



**Occupational Segregation in Shetland
for Highlands and Islands Enterprise**

**Local Authority Annex
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1 Occupational Segregation in Shetland

Introduction

1.1 In April 2016, ekosgen was appointed by Highlands and Islands Enterprise (HIE) to explore the extent and nature of occupational segregation across the Highlands and Islands. The research took place between April and August 2016, examining patterns of occupational segregation across and within the region to identify barriers to equal participation in the economy, which will be used to inform future policy responses.

1.2 This report presents the findings and data relating to occupational segregation in Shetland. It accompanies the regional report which sets out the overall findings of the research, including detail on the causes and impacts of occupational segregation (which tend to be common across all areas), and policies and interventions that have previously been implemented.

Occupational Segregation

1.3 Occupational segregation is the distribution and concentration of people across and within jobs, based on demographic characteristics, most often – and as is the focus of this research – gender. It manifests itself in a number of different ways, including the tendency for men and women to be distributed unequally across the range of industrial sectors and occupations (horizontal segregation), or at different levels/grades (vertical segregation). Concentration either horizontally or vertically is generally accepted to be an indicator of inequality.¹

1.4 Occupational segregation affects both men and women and is an issue that impacts upon equality² and social cohesion as well as economic performance³. It is widely recognised that occupational segregation is one of the barriers which prevents women and men from fulfilling their potential in the labour market, and which presents challenges for employers when sourcing the best people for their jobs. There are a range of factors and barriers at play, including: the inequality of caring (the responsibility of caring still largely rests on women); working environments and workplace cultures (in some industries favouring men and in others favouring women); the persistence of traditional values reinforcing gender stereotypes; inequality of terms and conditions for part time working, with an implicit bias that favours full time workers; and education choices – and systems – that repeat gender stereotypes in the skills pipeline.

1.5 Generally, women are more likely than men to be underemployed, work part time, and work in lower grades within an organisation or lower value sectors. This is in spite of the significant progress that has been made to increase female participation in the labour market. One of the most widely reported and most visible impacts of occupational segregation is the gender pay gap, which continues to persist despite the fact that the Equal Pay Act⁴ was enacted more than 45 years ago.

1.6 Promoting Inclusive Growth is a key priority in Scotland's Economic Strategy (SES). Gender equality is also a key feature, and ensuring 'women's position in the economy and in employment is improved in the long term and reflected more comprehensively in Scottish Government economic policy and strategies' is one of the Scottish Government's eight Equality Outcomes⁵. Research undertaken by Close the Gap on gender equality in pay suggests that equalising gender employment could generate

¹ e.g. Blackburn, R.M. and Jarman, J. (1997) Occupational Gender Segregation, *Social Research Update 16* (University of Surrey)

² e.g. Scottish Government (2015) *Maximising Economic Opportunities for Women in Scotland*

³ e.g. HM Government (2015) *The role and contribution of women in the Scottish economy*

⁴ HM Government (1970) *Equal Pay Act*, Ch.41

⁵ Scottish Government (2015) *Equality Outcomes and Mainstreaming Report 2015*

as much as 12% of UK GDP by 2025 – 12% of the Scottish economy at current figures is just over £17 billion.⁶

1.7 The Highlands and Islands study identifies those sectors and areas which are most affected by occupational segregation to help inform how initiatives should be targeted to make an impact.

Data Use and Limitations

1.8 The most useful data source in relation to occupational segregation is the Annual Population Survey (APS), which breaks down data on a wide range of indicators by gender. This includes data on labour market participation, skills and employment for sectors and occupations, two of the key areas explored through the study. The data is updated on a quarterly basis, providing more up to date intelligence than annual surveys and the Census.

1.9 There are, however, widely recognised limitations to the APS, particularly in relation to smaller geographical areas such as the Highlands and Islands and its individual local authority areas. The limitations primarily relate to the survey based nature of the dataset and the small sample sizes within each of the Highlands and Islands local authority areas (reflecting the relative scale of the population and employment base). For example, the most recent APS data was based on a total sample of just under 4,500 for the whole Highlands and Islands region. While this offers confidence levels of +/- 1% (i.e. it is 95% certain that the actual figure will be within a range of 1% less than the estimate to 1% more than the estimate) reliability reduces further for smaller areas and breakdowns.

1.10 The limitations have been overcome by sense checking the data for Scotland, the Highlands and Islands and each local authority area against the results of the 2011 Census (which is one of the most robust datasets). While it is recognised that results may have changed over time, this approach allows us to identify any significant anomalies. We have also tested the results through the consultations and the review of existing literature. As set out in the main report, the findings of this study often reinforce previous research. The trends in the Highlands and Islands (and each of the local authorities) often align with broad national trends as would be expected. Each of these factors helps to provide further confidence in the research.

Report Structure

1.11 This report is structured as follows:

- Section 2 focuses on key population and labour market indicators, examining headline trends in participation and occupational segregation;
- Section 3 considers trends in skills and education and how these vary by gender;
- Section 4 sets out the overall levels of gender representation in the workforce, providing a benchmark that is used in the subsequent sections when examining segregation by occupation and sector;
- Section 5 sets out headline data on vertical segregation (where men and women typically work at different job levels or grades);
- Section 6 sets out headline data on horizontal segregation (where men and women are clustered into specific job types);
- Section 7 summarises the key messages of the research for Shetland.

⁶ Close the Gap (2016) *Gender Equality Pays*

2 Population and the Labour Market

Introduction

2.1 This section provides an overview of how Shetland performs on key population and labour market indicators and how this varies by gender. The performance and gender profile is benchmarked against the national (Scottish) and regional (Highlands and Islands) average. In particular, it examines the varying levels of participation of men and women in the workforce and how this is reflected in working patterns and pay.

Population

2.2 In population terms, Shetland is the second smallest local authority in the Highlands and Islands, accounting for 5% of the total population. There is a 51:49 split between men and women in the population, with Shetland being the only local authority in the Highlands and Islands with a higher proportion of men than women. It has experienced population growth over the past ten years, in line with growth regionally and slightly below growth nationally. This has increased the scale of the workforce available to employers.

Geography	Population	Change since 2005
Scotland	5,347,600	5%
Highlands and Islands	487,600	4%
<i>Shetland</i>	<i>23,200</i>	<i>4%</i>

Source: Mid-Year Population Estimates.

Labour Market Participation

2.3 The labour market consists of people who are employed, as well as those defined as unemployed or economically inactive, who can be considered to be potential labour supply. Based on the definitions used by ONS, the economically active includes those who are in employment⁷ or who are unemployed⁸, while the remainder of the working age population are classed as economically inactive. There are many reasons why an individual may be inactive, for example, they might be studying, looking after family or long-term sick.

2.4 In line with regional trends, Table 2.2 shows that there are high levels of economic activity in Shetland (87.3%) which exceed the national average (77.7%). The employment rate is well above the national average (87.3% vs 73.1%), and it continues to be the highest of all local authority areas in the Highlands and Islands region, reflecting high levels of economic activity. In contrast, economic inactivity is significantly lower than the regional and national average.

⁷ People who did some paid work in the reference week (whether as an employee or self-employed); those who had a job that they were temporarily away from (e.g. on holiday); those on government-supported training and employment programmes; and those doing unpaid family work.

⁸ Refers to people without a job who were available to start work in the two weeks following their interview and who had either looked for work in the four weeks prior to interview or were waiting to start a job they had already obtained.

Table 2.2: Labour Market Participation (Dec 2015)				
Geography	Working Age Population (16-64)			
	Economically Active	Employment	Unemployment	Inactive
Scotland	77.7%	73.1%	5.9%	22.3%
Highlands and Islands	82.2%	79.1%	3.8%	17.8%
<i>Shetland</i>	87.3%	87.3%	*	12.7%

Source: Annual Population Survey.
* Denotes that data is unavailable due to small sample sizes, although the data above and the claimant count indicate that unemployment is very low in the Shetland

Employment

2.5 Table 2.3 shows that for both men and women, the employment rate in Shetland is higher than the regional and national average, with the rate for men the highest across the six Highlands and Islands local authority areas. There is, however, evidence of gender segregation with higher levels of participation in employment amongst men than women. The extent of the segregation in Shetland (10.8 percentage points) is above the gap at the regional (7.5 percentage points) and national (6.0 percentage points) level, and is indeed the greatest of all local authority areas in the region.

Table 2.3: Employment by Gender (Dec 2015)				
Geography	Working Age (16-64) Employment Rate			Male Difference (%pt)
	Total	Female	Male	
Scotland	73.1%	70.2%	76.2%	6.0
Highlands and Islands	79.1%	75.3%	82.8%	7.5
<i>Shetland</i>	87.3%	81.7%	92.5%	10.8

Source: Annual Population Survey.

Self-Employment

2.6 Self-employment rates in Shetland are higher than nationally, but remain slightly below the regional level. As set out in Table 2.4, self-employment rates for men in Shetland are above both the regional and national average, while the rate is particularly low for women (14.3% of men are self-employed compared to 3.5% of women). As a result, Shetland has the greatest gender gap in self-employment in the Highlands and Islands (10.8 percentage points compared to 5.4 percentage points regionally and 5.1 nationally).

Table 2.4: Self Employment by Gender (Dec 2015) Working Age Population				
Geography	Self-Employment Rate (Dec 2015)			Male Difference (%pt)
	Total	Female	Male	
Scotland	7.9%	5.4%	10.5%	5.1
Highlands and Islands	9.9%	7.2%	12.6%	5.4
<i>Shetland</i>	9.1%	3.5%	14.3%	10.8

Source: Annual Population Survey.

Employment by Work Pattern

2.7 The balance between full time and part time working in Shetland (75% and 25%) is broadly in line with the national average, unlike most of the other local authority areas in the Highlands and Islands where there tends to be higher levels of part time working than nationally.

Geography	% of working age population in employment	
	Full Time	Part Time
Scotland	74%	26%
Highlands and Islands	71%	29%
<i>Shetland</i>	75%	25%

Source: Annual Population Survey

2.8 Table 2.6 demonstrates the proportion of men and women in full time jobs is above the regional average. However, a much higher proportion of men work full time than women (89% vs 57%), while a much higher proportion of women work part time (43% vs 11%). The extent of the gender gap in full time and part time working is similar to the regional average and larger than the national average.

Geography	% of working age males and females in employment working full and part time					
	Full Time			Part Time		
	Female	Male	Total	Female	Male	Total
Scotland	59%	88%	74%	41%	12%	26%
Highlands and Islands	54%	87%	71%	46%	13%	29%
<i>Shetland</i>	57%	89%	75%	43%	11%	25%

Source: Annual Population Survey

Unemployment

2.9 In terms of unemployment, the total rate, and rates for both men and women in Shetland are not disclosed due to small sample sizes. However, these rates are likely to be low, and below the regional average, given the high employment and low inactivity rates given at Table 2.2.

Inactivity

2.10 The level of economic inactivity in Shetland is well below the regional and national average. Table 2.8 shows that the inactivity rate for both men and women is below the regional and national average, although the rate is particularly low for men in Shetland. There are higher levels of inactivity amongst women, and the extent of the gender difference is greater in Shetland (11.0 percentage points) than the regional (7.0 percentage points) and national (8.0 percentage points) average, reflecting much higher levels of male activity.

Geography	Working Age Population Inactivity Rate			Female Difference (%pts)
	Total	Female	Male	
Scotland	22.3%	26.0%	18.4%	7.6
Highlands and Islands	17.8%	21.4%	14.3%	7.1
<i>Shetland</i>	12.7%	18.3%	7.5%	10.8

Source: Annual Population Survey.

2.11 The most common reasons for being inactive in Shetland are due to looking after a family/home (43.1%), followed by being a student (22.3%) and being retired (19.5%). The area has higher levels of inactivity due to looking after a family/home than regionally (19.1%), and nationally (19.5%). In terms of differences by gender, the overall proportion of women who are inactive due to looking after a family (62.1%) is the highest of the six authorities, and significantly above the regional and national averages (27.9% and 27.5%).

Average Earnings

2.12 In contrast to most local authority areas in the Highlands and Islands, average earnings in Shetland are significantly above the national average and this applies for both men and women. However, within the area average earnings for men are higher than for women, and the extent of the gender pay gap is much greater than the gap nationally.

Table 2.8: Median Full Time Weekly Gross Earnings by Gender (Residence-Based) (2015)

Geography	Total	Female	Male	Male difference	Percentage Pay Gap
Scotland	£527	£474	£561	+£87	15%
Shetland	£592	£490	£604	+£114	19%

Source: Annual Survey of Hours and Earnings.

The figures are based on median (rather than mean) earnings in line with Scottish Government's approach to measuring earnings. Median values provides a better indication of typical pay as they split the top 50 per cent from the bottom 50 per cent making it less likely for figures to be skewed by the relatively small number of very high earners. Note figures are not available at the regional level.

Average Hours

2.13 In line with having above average earnings, the average hours worked in Shetland are above the national average. Men tend to work longer hours than women (in line with national trends), although the difference in hours worked between men and women is smaller than the difference in earnings. For example, while women in Shetland on average work 93% of the hours worked by men, average earnings for women equate to just 81% of average earnings for men, demonstrating the pay gap.

Table 2.9: Median Full Time Weekly Hours worked by Gender (Residence-Based) (2015)

Geography	Total	Female	Male	Male difference
Scotland	37.5	37.0	38.5	+1.5
Shetland	38.7	37.0	39.9	+2.9

Source: Annual Survey of Hours and Earnings.

Note figures are not available at the regional level.

3 Skills and Education

Introduction

3.1 This section provides an overview of the qualification levels of the working age population and gender variations in Shetland benchmarked against the regional and national average. It also presents headline information on the attainment and destination of school leavers and participation in Modern Apprenticeships and Further Education.

Skills of the Working Age Population

3.2 In contrast to region wide trends, the working age population in Shetland is more highly qualified when compared to the national average (Table 3.1). Overall, the proportion that holds qualifications is much higher in Shetland (97.7%), than regionally (91.6%) and nationally (91.0%).

3.3 In particular, 46.7% hold qualifications at SVQ Level 4 and above, higher than the 42.5% nationally and 37.8% regionally. In contrast, the proportion holding qualifications at Level 3 (12.8%) is lower than both the regional (15.7%) and national (14.5%) average.

3.4 Following the regional trend, the other main differences when compared to the national profile, relate to the higher proportions of the working age population holding qualifications at Level 2 (15.8% in Shetland compared to 14.4% nationally) and with Trade Apprenticeships (6.4% and 4.4%).

Table 3.1: Working Age Population Qualifications (Dec 2015)

Qualification	Shetland	Highlands and Islands	Scotland
SVQ 4 and above	46.7%	37.8%	42.5%
SVQ 3	12.8%	15.7%	14.5%
Trade Apprenticeships	6.4%	5.5%	4.4%
SVQ 2	15.8%	17.3%	14.4%
SVQ 1	6.7%	9.6%	9.2%
Other qualifications	9.3%	5.7%	5.9%
No qualifications	2.2%	8.4%	9.0%

Source: Annual Population Survey.

3.5 Skills levels and qualifications in Shetland vary by gender. In line with regional and national patterns, the greatest differences in Shetland relate to higher level skills (at SVQ 4 and above). As illustrated in Table 3.2, while a greater proportion of women hold higher level qualifications (57.5% vs. 36.9% of men), the extent of the gender gap is much greater in Shetland than the Highlands and Islands. Both are larger than the national profile, where the greatest gender gap is with Trade Apprenticeships. While female Trade Apprenticeship data is suppressed for Shetland, the gender gap in the region is even greater than that nationally.

Qualifications	Shetland		Highlands and Islands		Scotland	
	Female	Male	Female	Male	Female	Male
SVQ 4 and above	57.5%	36.9%	43.7%	32.0%	45.3%	39.6%
SVQ 3	14.2%	11.5%	14.7%	16.6%	13.0%	16.1%
Trade Apprenticeships	*	12.2%	0.9%	10.1%	1.1%	7.9%
SVQ 2	15.2%	16.4%	19.2%	15.5%	15.9%	12.8%
SVQ 1	5.7%	7.7%	9.9%	9.3%	9.8%	8.6%
Other qualifications	2.8%	15.3%	4.3%	7.0%	5.3%	6.4%
No qualifications	4.6%	*	7.3%	9.4%	9.5%	8.5%

Source: Annual Population Survey.
* Denotes that data is unavailable due to small sample sizes.

Attainment and Destinations of School Leavers

3.6 The attainment levels of school leavers in the Highlands and Islands are set out in Table 3.3. These are based on SCQF levels outlined in the SCQF Scottish Qualifications Framework⁹ which shows the equivalent levels of mainstream Scottish qualifications including SQA qualifications, HEI qualifications, SQVs and MAs.

3.7 Overall, levels of attainment are higher in Shetland, and the area outperforms the regional and national average in terms of higher levels of attainment (from SCQF Level 4 upwards).

Geography	Percentage of School Leavers by total qualifications achieved (+1 @SCQF...)					
	All Leavers	Level 3 or better	Level 4 or better	Level 5 or better	Level 6 or better	Level 7 or better
	Total	Total	Total	Total	Total	Total
Scotland	52,491	97.9	96.2	85.2	60.2	18.8
Highlands and Islands	5,284	97.0[^]	95.8[^]	86.4	60.2	19.6
<i>Shetland</i>	<i>251</i>	<i>*</i>	<i>98.8</i>	<i>88.0</i>	<i>62.9</i>	<i>19.9</i>

Source: Scottish Government – Attainment and Leaver Destination Supplementary Data 14/15.
Please note, percentages for H&I are estimated based on the total leavers in each local authority.
* Information has been suppressed for quality and disclosure reasons.
[^] Please note, percentage calculated based on the total leaver population excluding local authorities where data has been suppressed for quality and disclosure reasons.

3.8 These comparative trends in attainment apply to both men and women within Shetland. However, as illustrated in table 3.4, in line with the regional and national averages, attainment at all levels where data is available is higher amongst women than men. The gap increases for higher level qualifications and tends to be greater locally than regionally and nationally.

⁹ [Hhttp://www.scqf.org.uk/framework-diagram/framework.htm](http://www.scqf.org.uk/framework-diagram/framework.htm)

Geography	Percentage of School Leavers by total qualifications achieved (+1 @SCQF...)											
	All Leavers		Level 3 or better		Level 4 or better		Level 5 or better		Level 6 or better		Level 7 or better	
	F	M	F	M	F	M	F	M	F	M	F	M
Scotland	25,810	26,681	98.1	97.6	96.7	95.7	87.3	83.1	67.0	54.7	21.3	16.4
Highlands and Islands	2,509	2,775	97.3[^]	96.9[^]	96.4	95.4[^]	88.4	84.6	66.6	54.2	23.7	16.0
<i>Shetland</i>	<i>140</i>	<i>111</i>	<i>99.3</i>	<i>*</i>	<i>99.3</i>	<i>98.2</i>	<i>92.1</i>	<i>82.9</i>	<i>72.1</i>	<i>51.4</i>	<i>23.6</i>	<i>15.3</i>

Source: Requested from the Scottish Government – Attainment and Leaver Destination Data 14/15.
 * Information has been suppressed for quality and disclosure reasons.
 Please note, percentages for H&I are estimated based on the total leavers in each local authority.
 ^ Please note, percentage calculated based on the total leaver population excluding local authorities where data has been suppressed.

3.9 In terms of destinations, a higher proportion of school leavers in Shetland progress to positive destinations (96.4%) than regionally (93.1%) or nationally (92.0%). The most common destinations are employment and Higher Education (HE), with the proportion of leavers in Shetland who enter employment greatly exceeding the regional and national average.

3.10 As with the regional trend, the proportion of leavers in Shetland who enter Higher Education (30.7%) is significantly below the national average (36.8%) and there are lower levels of progression into Further Education (FE) locally and regionally.

Geography	Percentage of School Leavers by destination					
	Positive destinations	HE	FE	Training	Employment	Other
	Total	Total	Total	Total	Total	Total
Scotland	92.0	36.8	23.4	2.7	27.8	1.3
Highlands and Islands	93.1	34.2	20.8	1.6[^]	34.5	N/K
<i>Shetland</i>	<i>96.4</i>	<i>30.7</i>	<i>21.1</i>	<i>*</i>	<i>39.4</i>	<i>N/K</i>

Source: Scottish Government – Attainment and Leaver Destination Supplementary Data 14/15.
 * Information has been suppressed for quality and disclosure reasons.
 Please note, percentages for H&I are estimated based on the total leavers in each local authority.
 N/K - For 'other,' too much suppressed data for Orkney and Shetland to be able to calculate for H&I.
 ^ Please note, percentage calculated based on the total leaver population excluding local authorities where data has been suppressed

3.11 Across the three geographies, women are more likely to enter a positive destination than men and the gap is wider locally than regionally and nationally. As set out in Table 3.6, the actual destination of leavers also varied by gender, particularly with regards to leavers progressing to the two most common destinations: employment and Higher Education. While a much higher proportion of men in Shetland enter employment than women (52.3% vs 29.3%), a much higher proportion of women enter Higher Education (42.9% vs 15.3%).

3.12 The gender gap for these destinations is greater in Shetland (23 percentage points in favour of men progressing to employment, and 28 percentage points in favour of women progressing to Higher Education) than regionally (14 percentage points for both) and nationally (8 and 10 percentage points respectively).

Table 3.6: Destination of School Leavers by Gender (2014/15)

Geography	Percentage of School Leavers by destination											
	Positive destinations		HE		FE		Training		Employment		Other	
	F	M	F	M	F	M	F	M	F	M	F	M
Scotland	92.8	91.3	42.1	31.7	23.8	23.1	2.0	3.5	23.8	31.8	1.1	1.2
Highlands and Islands	93.7	92.6	41.4	27.6	22.5[^]	19.4	1.0[^]	2.2[^]	27.4	40.9	1.4	N/K
<i>Shetland</i>	<i>97.1</i>	<i>95.5</i>	<i>42.9</i>	<i>15.3</i>	<i>21.4</i>	<i>20.7</i>	<i>0</i>	<i>*</i>	<i>29.3</i>	<i>52.3</i>	<i>3.5</i>	<i>N/K</i>

Source: Requested from the Scottish Government – Attainment and Leaver Destination Data 14/15.

* Information has been suppressed for quality and disclosure reasons.

Please note, percentages for H&I are estimated based on the total leavers in each local authority.

N/K - For 'other' for males, too much suppressed data to be able to calculate for Shetland and H&I.

[^] Please note, percentage calculated based on the total leaver population excluding local authorities where data has been suppressed.

Modern Apprenticeships

3.13 As set out in the skills profile of the working age population, higher proportions of men undertake trade apprenticeships in Shetland than regionally and nationally. In terms of modern apprenticeships, in Shetland, men account for 79% of starts, significantly above the regional and national average. This is the largest gender gap of the local authorities in the Highlands and Islands, with men accounting for 68% of all apprenticeship starts across the region.

Table 3.7: Total MA Starts by Gender (2014/15)

Geography	Total	Female	Male
Scotland	25,245	40%	60%
Highlands and Islands	2,335	32%	68%
<i>Shetland</i>	<i>140</i>	<i>21%</i>	<i>79%</i>

Source: Skills Development Scotland.

3.14 While data is not available at the local level on the types of apprenticeships that men and women undertake, the regional data presented in the main report shows that there are considerable differences in take up across sectors by gender. Both regionally and for Scotland, MA starts related to construction, engineering and energy, transport and logistics and automotive, are almost entirely men. Men also account for the majority (80-90%) of starts related to other services (including ICT professionals) and animal care, land and water.

3.15 In contrast, women are more highly represented in starts relating to sectors classed as lower value, including personal services (91%) and administration (84%); and to a lesser extent sport, health and social care (69%); hospitality and tourism (63%) and retail and customer services (63%).

3.16 The balance of men and women in the food and drink sector, although weighted towards men (63%), is largely in line with the gender profile of total MA starts.

Further Education

3.17 There were 21,057 students studying at Further Education (FE) colleges in the Highlands and Islands in 2014/15. There is a significantly higher representation of men studying FE at Shetland College than across all FE colleges in the Highlands and Islands and nationally where there is a more even gender split.

Geography	Total	Female	Male
Scotland	260,079	51%	49%
Highlands and Islands	21,057	51%	49%
<i>Shetland</i>	<i>2,150</i>	<i>40%</i>	<i>60%</i>

Source: Scottish Funding Council.
Please note, FE provision in Shetland is via Shetland College.
Highlands and Islands total includes those studying at Inverness College, Orkney College, Moray College, Shetland College, North Highland College, West Highland College, Argyll College, Lews Castle College and Sabhal Mor Ostaig.

3.18 As with MAs, take up of FE provision by sector varies significantly by gender at the regional level (local data is not available). The differences tend to be greatest in subjects dominated by men, suggesting that gender stereotyping remains most persistent in these subjects. In particular, men account for 94% of students studying engineering, and 93% in construction and nautical studies. Women are highly represented (although to a lesser extent) across a wider range of subjects. Focusing on those subjects where there is a high intake of above 1,000 students, women are highly represented on courses relating to hairdressing, beauty and complementary therapies (98%), languages (66%); care (62%); hospitality and tourism (60%); and computing and ICT (56%).

Higher Education

3.19 There is a range of Higher Education Institutions (HEIs) operating in the Highlands and Islands: the University of the Highlands and Islands (UHI) (the region's main university which is a federation of 13 colleges and research institutions), Stirling University's Inverness and Stornoway Campuses and research facility at Machrihanish (MERL), Heriot Watt's facility ICIT based in Stromness in Orkney, Aberdeen's Medical Training Centre and Cromarty Marine Lab, and Robert Gordon University Clinical Pharmacy Masters courses as well as the Glasgow School of Art which has established an outreach facility in Forres.

3.20 While data is not available on the number of students participating in HE in each local authority area, it is useful to consider the region-wide trends. Based on enrolments to UHI and Stirling University's Inverness and Stornoway Campuses, 8,499 students were participating in Higher Education in the Highlands of Islands in 2014-15. Women accounted for 59% of the total compared to 51% of the population. This reflects national trends where 58% of HE students are women.

3.21 As with MA and FE provision, there are significant differences in the take up of HE subjects by gender and the patterns in HE broadly reflect the subject patterns in FE and for MAs. The HE subjects that are dominated by men include engineering (92%); computer science (75%); architecture, building and planning (80%); and technologies (91%). HE subjects that are dominated by women include those allied to medicine (93%); social studies (88%) and education (76%).

4 Gender Representation in the Workforce

Introduction

4.1 This brief section sets out the overall representation of men and women in the workforce compared to the gender balance in the working age population. Importantly, the gender balance in employment provides benchmarks used in the subsequent chapters when examining segregation by level (vertical segregation) and by job type (horizontal segregation).

Workforce Representation

4.2 In order to measure horizontal and vertical segregation, it is important to understand the extent to which there is an imbalance in the overall workforce and what an equal workforce would look like. Gender equality in the workforce would be reflected by the gender split matching that of the working age population and resulting in equal employment rates at all levels and jobs types.

4.3 In Shetland there continues to be a gender imbalance in favour of men in the workforce, with men accounting for 55% of employment compared to 51% of the working age population. This is slightly greater than the gap regionally and nationally.

Geography	Employment		Working Age Population	
	Female	Male	Female	Male
Scotland	49%	51%	51%	49%
Highlands and Islands	47%	53%	50%	50%
<i>Shetland</i>	<i>45%</i>	<i>55%</i>	<i>49%</i>	<i>51%</i>

Source: Annual Population Survey and Mid-Year Population Estimates.

5 Vertical Segregation

Introduction

5.1 Vertical segregation is where men and women are distributed unequally at different levels/grades. For example, one gender may be more predominant at higher levels than the other. To understand the nature and extent of vertical segregation in Shetland, the proportions of men and women in each of the standard occupational groups and the median weekly full time earnings for each group are analysed to provide a proxy for job level. The analysis allows us to identify trends in vertical segregation and provides an indication of the extent to which women continue to face a glass ceiling¹⁰.

5.2 The section begins with an overview of the occupational categories and then sets out analysis of how representation of men and women varies.

Occupational Categories and Job Levels

5.3 The standard occupational categories are set out in Table 5.1 ranked based on the national median weekly full time earnings (highest to lowest) for each group to provide an indication of the level of job. The occupational categories broadly fall into three pay bands (high, mid, and low), with the most senior positions falling within the highest pay band.

Table 5.1 Standard Occupational Group and Median Weekly Earnings		
Occupational Group	Coverage of Group	National Weekly Earnings*
Highest Pay Band		
Managers, directors and senior officials	<ul style="list-style-type: none"> Corporate managers and directors Other managers and directors (e.g. agriculture, health, hospitality, other services) 	£755
Professional	<ul style="list-style-type: none"> Science, research, engineering and technology Health Teaching and educational professionals Business, media and public service 	£678
Associate professional and technical	<ul style="list-style-type: none"> Science, engineering and technology Health and social care Protective service Culture, media and sports Business and public service 	£575
Mid Pay Band		
Skilled trades	<ul style="list-style-type: none"> Skilled agricultural and related Skilled metal, electrical and electronics Skilled construction and building Textiles, printing and other skilled trades 	£495
Process, plant and machine operatives	<ul style="list-style-type: none"> Process, plant and machine operatives Transport and mobile machine drivers 	£466
Administrative and secretarial	<ul style="list-style-type: none"> Administrative Secretarial and related 	£405
Low Pay Band		
Caring, leisure and other service	<ul style="list-style-type: none"> Caring personal service Leisure, travel and related personal service 	£360

¹⁰ An invisible upper limit, above which it is difficult or impossible for women to rise in the ranks. "Glass ceiling" is a metaphor for the hard-to-see informal barriers that keep women from getting promotions, pay raises and further opportunities.

Elementary ¹	<ul style="list-style-type: none"> Elementary trades Elementary administration and service 	£348
Sales and customer service	<ul style="list-style-type: none"> Sales Customer services 	£344

Source: ONS Standard Occupational Classifications and Annual Survey of Hours and Earnings
*Median, Full Time – note that equivalent data is not available for the Highlands and Islands due to small sample sizes
¹This major group covers occupations which require the knowledge and experience necessary to perform mostly routine tasks, often involving the use of simple hand-held tools and, in some cases, requiring a degree of physical effort. Most occupations in this major group do not require formal educational qualifications but will usually have an associated short period of formal experience-related training.

Vertical Segregation in Shetland

5.4 There is evidence of vertical segregation in the local, regional and national economies. Table 5.2 demonstrates that men are more highly represented than women in two of the three most senior and well paid occupational groups. In Shetland, they account for 75% of managers, directors and senior officials and 61% of associate, professional and technical occupations. This suggests that women are facing a glass ceiling effect that is preventing them from entering and progressing into these higher level positions. Women are, however, highly represented in professional posts, accounting for 63% of that occupational group.

Table 5.2: Employment gender split by occupation, 2015

Occupation	Shetland			Highlands and Islands		Scotland	
	No.	% Females	% Males	% Females	% Males	% Females	% Males
Highest pay band							
Managers, directors and senior officials	800	*	75%	36%	65%	37%	63%
Professional occupations	1,900	63%	37%	57%	43%	52%	48%
Associate professional and technical occupations	1,800	39%	61%	42%	58%	44%	56%
Mid pay band							
Skilled trades occupations	3,000	*	97%	13%	87%	11%	89%
Process, plant and machine operatives	700	*	100%	10%	90%	15%	85%
Administrative and secretarial occupations	1,700	76%	*	80%	20%	78%	22%
Low Pay Band							
Caring, leisure and other service occupations	1,400	79%	*	86%	14%	82%	18%
Elementary occupations	1,300	54%	46%	46%	54%	45%	55%
Sales and customer service occupations	800	88%	*	59%	41%	62%	38%
Total	13,200	45%	55%	47%	53%	49%	51%

Source: Annual Population Survey. Figures may not sum due to rounding.
* Data not available due to sample sizes.

5.5 There is an even greater representation of men in the two most highly paid occupational categories that fall within the mid pay band category. In Shetland, men account for 97% of skilled trades occupations and 100% of process, plant and machine operatives. Conversely, women account for 76% of administrative and secretarial occupations which are typically lower paid. Women are also more highly represented in all of the lowest paid occupational categories accounting for 79% of caring, leisure and

other service occupations, 54% of elementary occupations and 88% of sales and customer service occupations.

5.6 The pattern in Shetland is similar to the regional and national pattern, with just one exception - elementary occupations, where there are more women in the occupation than men in contrast to higher representation of men regionally and nationally. The extent of the segregation does, however, vary.

5.7 The key points for Shetland are:

- It is one of four local authority areas¹¹ where vertical segregation is most pronounced. Men account for an even higher share of the most senior and highly paid roles as managers, directors and senior officials (75%) than both the regional (65%) and national (63%) averages. They are also more highly represented in associate professional and technical roles in Shetland (61% compared to 58% regionally and 56% nationally).
- As for all local authority areas in the region, the representation of women in professional occupations (63%) exceeds the national (52%) average. In particular, Shetland has the highest representation of women in professional occupations regionally.
- The prominence of vertical segregation is also reflected by Shetland being one of two areas¹² where typical gender patterns are most commonly even more stark than the regional average across the occupations in the mid and low pay bands.
- Shetland has the highest representation of men in skilled trades and process, plant and machine operative roles of the six local authority areas, exceeding the national average (by 8 and 15 percentage points respectively).
- Similarly, it has the highest representation of women in sales and customer service and elementary occupations in the region, again exceeding the national average (by 26 and 9 percentage points respectively).
- At the same time, the representation of women in administrative and secretarial occupations and caring, leisure and other service occupations is amongst the lowest in the region. In both cases, women's share of the occupations are below both the regional and national average (by up to 7 percentage points), however, women continue to dominate both groups.

¹¹ There is evidence that vertical segregation is most pronounced in the Orkney, Shetland, Moray, and Argyll and Bute

¹² Typical gender patterns are most commonly even more stark in Moray and Shetland

6 Horizontal Segregation

Introduction

6.1 Horizontal segregation is the tendency for men and women to be distributed unequally in different types of jobs. For example, one gender may be more likely to work in a certain type of job than the other. In the regional report, this is explored by analysing the representation of men and women in each sector, and in the standard occupational groupings within each sector – two of the main factors that will influence the nature of jobs.

Based on the data that is available at the local authority level, this section focuses on the representation of men and women in each sector. The chapter begins by providing an overview of the scale and the nature of employment opportunities taken up by local residents.

The Employment Base

6.2 In Shetland, approximately 13,200 residents are in employment, accounting for 5% of the total regional workforce.

Geography	Employment
Scotland	2,577,300
Highlands and Islands	244,300
Shetland	13,200

Source: Annual Population Survey.

6.3 Table 6.2 shows employment by sector in Shetland as well as how this compares to the representation nationally (as denoted by the location quotients¹³). This begins to provide an overview of the types of jobs residents work in. Public administration, education and health is the largest employment sector (4,100 residents), followed by distribution, hotels and restaurants (2,100 residents). Collectively, these sectors account for 47% of the area's residents who are in employment.

6.4 As the third largest sector in employment terms, agriculture and fishing is highly represented in Shetland, with employment levels over seven times the national average. Transport and communications and construction are also well represented. Employment levels in public administration, health and education are in line with the national average and most other sectors are underrepresented. The financial, professional and business services sector has the lowest representation of all the sectors in Shetland.

Sector	No.	%	LQ
Public admin. education and health	4,100	31%	0.99
Distribution, hotels and restaurants	2,100	16%	0.86
Agriculture and fishing	1,500	11%	7.47
Transport and communications	1,300	10%	1.35
Construction	1,300	10%	1.46
Financial, profession and business	1,100	8%	0.52
Manufacturing	800	6%	0.71
Other services	600	5%	0.76
Utilities	*	*	*
Total	13,200	100%	1.0

¹³ A LQ of one indicates that employment in the sector is equivalent to the national level, while a sector with a LQ of more than one denotes a high level of representation and specialisation. A LQ of less than one highlights that a sector is under-represented.

Table 6.2: Shetland Employment by Sector (2015)

Source: Annual Population Survey.

* Data not available due to sample sizes.

Horizontal Segregation in Shetland

6.5 There is evidence of horizontal segregation in the local, regional and national economies, with clear differences in the types of jobs held by women and men. The extent of gender segregation varies significantly by job type and sector. It is important to note that the trends affect both genders. For example, while some sectors have a high representation of men, others have a high representation of women. This aligns with the findings of the Training and Employment Research Unit's (TERU) research on equalities in Growth Sectors¹⁴.

6.6 As shown in Table 6.3, men are highly represented in three sectors in Shetland¹⁵ (agriculture and fishing; transport and communications; and particularly construction), accounting for between 77% and 100% of those working in the sector. In contrast, women are highly represented in two sectors (distribution, hotels and restaurants; and particularly public administration, education and health) accounting for between 60% and 76% of those working in the sector. The sector with the greatest balance is financial, professional and business services.

Table 6.3: Employment gender split by sector, 2015

Sector	Shetland			Highlands and Islands		Scotland	
	No. Employment	% Females	% Males	% Females	% Males	% Females	% Males
Public admin. education and health	4,100	76%	24%	71%	29%	71%	29%
Distribution, hotels and restaurants	2,100	60%	40%	58%	42%	53%	47%
Agriculture and fishing	1,500	*	87%	24%	76%	20%	80%
Transport and communications	1,300	*	77%	14%	86%	22%	78%
Construction	1,300	*	100%	7%	93%	14%	86%
Financial, professional and business services	1,100	*	55%	48%	52%	47%	53%
Manufacturing	800	*	*	27%	73%	26%	74%
Other services	600	*	*	56%	44%	56%	44%
Energy and water	*	*	*	3%	97%	19%	81%
Total	13,200	45%	55%	47%	53%	49%	51%

Source: Annual Population Survey. Figures may not sum due to rounding.

* Data not available due to sample sizes.

¹⁴ <http://eprints.gla.ac.uk/113002/>

¹⁵ For which data is available. Note that data is missing for manufacturing and energy and water which are typically dominated by men, and other services which are typically dominated by women

6.7 These local sectoral patterns generally reflect regional and national patterns, although the extent of the sectoral imbalances in Shetland vary when compared to the regional and/or national average. In most cases (where data is available) the extent of the imbalance is higher than the regional and national average. Along with Moray, Shetland is one of two areas which is most commonly affected by greater gender gaps. There are, however, also cases (mainly transport and communication) where the gap is smaller.

6.8 In terms of sectors that are dominated by men:

- Construction and agriculture and fishing have an even higher representation of men in Shetland when compared with the regional (by 7 and 11 percentage points respectively) and national average (by 14 and 7 percentage points respectively). In particular, Shetland is one of two areas in the region (with Eilean Siar) where practically all of those working in the construction sector are men.
- The extent of the imbalance towards men in Shetland's transport and communication sector is lower than the regional average (by 9 percentage points) and the national average (by 1 percentage points). Shetland is one of two local authority areas (with Eilean Siar) where this is the case.
- Whilst still one of the most balanced sectors overall in gender terms, there is a slightly higher representation of men in financial, professional and business services than regionally (by 3 percentage points) and nationally (by 2 percentage points).

6.9 In terms of sectors that are dominated by women:

- Shetland has the second highest representation of women in public administration, education and health; and, with Argyll & Bute, the highest in distribution, hotels and restaurants in the region. In both cases, women's share of the sectors exceeds the national average (by 5 and 7 percentage points respectively).

6.10 It should be noted that the sector trends only capture part of horizontal segregation in Shetland. As set out in the regional report, there is further segregation within the sectors with clear patterns in terms of the types of jobs that men and women do (i.e. the occupations they work in within these sectors).

6.11 While this data is not available at the local level, the regional data shows that (in line with the findings in Chapter 5), men are more likely to work in skilled trade occupations and roles as process, plant and machine operatives, while women are more likely to work in administrative and secretarial, caring, teaching, sales and customer service roles. In many cases, these roles reflect traditional views of what is 'men's work' and what is 'women's work'.

6.12 These patterns are evident across all sectors (with the exception of sales and customer service roles in transport and storage; and financial, professional and business services, and also leisure and other service roles in transport and storage where men dominate these occupations rather than women).

6.13 Even within sectors with a high gender imbalance towards men or women, traditional occupational patterns persist. For example, where women work in sectors such as construction and manufacturing which are dominated by men, it is often in female gendered roles, such as administrative and sales positions and vice versa. There is also evidence of traditional occupational patterns in financial, professional and business services, despite the sector appearing more balanced in gender terms overall.

6.14 In terms of the more senior occupational categories, overall, women work in a narrower range of senior positions, concentrated in the sectors where they are highly represented (e.g. public

administration, education and health). They also continue to be underrepresented in the most senior positions, even in sectors where they make up the majority of the workforce, a further indication of the glass ceiling effect.

7 Key Messages

Occupational Segregation in Shetland

7.1 There is evidence that occupational segregation exists in Shetland and is at least as prominent in the local area as it is nationally. Men and women tend to be highly represented in different types of jobs and at different levels or grades. In some cases, the gender split is very significant.

7.2 Generally the nature of the segregation, in terms of the types and levels of jobs in which men and women from Shetland work is similar to the regional and national profiles (as with all local authority areas in the Highlands and Islands). Instead, it is the extent of the segregation which varies (on an occupation by occupation and sector by sector basis) within this region-wide pattern.

Vertical and Horizontal Segregation

7.3 As section 5 and 6 show, there is clear evidence of both vertical and horizontal segregation in Shetland. Vertical segregation is evidenced by the fact that men are more likely than women to be in the most senior positions. The data also suggests that vertical segregation is more prominent in Shetland than across the region as a whole.

7.4 Horizontal segregation is evidenced by men being more likely to work full time and work in sectors such as construction, manufacturing and transport, while women are more likely to work part time and work in education, health, retail and sectors associated with tourism, such as accommodation and food. Men are also more likely than women to be self-employed. In many cases, these patterns link with traditional views of what is 'men's work' and what is 'women's work'. The extent of horizontal segregation in Shetland is typically above the regional and national average – Shetland (with Moray) is most commonly affected by greater gender gaps. There are, however, also cases (mainly transport and communication) where the gap is smaller.

The Pay Gap and Underemployment

7.5 Occupational segregation affects both men and women. It is, however, recognised that it tends to be women who experience the negative consequences. This is demonstrated by one of the most widely recognised measures and tangible impacts of gender segregation – the gender pay gap.

7.6 On average, women earn less than men and although this is also a national issue, the gender pay gap is greater in Shetland (and the region as a whole). The lower levels of pay amongst women are not only influenced by vertical segregation and the levels of jobs that women tend to work in, but also by horizontal segregation and the types of jobs they are employed in. This includes part time work as well as working in sectors and roles which are typically classed as lower value, and which are often undervalued, contributing to underemployment. This is in spite of women tending to be more highly skilled than men.

7.7 Underemployment (where an individual's skills are under-utilised in the workplace) is a major issue for women, manifesting itself in different ways and preventing women from reaching their full potential and delivering their maximum economic contribution.

Conclusions

7.8 Overall, the nature of occupational segregation in Shetland is similar to the region as a whole and the national profile. In the majority of sectors and occupations the imbalance is greater than the

national average, although this is very common across the Highlands and Islands local authority areas. While there are also cases where the imbalance in Shetland exceeds the regional average too, this also applies to some other local authority areas. This means that Shetland does not stand out as an area that has a much greater issue of occupational segregation than other parts of the Highlands and Islands, or as an area that requires a specific intervention to tackle a specific issue that is not required elsewhere.

7.9 Both vertical and horizontal occupational segregation are pronounced across the Highlands and Islands and, if men's and women's contributions to growing the economy are to be maximised, initiatives must be implemented to tackle occupational segregation. The significant gender gaps show that further action is required in each area to achieve a greater gender balance in different types and levels of jobs.

As set out in the regional report, there is a need for a region-wide strategic approach to address segregation and this will require buy-in and involvement of partners in local areas. To be successful, all relevant players must take ownership of the issue and of being part of the solution. Also, in developing the actions flowing from this research, it may be that between areas, some interventions will differ in focus to reflect local circumstance, the profile of the business base and the particular workforce characteristics. Further details on the recommended approach are provided in Chapter 9 of the regional report.