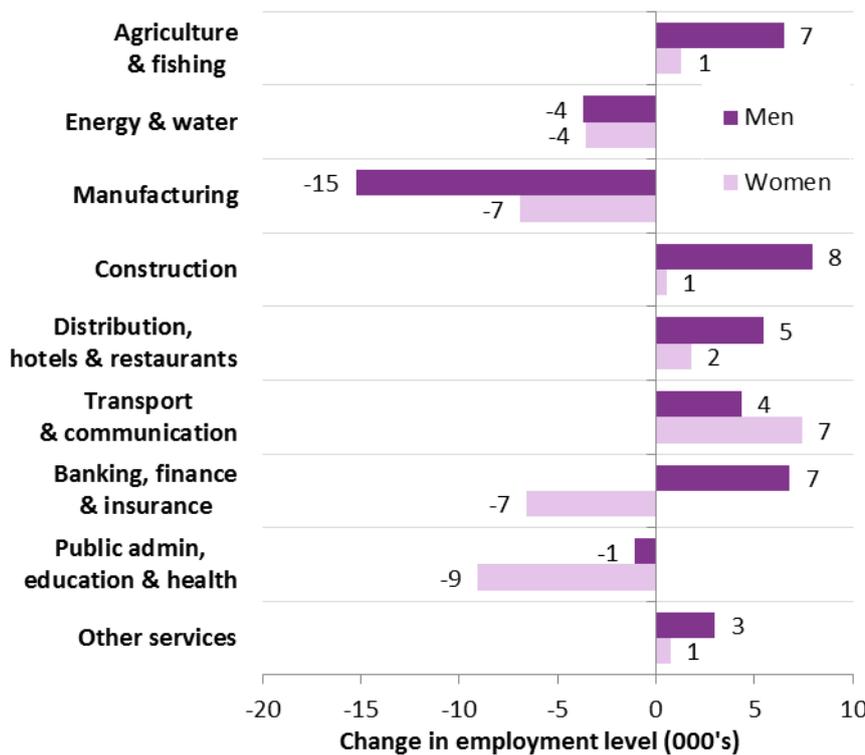
Overall, the largest employing sector in 2016 in Scotland was Public Admin, Education and Health (31.2%). This was the largest employing sector across all local authority areas. At Scotland level, this was followed by Distribution, Hotels and Restaurants (18.8%) and Banking and Finance the third largest sector (16.0%).

The smallest employing sectors in Scotland overall were Agriculture and Fisheries (1.8% overall), although accounting for over 10 per cent of all employment in Shetland Islands (10.4%) and Dumfries and Galloway (10.1%).

Also Energy and Water accounts for 3.4 per cent of overall employment in Scotland, although accounting for 14.0 per cent in Aberdeenshire and 10.8 per cent in Aberdeen City.

### Gains in employment levels seen over the year in the Transport and Communication and Construction sectors

**Chart 18:** Change in the Number of People Employed over the year (16+) by Industry and Gender, Scotland



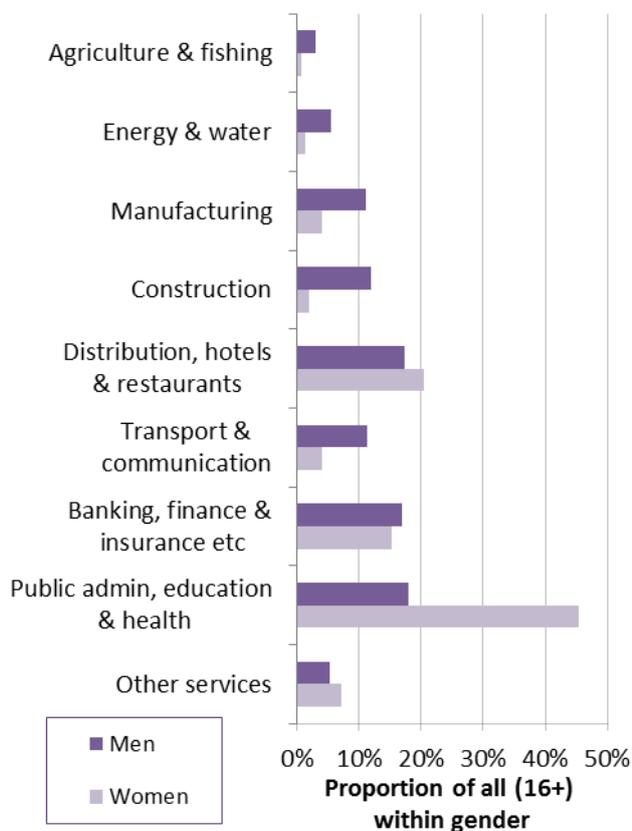
Over the year to 2016, the largest increase in employment levels was seen in the Transport and Communication sector (up 11,800). By Local Authority, 9,000 of the increase in Transport and Communication occurred in the City of Edinburgh, with this sector increasing to account for 12.8 per cent of employment of people who live in Edinburgh.

The number of people employed in the Construction industry increased by 8,500 over the year, with 6,000 of the increase occurring in the City of Glasgow.

The largest decrease in employment level was seen in the Manufacturing sector (down 22,100), with largest decreases in this sector occurring in South Lanarkshire, Glasgow and Edinburgh.

## Gender segregation remains a persistent issue across several industry sectors and occupational groups in Scotland

**Chart 19:** Proportion of all in Employment (16+) by Industry and Gender, Scotland



Although equality legislation has been in place for many years<sup>9</sup> gender segregation is still apparent in many industry sectors in Scotland.

Almost half of women in Scotland (45.4%) work in the Public Admin, Education and Health sector (Note this is not the same as the Public Sector).

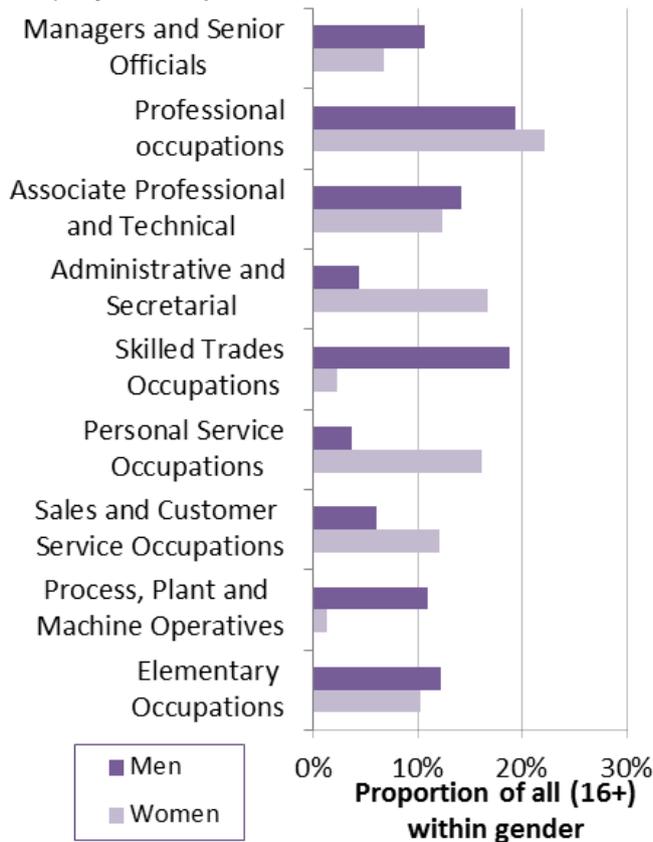
Over two-fifths (42.6%) of men work in sectors that exhibit high levels of gender segregation: Construction (11.9%), Transport and Communication (11.3%), Manufacturing (11.1%), Energy and Water (5.5%) and Agriculture and Fishing (2.9%).

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Gender segregation across the various occupational groups shows a similar picture to that seen across industry sectors with specific occupational groups showing high levels of segregation.

<sup>9</sup> EU directives on protected groups in 2000 and Equality Act 2010

**Chart 20:** Proportion of all in Employment (16+) by Occupation and Gender, Scotland



44.8 per cent of women in Scotland were employed in occupations that are gender segregated towards women: Administrative and Secretarial (16.7%), Personal Service (16.1%) and Sales and Customer Service occupations (12.1%).

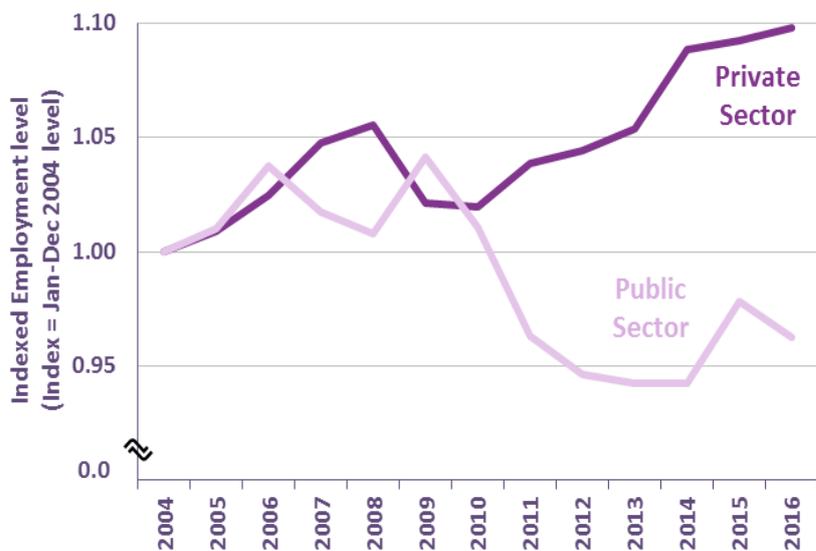
29.7 per cent of men in Scotland were employed in occupations that exhibit high levels of gender segregation: Skilled Trades (18.8%) and Process, Plant and Machine Operatives (10.9%).

**Private sector employment in 2016 increased by 9,900 over the year to 1,888,000 - the highest level on record since the series began**

Since the series began in 2004, there have been increases in the number of those aged 25-34, 50-64 and 65+ employed in the private sector (up 74,400, 119,800 and 38,300 respectively) while the number of those aged 16-24 and 35-39 employed in the private sector has decreased (down 34,900 and 29,200 respectively).

Since 2008, the increases seen in private sector employment have been driven by increases in part-time employment (up 61,200), while full-time employment increased by 11,400.

**Chart 21:** Changes in Public and Private Sector Employment since 2004, Scotland



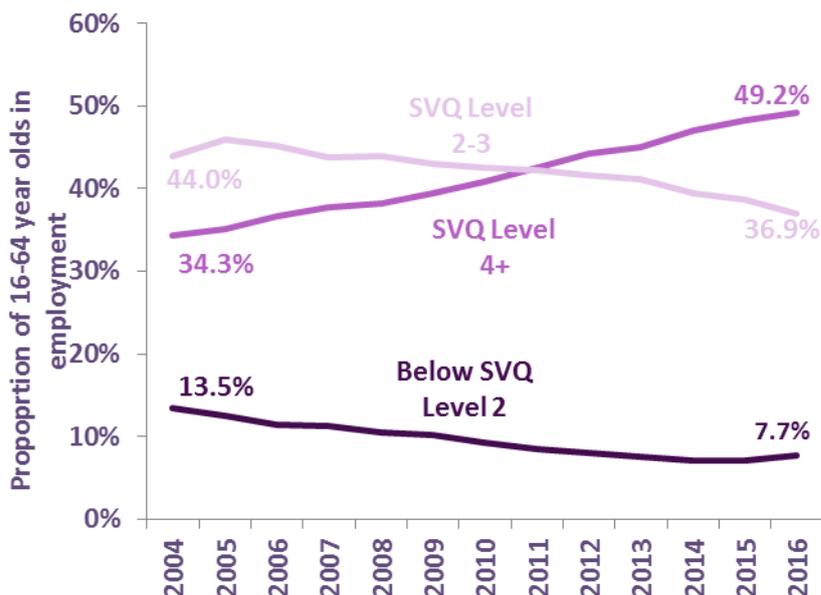
In contrast the decreases seen in the public sector<sup>10</sup> since 2008 were driven by decreases in full-time employment levels (down 33,600).

### 1.1.7 Education, Skills and Training

## A record high 49.2 per cent of working people (aged 16-64) have Further or Higher education qualifications in Scotland

In Scotland in 2016, 49.2 per cent of working people (16-64) had SVQ level 4+ qualifications (Further or Higher education qualifications (or equivalent)). This is the highest proportion on record. The increase in the proportion with SVQ level 4 or higher qualifications is being driven by the highest level of workers with Degree or Professional qualifications (812,100), up 19,800 since 2015.

**Chart 22:** Proportion of 16-64 year olds in Employment by Highest Qualifications, Scotland

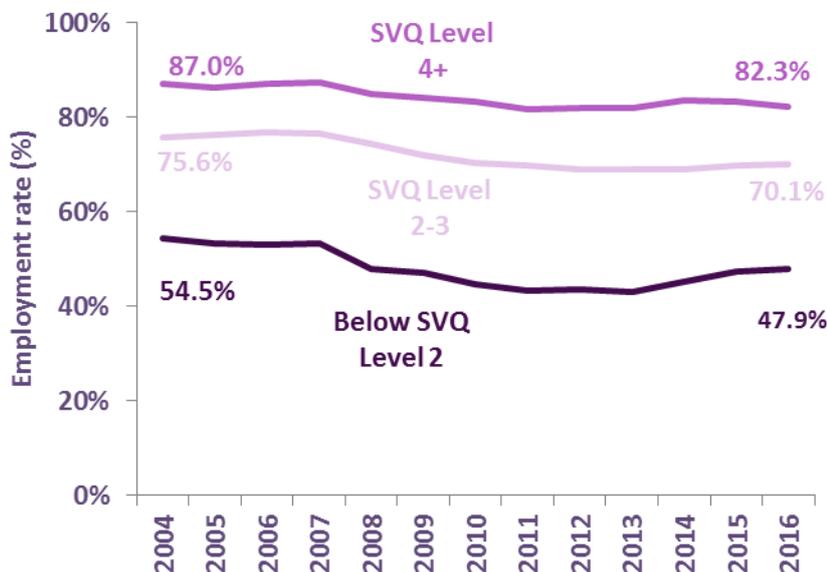


Those with SVQ level 4 or higher qualifications are the largest group in Scotland and the UK (49.2% and 43.4% respectively). The general trend towards higher level qualifications is similar for Scotland and the UK, with this being the first year in which SVQ level 4 or higher was the largest group in the UK.

<sup>10</sup> The official source for public sector employment is the Quarterly Public Sector Employment Series (QPSE). The APS is the preferred source for disaggregation by gender and age at local level. However, due to self-reporting, the APS tends to over-estimate the size of the public sector

## People with Further and Higher education qualifications (SVQ level 4+) have higher employment rates than those with lower SVQ level qualifications

**Chart 23: Employment Rates (16-64) by Highest Qualification, Scotland**



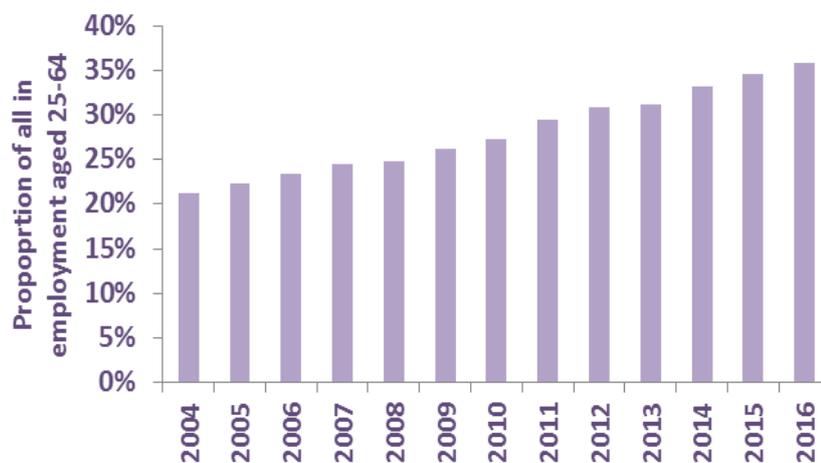
Those with SVQ level 4+ qualifications have higher employment rates than those with lower SVQ level qualifications.

In 2016, the employment rate for those with SVQ level 4+ qualifications (82.3%) is 34.4 percentage points higher than the employment rate for those with below SVQ level 2 qualifications and 12.2 percentage points higher than those with SVQ 2-3 qualifications.

The employment rate for those with SVQ level 4+ qualifications varies by local authority. The local authorities with the highest employment rates for those with SVQ level 4+ qualifications are Falkirk (89.1%), Argyll and Bute (87.4%) and Na h-Eileanan Siar (87.3%).

## 35.8 per cent (757,000) of workers in Scotland aged 25-64 were graduates in 2016 – the highest on record

**Chart 24: Proportion of Graduates (25-64) in Employment, Scotland**



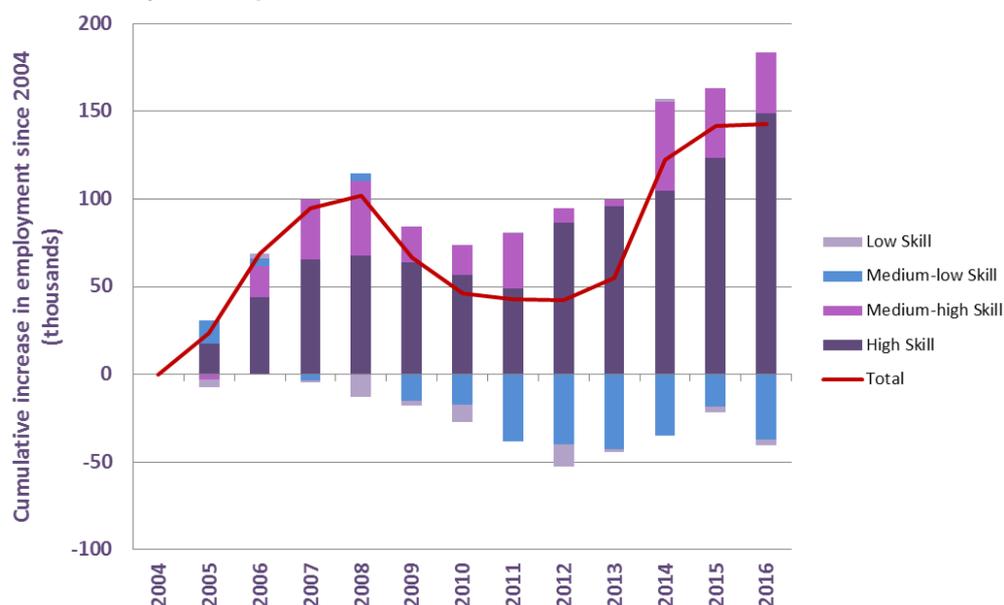
The proportion of 25-64 year olds in Scotland who were graduates in 2016 was the highest seen since the series began in 2004. This was driven by increases in 18 local authority areas over the year.

The largest increases were seen in the Orkney Islands (up 6.5 percentage points to 19.5%), Clackmannanshire (up 6.4 percentage points to 28.8%) and South Lanarkshire (up 5.8 percentage points to 33.4%).

## Decrease in medium-low and low skilled occupations in recent years

Between 2004 and 2016 there has been a large increase in high skilled occupations<sup>11</sup> (for example functional management (e.g. in finance, marketing, public finance) and medium-high skill occupations (e.g. health associate professional occupation e.g nurse), compared with a decline in low skill (e.g bar staff, cleaning) and medium low skill occupations (e.g. sales assistance, retail cashier).

**Chart 25:** Changes in Employment Levels since 2004 by Occupational Skill, Scotland

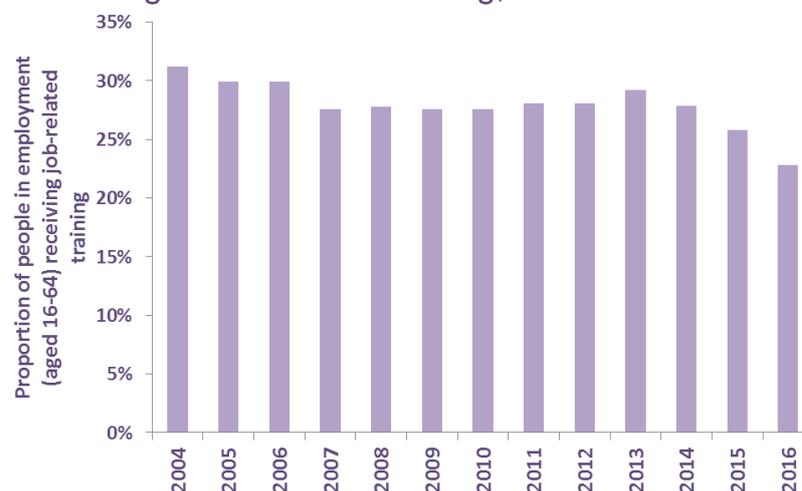


## The proportion of 16-64 year olds in employment who received job-related training decreased by 3.0 percentage points over the year

The proportion of 16-64 year olds in Scotland who were in employment and received job-related training decreased over the year from 25.8 per cent in 2015 to 22.8 per cent in 2016.

The proportion of those receiving job-related training decreased over the year in 20 local authorities over the year while the proportion in the remaining 12 local authorities increased.

**Chart 26:** Proportion of People in Employment Receiving Job-Related Training, Scotland



Statistically significant changes were seen in Aberdeen City (down 6.6 percentage points from 33.4% to 26.8%), Aberdeenshire (down 6.7 percentage points from 28.4% to 21.7%), Falkirk (down 8.7 percentage points from 28.9% to 20.3%), North

<sup>11</sup> Low, Med-Low, Med-High and High occupational skills are defined from the Standard Occupational Classification 2010. They are approximated by the length of time deemed necessary for a person to become fully competent in the performance of the tasks associated with a job, This, in turn, is a function of the time taken to gain necessary formal qualifications or the required amount of work-based training.

Lanarkshire (down 6.1 percentage points from 20.1% to 14.0%), Perth and Kinross (down 5.8 percentage points from 29.4% to 23.6%), South Lanarkshire (down 6.2 percentage points from 23.3% to 17.1%), West Lothian (down 10.8 percentage points from 30.4% to 19.6%) as well as Scotland overall (down 3.0 percentage points from 25.8% to 22.8%).

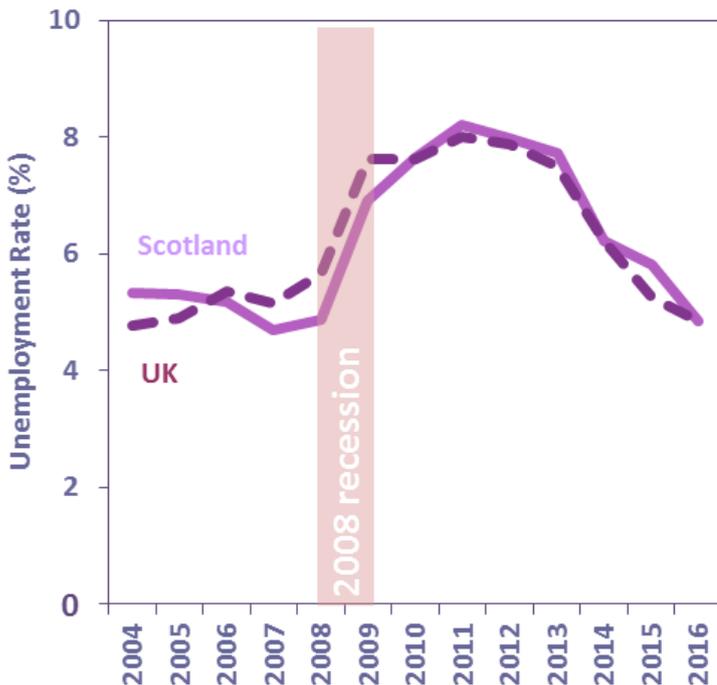
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## 1.2 Unemployment

People aged 16 and over are classed as being unemployed, under the ILO definition, if they are: not in employment, would like a job, have actively sought work in the previous four weeks prior to their LFS interview and are available to start work within the next fortnight; or are out of work and have accepted a job which they are waiting to start in the fortnight following their LFS interview.

### Unemployment rate in Scotland decreased by 1.0 percentage point over the year to 4.8 per cent in 2016, lower than the UK rate

Chart 27: Unemployment Rate (16+), Scotland and UK



The unemployment rate in Scotland in 2016 was 4.8 per cent, lower than the UK rate of 4.9 per cent.

Over the year, the rate has decreased in both Scotland and the UK (down 1.0 and 0.4 percentage points respectively).

Scotland's unemployment rate has decreased slightly since 2008 while it decreased by 0.8 percentage points in the UK.

There were 131,400 people aged 16 or over who were unemployed in Scotland, a decrease of 27,600 over the year. This was mainly due to a decrease in the number of men who were unemployed, down 18,400 over the year.

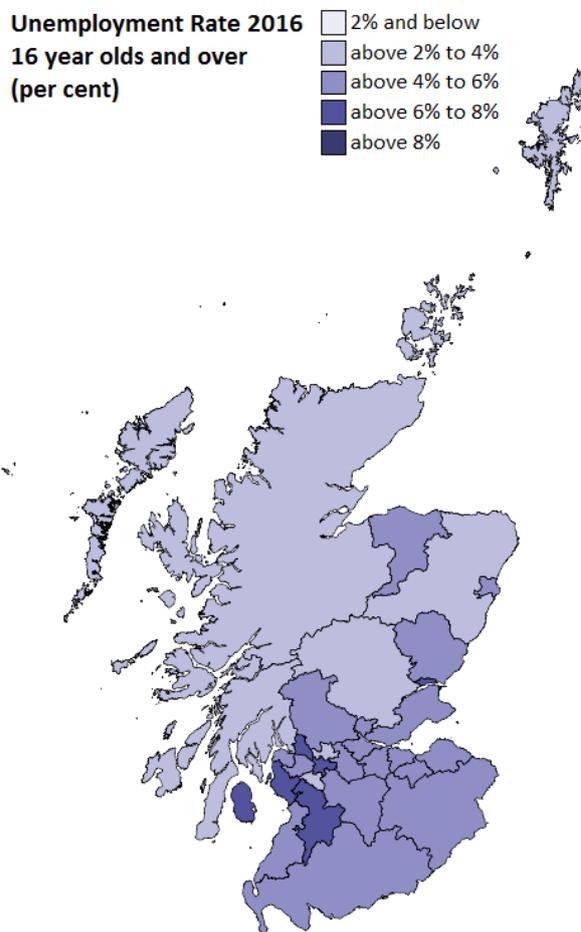
## Unemployment rates decreased across the majority of Scotland's local authorities over the year to 2016

Model Based Unemployment<sup>12</sup> (MBU) rates decreased in 26 of Scotland's 32 local authorities over the year.

In 2016, the highest MBU rates were seen in North Ayrshire (7.8%), Dundee City (7.0%), East Ayrshire and Glasgow City (both 6.5%) and the lowest rates were seen in Orkney Islands (2.6%), Shetland Islands (2.8%) and Perth and Kinross (3.4%)

Over the year MBU rates decreased in 26 of the 32 local authority areas while 6 saw an increase in their unemployment rates. Statistically significant changes were seen in Aberdeenshire (up 1.1 percentage point from 2.7% to 3.8%), Fife (down 1.7 percentage points from 6.6% to 4.9%), Glasgow City (down 2.2 percentage points from 8.7% to 6.5%), Inverclyde (down 2.1 percentage points from 7.8% to 5.7%), North Lanarkshire (down 2.1 percentage points from 6.9% to 4.8%), West Lothian (down 1.5 percentage points from 5.8% to 4.3%) and for Scotland overall (down 1.0 percentage point from 5.8% to 4.8%).

MBU rates have decreased in 16 of the 32 local authority areas since 2008, increased in 13 local authority areas and 3 remained unchanged. Statistically significant changes were seen in Aberdeen City (up 1.8 percentage points from 3.6% to 5.4%) and Aberdeenshire (up 1.3 percentage points from 2.5% to 3.8%).



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<sup>12</sup> Sample sizes for the unemployed cohort are relatively small compared to the employed or inactive cohorts. Consequently unemployment estimates at local level can have large sampling variations. To improve the quality of estimates for all local authorities, the Office for National Statistics (ONS) developed model based estimates. Further information on how these estimates are derived is given in Annex D.

## 1.2.1 Gender

**Chart 28:** Unemployment Rate (16+) by Gender, Scotland



The unemployment (16+) rate for men in Scotland decreased by 1.3 percentage points from 6.5 per cent in 2015 to 5.2 per cent in 2016, driving the decrease in the overall unemployment rate over the same period (down 1.0 percentage point from 5.8% to 4.8%).

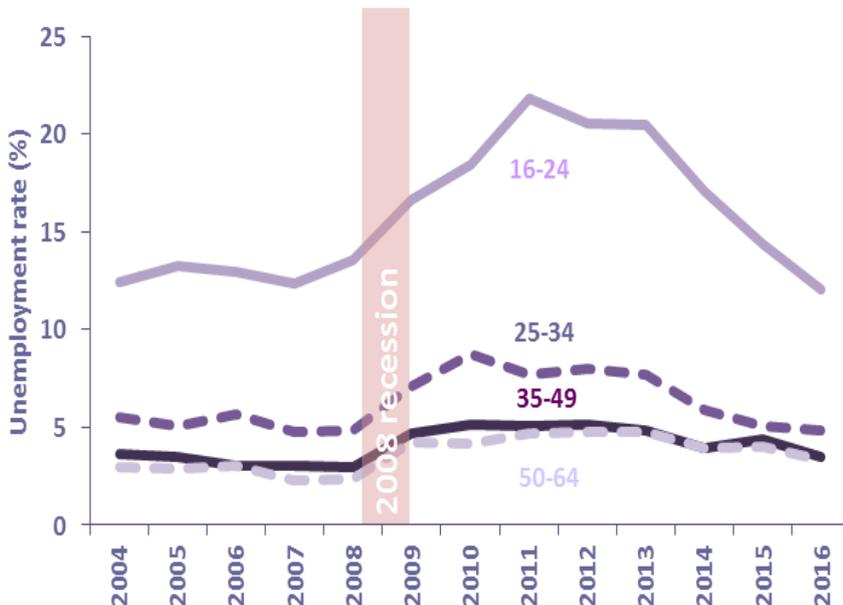
The unemployment rate for women also decreased over the year from 5.1 per cent to 4.4 per cent (0.6 percentage point decrease).

## 1.2.2 Age

### The youth unemployment rate in Scotland decreased by 2.3 percentage points over the year to 12.0 per cent in 2016

The youth (16-24) unemployment rate in Scotland is the highest of all age groups at 12.0 per cent (lower than the UK rate of 13.3 per cent).

**Chart 29:** Unemployment Rate (16+) by Age, Scotland



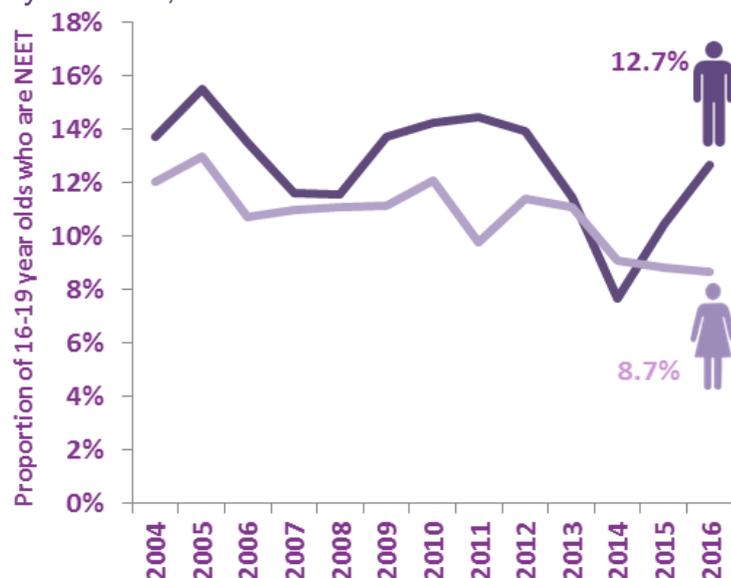
The youth unemployment rate in Scotland decreased by 2.3 percentage points over the year and by 1.5 percentage points since 2008, while the UK rate has decreased by 1.7 percentage points since 2008 and by 1.0 percentage point over the year.

Unemployment rates have been generally decreasing for all age groups between 2012 and 2016.

## 10.7 per cent of people aged 16-19 were NEET in 2016, increase of 1.1 percentage points over the year

The number of 16-19 year olds who were not in education, employment or training (NEET) in 2016 increased by 2,000 over the year to 26,000<sup>13</sup>. The proportion of 16-19 year olds who were NEET in 2016 was 10.7 per cent. This is an increase of 1.1 percentage points over the year, although this difference is not statistically significant.

**Chart 30:** Proportion who were NEET (16-19) by Gender, Scotland



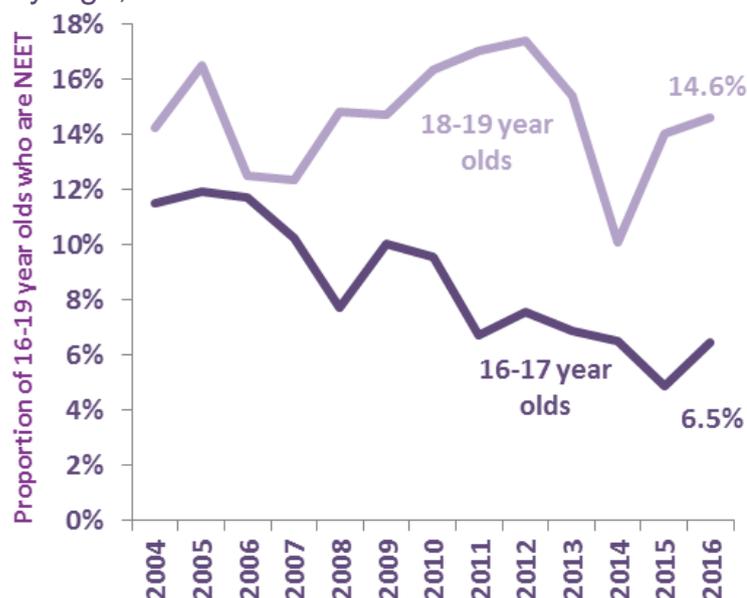
The proportion of men aged 16-19 who were NEET increased by 2.2 percentage points over the year to 12.7 per cent, driving the increase in the overall NEET proportion, while the proportion of women aged 16-19 who were NEET decreased by 0.2 percentage points to 8.7% over the year. Neither of these changes were statistically significant.

## Increase in the number of 16-19 year olds who were NEET in 2016 was driven by a rise in 16-17 year olds who were NEET

There is a clear difference between the trend for 16-17 year old and 18-19 year old NEET rates.

Over the year, there has been an increase in the number of 16-17 year olds who were NEET, whereas the number of 18-19 year olds who were NEET remained fairly constant. The increase for 16-17 year olds over the year is predominatly due to an increase in the estimated number who were economically inactive.

**Chart 31:** Proportion who were NEET (16-19) by Age, Scotland



<sup>13</sup> The methodology for estimating the level of NEET is in line with that used by ONS.

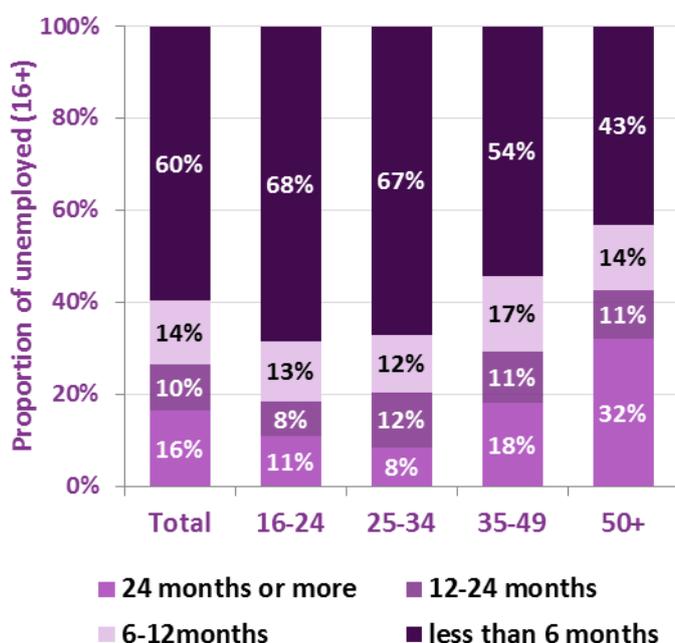
The APS is not able to provide reliable data for those who are NEET at local area level. The Scottish Government in partnership with Skills Development Scotland have developed a new participation measure to address this. Information on this measure is available at:

<https://www.skillsdevelopmentscotland.co.uk/publications-statistics/statistics/participation-measure/>

### 1.2.3 Duration of Unemployment

## 40.3 per cent of all unemployed people in Scotland have been unemployed for more than 6 months

**Chart 32:** Proportion of People (16+) who are Unemployed by Duration, Scotland



Of the 131,400 unemployed people in Scotland in 2016, 77,800 (59.7%) were unemployed for less than six months.

The proportion that have been unemployed for less than 6 months has decreased by 8.6 percentage points since 2008, indicating a shift to lengthier durations of unemployment.

The 16-24 age group are least likely to be unemployed for more than 12 months (18.5%), while those aged 50+ are most likely to be unemployed for 12 months or more (42.6%).

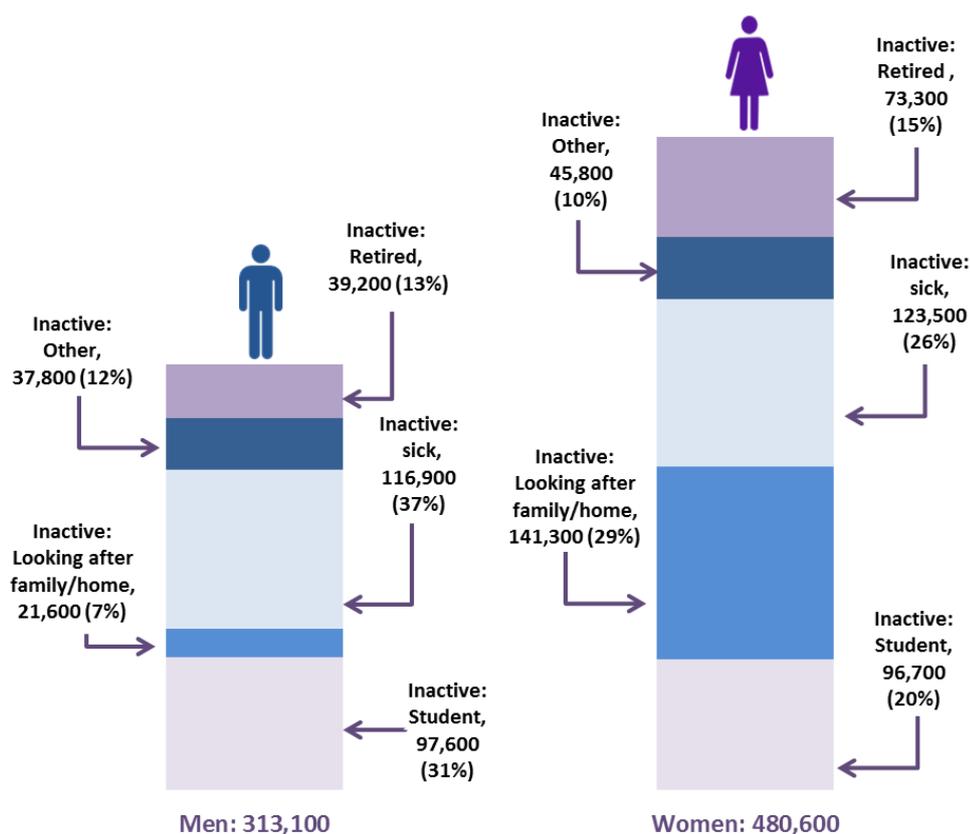
## 2 Economic Inactivity

Economic inactivity covers individuals who are neither employed or unemployed under ILO definitions. There are many reasons why people may be inactive: they may have a long-term illness or disability, be studying for a qualification, staying at home to look after their family, or have retired.

The economically inactive population are not considered an active part of the labour supply during the time period of analysis. However, the labour market is dynamic, with people continuously moving between different categories. Therefore it is important to consider inactivity figures as they include those who may make up the future labour supply and those who were part of the labour supply in the past.

In Scotland, the economic inactivity level (16-64) increased by 30,900 over the year to reach 793,700 in 2016. This was driven by increases in the inactivity level for women (up 24,300 over the year to 480,600) while the inactivity level for men increased by 6,600 to 313,100 in 2016.

The diagram below presents the composition of those aged 16-64 who were economically inactive in 2016.



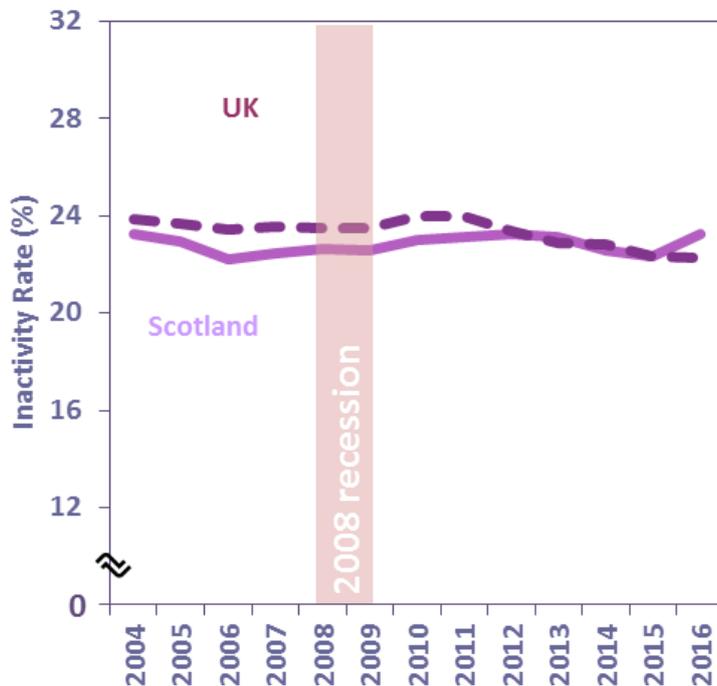
14

<sup>14</sup> Note: Inactive sick includes those who are temporary sick or long-term sick/disabled and Other includes those who are waiting on results of a job application, those who do not need or want employment or other reason

## 2.1 Economic Inactivity

### Economic Inactivity rates for Scotland in 2016 was 1.0 percentage points above the UK rate

**Chart 33:** Economic Inactivity Rate (16-64), Scotland and UK



The inactivity rate for those aged 16-64 in Scotland was lower than that of the UK until 2011. Since 2012, Scotland's inactivity rate followed a similar trend to that of the UK with the rates diverging in 2016 and Scotland having a higher inactivity rate than the UK.

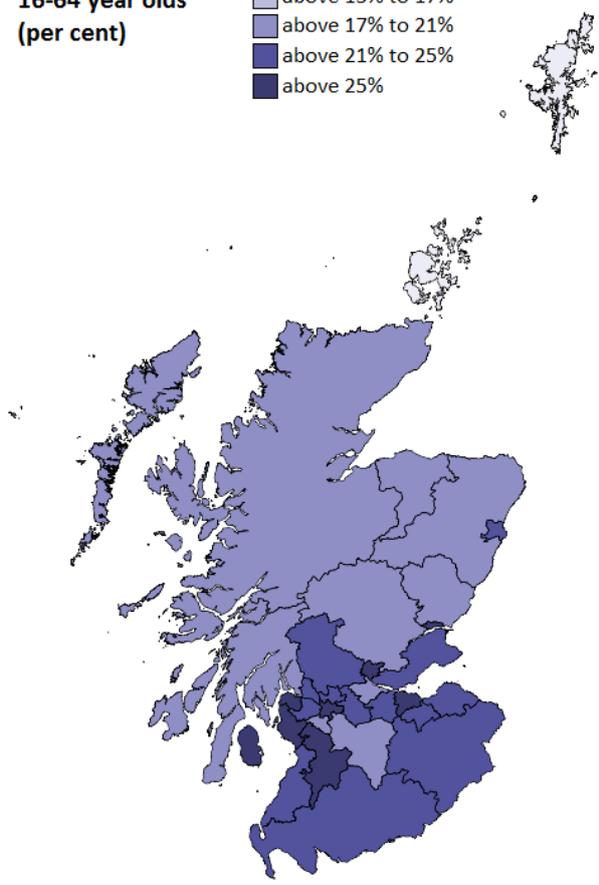
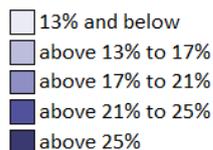
Over the year, the inactivity rate increased by 0.9 percentage points in Scotland to 23.2 per cent and decreased by 0.1 percentage points in the UK to 22.3 per cent.

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### Economic Inactivity rates were highest in Dundee City, Glasgow City and East Ayrshire

There is considerable variation in inactivity rates for those aged 16-64 across Scotland's local authorities.

**Inactivity Rate 2016**  
**16-64 year olds**  
**(per cent)**



The local authority areas with the highest economic inactivity rates in 2016 in Scotland were Dundee City (28.8%), Glasgow City (28.4%) and East Ayrshire (28.2%). The lowest inactivity rates in 2016 were seen in the Shetland Islands (9.3%), Orkney Islands (12.0%) and Aberdeenshire (17.4%).

Over the year, reductions were seen in 15 local authority areas, with 16 areas seeing increases and one seeing no change. The only statistically significant change over the year was at Scotland level (up 0.9 percentage points from 22.3% to 23.2%).

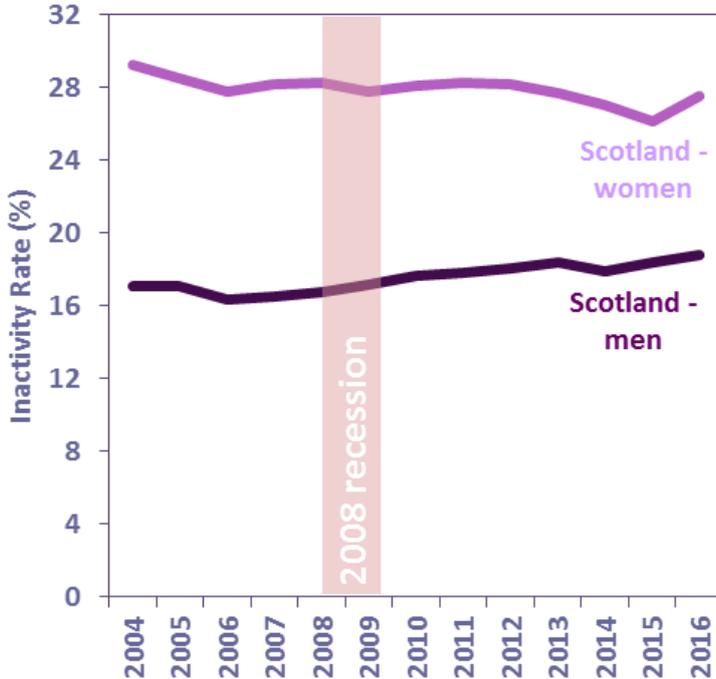
Since 2008, reductions in economic inactivity rates were seen in 14 local authority areas, while they increased across the remaining 18 local authority areas. Statistically significant changes were seen in Aberdeen City (up 4.9 percentage points from 19.0% in 2008 to 23.9% in 2016) and East Ayrshire (up 4.7 percentage points from 23.5% to 28.2%).



## 2.1.1 Gender

### Increase in the economic inactivity rate for Scotland over the year was driven by increased rates for women

**Chart 34:** Economic Inactivity Rate (16-64) by Gender, Scotland



The inactivity (16-64) rate for women in Scotland increased by 1.4 percentage points from 26.1 per cent in 2015 to 27.5 per cent in 2016, driving the increase in the overall economic inactivity rate over the same period (up 0.9 percentage points from 22.3% to 23.2%).

In Scotland, the inactivity rate for men increased by 0.4 percentage points from 18.4 per cent to 18.8 per cent over the year.

In both Scotland and the UK, the change in economic inactivity rates was driven by women (up 1.4 percentage points to 27.5% for Scotland and down 0.2 percentage points to 27.5% for the UK).

Scotland saw an increase of 0.4 percentage points to 18.8% in the rate for men, while the inactivity rate for men in the UK remained unchanged at 16.9%.

**Chart 35:** Economic Inactivity Rate (16-64) by Gender, Scotland and UK



## 2.1.2 Age

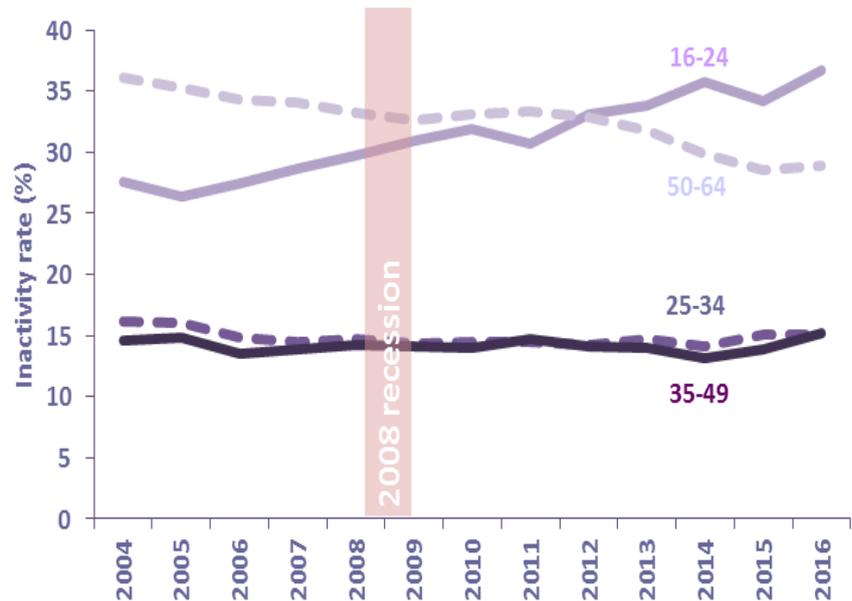
### Increase in economic inactivity rates for those aged 16-24 and 35-49 over the year

Economic inactivity rates for 25-34 year olds have remained around 15 per cent from 2004 to 2016 while the economic inactivity rates for 35-49 year olds remained fairly constant until 2014 when it started to increase, highlighting that more 35-49 year olds have become inactive in recent years.

Those aged 16-24 have seen their inactivity rates increasing from 27.6 per cent in 2004 to 36.7 per cent in 2016. In contrast, inactivity rates for those aged 50-64 have generally been decreasing over time, highlighting that more people aged 50-64 are moving from being economically inactive to being in employment.

Over the year, women are driving the increase in the inactivity rates for those aged 16-24 (women up 3.2 percentage points from 34.3% to 37.5% while men increased by 1.8 percentage points from 34.1% to 35.9%) and for those aged 35-49 (women up 1.9 percentage points from 16.9% to 18.9% while men increased by 0.6 percentage points from 10.6% to 11.3%).

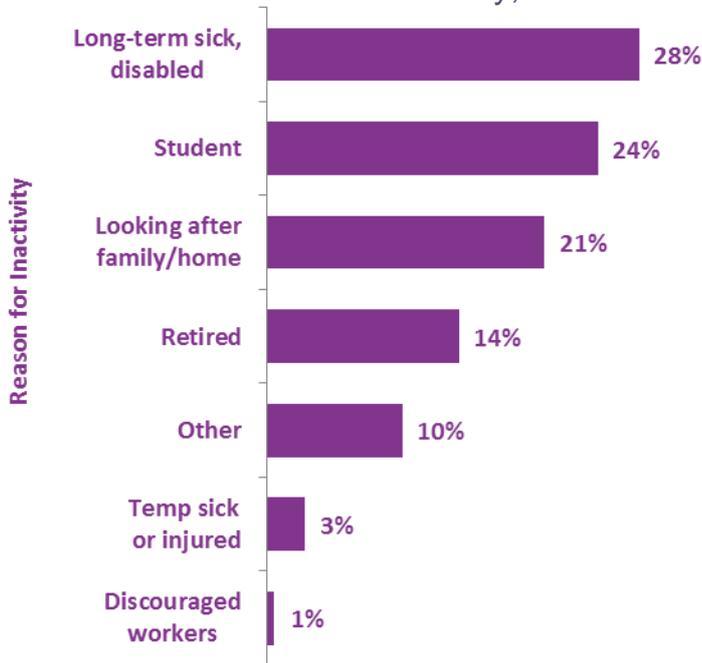
**Chart 36:** Economic Inactivity Rate (16-64) by Age, Scotland



### 2.1.3 Reasons for Inactivity

Over 50 per cent of the 793,700 economically inactive people in Scotland were inactive because they were long-term sick or students

Chart 37: Reasons for Inactivity, Scotland



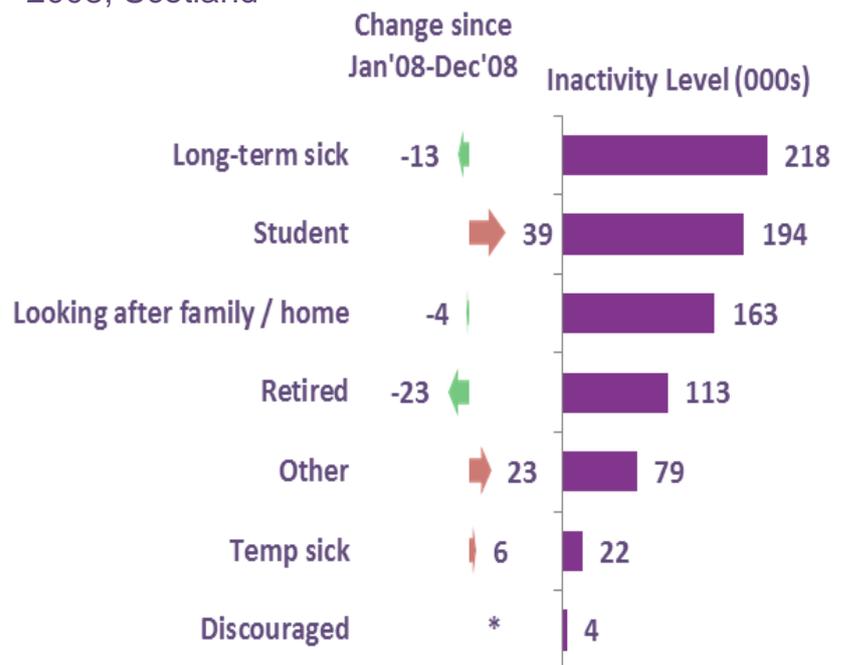
Of the 793,700 economically inactive people (aged 16-64) in 2016, the main reasons for being inactive were long-term sick or disabled (218,400, 27.5%), student (194,300, 24.5%) and looking after family/home (162,800, 20.5%).

### Increase in economic inactivity levels since 2008 driven by increases in the number of students

Economic inactivity levels in Scotland have increased by 29,400 since 2008. This has been driven mainly by a 39,000 increase in the number of students who were inactive as well as those who gave 'Other' as the reason for being inactive (up 22,700).

More recently, increases over the year were seen in the numbers looking after family/home, long term sick or disabled and 'Other' who were inactive (up 13,800; 12,400 and 11,200 respectively) while decreases were seen for the number of retired people and students who were inactive.

Chart 38: Change in Reasons for Inactivity since 2008, Scotland



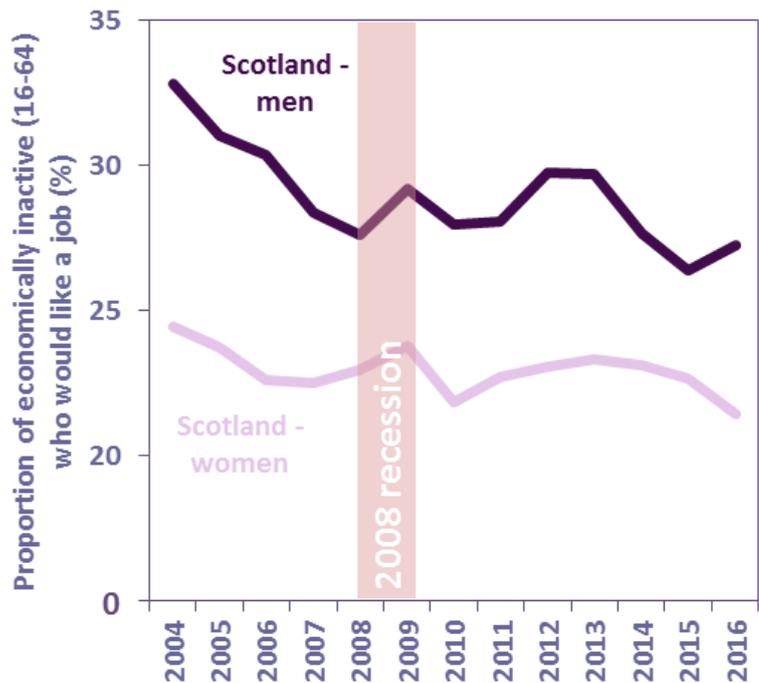
## 2.1.4 Want to Work

### 23.7 per cent (188,400) of economically inactive people aged 16-64 in Scotland wanted to work, but were not currently able to do so

The proportion of those who were economically inactive but who wanted to work has decreased since 2013, having previously been on an upward trend since 2010. The proportion of those who were economically inactive who would like a job decreased by 0.4 percentage points from 24.2 per cent in 2015 to 23.7 per cent in 2016.

The proportion of economically inactive women aged 16-64 who would like a job decreased by 1.2 percentage points from 22.7 per cent in 2015 to 21.5 per cent in 2016, driving the decrease in the overall proportion of economically inactive people who would like a job. The proportion of economically inactive men aged 16-64 who would like a job increased from 26.4 per cent in 2015 to 27.2 per cent in 2016 (0.9 percentage point increase).

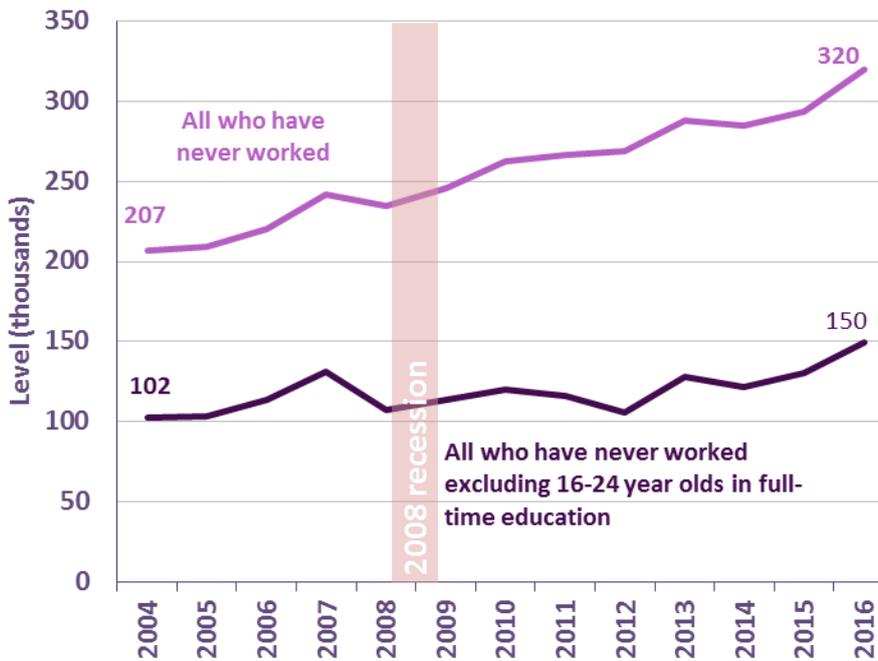
**Chart 39:** Proportion of All Economically Inactive (16-64) Who Would Like a Job, Scotland



## 2.1.5 Never Worked

### 149,600 people in Scotland in 2016 had never worked (excluding students aged 16-24 in full-time education)

**Chart 40:** Number of People Who Have Never Worked (16+), Scotland



In 2016, 319,600 people in Scotland aged 16 and above had never worked<sup>15</sup>. This has increased by 26,100 over the year. Over half (53.2%) of these are 16-24 year olds in full-time education.

Excluding 16-24 year olds in full-time education, there were 149,600 people in Scotland who have never worked; an increase of 19,600 over the year.

Over the year, reductions in the number of people who have never worked were seen across 10 local authority areas. The largest increases in the number of people who have never worked were in Aberdeen City (up 15,500), Glasgow City (up 10,400) and Edinburgh City (up 6,600).

<sup>15</sup> The number of people who have never worked covers those aged 16+ who are currently unemployed or economically inactive.

# Annexes

## Annex A: About the Annual Population Survey

### ◆ What is the APS and what is it used for?

The Annual Population Survey (APS) combines results from the Labour Force Survey (LFS) and the English, Welsh and Scottish Labour Force Survey boosts. The boosts increase the sample size which means the APS can provide more robust labour market estimates for local areas compared to the main LFS. Thus the APS is the primary source for information on local labour markets providing headline estimates on employment, unemployment and economic inactivity. The APS is the largest annual household survey in Scotland and provides a wealth of information about individuals' personal circumstances and their work.

Information from the APS is used by the Scottish Government to inform government targets and policies. Some of the many external users of the APS include Local authorities, Scottish Enterprise, Highlands & Islands Enterprise, Skills Development Scotland, Higher & Further Education sector. Uses include monitoring targets, statistical analysis, policy development and briefing.

### ◆ National Performance Framework

The APS is the source of information for 2 of the Scottish Government's Purpose targets and 2 of the 50 national indicators in the Government's National Performance Framework. Information on progress against these targets and national indicators can be found on the following webpage:

<http://www.gov.scot/About/Performance/scotPerforms>

The APS is also used as a source for two of the Key Performance Indicators for Developing the Young Workforce which were developed based on recommendations from the Wood Commission.

## Purpose Targets

- ◆ **Participation** - To close the gap with the top five OECD economies by 2017
- ◆ **Cohesion** - To narrow the gap in participation between Scotland's best and worst performing regions by 2017.

## National Indicators

- ◆ **Improve the skill profile of the population** - Reduce number of working age people with severe literacy and numeracy problems
- ◆ **Reduce underemployment** – To decrease the number of underemployed workers in Scotland (this indicator was added as part of an update to the National Performance Framework )

## KPI's for Developing the Young Workforce

- ◆ **KPI 1** - Be one of the top five performing countries in the EU for youth unemployment by reducing the relative ratio of youth unemployment to 25-64 unemployment to the level of the fifth best country in the EU by 2021.
- ◆ **KPI10** - Increase the employment rate for disabled young people to the population average by 2021

## ◆ What topics are available?

A wide range of topics are included in the survey:

- Economic Activity (present or past)
- Employment in main job and second jobs
- Working conditions (hours, work pattern etc.)
- Reasons why people are not in the labour force
- Geographical mobility
- Education and training
- Health
- Childcare
- Income
- Individual and household characteristics
- Veterans

## ◆ How and when is the survey conducted?

The Office for National Statistics (ONS) carries out the LFS and associated boosts.

The APS datasets are based on calendar quarters and are produced quarterly on a rolling annual basis (covering 12 months of data). So the four annual APS datasets produced by ONS each year cover the periods January to December, April to March, July to June and October to September.

The APS data use the existing continuous quarterly LFS in addition to annual enhancements. In the quarterly LFS, each person in a selected household is interviewed five times at 13-week intervals. In any three-month period, about a fifth of the sample are being interviewed for the first time, another fifth are receiving their second interview and so on, with 20% being interviewed for the fifth and final time. Each of these roughly equal groups is termed a wave i.e. 'wave 1' refers to those people having their first interview.

#### ◆ **Who takes part in the survey?**

The LFS surveys individuals living at private households in the UK and is designed to be representative of the national population.

The Scottish Government funds the boost to the LFS sample in Scotland, taking the sample size from approximately 5,000 households each year to 17,000 households. The target sample size in each local authority is 675 economically active adults except for Clackmannanshire (250); Dumfries and Galloway (700); East Dunbartonshire (700); East Lothian (600); East Renfrewshire (600); Inverclyde (600); Midlothian (600); Moray (600); Na h-Eileanan Siar, Orkney Islands and Shetland Islands (600); Stirling (600) and West Dunbartonshire (700).

#### ◆ **Revision of estimates**

Estimates for the APS for Jan-Dec 2012 to Jan-Dec 2015 were reweighted based on latest mid-year estimates in June 2016. Consequently, this has had some impact on historical estimates and the estimates for these years may differ from previously published results. Further reweighting of the survey will occur annually, although not all years will be reweighted.

#### ◆ **How reliable are the results?**

As survey results, these are subject to a degree of error and implied changes between years which may not be significant and instead be within a given error range. Confidence limits for estimates should be taken into account, especially for changes over time. Annex B provides more information and confidence limits are included in the web tables for each indicator.

#### ◆ **Interaction of labour market statistics**

The three main labour market indicators - employment, unemployment and economic inactivity – are all inter-related. Increases in employment rates are likely to result in corresponding decreases in either or both unemployment and economic inactivity rates (as an increase in employment means there should be less unemployed or inactive people). However, more subtle interactions exist. It is possible for a shift in people between employment and inactivity to change the unemployment rate, even though there has been no change in the actual number of people unemployed. This is because the unemployment rate is based against the economically active population (those in employment plus those unemployed) as opposed to the total relevant population. The same effect does not occur for employment and inactivity rates because they are based against the total relevant population.

## ◆ Residence, Households and Workplace based statistics

The information and data presented in this publication is predominantly based on residence based statistics – that is, the statistics relate to the characteristics of residents of a geographical area. These statistics do not give information about the number of jobs or people employed within a local area as this will be different to the number of employed people living within the same area (due to people commuting in and out of the area for work). This is covered briefly in the section on Commuting patterns in the Employment chapter.

Workplace based statistics are available from the APS. These are freely available from Nomis at:

<http://www.nomisweb.co.uk/>.

Employer surveys, such as the Business Register Employment Survey (BRES) and Workforce Jobs are workplace based, relating to an employer's specific business locations. These surveys do not gather any corresponding residence based data (unlike the APS).

Household surveys differ from individual surveys in that the main unit of measure is the household. These surveys can be used to gather information about the different household characteristics within the country, especially in regards to working and workless households. This report does not publish household estimates. These are available from Nomis at:

<http://www.nomisweb.co.uk/>.

## ◆ Hours and Earnings statistics

The APS records self-reported hours and earnings data (including usual and actual hours worked, usual and actual pay, gross and net income, overtime and bonuses). However, the data is self-certified (there is no check with employer or HMRC to check the data is accurate), and the respondent can choose not to answer these questions.

The LFS and APS are the official sources for usual and actual hours worked. These statistics are presented in ONS's monthly first releases for the UK (sourced from the LFS) and for the regions of the UK (sourced from the APS)

The official source for data on earnings is the **Annual Survey of Hours and Earnings** (ASHE). Data for ASHE is available from:

<http://www.nomisweb.co.uk/>.

<http://www.gov.scot/Topics/Statistics/Browse/Labour-Market/AnalyticalPapers/ASHESGAnalysis>

<http://www.ons.gov.uk/ons/guide-method/method-quality/specific/labour-market/annual-survey-of-hours-and-earnings/index.html>

## Annex B: Using APS data

### ◆ How data are displayed in Tables

In this publication, all levels are rounded to the nearest hundred (excluding estimates of NEET, which are rounded to the nearest thousand, due to small sample sizes). Proportions and changes in proportions over time are calculated on unrounded figures and are rounded to the first decimal place. Totals may not equal the sum of individual components due to rounding. All results are based on the area of residence unless otherwise stated.

\* indicates data are suppressed as estimates are below the reliability threshold.

### ◆ Data Access

#### STATISTICS.GOV.SCOT

We are currently working to make selected Scotland and local authority level Annual Population Survey data available free of charge from the Scottish Government's Open Access website:

<http://statistics.gov.scot/>

The site also holds data from a wide range Scottish Government surveys.

#### Scottish Government

The Labour Market Statistics Branch at the Scottish Government publish data from the LFS and APS and other related surveys on their website –

<http://www.gov.scot/Topics/Statistics/Browse/Labour-Market>

Alternatively, tabulations are also available on request:

Labour Market Statistics Branch  
Office of the Chief Economic Advisor: Economic Strategy and Policy  
Scottish Government  
3<sup>rd</sup> Floor, 5 Atlantic Quay,  
150 Broomielaw,  
GLASGOW,  
G2 8LU  
Tel: (0131) 244 6773  
Email: [lmstats@gov.scot](mailto:lmstats@gov.scot)

#### NOMIS

APS data (including confidence limits) for the whole of the UK and other government office regions are available free of charge from the Nomis<sup>®</sup> website -

<http://www.nomisweb.co.uk/>.

The Nomis website also holds data on claimants of benefits, vacancies and employees.

## **UK Data Archive**

APS micro data are available to users through the Data Archive at Essex University. Access to these data is through a 'Special Licence' scheme, which allows access to detailed data provided that the research use is fully described and strict conditions of access are adhered to. More detail is available on the Data Archive website - <http://www.data-archive.ac.uk>.

## **Office for National Statistics**

ONS publish monthly regional labour market statistical which includes a range of labour market indicators for local areas across the UK. The reports can be accessed on their website at:

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/guidetotablesinregionallabourmarketstatisticalbulletin>

Headline national and regional statistical bulletins are produced monthly (based on LFS data) and can be accessed from the ONS website at:

<http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Labour+Market>

## Annex C: Confidence Intervals

One of the benefits of the boosted data is more reliable estimates for local authority areas. Prior to the boost the reliability threshold in all areas was 6,000. This was to prevent unreliable data being used. Thresholds are calculated so that they are approximately equivalent to suppressing if the standard error of an estimate is greater than 20% of the estimate itself. With the boost, different areas have different thresholds as some areas have larger samples and more variability in results than others (see Table 1).

**Table 1: Local authority area reliability thresholds**

Local Authority	Reliability Threshold
Aberdeen City	3,000
Aberdeenshire	3,000
Angus	1,000
Argyll & Bute	1,000
Clackmannanshire	1,000
Dumfries & Galloway	2,000
Dundee City	2,000
East Ayrshire	1,000
East Dunbartonshire	1,000
East Lothian	1,000
East Renfrewshire	1,000
Edinburgh, City of	5,000
Falkirk	2,000
Fife	4,000
Glasgow City	5,000
Highland	2,000
Inverclyde	1,000
Midlothian	1,000
Moray	1,000
North Ayrshire	1,000
Na h-Eileanan Siar	1,000
North Lanarkshire	4,000
Orkney Islands	1,000
Perth & Kinross	2,000
Renfrewshire	2,000
Scottish Borders	1,000
Shetland Islands	1,000
South Ayrshire	1,000
South Lanarkshire	4,000
Stirling	1,000
West Dunbartonshire	1,000
West Lothian	3,000

As survey results, these are subject to a degree of error and implied changes over the years may not be significant and instead be within a given error range. Confidence limits can be used to assess the range of values that the true value lies between. The web tables include 95% confidence limits for each indicator.

### **What does the 95% confidence limit mean?**

If, for example, we have an APS estimate and confidence limit of 63% +/- 0.27%, this means that 19 times out of 20 we would expect the true rate to lie between 62.73% and 63.27%. Only in exceptional circumstances (1 in 20 times) would we expect the true rate to be outside the confidence interval around the APS estimate. Thus the smaller the confidence limits, the more reliable the estimate.

The confidence limits use a design factor of 1, which may not be likely in some cases but given the lack of further information an average design factor of 1 is assumed to be reasonable. Further information on estimating confidence intervals can be found in the LFS manuals<sup>16</sup>.

### **Using confidence intervals to assess change (statistical significance).**

Confidence intervals can be used to assess whether there has been a significant change between two estimates over time. The methodology for determining if a change is statistically significant is detailed in the Methodology Glossary on the Scottish Government web-site within the Tier 2 – Confidence Intervals document, available at: <http://www.scotland.gov.uk/Topics/Statistics/About/Methodology/Glossary>

If the difference between two estimates is said to be statistically significant, it means that only in exceptional circumstances (1 in 20 times) would we expect the true difference to be not significant. It should be noted that statistical significance is a tool used to help detect real change in estimates; it does not say anything about the importance of the change, which needs to be assessed by the user of the statistics in question.

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<sup>16</sup> <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=1537&Pos=&ColRank=2&Rank=544>

## Annex D: Concepts and Definitions

**Economic activity rate:** The number of people who are in employment or unemployed expressed as a percentage of the relevant population.

**Economic inactivity rate:** The number of economically inactive people expressed as a percentage of the relevant population.

**Economically active:** The economically active population are those who are either in employment or unemployed.

**Economically inactive:** Economically inactive people are not in employment, but do not satisfy all the criteria for unemployment. This group is comprised of those who want a job but who have not been seeking work in the last 4 weeks, those who want a job and are seeking work but not available to start and those who do not want a job. For example, students not working or seeking work and those in retirement are classed as economically inactive. It can be useful for some purposes to consider only those who are both economically inactive and not of state pension age.

**Employees:** The division between employees and self-employed is based on survey respondents' own assessment of their employment status.

**Employment:** There are two main ways of looking at employment: the number of people with jobs or the number of jobs. These two concepts represent different things as one person can have more than one job. People aged 16 or over are classed as in employment (as an employee or self-employed) by the LFS, if they have done at least one hour of paid work in the week prior to their LFS interview or if they have a job that they are temporarily away from. People who do unpaid work in a family business and people on Government-supported training and employment programs are also included according to the International Labour Organisation (ILO) convention.

**Employment rate:** The number of people in employment expressed as a percentage of the relevant population.

**Model Based Unemployment:** In 2003, ONS developed a statistical model to improve small area estimates of unemployment by using supplementary information from the claimant count - a count of the number of people claiming Jobseeker's Allowance. As it is an administrative measure, accurate information is known for all areas. It is also highly correlated with unemployment. The model is said to borrow strength from the claimant count. The model also includes a socio-economic indicator and a random area effect.

More information about the modelling methodology can be found [here](#):

**Rates:** Rates represent the proportion of the population or subgroup of the population with a certain characteristic. They allow changes in the labour market to be interpreted in a wider context, allowing for changes in the overall population or

the number of people who are economically active. Rates can be calculated for different age groups. For employment, economic activity and economic inactivity, the most widely quoted rates are those for the working age population. For unemployment, headline rates are expressed as a percentage of the economically active population aged 16 and over. Those over retirement age who continue to be economically active will therefore be included in the base while those who are economically inactive will not.

**Self-employment:** The division between employees and self-employed is based on survey respondents' own assessment of their employment status.

**Unemployment:** The ILO definition of unemployment covers people who are: not in employment, want a job, have actively sought work in the previous 4 weeks and are available to start work within the next fortnight, or, out of work and have accepted a job which they are waiting to start in the next fortnight.

**Unemployment rate:** The number of unemployed people expressed as a percentage of the relevant economically active population.

**Working age:**

Note that due to changes in the state pension age, (specifically the current female state pension age which is changing dynamically to match the male state pension age) ONS no longer publish rates using a Working age definition in its statistical bulletins, but instead report rates for all people aged 16 to 64.

**16 to 19 year olds Not in Employment, Education or Training (NEET):** The proportion of 16-19 year olds who are not classed as a student, not in employment nor participating in a government training programme. Note that the methodology for calculating the levels and proportions of those who are NEET have been modified this year to align with ONS's methodology. The change is intended to account for a small number of non-respondents or persons whose economic or educational status were unknown. This group are now apportioned pro-rata across the main economic status categories whereas previously they had been excluded from the analysis. This should give more accurate estimates of the level of NEETs

**Further information on Classifications and Standards is also available from the ONS website at**

<https://www.ons.gov.uk/methodology/classificationsandstandards>

# A National Statistics publication for Scotland

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Office of the Chief Statistician, Telephone: 0131 244 0442,  
e-mail: [statistics.enquiries@gov.scot](mailto:statistics.enquiries@gov.scot)

## How to access background or source data

The data collected for this Statistical bulletin

- are available via web-tables on Scottish Government website, Nomis and UK Data archive

## Complaints and suggestions

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