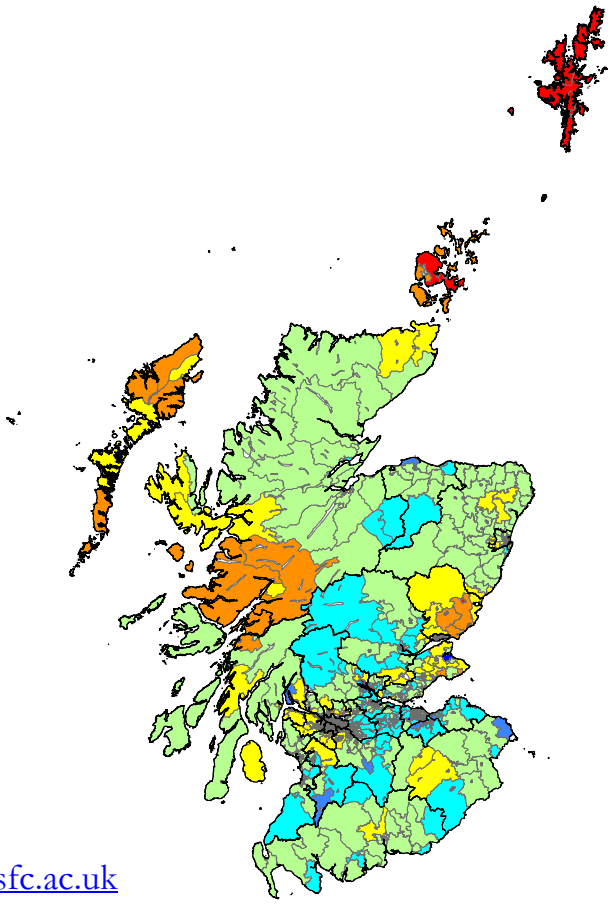
Scottish Funding Council
Promoting further and higher education

Scottish Participation in Further and Higher Education 2004-05 to 2008-09

June 2010



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- Scottish Government
- Learning and Skills Council

Contents

Key points

This report examines levels of participation by the Scottish adult population at school, UK universities and Scotland's colleges. Participation has been measured both in terms of the number of participants and the number of full-time equivalents (FTE) which provides a useful indication of the volume of activity.

In further and higher education (FE and HE) as a whole:

- the total number of individuals studying in college or university education has fallen between 2004-05 and 2008-09. Numbers and total FTE increased slightly between 2005-06 and 2006-07, but then fell again in 2007-08 to 2008-09;

- in 2008-09, those from the most deprived areas of Scotland had a slightly higher likelihood of being in college or university education than those from less deprived areas;

- this ratio of participation amongst the most deprived to participation amongst the less deprived has been on an increasing trend since 2004;

- there is substantial geographical variation in levels of participation. Many areas that have relatively low participation in FE have relatively high participation in HE, and vice versa; and

- participation is higher among women than men in all age groups. In 2008-09, among those aged 16-19, 67 per cent of women attended school, college or university, compared to 62 per cent of men.

In college FE:

- the total numbers studying decreased by three per cent between 2007-08 and 2008-09, but FTEs increased by 2.6 per cent. The increase was most evident in young students aged 16-19;

- relatively low headcount participation, compared to Scotland as a whole, is found in parts of Edinburgh, central Scotland and the highlands. The south of Scotland and the highlands also appears to be relatively low in terms of FTE participation;

- headcount participation has decreased slightly for both men and women since 2007-08;

- in 2008-09, 68 per cent were studying for recognised qualifications: this accounted for 87 per cent of the total sector FTE; and

- participation in the most deprived areas is 43 per cent higher than that in the less deprived in 2008-09, and the corresponding FTE is one and three quarters times as high in the most deprived class compared to less deprived.

In college and university HE:

- excluding the Open University, where recent course changes have artificially affected student numbers, the total numbers participating increased slightly in 2008-09, following a decrease between 2006-07 and 2007-08;

- relatively low participation in HE, compared to Scotland as a whole, is found in parts of Glasgow, Edinburgh, central Scotland, and east Fife;

- participation is higher for women than men in all age groups. In 2008-09, among those aged 16-20, 24 per cent of women were in HE, compared with 19 per cent of men;

- among those aged 16-20, the participation (headcount) rate has declined by about 6 per cent since 2004-05;

- between 2006-07 and 2008-09, participation rates in distance/open learning increased by 24 per cent in terms of headcount rates, and 5 per cent in terms of FTE, bringing distance learning rates back in line with 2004/5;

- participation has increased slightly for those studying at first degree level in 2008-09, after a decrease over 2005-06 to 2007-08; and

- those from the most deprived areas of Scotland were 64 per cent as likely to study HE as those from less deprived areas in 2008-09. However, the gap has narrowed from 60 per cent in 2004-05.

1. Introduction

"Much has been done by the further and higher education sectors to widen access.... However, progress in relation to some of the patterns of participation remains slow. Participation and achievement of people from the most deprived areas remains low, there is a widening educational gap between men and women,…". This was one conclusion of a joint Funding Councils review group on widening participation in 2005 (SFEFC and SHEFC, 2005), which also recommended that the Scottish Funding Council (SFC), amongst others, "C*ontinue to develop the quantitative and qualitative evidence on the patterns of participation and achievement, …".*

The importance of monitoring participation is also reflected as a priority action in the SFC's Corporate Plan for 2006-09 (Scottish Funding Council, 2006) which noted that "…*educational participation is highly skewed, particularly by socio-economic background, geography and gender*.".

This report seeks to provide the information needed to track changes in the pattern of participation by the Scottish adult population, and to support the development of policies aimed at addressing current concerns. This is achieved by presenting as complete a picture as is possible of adult participation in further and HE: how it has changed in recent years, how it varies across Scotland and the extent to which different segments of the population are under-represented.

A series of earlier reports have examined participation in HE (SHEFC, 1998; Raab and Storkey, 2001; Raab and Small, 2003), the most recent covering the period up to 2000-01. The report *Scottish participation in further and higher education, 2001-02 to 2005-06* (Scottish Funding Council, 2008a) updated this analysis to look at changes between 2001-02 and 2005-06 whilst, for the first time, extending it to cover FE in the college sector. This report is an update which includes data for 2008-09.

Combining HE and FE with data on post-compulsory school education enables us to give a unique picture of participation in education amongst those aged 16 and over. Indeed, the report starts with this cross-sector overview before moving on to separate and more detailed examinations of further and HE. This picture is still incomplete, as some forms of FE lie at least partly outside the college and university sectors[1]. For example, limited data is available on community education and on literacy and numeracy classes that take place outside of the college sector. Much publicly-funded

[1] Throughout this report we use the word 'college' to refer to colleges in Scotland that provide mainly further education and higher education in the form of Higher National qualifications. The word 'university' is used to refer to universities and other higher education institutions.

training, for Modern Apprenticeships for example, does take place at colleges, but not all. In addition, job-related training is frequently supplied by private providers. Nonetheless, armed with local knowledge to aid interpretation, an examination of combined college and university participation can provide valuable insights, particularly where higher participation in one sector tends to offset relatively low participation in the other.

Our focus is very much on rates of participation in the Scottish population: the proportion of an area's population engaged in education. Thus, the report does not attempt to replicate information presented elsewhere on the supply of education. Supply has been described in detail in various reports such as *Higher Education in Scotland: a Baseline Report* (Scottish Higher Education Funding Council, 2004; Scottish Funding Council, 2008b), *Scotland's Colleges: a Baseline Report* (Scottish Funding Council, 2007a) and *The Pattern of Subject Provision in Scotland's Colleges and Higher Education Institutions* (Scottish Funding Council, 2007b).

Participation rates are affected by the number of new entrants, the duration or frequency of study and, where relevant, the extent to which students progress to subsequent years of their course. Thus, it should be kept in mind that trends in participation and differences between segments of the population may not be entirely due to variation in the likelihood of students entering further or HE. For HE we have been able to add a section looking at entrants separately but for the rest of the report we have not attempted to disaggregate these students.

Participation rates have also been reported elsewhere (eg Scottish Funding Council, 2008c; DTZ Pieda Consulting, 2005) but often using a range of approaches for defining both the student population and the population from which they are drawn. Geographical comparisons of participation rates are also open to misinterpretation given the way in which participation depends on the demographic composition of an area. Participation clearly varies by age and, as has become increasingly apparent in recent years, by gender. Thus, it is helpful to examine the extent to which geographical differences are explained simply by particular areas having, for example, a relatively old population or a gender imbalance.

Therefore, this report also aims to set up a framework for consistent reporting on participation, using the best available measures of student numbers and of the resident population. An account of the methodology can be found in Appendix 1. What follows is a summary of the approach used which serves as a guide to understanding the participation measures presented.

Student data comes from the Higher Education Statistics Agency (HESA) student records which cover all students studying at higher education institutions in the UK; the Further Education Statistics (FES) records held by the SFC which cover students at colleges in Scotland; and the pupil census of publicly-funded schools in Scotland.

For the college and university data, activity has been measured in terms of the number of FTE as well the actual number of students (headcount). FTE has been estimated for each student in relation to the normal study requirements of full-time, full-year students. FTE provides a useful indicator of the amount of time devoted to education by the population. Headcount on its own can be misleading, particularly in FE where courses can vary substantially in length and intensity.

Population figures are derived from the General Register Office for Scotland's (GROS) mid-year estimates. Because these figures record students at their term-time address, they have been adjusted to estimate the actual number of residents for each area. In calculating a participation rate we are interested in the proportion of an area's adult residents engaging in education. Without adjustment, participation for areas with extensive student accommodation will be underestimated, as the number of domiciled residents is lower than the mid-year population figure suggests.

National levels of participation for student sub-groups have been presented as rates per thousand head of population both for headcount and FTE. However, to facilitate geographical comparisons participation rates have been standardised for age and gender. This is achieved through the use of a *Standardised Participation Ratio* (SPR) which compares the observed number of participants in an area with what would be expected if national participation rates, by age and gender, applied. The ratio of the observed to expected number provides a benchmark for each area in relation to national rates so that SPRs above or below one indicate that local participation is above or below national levels whilst taking account of the age-gender composition of the area.

The SPR has only been used to aid geographical comparisons and is not intended to hide the fact that there are important differences in participation by age and gender. These differences are also explored in each chapter.

For mapping, participation is presented for the areas defined by the Scottish Neighbourhood Statistics' Intermediate Geography. There are 1,235 of these *intermediate zones* in Scotland and they can be conveniently aggregated to provide results for local authorities. Data for some intermediate zones

can be sparse and subject to random fluctuation and so some smoothing has been undertaken to facilitate detection of the underlying geographical patterns.

To examine change in participation within intermediate zones and local authorities, participation rates were standardised across the five years of the study. The resulting measure is termed the Standardised Participation Ratio for Trend, or Trend SPR for short. The Trend SPR will be greater than one for years with a higher participation than the national five-year average. To identify significant trends in headcount participation statistical models have been developed. Trends that are likely to be 'real', rather than due to random fluctuations in participation have been highlighted in maps and tables. This analysis will be extended to FTE in future updates to this report.

Whilst this report examines current levels of participation and recent changes, it does not attempt to predict future changes. However, it is worth keeping in mind that projected population changes for local authority areas (GROS, 2008) may have a significant effect on local demand. For example, the working age populations of Aberdeen City and East Dunbartonshire are projected to fall by 16 and 25 per cent respectively between 2006 and 2031. Conversely, the population of West Lothian is projected to increase by 17 per cent over the same period.

Finally, note that this is primarily a statistical report, presenting participation in a form to aid policy development and monitoring. It does not seek to explain or interpret its findings, except where there are clear influences, such as data recording changes, ignorance of which might result in misleading conclusions being reached.

Important statistical note

All participation rates are expressed as the number of participants (or FTE) per thousand population where the population aged 16 and over is used unless otherwise stated.

Rates for men and women and for different age groups are calculated using only the relevant population sub-group.

Some of the figures for 2004-05 to 2008-09 will be slightly different to those presented in previous participation reports. This is largely due to improved imputation of the information for students with missing home postcodes. Trends are largely unaffected by these changes.

The change to using Scottish Index of Multiple Deprivation 2009 (SIMD) has also affected the numbers in some of the deprivation tables, as datazones changed their SIMD ranking. Therefore, the numbers presented in the report will not be comparable to previous reports.

2. Participation in further and higher education combined

Subsequent chapters in this report focus on further and higher education study separately but here we bring the two together to provide a more complete overview of post-compulsory education. It is still not complete as our analysis is restricted to study within schools, colleges and universities because of availability of data. Almost all HE takes place in the colleges and universities, but FE is extremely varied in nature and supplied by a range of providers. Although the colleges are the biggest provider, other providers play a major role in certain types of education such as leisure courses, work-based learning, and training programmes such as Modern Apprenticeships.

Thus, strictly speaking, the results presented here describe the Scottish adult population's engagement in education at schools, colleges and universities. In the college sector the type of provision will vary between colleges and also the extent to which they or other providers satisfy local demand. This should be borne in mind when interpreting the results: trends in participation may not reflect trends in the totality of adult education; trends may be affected by an increase or decrease in certain types of provision; and geographical differences can result from variation in the extent of college involvement in different types of FE and HE in a locality.

Nonetheless, there is considerable value to be gained by, for example, comparing the geographical variation in participation in FE or HE combined with that for the two separately, as presented in subsequent chapters. For example, relatively low participation in FE within an area may be counterbalanced by high participation in HE or a higher percentage of school pupils staying on after 16. Similarly, a decline in FE participation may indicate a switch to HE and so the combined trend is more stable.

Schools data come from the September schools census of publicly-funded schools and include pupils at special needs schools only as insufficient data are available on Scottish-domiciled pupils at independent schools. Although the total number of such pupils is relatively small in number their omission will have a disproportionate effect on the Edinburgh area where a significant proportion of pupils attend independent schools.

For each academic year, all pupils who will be aged 16 and over by the beginning of March have been included. Those who are still 15 in September are eligible to leave school in December and so we have unavoidably included some pupils who do not undertake post-compulsory study. However, we have attempted to avoid the overlap with pupils who undertake part of their study at college.

The school census data has only been included in the overview section of this chapter, although school pupils attending college have been included throughout and the omission of non-college school pupils does not have a substantial effect on trends.

There will be a small amount of double counting as some students will study at both colleges and universities in the same year. This may be particularly likely in the highlands and islands where college campuses are often used for both FE courses and for HE study as part of the UHI Millennium Institute. However, double counting has been avoided at other colleges that provide both FE and HE courses.

Further information on the data used and potential gaps can be found in the chapters on FE and HE and in the account of the methods used in Appendix 1.

As well as number of students (headcount), participation is also presented in terms of FTE. For students at universities, FTE is estimated with reference to a full-time full-year student who would normally receive an FTE of one. FTE for those on part-time courses or who leave part way through a year are estimated pro-rata on either a credit or time basis. For students in colleges in Scotland a broadly comparable FTE was calculated based on the number of hours of study as a proportion of the expected number of hours for a full-time course. For school pupils we assume that they are full-time and, in the absence of individual retention data, that they have an FTE of one. This will be an overestimate for some pupils, for example if they leave at the end of December. See Appendix 1 for more information.

Because of a change to the definition of college full-time FE courses in 2005-06, it is not possible to estimate comparable FTE for earlier years reliably. Therefore, for FE, and combined FE and HE activity, we have only presented FTE for 2005-06 onwards.

2.1. Overview

Table 2.1.1 summarises the numbers and FTE of Scottish-domiciled students aged 16 and above studying at publicly-funded schools, colleges or universities according to their level of study. The main changes that are evident are that

- the total number studying courses at Scotland's colleges and universities declined between 2004-05 and 2008-09;
- the overall headcount numbers studying HE at college or university have risen slightly since 2007-08;
- there has been a drop in FE numbers since 2007-08.

Figure 2.1.1 shows the participation rates for FE and HE activity combined in terms of headcount. As school participation was little changed over the period its inclusion would not have affected the trends. The figure indicates that the rates for both FE and HE are declining.

Table 2.1.1 Numbers and FTE for school, college and university participants aged 16 and over

a) Headcount

Location of Study	Level of study	2004-05	2005-06	2006-07	2007-08	2008-09
		Count	Count	Count	Count	Count
School	College Link (FE or HE) (a)	18,494	17,735	20,143	21,097	21,895
	All school (b)	**77,047**	**75,853**	**77,671**	**79,702**	**79,304**
College	Studying FE only (c)	265,043	259,401	265,703	267,429	259,426
	Studying both FE and HE (d)	7,133	6,578	7,208	7,388	7,028
	Total FE	**272,176**	**265,979**	**272,911**	**274,817**	**266,454**
	Undergraduate	49,384	48,359	46,655	45,545	45,568
	Postgraduate	172	137	146	109	108
	Total HE	**49,565**	**48,496**	**46,799**	**45,736**	**45,675**
Scottish university	Undergraduate	147,467	146,752	144,354	140,809	143,233
	Postgraduate	28,202	29,253	30,370	28,997	28,569
	Total	**175,347**	**175,642**	**174,419**	**169,563**	**171,541**
Other UK university	Undergraduate	8,597	8,771	8,435	8,129	8,455
	Postgraduate	4,373	4,214	4,096	4,127	4,378
	All	**12,937**	**12,957**	**12,493**	**12,229**	**12,809**
College and university	**All HE (e)**	**237,833**	**237,087**	**233,704**	**227,514**	**230,018**
	All FE and HE (c+e)	**502,876**	**496,488**	**499,407**	**494,947**	**489,444**
School, college and university	**All (b - a +c+e)**	**561,429**	**554,606**	**556,935**	**553,552**	**546,853**

Notes

- The school figures come from the annual schools census of publicly-funded schools. Special needs pupils have been included. In 2008-9 school ages were defined as 16-19 years of age.
- The college figures include school-college link students.
- A small overlap exists between those studying at both a college and university in the same academic year. Thus the combined totals are slight over-estimates.
- There is an overlap between some levels of study as, for example, a student may enrol on an undergraduate and postgraduate course in the same year. In addition, a small number enrol at both a Scottish and an 'Other UK' university in the same year.
- Letters after the level of study indicate where figures have been derived from other figures in the table.

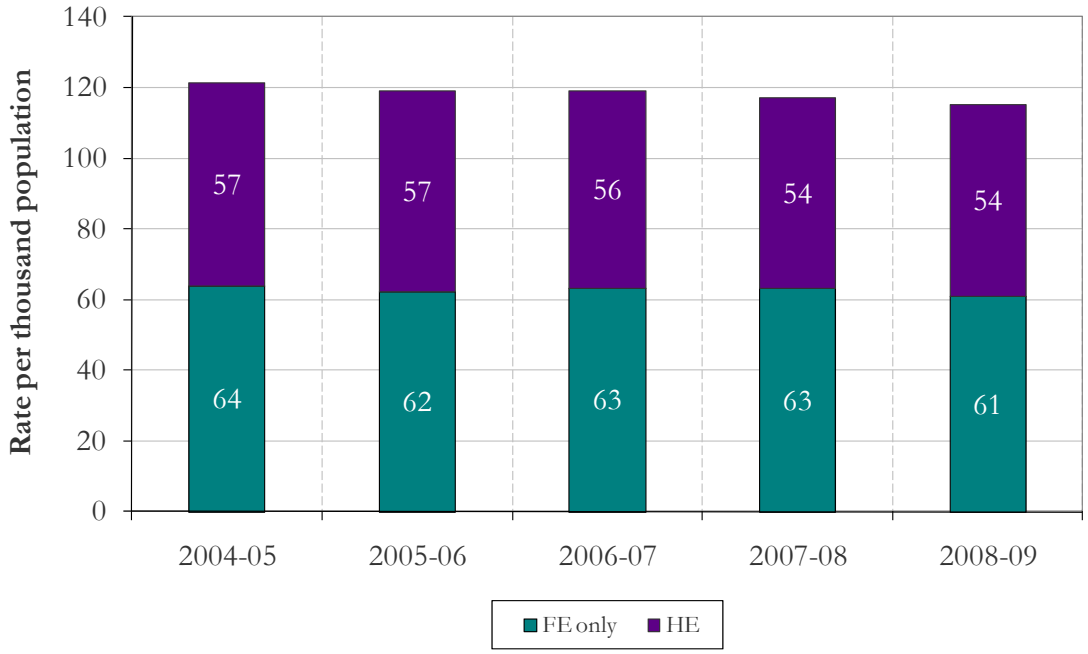
b) FTE

Location of study	Level of study	2004-05	2005-06	2006-07	2007-08	2008-09
		FTE	FTE	FTE	FTE	FTE
School	College Link (FE or HE) (a)	-	4,439	4,872	4,986	5,516
	All school (b)					
College	Studying FE only (c)	-	71,257	73,675	74,912	76,934
	Studying both FE and HE (d)	-	1,261	1,397	1,541	1,515
	Total FE	**-**	**72,510**	**75,065**	**76,444**	**78,443**
	Undergraduate	31,271	30,863	30,697	29,816	30,941
	Postgraduate	61	44	48	41	46
	Total HE	**31,360**	**30,910**	**30,746**	**29,870**	**30,987**
Scottish university	Undergraduate	105,175	103,834	102,564	103,469	104,469
	Postgraduate	14,648	15,806	15,973	15,846	15,406
	Total	**119,824**	**119,640**	**118,537**	**119,315**	**119,875**
Other UK university	Undergraduate	6,557	6,444	6,195	6,229	6,196
	Postgraduate	2,417	2,355	2,254	2,219	2,242
	All	**8,974**	**8,799**	**8,449**	**8,449**	**8,438**
College and university	**All HE (e)**	**160,158**	**159,350**	**157,732**	**157,632**	**159,299**
	All FE and HE (c+e)	**-**	**231,441**	**232,184**	**233,317**	**236,953**
School, college and university	**All (b - a +c+e)**		**227,002**	**227,312**	**228,331**	**231,437**

Notes

- The FTE for school-college link students is for their college study only.
- College FTE does not always sum to the totals because of the way a cap has been applied to an individual's FTE. See Appendix 1 for more information. Other FTEs may not sum due to rounding.
- The total FTE for school, college and university activity assumes school pupils have an FTE of one. This will not always be the case, for example, if a student leaves school at the end of December.

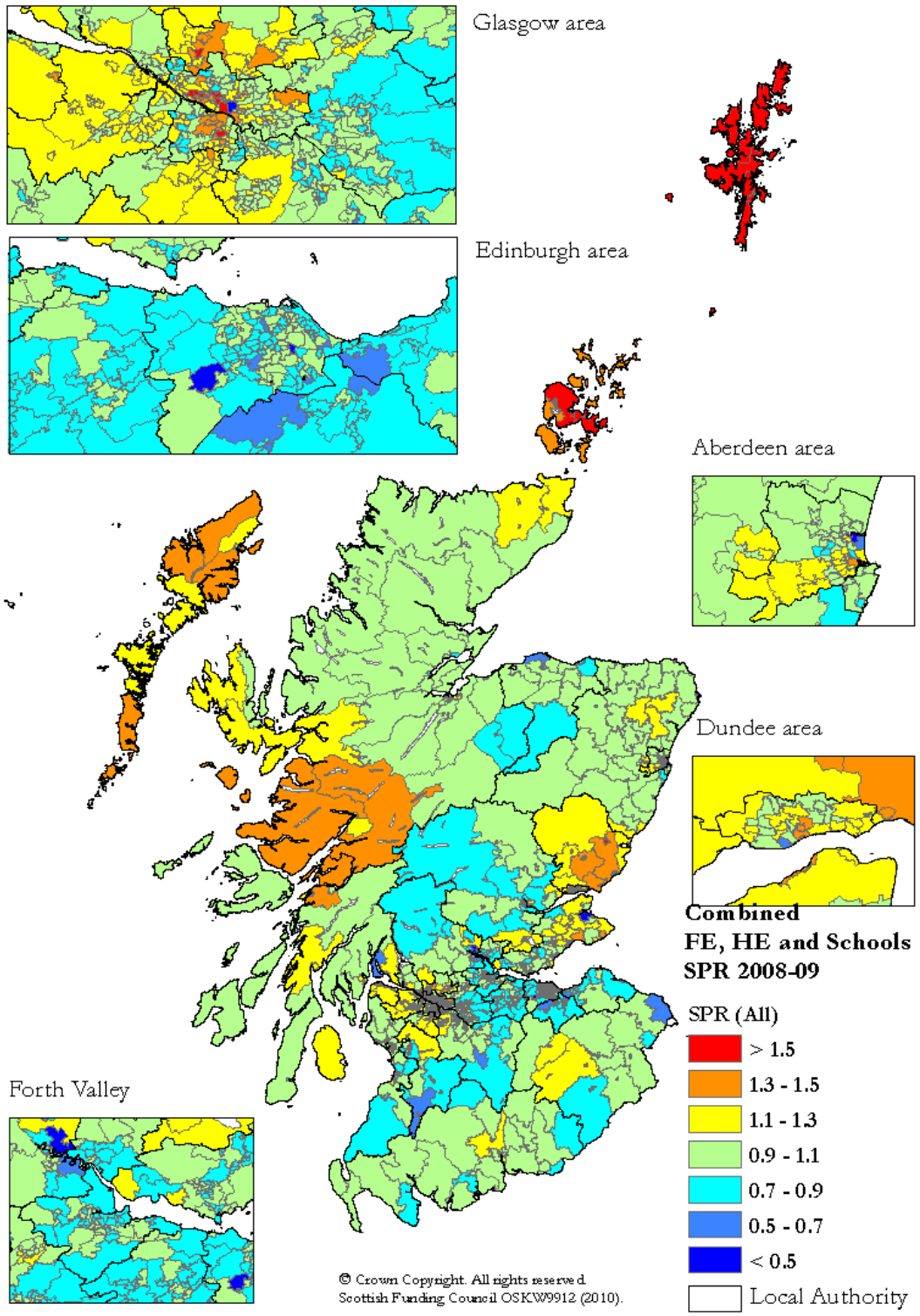
Figure 2.1.1 Trends in headcount participation rates for FE or HE activity



Geographical variation in headcount participation in FE, HE or school education in 2008-09 is illustrated in Figure 2.1.2. Shetland is notable as an area of high participation because of the nature of local provision. Other areas with high participation include Orkney and parts of Glasgow. Particularly low participation is found in parts of Aberdeen City, Edinburgh, Glasgow and central Scotland.

Variation in FTE participation is shown in Figure 2.1.3. FTE will be slightly overestimated as we assume school pupils have an FTE of one. Comparing with Figure 2.1.2, the impression is of less variation in terms of FTE than headcount. Many areas with relatively high headcount participation are nearer the national average in terms of FTE because a relatively large proportion of students are part-time. This is clearly the case for much of the Highland local authority area and for Orkney and Shetland. Nonetheless parts of Edinburgh, Aberdeen, Glasgow and central Scotland tend to have low participation for both headcount and FTE. A few areas, such as parts of Glasgow and Dundee, are relatively higher in terms of FTE because they tend to have a higher proportion of full-time students.

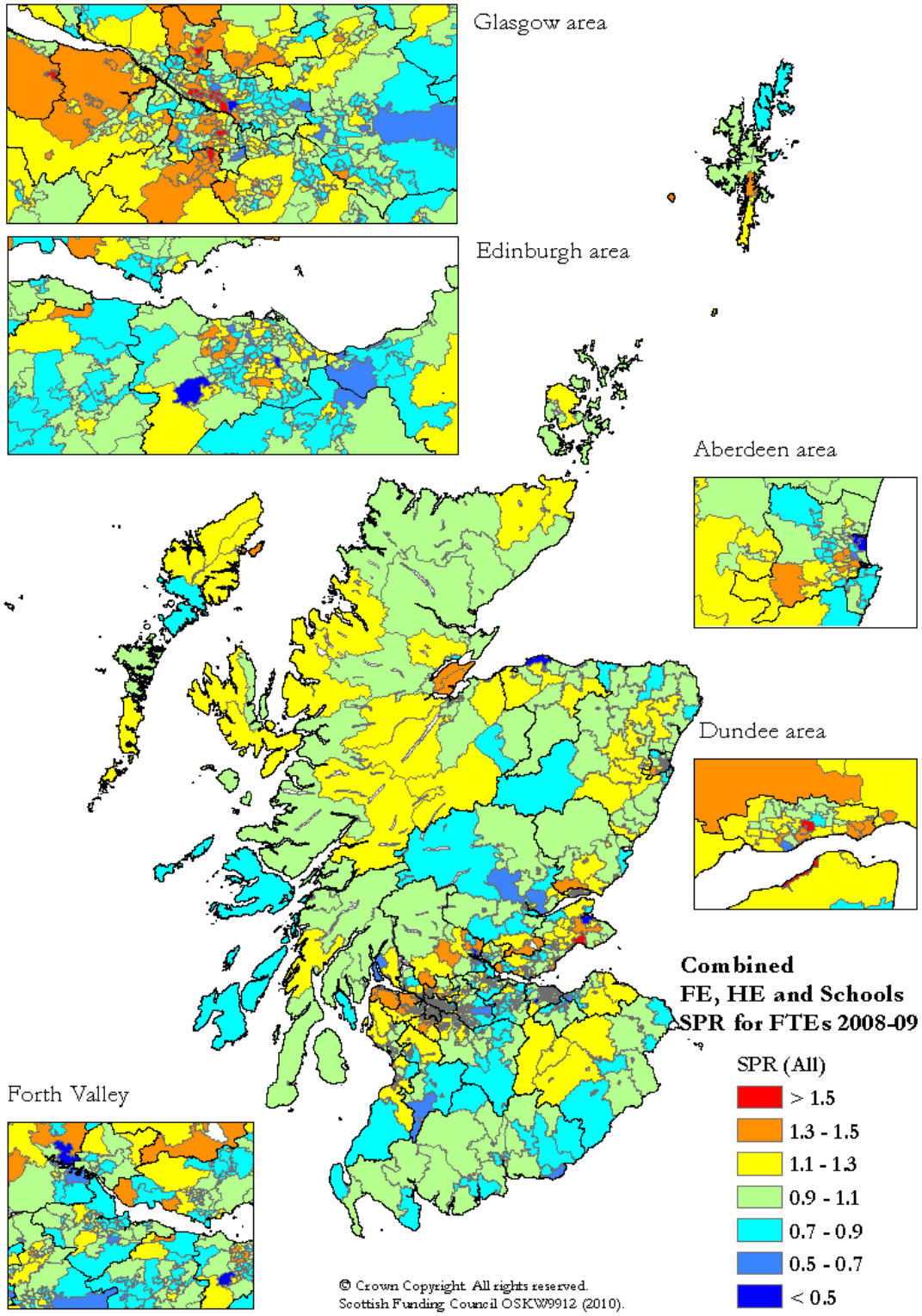
Figure 2.1.2 Geographical variation in headcount participation for school, FE or HE activity in 2008-09



Notes

The Standardised Participation Ratio (SPR) compares the number of participants in an area with what would be expected if national age-gender specific participation rates were applied to the area's population. The SPR ensures areas with differing age-gender distributions are comparable. The national SPR is one. Thus participation in areas in green is close to the national rates.

Figure 2.1.3 Geographical variation in FTE participation for school, FE or HE activity in 2008-09



Notes

An FTE of one has been assumed for school pupils. This will be an over-estimate for pupils who leave in December.

2.2. Trends by age and gender

Trends by age and gender for FE or HE are summarised in Figure 2.2.1 and Figure 2.2.2. School pupils not studying at college have been excluded, but this does not appear to affect the trends, as illustrated by Figure 2.2.3. The figures show that

- headcount participation rates are higher for women than men in all age groups;
- headcount numbers are clearly in decline for all ages apart from age groups 16-19; however
- there are no clear trends among the FTE.

If all school pupils are included, an estimated 67 per cent of women aged 16-19 attended school, college or university in 2008-09, compared to 62 per cent of men.

It should be noted that the difference in the overall participation rates ('All ages') is affected by the fact that there are rather more elderly women than men in the adult population. As participation is low in the elderly they do have the effect of reducing overall rates and more so in women than men. Thus, the difference between men and women in the 'Working age' rates is rather larger than in the 'All ages' rate.

Figure 2.2.1 Headcount participation rates in FE or HE by age and gender

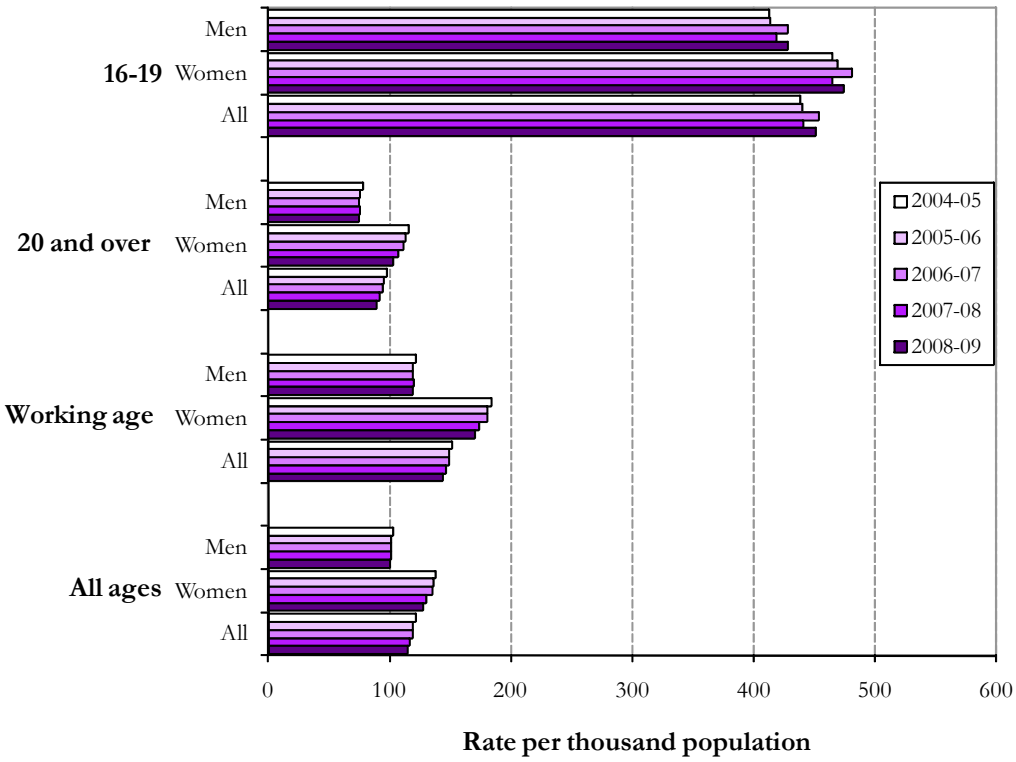
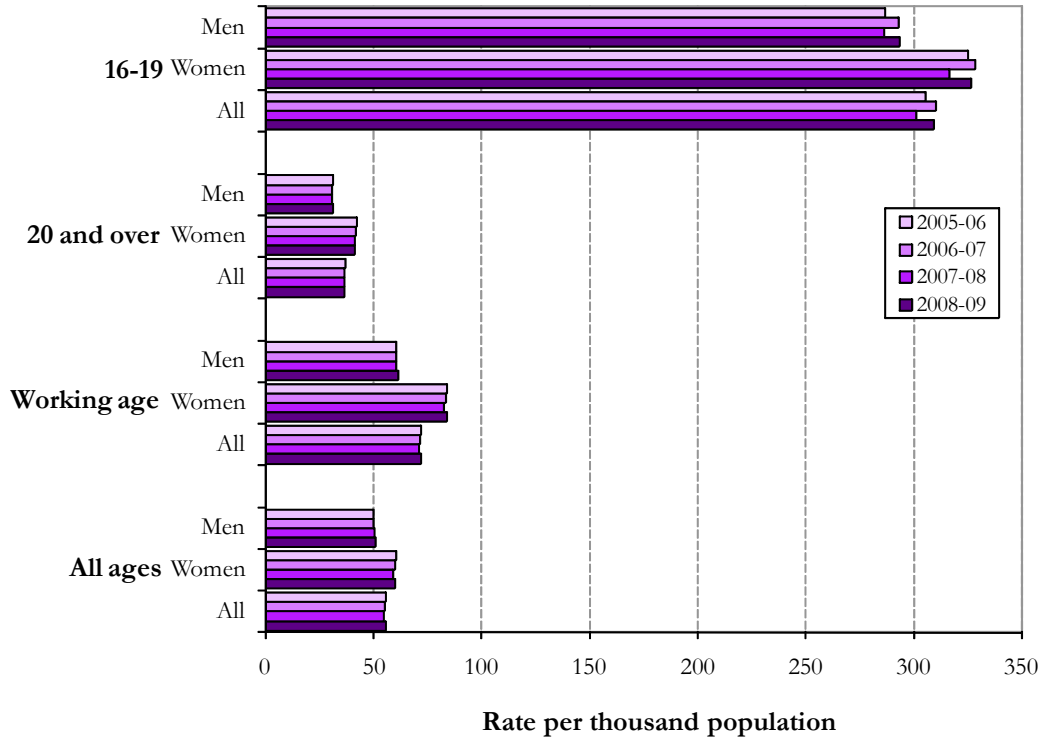
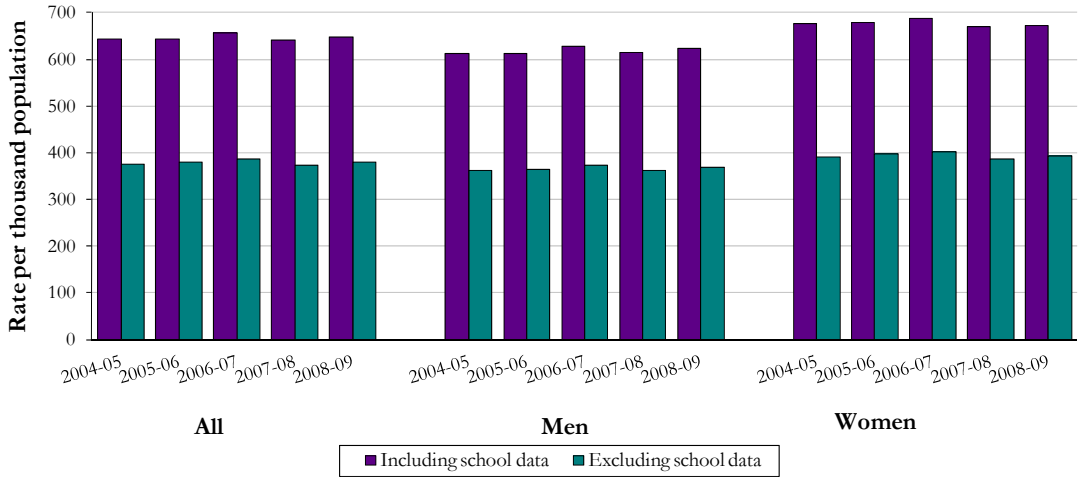


Figure 2.2.2 FTE participation rates in FE or HE by age and gender



Notes: Working age is defined as 16 to 59 years for women and 16 to 64 years for men

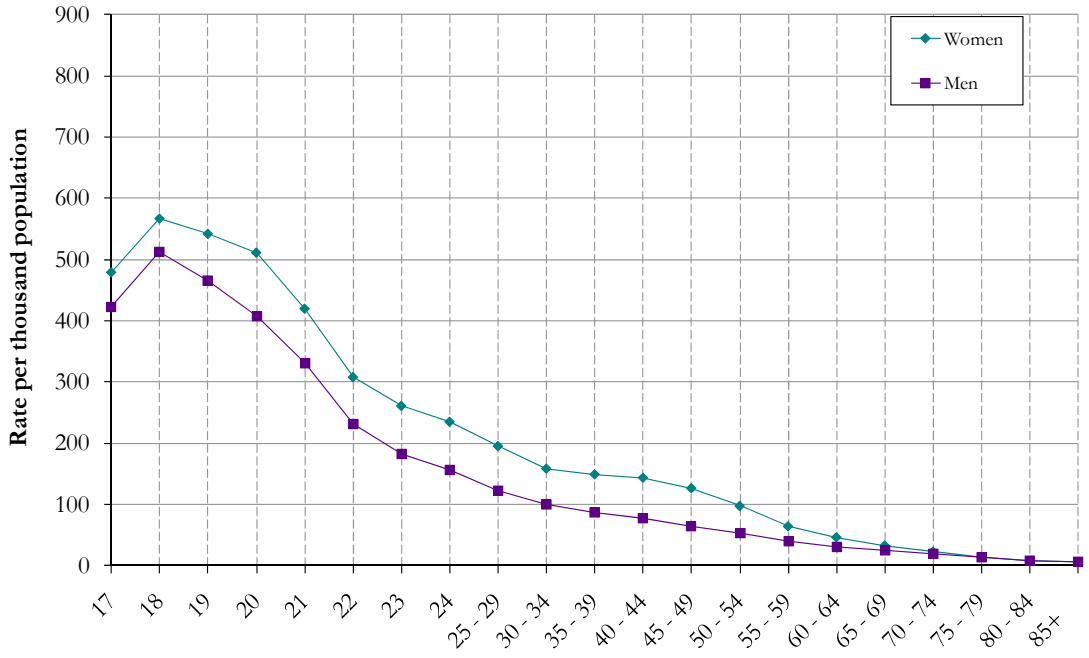
Figure 2.2.3 Headcount participation in FE or HE amongst students aged 16-19, with school pupils included and excluded



The age distribution of participation in men and women in FE or HE activity is shown for 2004-05 and 2008-09 in Figure 2.2.4. Participation is higher in women at all ages up to the age 74 in both years.

Figure 2.2.4 Participation rates in FE or HE by age and gender, 2004-05 and 2008-09

a) 2004-05



b) 2008-09

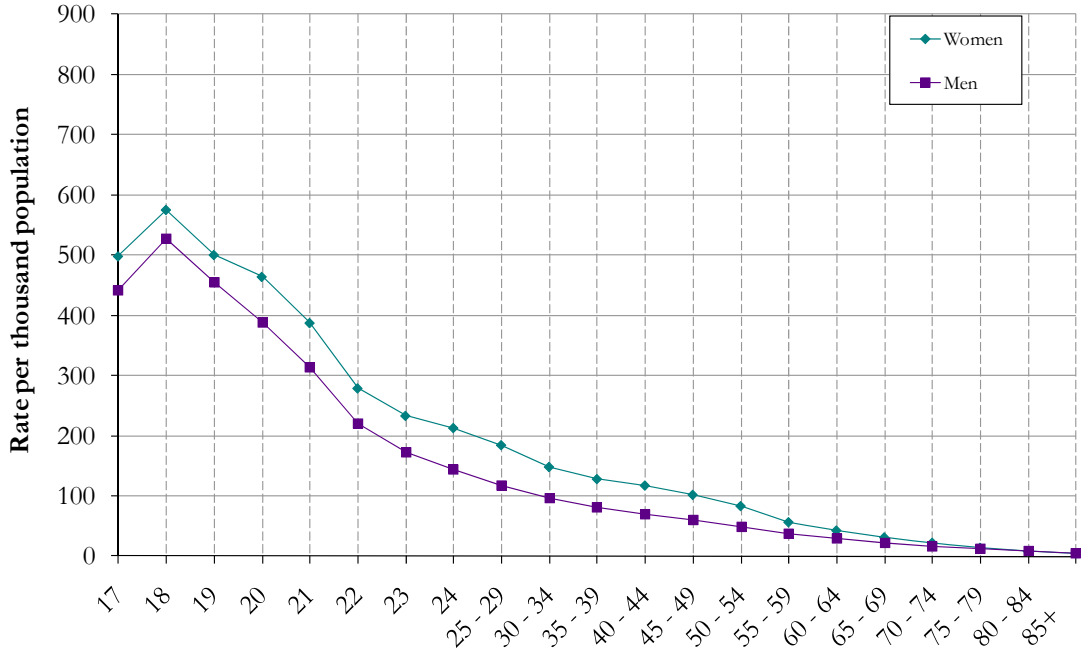


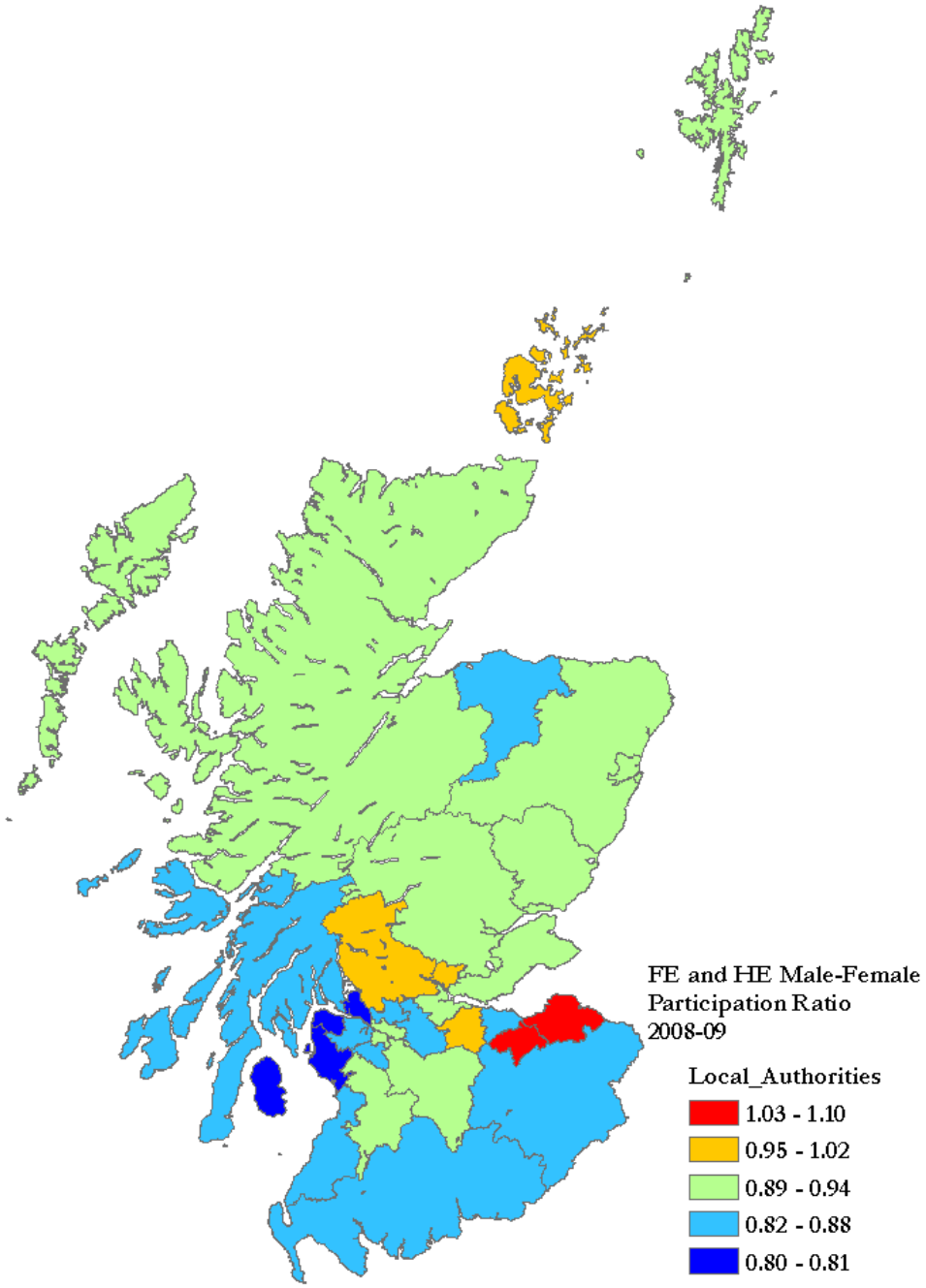
Figure 2.2.5 illustrates variation between local authorities in gender balance in 2008-09, measured as the ratio of the participation rate for young (16-19 year old) men to that for young women. Areas with a value below one are those where young men are less likely to be studying at a college or university than women and the converse is true for values greater than one. This shows that

- young men from West Dunbartonshire, Inverclyde and North Ayrshire are least likely to study in college or university compared to women;
- young men are less likely to study at a college or university than women in most local authorities; and
- young men are slightly more likely to study than women in Mid and East Lothian.

For Scotland as a whole, the participation rate for young men was about 79 per cent of **that** for young women in 2008-09 (Figure 2.2.1).

It should be noted however that the degree of gender balance will vary between years and relatively small changes may result in a change of class on the map.

Figure 2.2.5 Gender balance among young participants in FE or HE by local authority, 2008-09 (< 1 means young men less likely to be participating than young women)



Notes

The scale shows the ratio of young male to female participation rates. Thus, values are less than one where young men are less likely to participate than young women. The converse is true for values greater than one. Click map for more information.

2.3. Local authority trends

Table 2.3.1 summarises current levels of participation in FE or HE by local authority and trends since 2004-05.

In 2008-09:

- Angus, Eilean Siar, Orkney Islands and Shetland Islands have particularly high standardised participation in terms of headcount;
- East Dunbartonshire, East Renfrewshire and Angus have the highest standardised level of participation in terms of FTE;
- East Lothian and Midlothian have the lowest standardised participation at below 80 per cent of the national rate for headcount; and
- in terms of FTE, Dumfries and Galloway, Falkirk, West Lothian and Midlothian have the lowest standardised participation rates at around 85 per cent of the national rate.

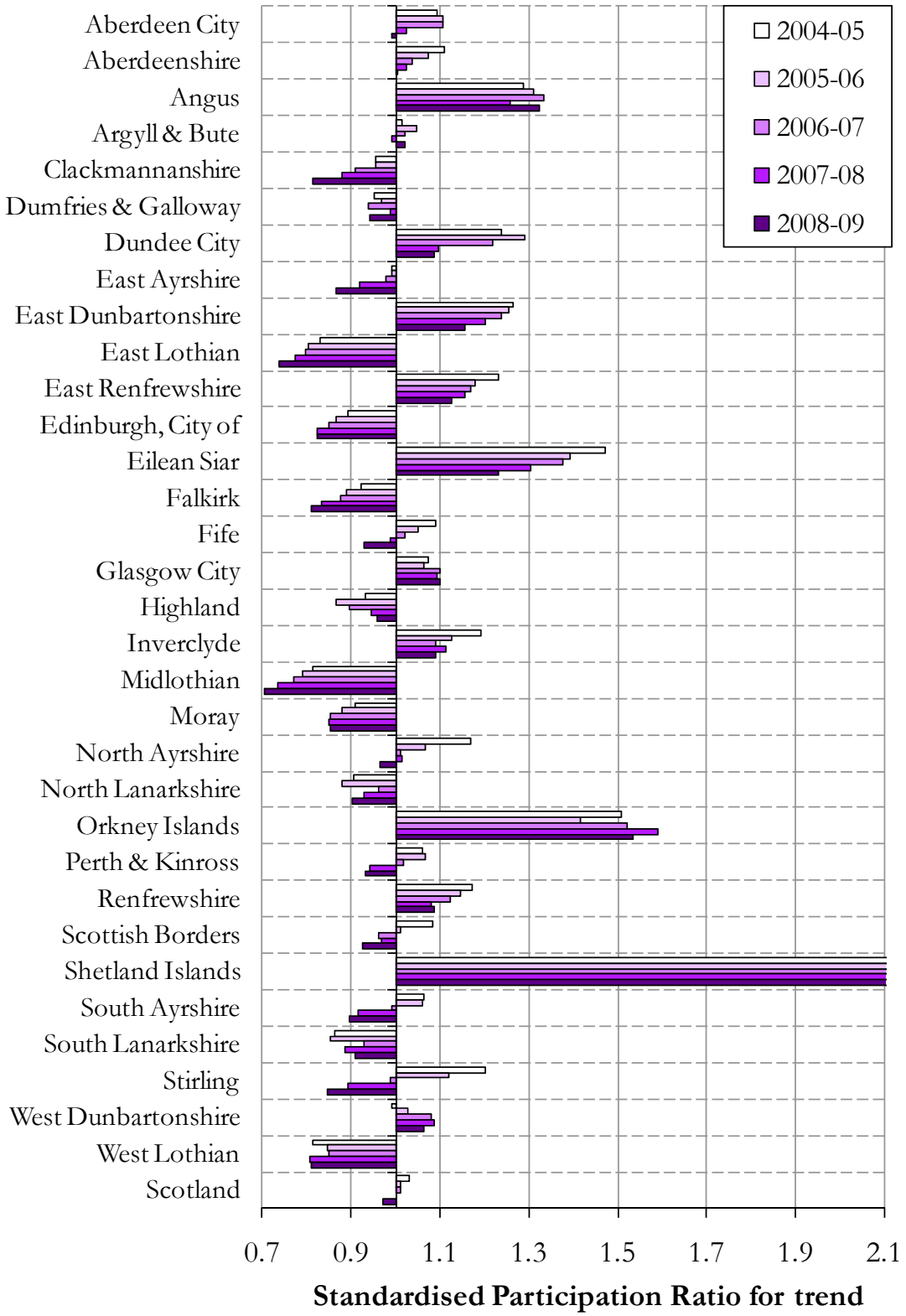
Figure 2.3.1 shows trends in standardised participation ratio for headcount for FE or HE. A statistical model was used on the headcount data to determine which trends were not due to random fluctuations between 2004-05 and 2008-09 and it was noted that headcount participation declined in 18 local authorities.

Figure 2.3.2 shows FTE participation from 2005-06 to 2008-09. This gives a more realistic picture of changes in the volume of activity in recent years.

Table 2.3.1 Participation in FE or HE by local authority

Local Authority	Headcount			FTE	
	2008-09 Rate /1000	2008-09 SPR	Trend (2004-05 to 2008-09)	2008-09 Rate /1000	2008-09 SPR
Aberdeen City	118.6	0.99	↓	54.8	0.98
Aberdeenshire	115.4	1.00	↓	55.3	1.04
Angus	145.7	1.32		59.6	1.19
Argyll & Bute	112.6	1.02		47.0	0.92
Clackmannanshire	96.6	0.81	↓	52.2	0.94
Dumfries & Galloway	102.0	0.94		42.1	0.85
Dundee City	132.7	1.09	↓	66.5	1.14
East Ayrshire	102.2	0.86	↓	54.1	0.97
East Dunbartonshire	133.1	1.15	↓	68.2	1.26
East Lothian	85.9	0.74	↓	48.3	0.89
East Renfrewshire	131.7	1.13		70.5	1.28
Edinburgh, City of	100.8	0.82	↓	55.7	0.98
Eilean Siar	135.5	1.23	↓	55.4	1.09
Falkirk	95.6	0.81	↓	47.0	0.86
Fife	110.9	0.93	↓	55.6	0.98
Glasgow City	139.9	1.10		64.6	1.07
Highland	107.4	0.96		50.7	0.98
Inverclyde	128.1	1.09		64.5	1.17
Midlothian	83.7	0.70	↓	46.1	0.82
Moray	98.4	0.85		49.9	0.92
North Ayrshire	112.5	0.97	↓	58.0	1.06
North Lanarkshire	109.4	0.90		52.5	0.93
Orkney Islands	173.3	1.53		55.2	1.05
Perth & Kinross	106.3	0.93	↓	49.8	0.94
Renfrewshire	127.9	1.09	↓	60.8	1.11
Scottish Borders	102.0	0.92	↓	46.4	0.92
Shetland Islands	281.1	2.38		64.2	1.15
South Ayrshire	99.5	0.90	↓	54.6	1.06
South Lanarkshire	106.7	0.91		52.5	0.96
Stirling	105.1	0.85	↓	55.3	0.91
West Dunbartonshire	128.0	1.06		55.7	0.98
West Lothian	99.3	0.81		49.3	0.86
Scotland	**114.5**	**1.00**		**55.4**	**1.00**

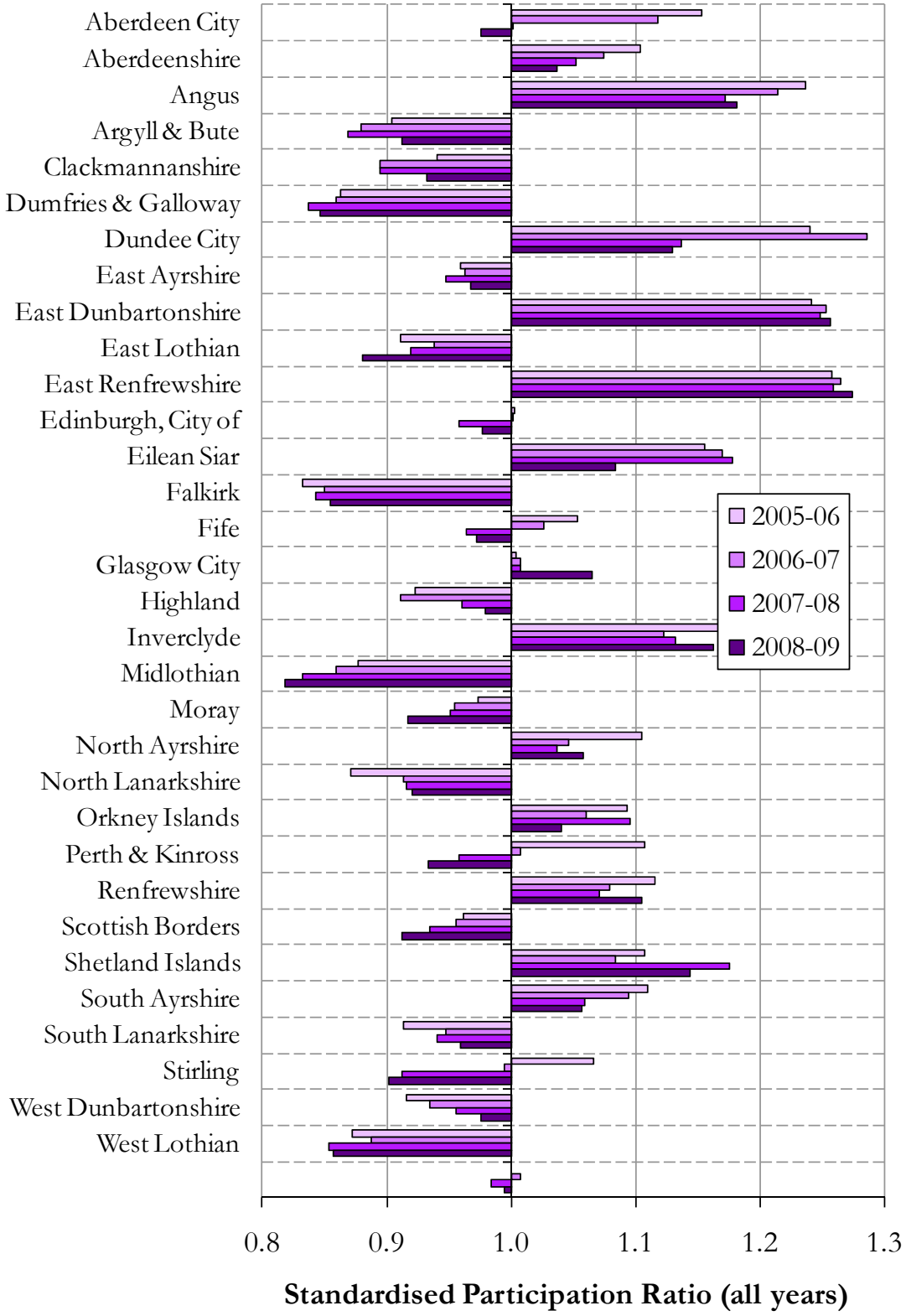
Figure 2.3.1 Trends in standardised headcount participation in FE or HE by local authority



Notes

The five-year national average Standardised Participation Ratio (SPR) for trend is one. Thus SPRs above or below one are above or below this national average.

Figure 2.3.2.Trends in standardised FTE participation in FE or HE by local authority



Notes

The three-year national average SPR for trend is 1.0. Thus SPRs above or below one are above or below this national average.

2.4. Participation within deprivation classes

The Scottish Index of Multiple Deprivation 2009 (SIMD) (Scottish Government, 2009) ranks each of the 6,505 Scottish Neighbourhood Statistics data zones using a score derived from seven domains of deprivation: income; employment; health; education, skills and training; geographic access to services; crime; and housing. This ranking was used to group the data zones into two classes: the most deprived data zones, which contain approximately 20 per cent of the 2009 mid-year population, and the rest. The two classes are termed the 'most deprived' and the 'less deprived'.

Table 2.4.1 and Table 2.4.2 show participation rates, in terms of headcount and FTE, in FE or HE by deprivation class and year together with the ratio of participation from the most deprived data zones to that from the less deprived. This is an indicator of how strongly participation is related to deprivation in an area. In particular:

- headcount participation is very slightly higher in the most deprived class in 2008-09, the gap between the less and most deprived has decreased since 2004-05;
- for the latest two years, headcount rate has been higher in the most deprived class; and
- in terms of FTE the participation rate of the most deprived class is 96 per cent that of the less deprived in 2008-09.

Table 2.4.1 Headcount participation in FE or HE by deprivation class

Year	Deprivation class		Ratio of most to less deprived
	Less deprived	Most deprived	
	Rate/1000		
2004-05	123.5	113.1	0.92
2005-06	120.8	112.8	0.93
2006-07	119.9	115.7	0.97
2007-08	116.4	117.3	1.01
2008-09	113.9	117.2	1.03

Table 2.4.2 FTE participation in FE or HE by deprivation class

Year	Deprivation class: Less deprived (Rate/1000)	Deprivation class: Most deprived (Rate/1000)	Ratio of most to less deprived
2005-06	57.0	49.8	0.87
2006-07	56.6	50.2	0.89
2007-08	55.9	51.2	0.92
2008-09	55.9	53.5	0.96

Figure 2.4.1 and Figure 2.4.2 show trends in participation by deprivation class and by gender and age group respectively. These indicate that

- participation has declined for both men and women in the less deprived classes but has increased slightly for men among the most deprived; and
- young participation increased in the most deprived classes since 2004-05.

Figure 2.4.1 Trends in headcount participation in FE or HE education by gender and deprivation class

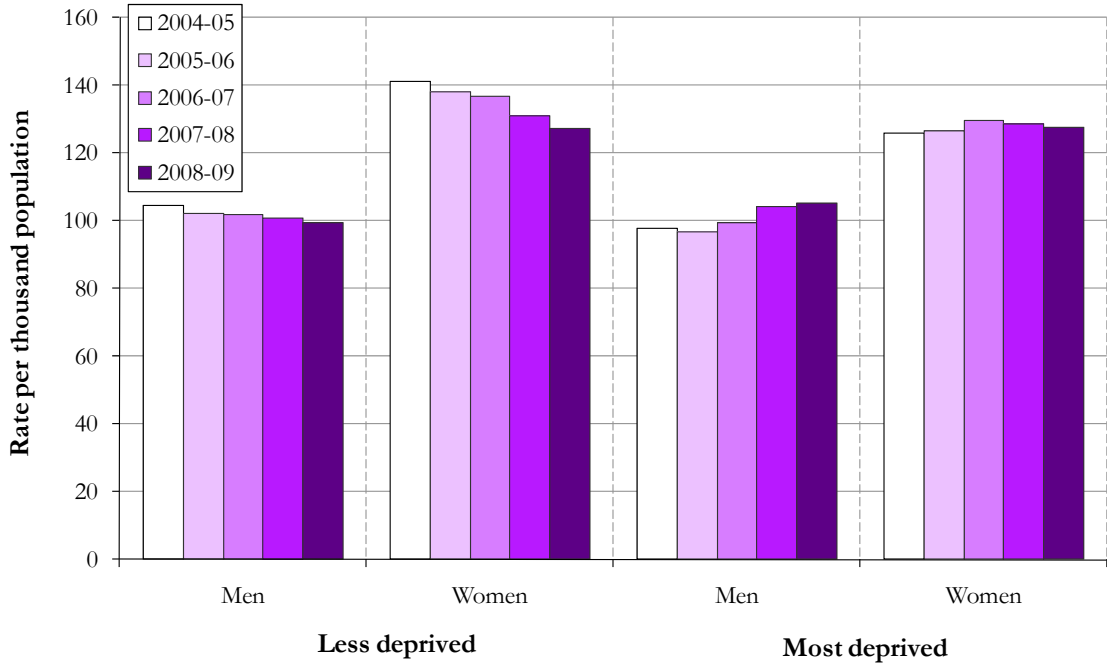
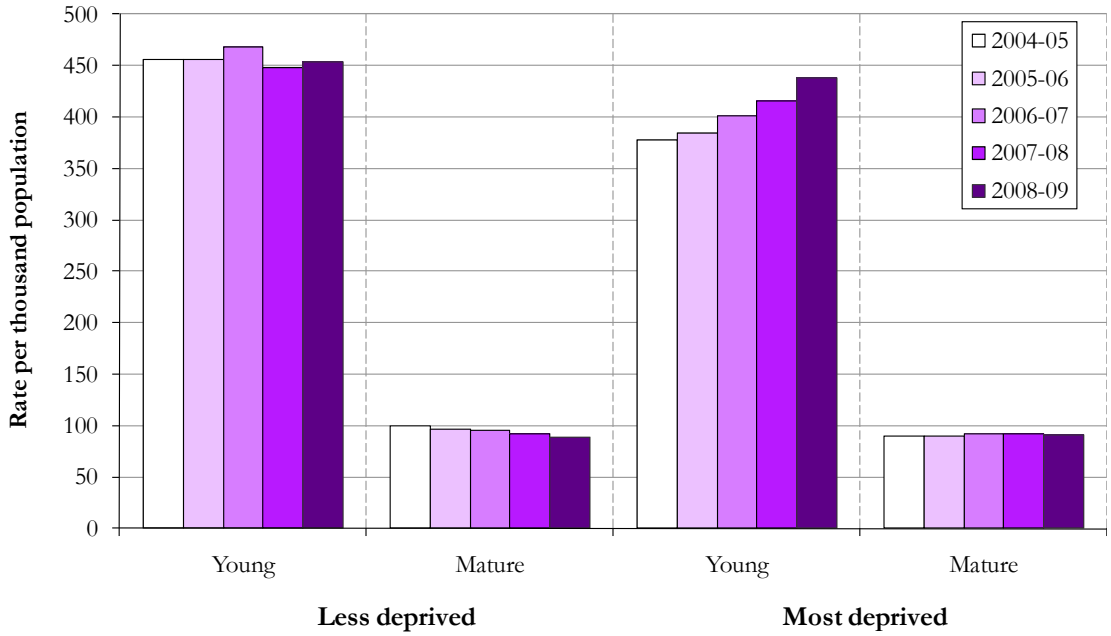


Figure 2.4.2 Trends in headcount participation in FE or HE by age group and deprivation class



Notes

Young = 16-19, Mature = 20 and over.

Table 2.4.3 shows headcount participation rates in FE or HE by deprivation class and local authority for 2008-09 together with the ratio of participation from the most deprived data zones to that from the less deprived. A number of local authorities have relatively small populations in the most deprived class and are therefore likely to have fluctuating participation rates. These have been indicated in the table.

Excluding those with small populations, the following local authorities have relatively high participation in their most deprived data zones compared to the less deprived: Aberdeenshire, Angus and Borders.

Conversely, the following have relatively low participation in their most deprived data zones: East Renfrewshire and Stirling.

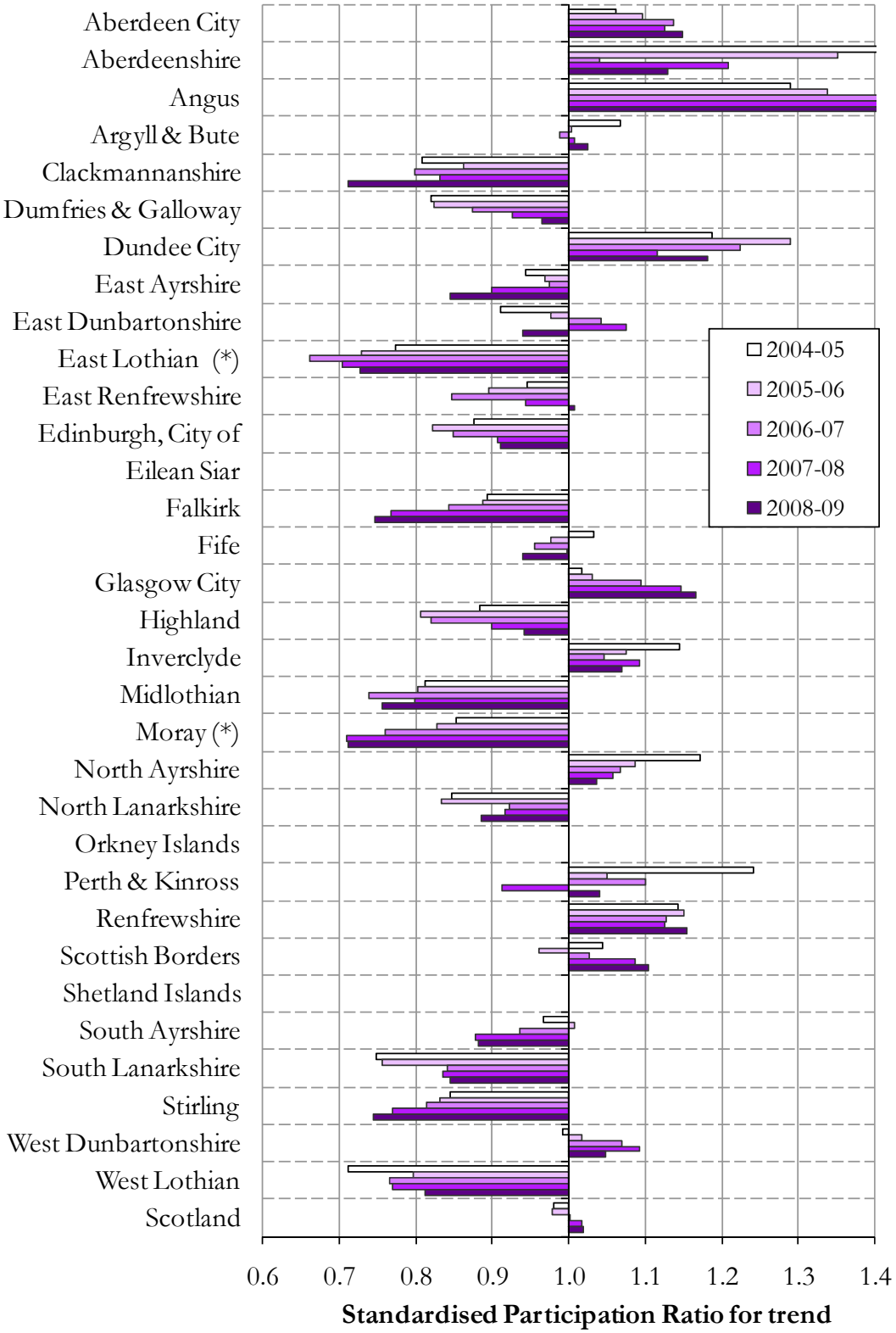
Figure 2.4.3 shows trends in headcount participation by local authority in the most deprived data zones. Trends that are less likely to be due to random fluctuations were identified using a statistical model. In the most deprived data zones an upward trend was evident in Glasgow City and Angus, while a downward trend was identified in Falkirk.

Table 2.4.3 Headcount participation in FE or HE by local authority and deprivation class, 2008-09

Local Authority	Deprivation quintile Less deprived Rate/1000	Most deprived	Ratio of most to less deprived
Aberdeen City	116.6	133.9	1.06
Aberdeenshire	115.1	126.1	1.17
Angus	143.2	192.2	1.33
Argyll & Bute	112.6	112.9	1.01
Clackmannanshire	100.7	83.7	0.91
Dumfries & Galloway	101.2	110.2	0.99
Dundee City	131.7	134.3	0.92
East Ayrshire	105.4	95.2	0.90
East Dunbartonshire	134.1	112.5	0.92
East Lothian (*)	85.7	94.1	1.02
East Renfrewshire	132.7	117.2	0.80
Edinburgh, City of	99.7	109.1	1.09
Eilean Siar	135.6	-	-
Falkirk	97.5	84.8	0.87
Fife	111.6	108.0	0.96
Glasgow City	144.1	135.5	0.92
Highland	107.3	109.1	0.98
Inverclyde	136.4	117.2	0.87
Midlothian	83.2	91.1	1.12
Moray (*)	98.9	84.0	0.85
North Ayrshire	110.0	117.6	1.02
North Lanarkshire	113.3	100.5	0.89
Orkney Islands	173.5	-	-
Perth & Kinross	105.4	124.3	1.02
Renfrewshire	126.9	130.9	1.00
Scottish Borders	100.8	128.6	1.18
Shetland Islands	281.3	-	-
South Ayrshire	99.9	97.8	0.95
South Lanarkshire	109.6	94.4	0.88
Stirling	106.7	87.5	0.81
West Dunbartonshire	130.2	123.8	0.97
West Lothian	100.3	94.9	0.89
Scotland	**114.8**	**117.2**	**1.01**

Notes
* = local authorities that have a relatively small population in the most deprived deprivation class (below 3,000 in 2008).
- = no population in that class.

Figure 2.4.3 Trends in standardised headcount participation in FE or HE from data zones in the most deprived class, by local authority



Notes

* = based on a relatively small population (below 3,000 in 2008).

Eilean Siar, Moray, Orkney Islands and Shetland Islands have no data zones in the most deprived class.

3. Participation in further education

This chapter covers participation in FE by Scottish students at colleges in Scotland. The 43 colleges funded by the SFC deliver learning at over 4,000 locations and offer a wide range of courses at almost every level. Their HE students are included in chapter 4, but courses at FE level include:

- vocational and general education up to SVQ level 3;
- Modern Apprenticeships, Skill seekers and 'Get Ready for Work' programmes;
- courses for school pupils through school link arrangements;
- access courses for those returning to education;
- courses for students with learning difficulties;
- training for employees, at college and in the workplace;
- courses required for the registration of public service staff, such as social and health care;
- literacy and numeracy courses;
- English for Speakers of Other Languages (ESOL); and
- vocational and non-vocational evening classes.

This list is not exhaustive, and for more information on the nature of college activity see *Unlocking Opportunity: the Difference Scotland's Colleges Make to Learners, the Economy and Wider Society* (Scottish Government, 2006a).

For most of the types of education offered, the colleges may be the main provider, but they are not the only provider. In addition, the type of provision will vary between colleges and also the extent to which they or other providers satisfy local demand. This should be borne in mind when interpreting the results: trends in college participation may not entirely reflect overall trends in FE; trends may be affected by an increase or decrease in certain types of provision; and geographical differences can result from variation in the extent of college involvement in different types of FE in a locality.

In addition, participation reflects, to a large extent, levels of funding and how colleges allocate funds so as to ensure they meet targets set by the SFC. For example, some courses, such as those in agriculture and construction, or those for students with learning difficulties, have a relatively high cost per student which can affect the number of enrolments that are achievable. Numbers are also affected by the extent to which colleges meet part of their target by claiming for the additional study time required for students needing Extended Learning Support (ELS). The amount claimed for ELS has increased year on year since 2004-05.

As we are focusing on the proportion of the population studying at college, this section concentrates on the number of students (headcount) rather than on the number of enrolments at colleges. Students frequently enrol on more than one course in a year. For example, a student returning to education may enrol on a short course before committing to further study.

The numbers presented here will differ slightly from those presented elsewhere, for example in *Scotland's Colleges: a Baseline Report* (SFC, 2007a) and the INFACT database (https://stats.sfc.ac.uk/infact/). This is because in this report:

- only students resident in Scotland are included;
- students under school leaving age have been excluded; and
- we have attempted to avoid double counting of students who enrol at more than one college in a year.

In addition, some students on college courses not funded by the SFC have not been included because we hold very limited information on them. For 2008-09 we have data on around 22,000 enrolments on these 'full cost recovery' courses, although, because of multiple enrolments, the number of additional students involved will be less than this.

Students who are Scottish-domiciled but studying in colleges outside Scotland have also been excluded. Leaving these students out is unlikely to result in a significant under-representation of participation for any particular areas.

As well as number of students (headcount), participation is also presented in terms of FTE. FTE was based on the number of hours of study as a proportion of the expected number of hours for a full-time course. Full-time students who completed their course were given an FTE of one. See Appendix 1 for more information.

Because of a change to the definition of full-time FE courses in 2005-06, it is not possible to estimate comparable FTE reliably for earlier years. Prior to 2005-06, the actual number of hours of study for a full-time course is unknown but many will have been less than the 720 hours required from 2005-06 onwards. We have therefore only presented FTE for 2005-06 onwards, using the new definition of full-time.

3.1. Overview

Table 3.1.1 summarises the number of students, FTE and participation rates in FE in colleges and shows the extent to which these have changed since 2004-05. In percentage terms, the FTEs have increased more than the number of participants between 2005-06 and 2008-09 and so the average student FTE has increased slightly.

The number of students fell between 2004-2005 and 2008-09 but as college funding increased over this period it is likely that FTE would have exhibited a different trend.

Table 3.1.1 Participation in FE, 2004-05 to 2008-09

Year	Headcount		FTE	
	Count	Rate/1000	Count	Rate/1000
2004-05	272,176	65.7	0	0.0
2005-06	265,979	63.8	72,510	17.4
2006-07	272,911	65.0	75,065	17.9
2007-08	274,817	64.7	76,444	18.0
2008-09	266,454	62.4	78,443	18.4
Change 2007-08 to 2008-09	-3.0%	-3.6%	2.6%	2.0%

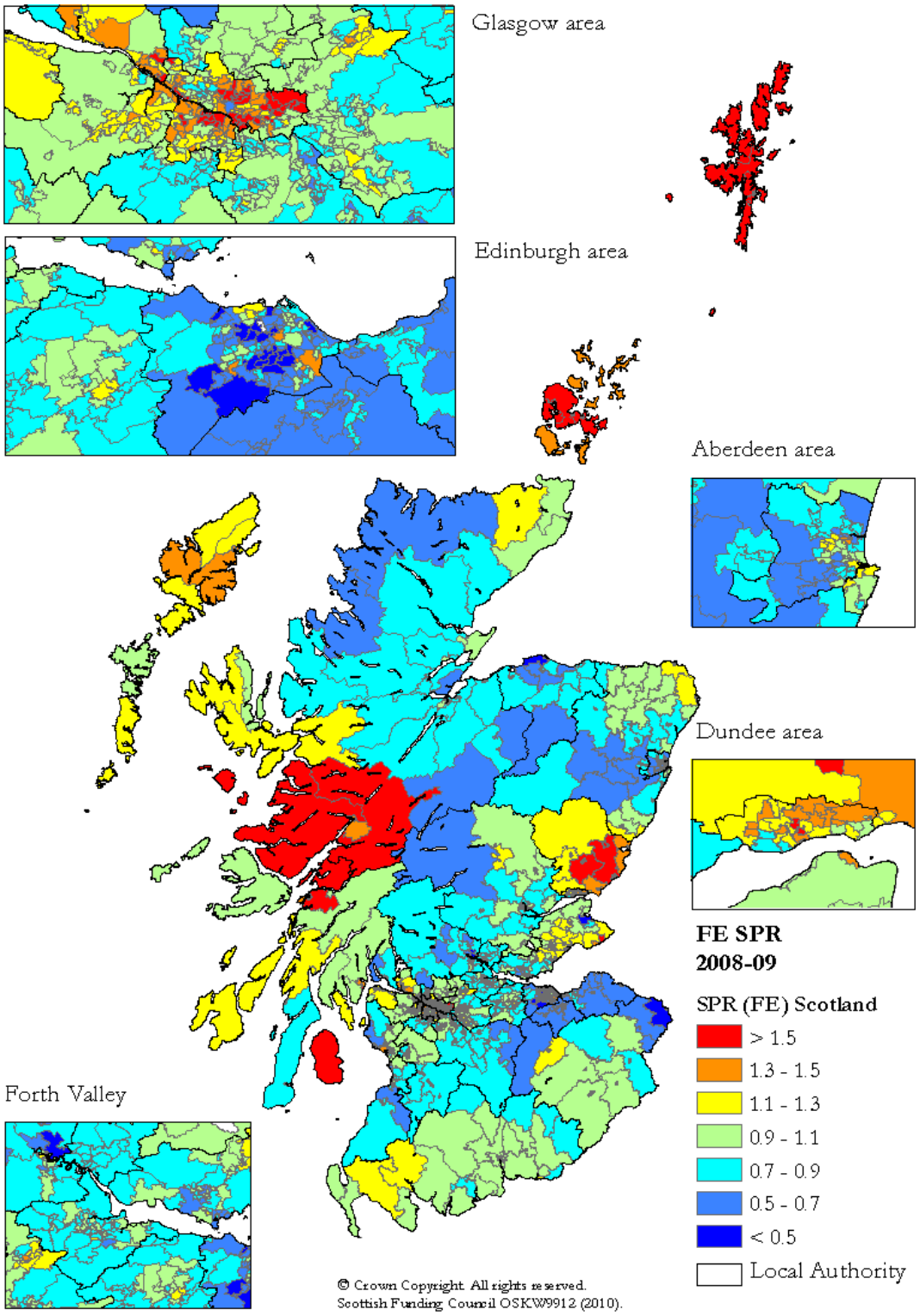
Notes
Rates/1,000 are the number of students per thousand head of the population aged 16 and over.

Geographical variation in participation in 2008-09 is illustrated in Figure 3.1.1. Areas with particularly high participation include south-west Highland, Orkney, Shetland, parts of southern Angus, and north Argyll and Bute, as well as Glasgow. Particularly low participation is found mainly within Edinburgh, central Scotland and the highlands. In some areas participation is high because of the nature of local provision. For example, Shetland College provides training for local council staff.

Figure 3.1.2 shows changes in headcount participation between 2004-05 and 2008-09. There was also evidence of change in areas of Glasgow, southern Argyll and Bute, Eilean Siar, Stirling, Highland, west Perth and Kinross, east Aberdeenshire, South Ayrshire and the Borders. Note that areas in green may also have changed but there was insufficient statistical evidence to determine this.

Variation in FTE participation is shown in Figure 3.1.3. Comparing with Figure 3.1.1, this shows a low participation in terms of FTE throughout much of the highlands and the south of Scotland. Most areas of high FTE participation are concentrated in and around the cities of Glasgow and Dundee with pockets in Fife, Edinburgh and parts of central Scotland.

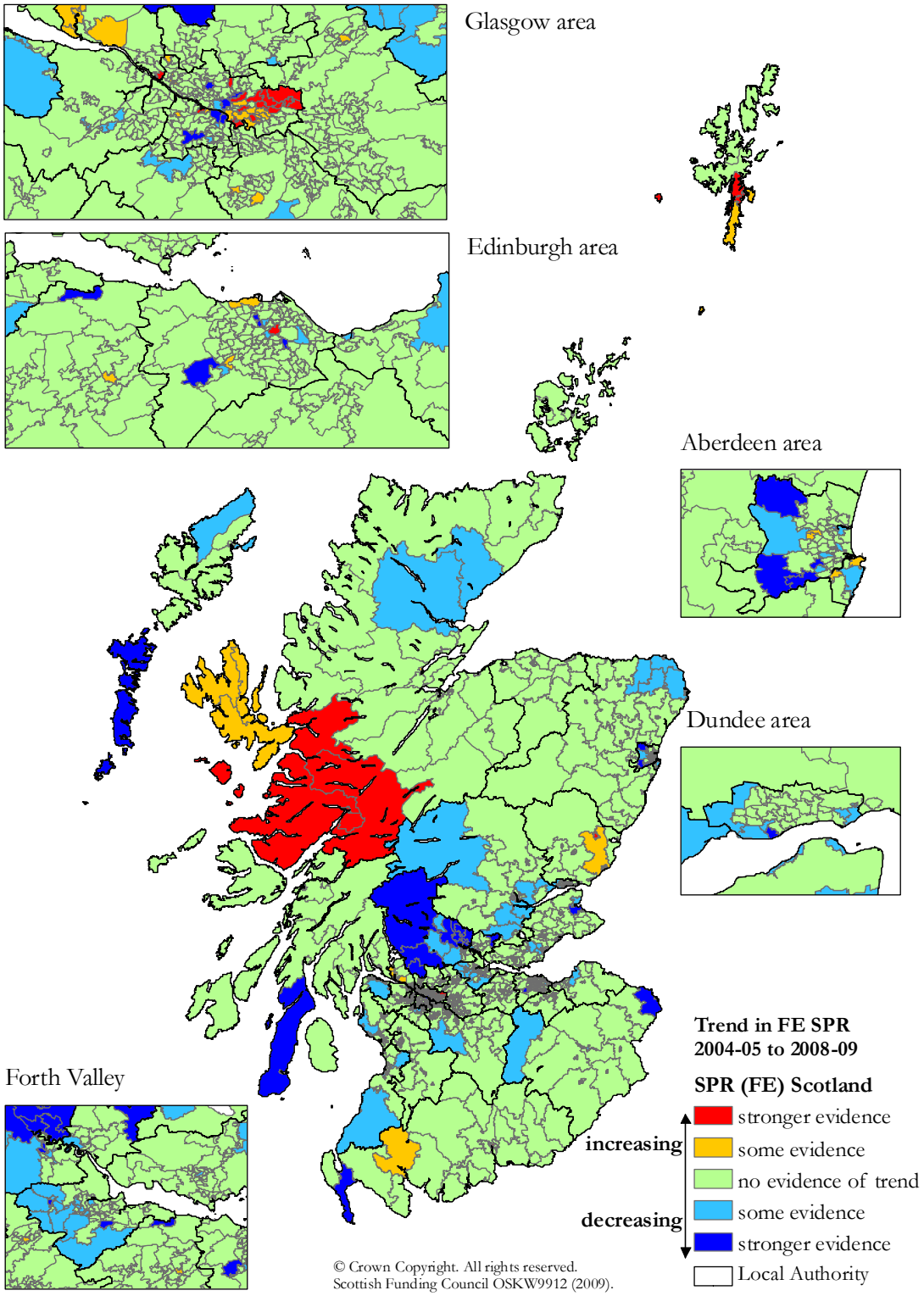
Figure 3.1.1 Geographical variation in headcount participation in FE, 2008-09



Notes

The Standardised Participation Ratio (SPR) compares the number of participants in an area with what would be expected if national age-gender specific participation rates were applied to the area's population. The SPR ensures areas with differing age-gender distributions are comparable. The national SPR is one. Thus participation in areas in green is close to the national rates.

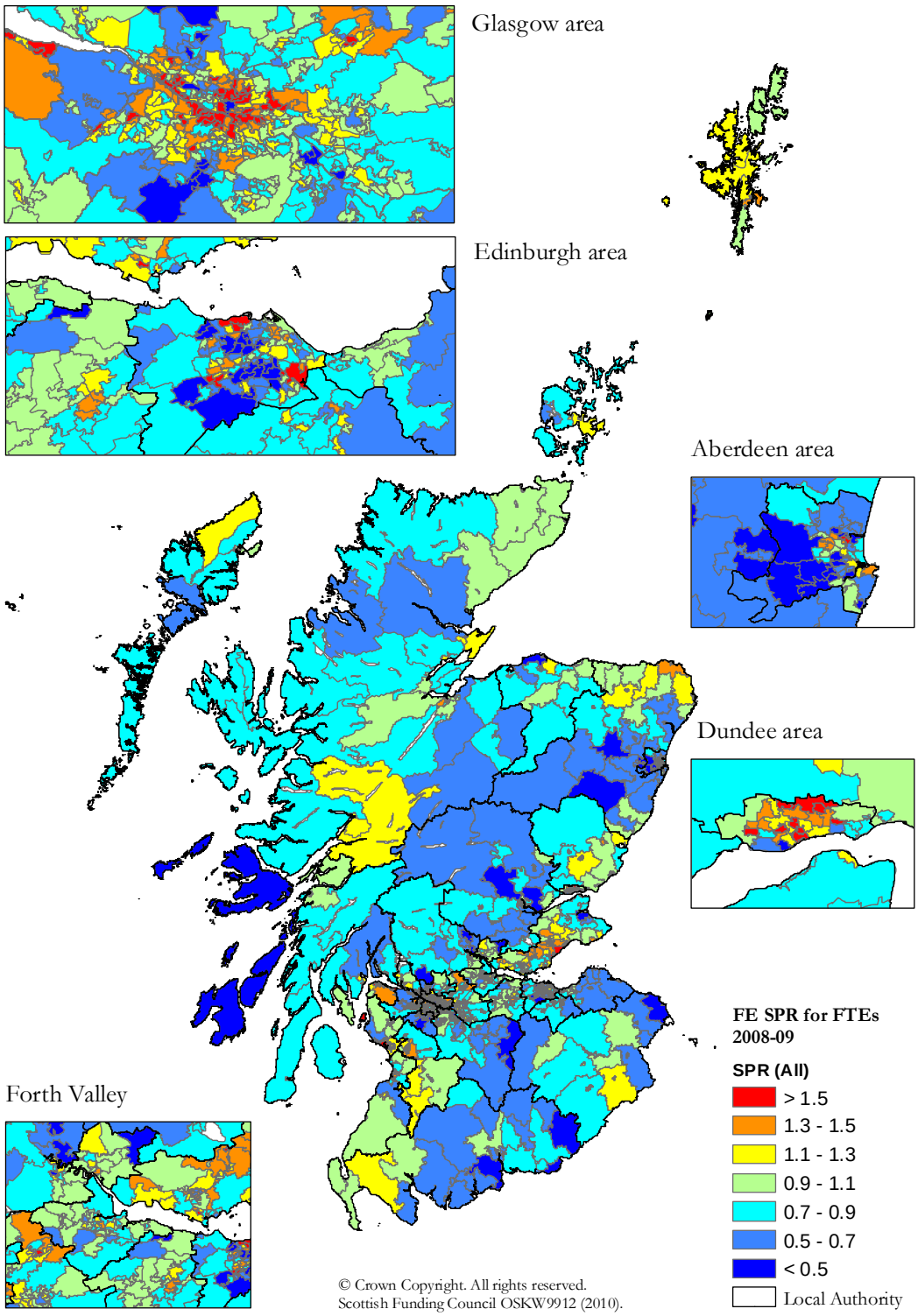
Figure 3.1.2. Change in headcount participation in FE 2004-05 to 2008-09



Notes

The map highlights those areas which have shown an increasing or decreasing trend in SPR as derived from a statistical model, see Appendix 1 for more information.
Areas with an established trend are not necessarily those that have changed the most.

Figure 3.1.3 Geographical variation in FTE participation in FE, 2008-09



3.2. Trends by age and gender

Age and gender specific trends are summarised in Figure 3.2.1 and Figure 3.2.2. These show that:

- headcount participation for men has increased between 2005-06 and 2007-8, but has dropped slightly in 2008-9;
- headcount participation generally declined for women between 2004-05 and 2008-09;
- headcount participation has increased for both men and women in the 16-19 year old age group; and
- FTE participation is higher in 16-19 year old men than for 16-19 year old women as they are more likely to undertake either full-time or short full-time study.

Participation in students aged '20 and over' is consistently higher in women than men, and it should be noted that the difference in the overall participation rates ('All ages') is affected by the fact that there are rather more elderly women than men in the adult population. As participation is low in the elderly they have the effect of reducing overall rates and more so in women than men. Thus, the difference between men and women in the 'Working age' rates is rather larger than in the 'All ages' rate.

Figure 3.2.1 Headcount participation rates in FE by age and gender

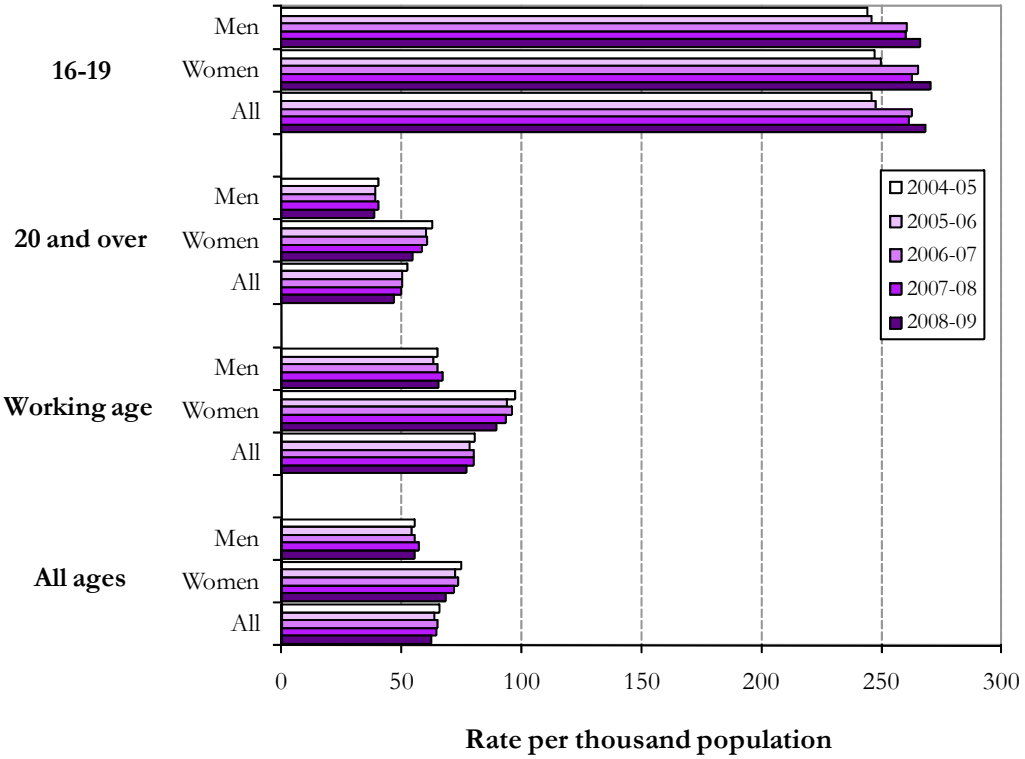
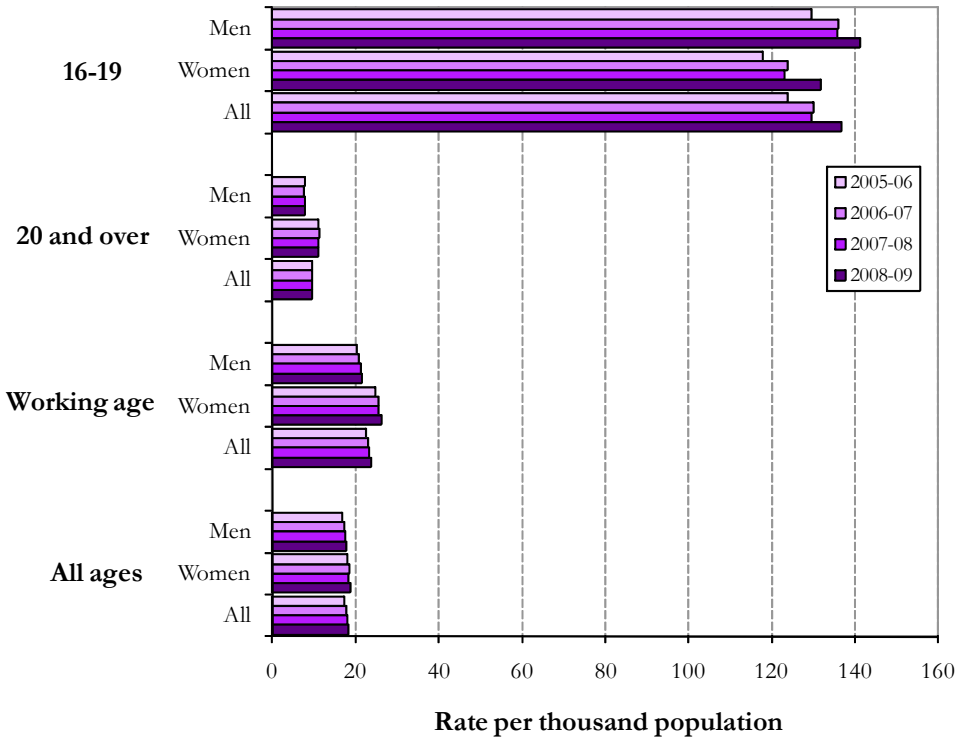


Figure 3.2.2.FTE participation rates in FE by age groups and gender



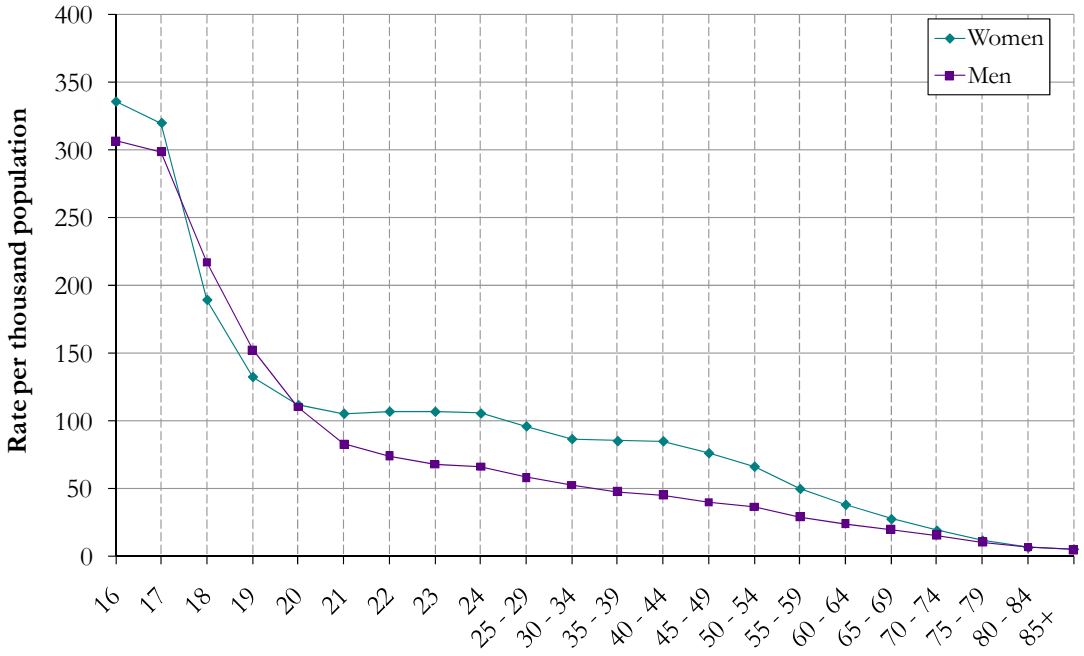
Notes

Rates are calculated using the relevant population group, eg women aged between 16 and 19.

The age distribution of participation in men and women is shown for 2004-05 and 2008-09 in Figure 3.2.3. Participation is higher in women at ages under 18, but male participation is greater between the ages of 18 and 20. Female participation is greater over the age of 20 but has fallen among those aged 30 and over.

Figure 3.2.3 Headcount participation rates in FE by age and gender, 2004-05 and 2008-09

a) 2004-05



b) 2008-09

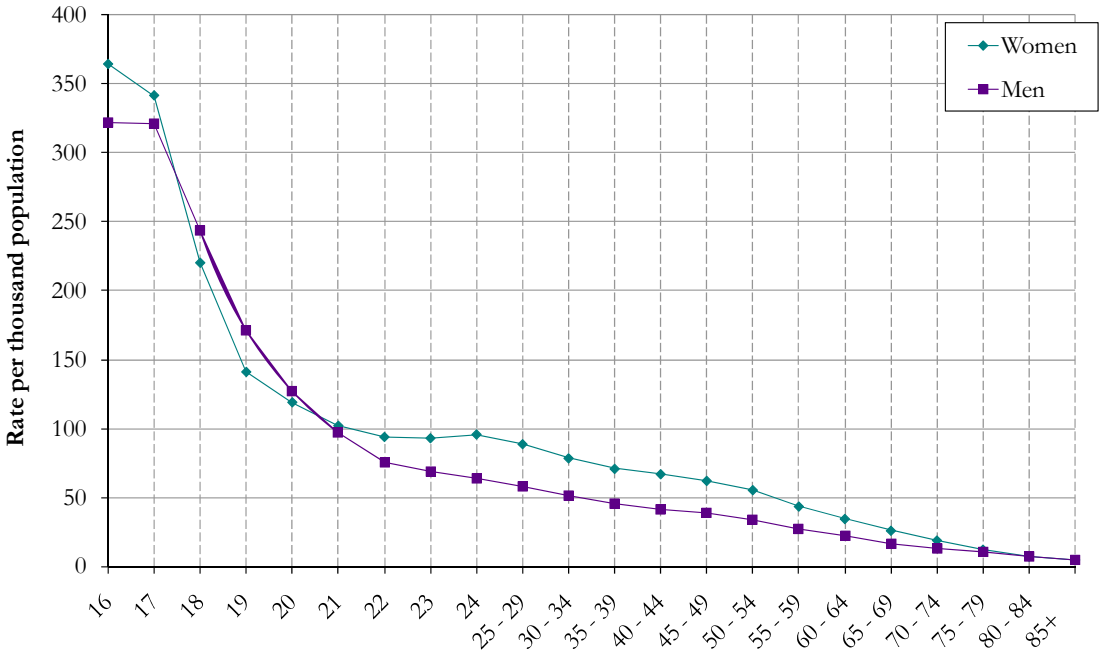


Figure 3.2.4 illustrates variation between local authorities in gender balance in 2008-09, measured as the ratio of the participation rate for young (16-19 year old) men to that for young women. Areas with a value below one are those where young men are less likely to be in FE than women and the converse is true for values greater than one. The map shows that:

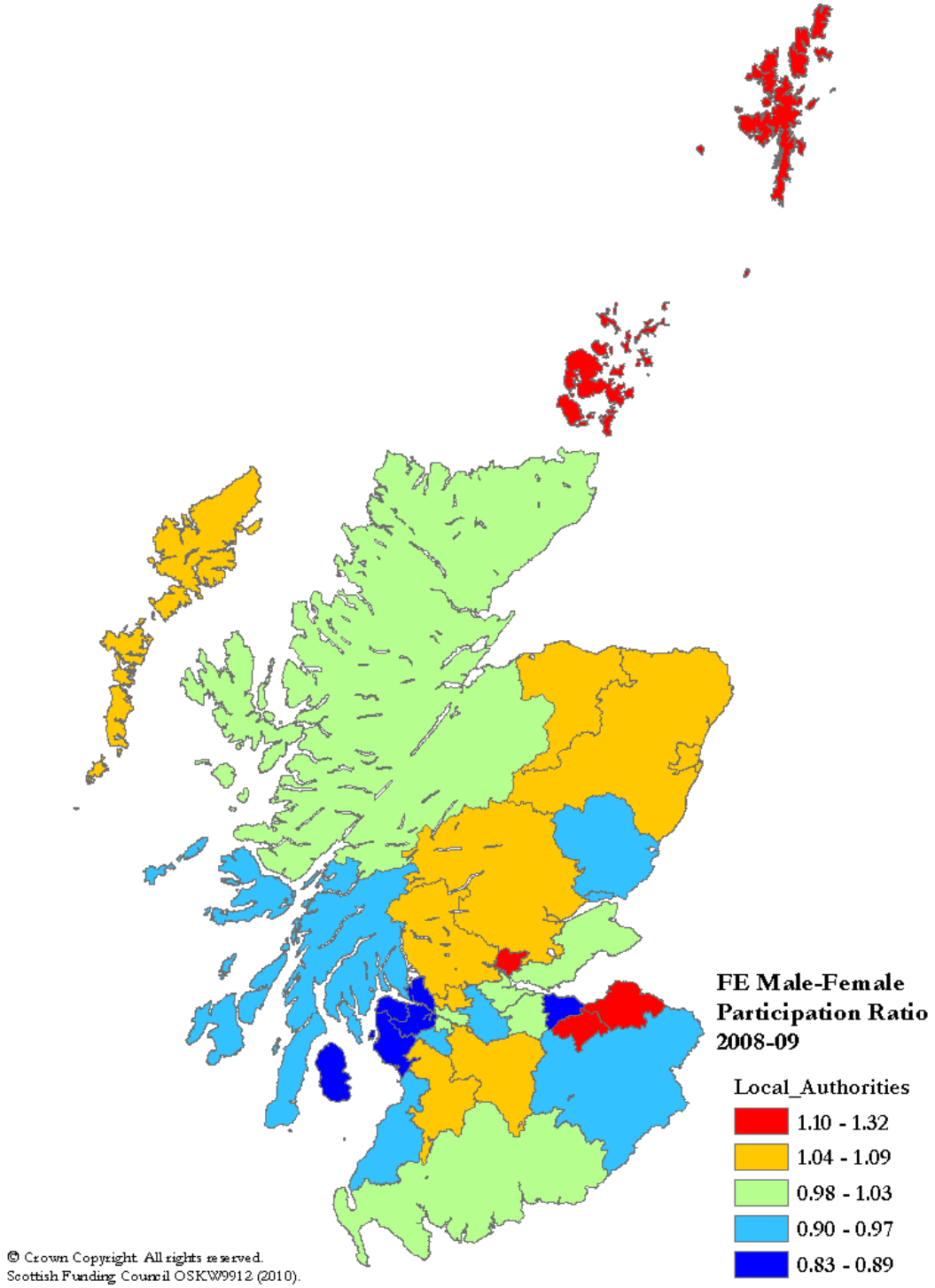
- participation in young men is lowest relative to women in West Dunbartonshire, Edinburgh, Inverclyde, Renfrewshire and North Ayrshire; and

- it is highest in Clackmannanshire, Orkney, Shetland, East Lothian and Midlothian where young men are up to 32 per cent more likely than women to participate.

For Scotland as a whole, young men were slightly less likely to participate than women in 2008-09 (Figure 3.2.1).

It should be noted however, that the degree of gender balance will vary between years and relatively small changes may result in a change of class on the map. This is particularly evident in Orkney, where in 2006-07, a similar ratio of males and females were enrolled in FE as opposed to the high ratio of males in the following two years.

Figure 3.2.4 Gender balance among young participants in FE by local authority, 2008-09 (< 1 means young men less likely to participate than young women)



Notes

The scale shows the ratio of young male to female participation rates. Thus, values are less than one where young men are less likely to participate than young women. The converse is true for values greater than one. Click map for more information.

3.3. Trends by mode and length of study

Participation in FE by mode of study is presented in Figure 3.3.1 and Figure 3.3.2. The definition of full-time courses changed in 2005-06 and it is not possible to calculate accurate figures for earlier years based on this definition. From 2005-06 a full-time course has to include at least 18 credits or 720 planned study hours. Prior to 2005-06 full-time study required at least six half days a week of study for more than 18 weeks which may have amounted to rather less than 720 study hours. We have therefore only shown a complete breakdown by mode of study for 2005-06 onwards using the new full-time definition, but with figures for all years for those modes of part-time study unaffected by the change.

Short-full-time and part-time day modes of study are normally associated with students who are already in employment and are attending college on a part-time basis. An increasing amount of activity is accounted for by work-based assessments.

Colleges have always offered programmes of study at evenings or weekends, and many of these programmes are non-vocational in nature. Open and distance learning modes were introduced so that colleges could offer students a more flexible approach to their learning needs in, for example, rural areas.

Evening and weekends and work-based learning have decreased over the last five years. Although distance/open learning had increased overall until 2007-08, it again declined in 2008-09.

Figure 3.3.1 Headcount participation in FE by mode of study

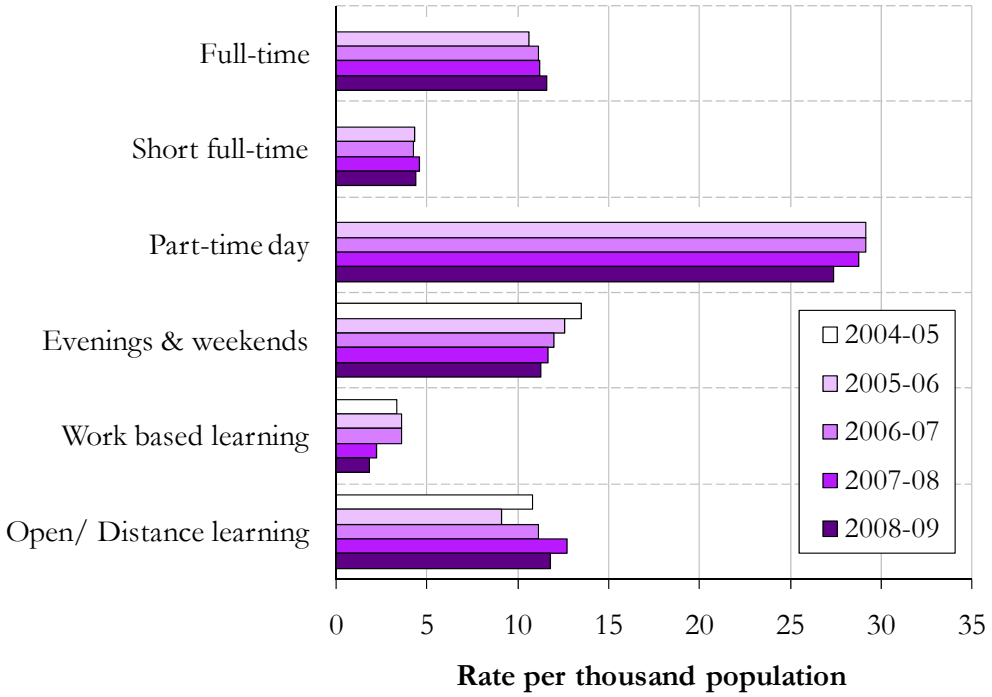
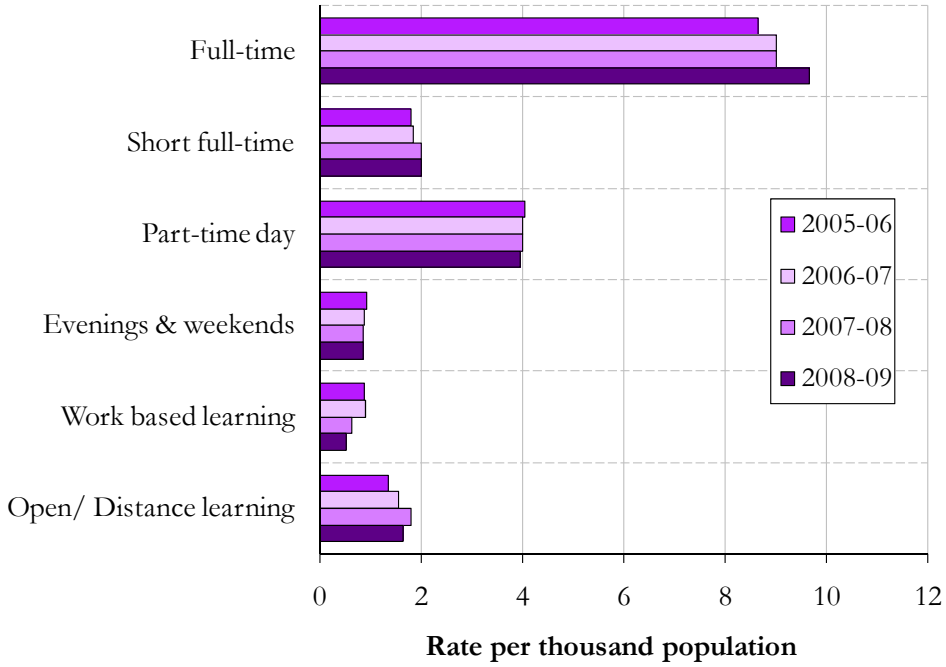


Figure 3.3.2 FTE participation in FE by mode of study



Notes

We have assumed that courses recorded as 'part-time, but previously met full-time criteria' are short full-time courses. Some may have been part-time day courses which would mean that the figures for this mode of study are slightly underestimated and those for short full-time overestimated.

Figure 3.3.3 and Figure 3.3.4 show participation for men and women separately. As before, rates are only shown for 2005-06 onwards for those categories affected by the change in the definition of full-time courses. These indicate that:

- short full-time study is much more common among men, being commonly associated with training for trades such as joinery and plumbing;
- work-based learning is more common among women but has decreased since 2007-08;
- 'evening and weekend' and 'distance/open learning' are more popular with women; and
- more women participate in part-time day courses, although the number doing so has declined since 2005-06.

Figure 3.3.3 Headcount participation in FE by mode of study and gender

Figure 3.3.4 FTE participation in FE by mode of study and gender

It is also of interest to examine changes in the number of hours of study by students during the year. For this analysis we added up the total number of hours each student studied during the year and grouped them into bands to show rates for those studying very small amounts through to those studying more than 400 hours. The hours of study were imputed for students for whom the information was missing, based on the hours of study for other students on the same course or on similar courses.

Figure 3.3.5 shows headcount participation by length of study. Notably:

- there has been an overall increase over the last five years in the proportion of the population studying for less than 10 hours. This could be due to increased participation in distance learning;
- for those studying between 10 hours and 39 hours the level of participation has decreased;
- there is an overall decrease in those studying between 40 and 119 hours between 2004-05 and 2008-09, although there was an increase in 2006-07; and
- participation among those studying for 400 or more hours has increased overall since 2004-05.

Figure 3.3.5 Headcount participation in FE by hours of study

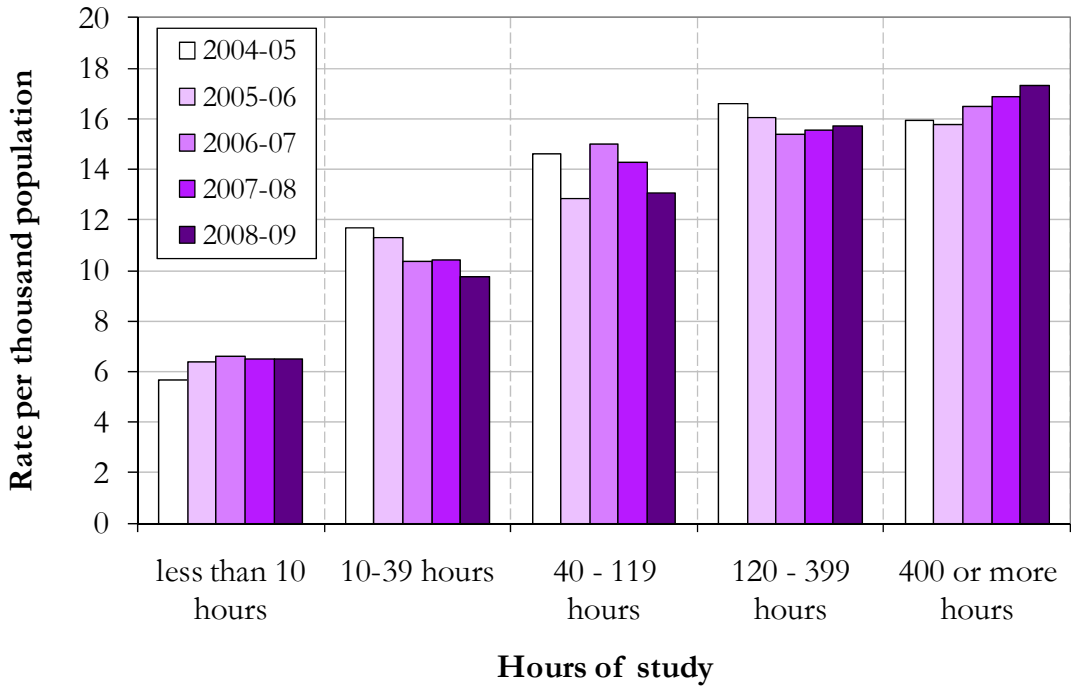


Figure 3.3.6 illustrates trends for women and men separately. In particular

- women have higher rates of participation than men except for those studying for 400 or more hours;
- there was a recent decrease in numbers of women studying less than 10 hours as opposed to a slight increase in numbers of men.

Figure 3.3.6 Headcount participation in FE by hours of study and gender

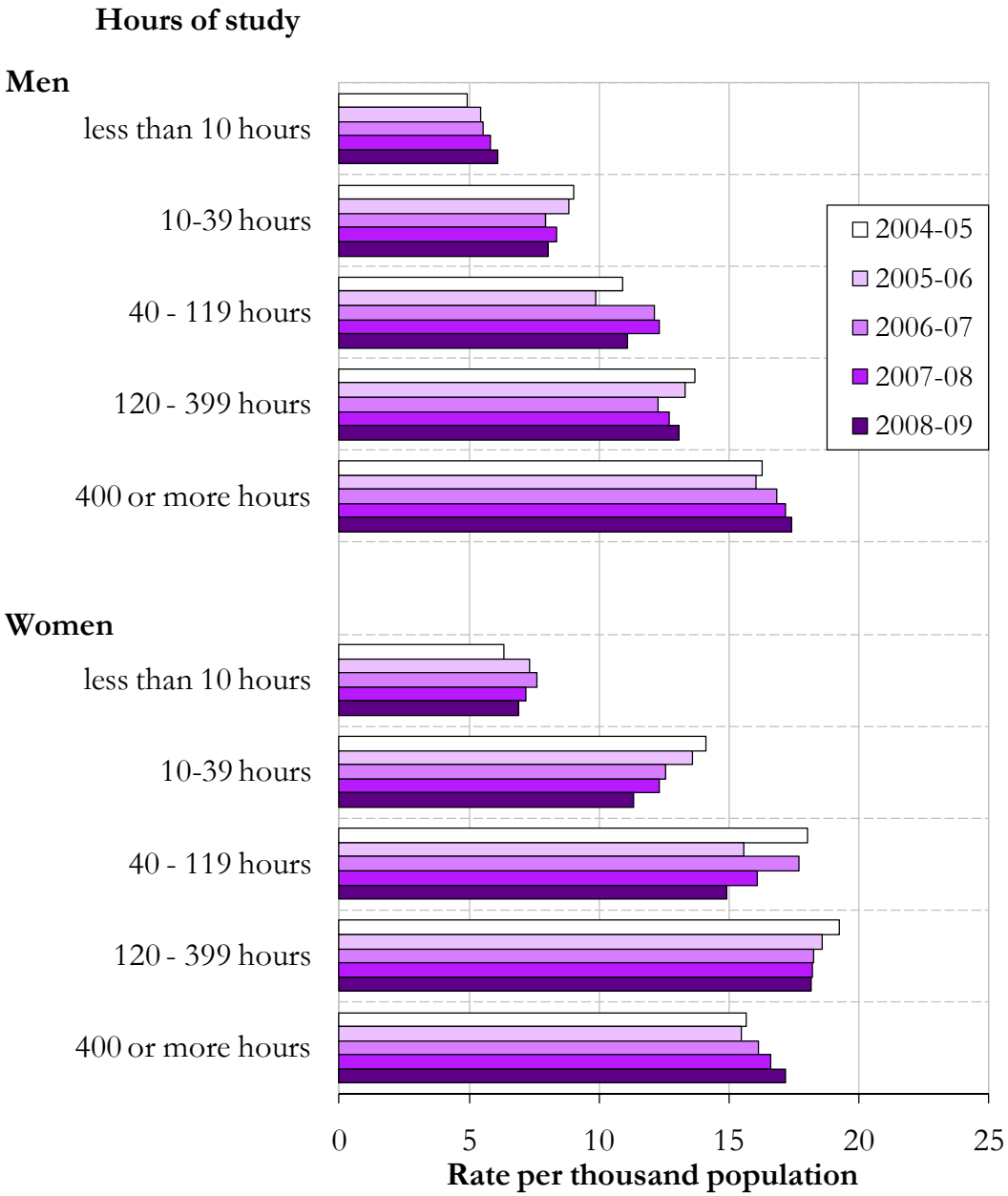
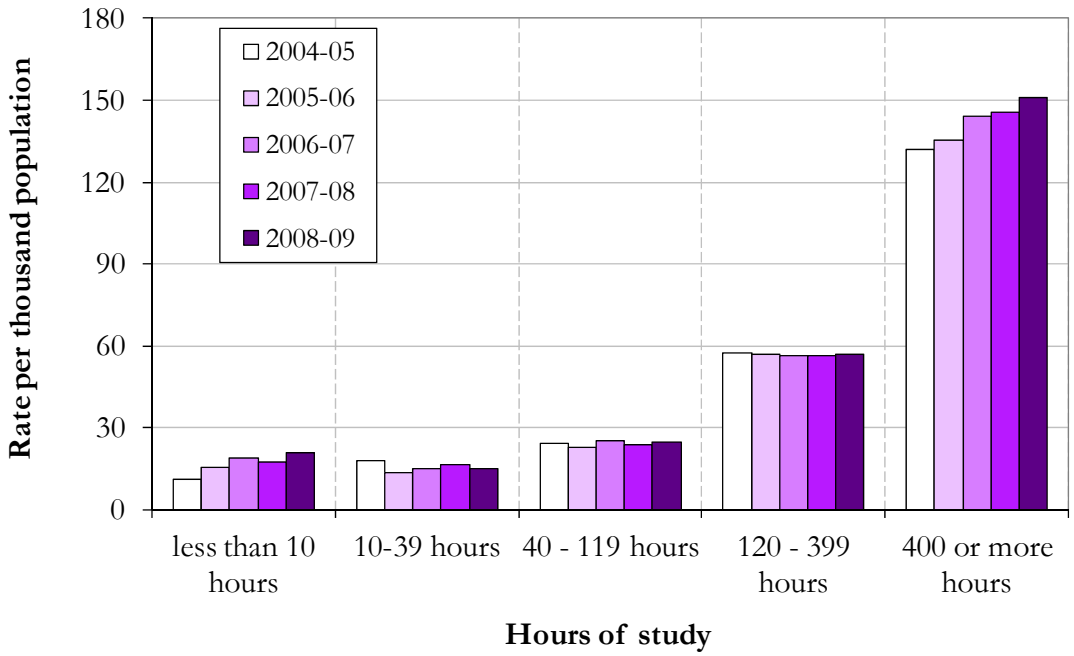


Figure 3.3.7 shows trends among the young. Compared with all students (Figure 3.3.5) participation has increased fairly consistently in those studying 400 hours or more and the decline in participation between 2004-05 and 2008-09 in those studying between 10 and 400 hours is less evident.

Figure 3.3.7 Headcount participation in FE by hours of study for young students aged 16–19



3.4. Trends by level of study

Where possible, the level of study has been grouped according to the Scottish Credit and Qualifications Framework (SCQF) levels (SCQF Partnership, 2007). The framework is designed to help people understand and compare different qualifications in Scotland and the levels indicate the degree of complexity in the learning required for a qualification. Unfortunately, some qualification types cannot be allocated to a single level and these have been grouped separately. This means that the amount of activity recorded under each SCQF level will be slightly underestimated.

Some students who are studying on courses not leading to a qualification are on special educational needs courses and these are shown separately in the main table.

Table 3.4.1, Figure 3.4.1 and Figure 3.4.2 show the numbers, FTE and rates per thousand population for participation according to level of study. These indicate that:

- headcount participation rate for study at SCQF Level 3 and 4 have increased slightly over the five years;
- participation on courses not leading to a recognised qualification fell in terms of headcount between 2004-05 and 2005-06, increased in 2006-07 but has fallen since; and
- although in 2008-09 68 per cent of students were studying for recognised qualifications, such courses comprised 87 per cent of all FTE.

Table 3.4.1 FE headcount and FTE by level of study, 2008-09

Mode of study SCQF Level	Description	Headcount	% of all students	FTE	% of all FTE
Headcount					
	Recognised qualifications				
6 & 7	Advanced Higher/Higher/SVQ: Level 3 or equivalent	28,608	11	14,550	19
5	Intermediate 2/SVQ: Level 2 or equivalent	21,863	8	11,591	15
4	Intermediate 1/SVQ: Level 1 or equivalent	6,426	2	3,164	4
3	Access	2,306	1	1,060	1
	Other non-advanced certificate / diploma or equivalent	34,622	13	9,826	13
	National Units	45,934	17	20,343	26
	Any Other recognised qualification	52,319	20	8,739	11
	Any recognised qualification	**179,859**	**68**	**68,637**	**87**
	Non - recognised qualifications				
	Special educational needs programme	13,683	5	3,547	5
	Course not leading to recognised qualification	92,819	35	6,796	9

Notes

There is an overlap between the levels of study as some students studied courses at more than one level in the same year. Therefore, the total number "Studying for any recognised qualification" will be less than the sum of the numbers for each level of study.

Figure 3.4.1 FE headcount participation rates by level of study

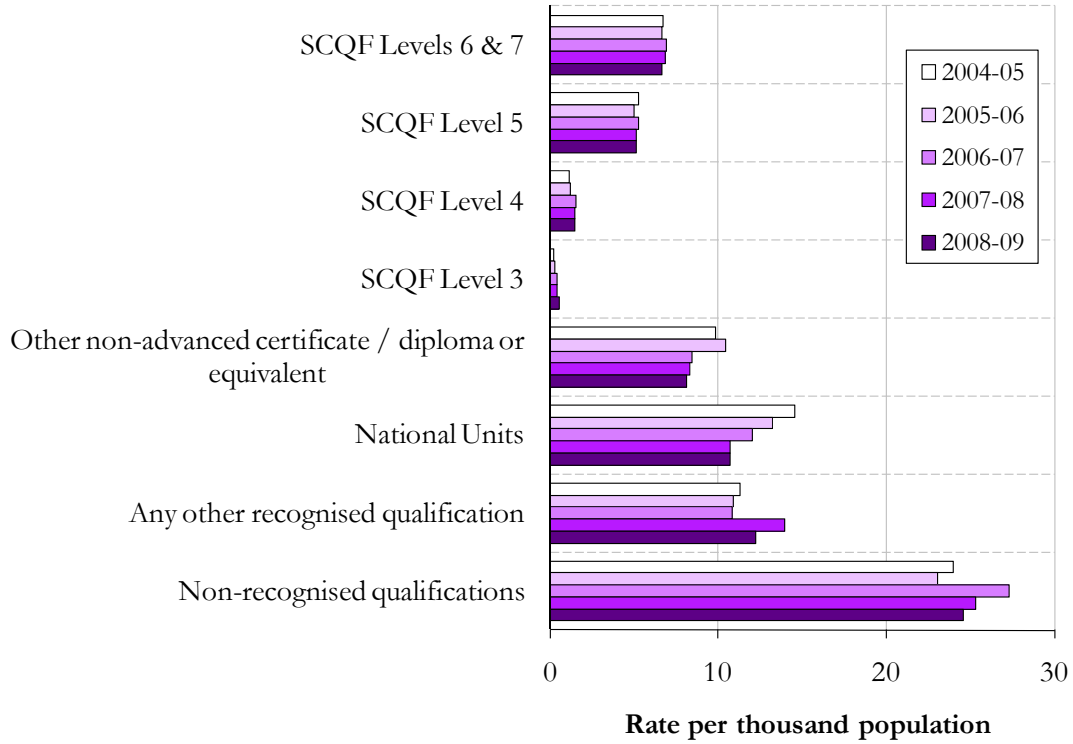


Figure 3.4.2 FE FTE participation rates by level of study

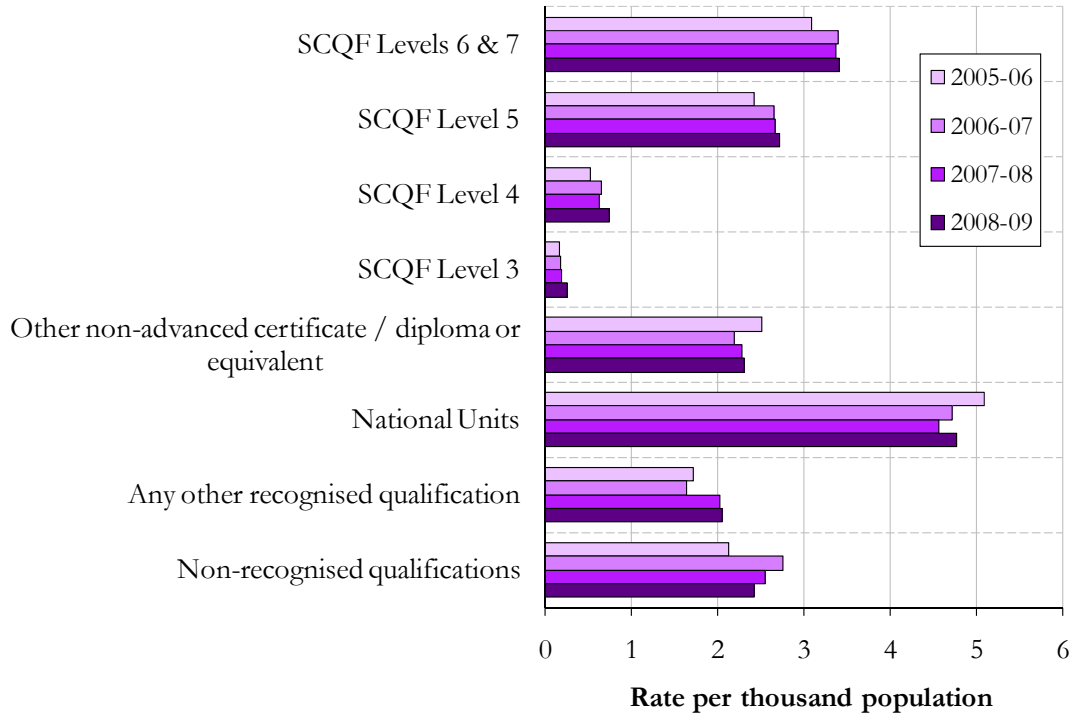
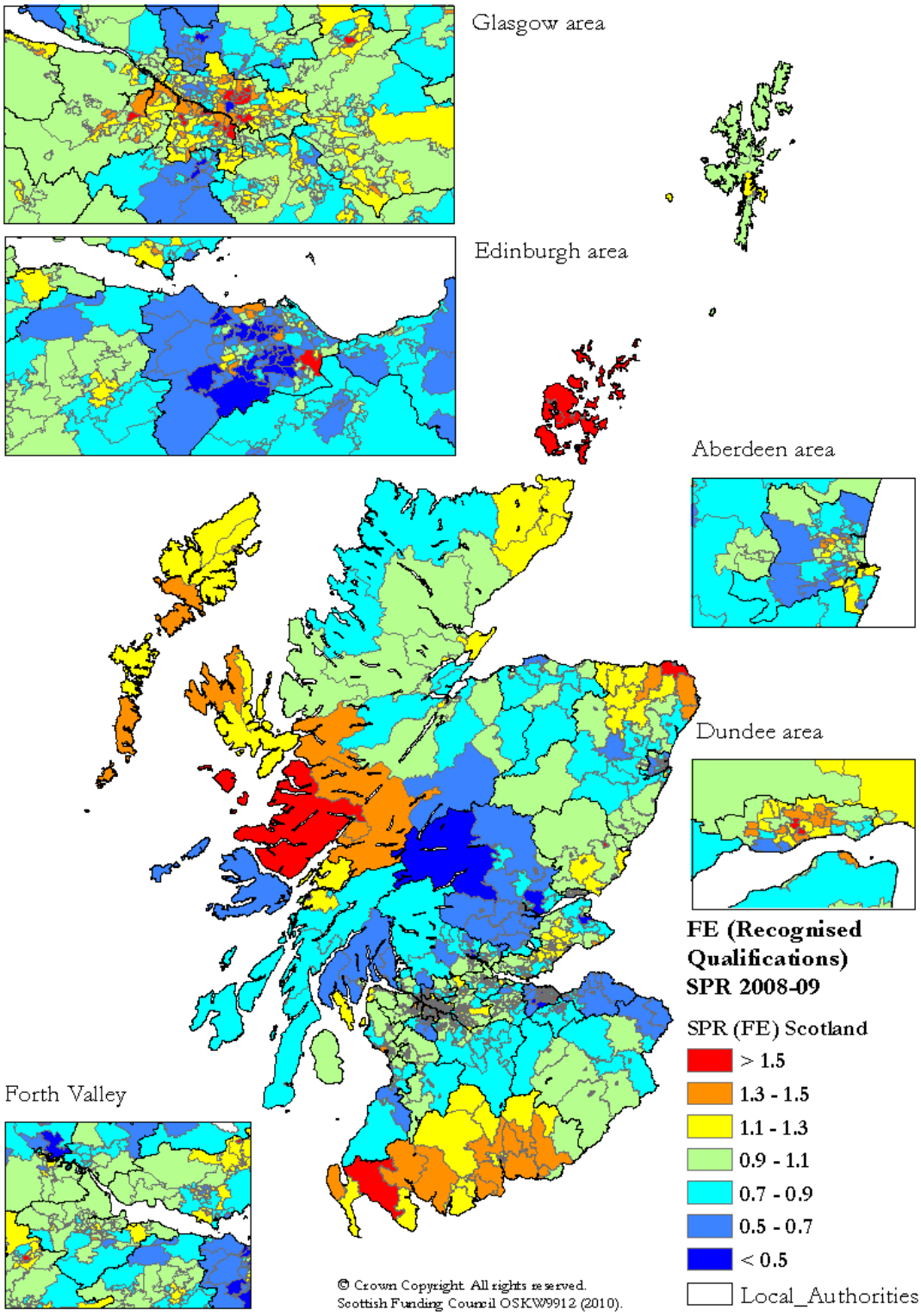


Figure 3.4.3 shows the geographical pattern of headcount participation for recognised FE qualifications. Participation is relatively high in Orkney, west Highland and Dumfries and Galloway, northeast Aberdeenshire, and parts of Dundee, Glasgow and Edinburgh City. Participation is relatively low in parts of Edinburgh, Glasgow, Forth Valley, and parts of Perth and Kinross.

Figure 3.4.3 Geographical variation in headcount participation for FE recognised qualifications, 2008-09



Notes

The Standardised Participation Ratio (SPR) compares the number of participants in an area with what would be expected if national age-gender specific participation rates were applied to the area's population. The SPR ensures areas with differing age-gender distributions are comparable. The national SPR is one. Thus participation in areas in green is close to the national rates.

Figure 3.4.4 and Figure 3.4.5 show trends in headcount and FTE participation rates for men and women separately. Men and women have similar levels of participation for SCQF Level 6 and 7. For the other categories participation rates for women tend to be similar or higher than the rates for men.

Figure 3.4.4 Headcount participation in FE by level of study and gender

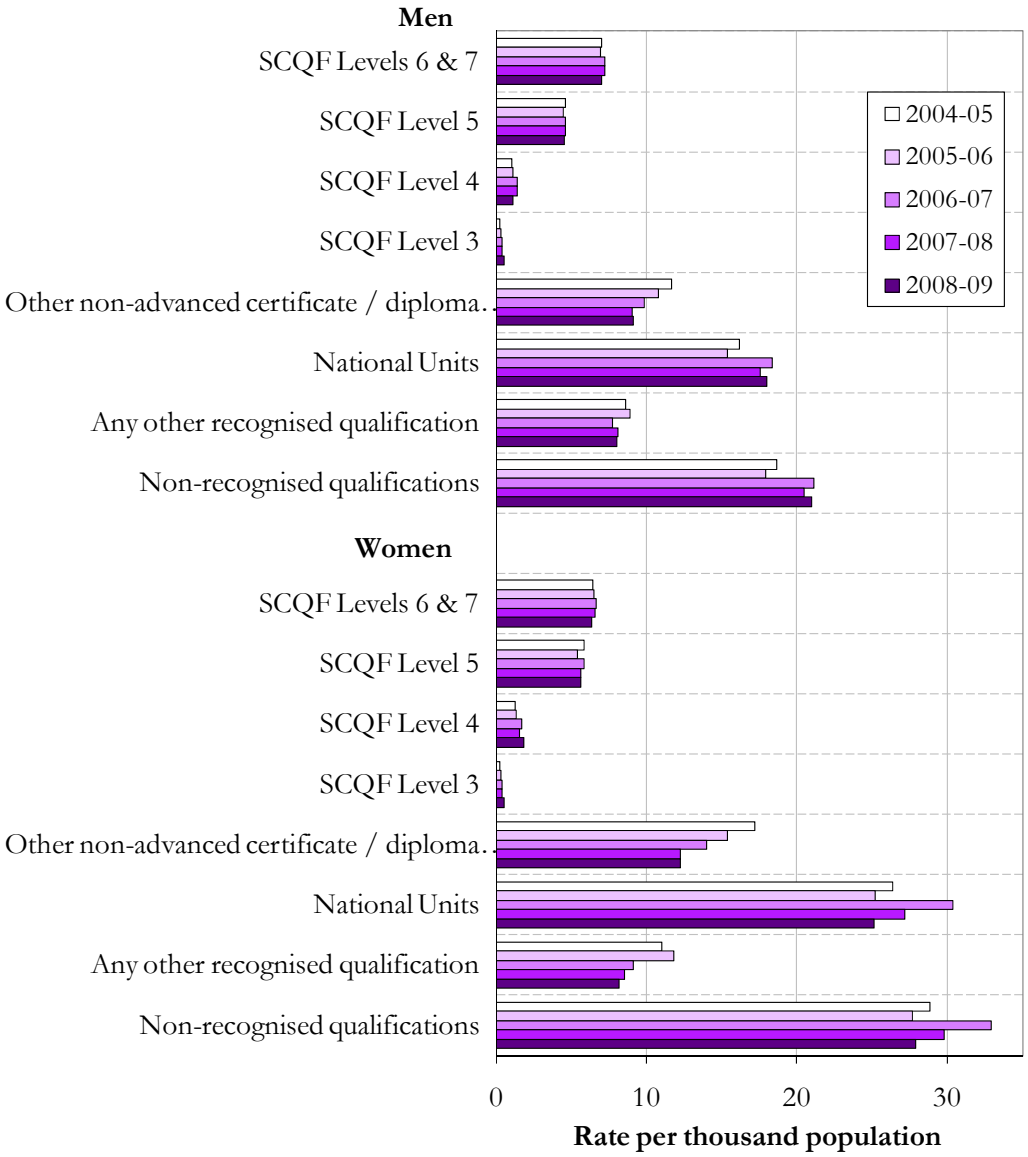


Figure 3.4.5 FTE participation in FE by level of study and gender

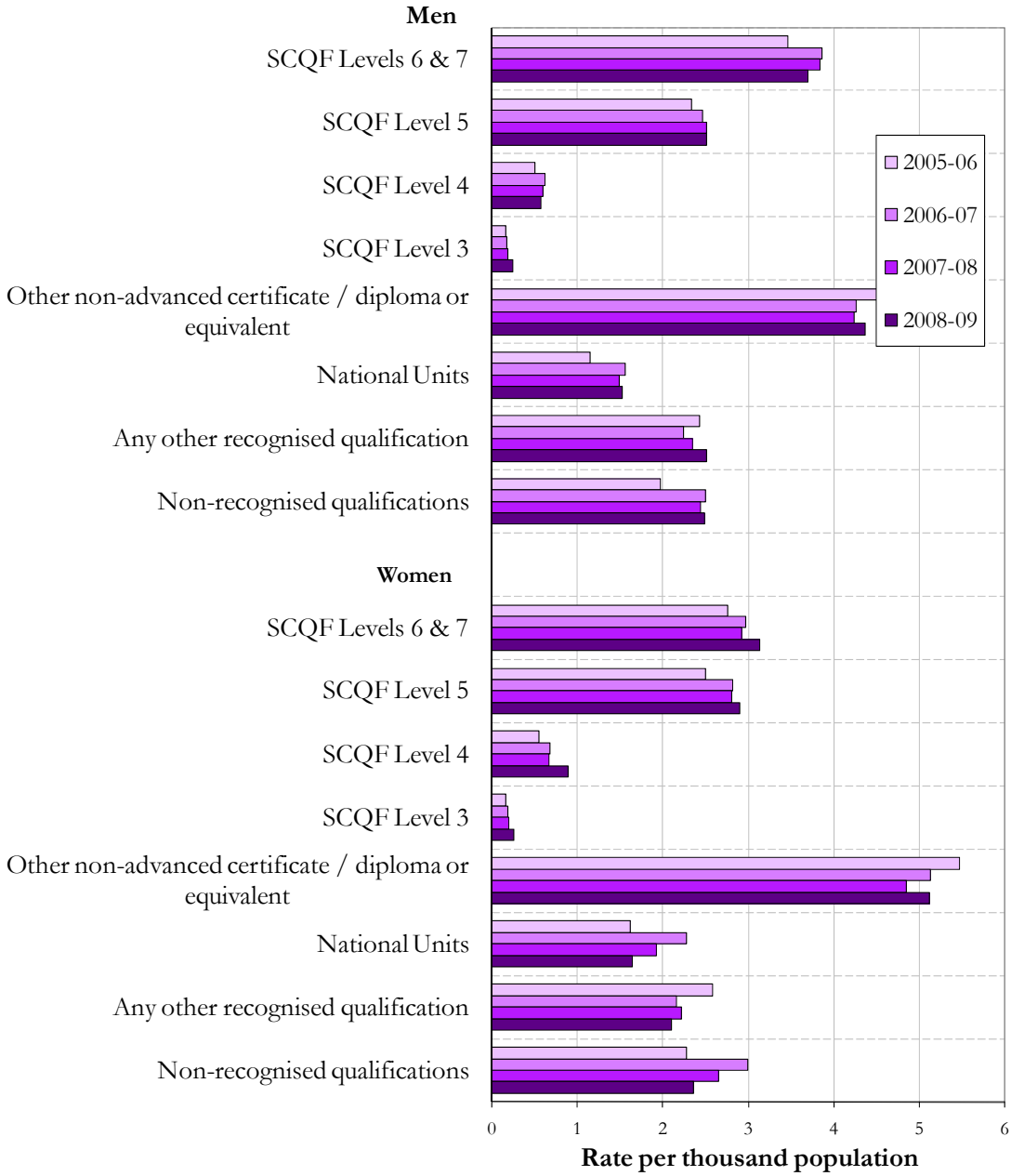


Figure 3.4.6 and Figure 3.4.7 show the participation rates for young students aged 16-19. The trends are similar to those for overall participation.

Figure 3.4.6 Headcount participation in FE by level of study for young students aged 16 – 19

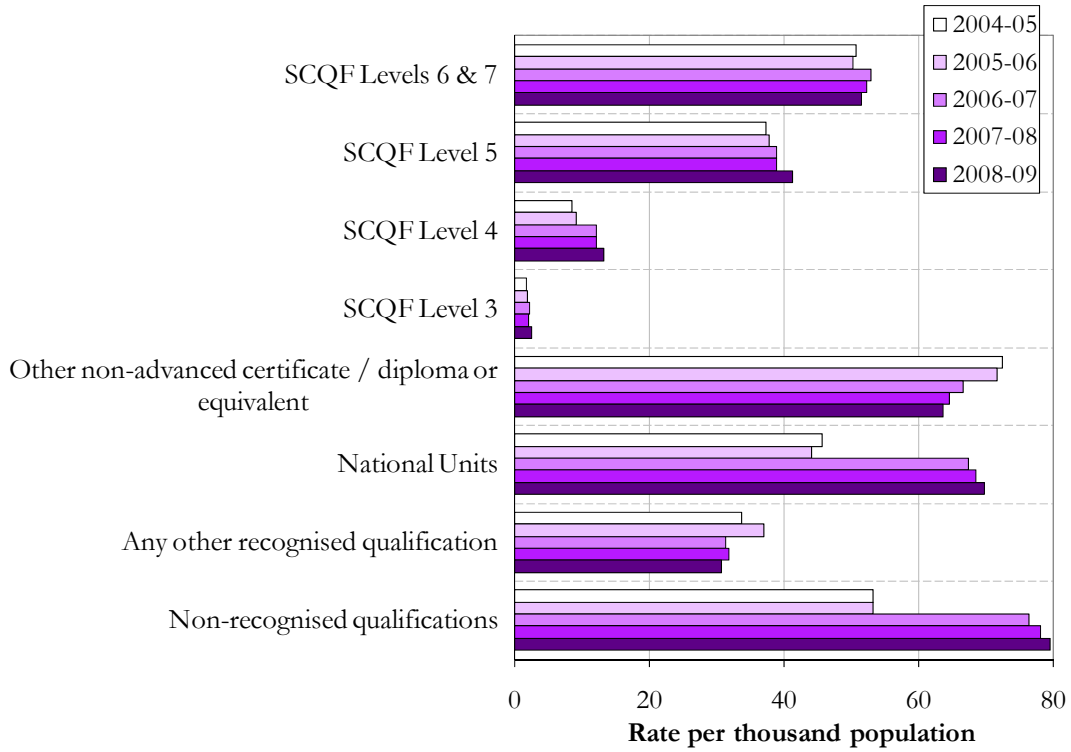
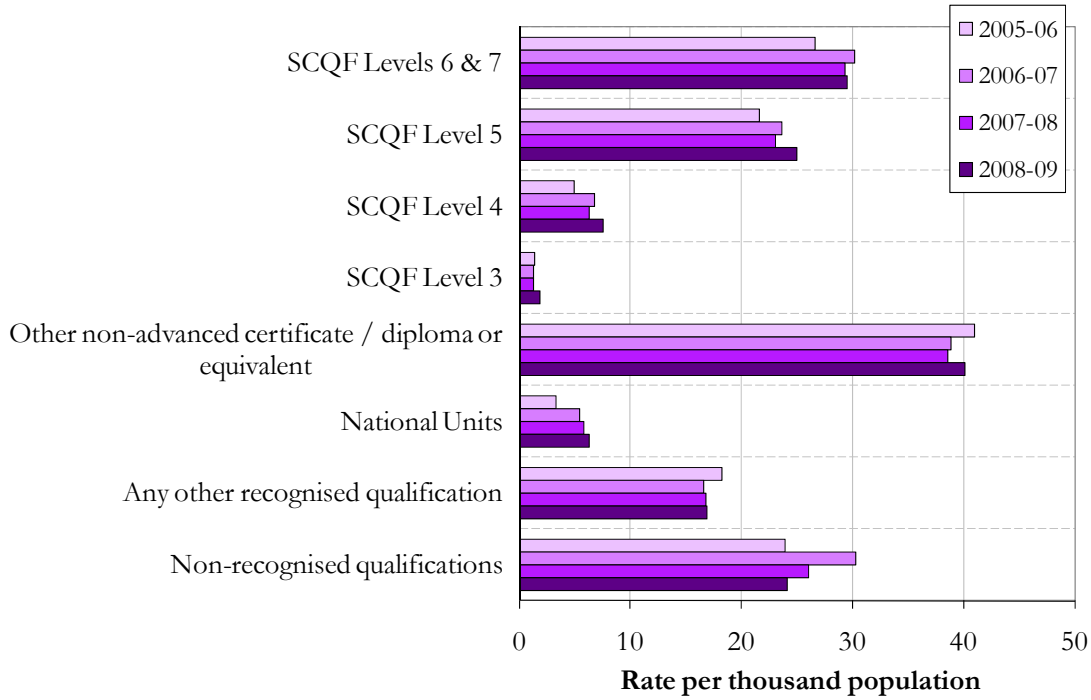


Figure 3.4.7 FTE participation in FE by level of study for young students aged 16 – 19



3.5. Local authority trends

Table 3.5.1 summarises current levels of participation in FE by local authority and trends since 2004-05. Figure 3.5.1 and Figure 3.5.2 show trends in standardised participation for headcount.

In 2008-09:

- Angus, Glasgow City, West Dunbartonshire, Eilean Siar, Orkney Islands and Shetland Islands have particularly high standardised participation in terms of headcount;
- Dundee City, Glasgow City, Inverclyde , North Ayrshire and Angus have the highest level of participation in terms of FTE;
- East Lothian, Edinburgh City, Moray and Midlothian have the lowest standardised participation at below 75 per cent of the national rate for headcount; and
- in terms of FTE, East Renfrewshire has the lowest standardised participation rate at below 75 per cent of the national rate.

Between 2004-05 and 2008-09:

- there was evidence for a decline in headcount participation in seven local authorities; and
- a number of local authorities, such as Angus appear not to have followed the national trend. Participation increased in Shetland but largely because funding changes resulted in the inclusion of rather more courses for local council employees.

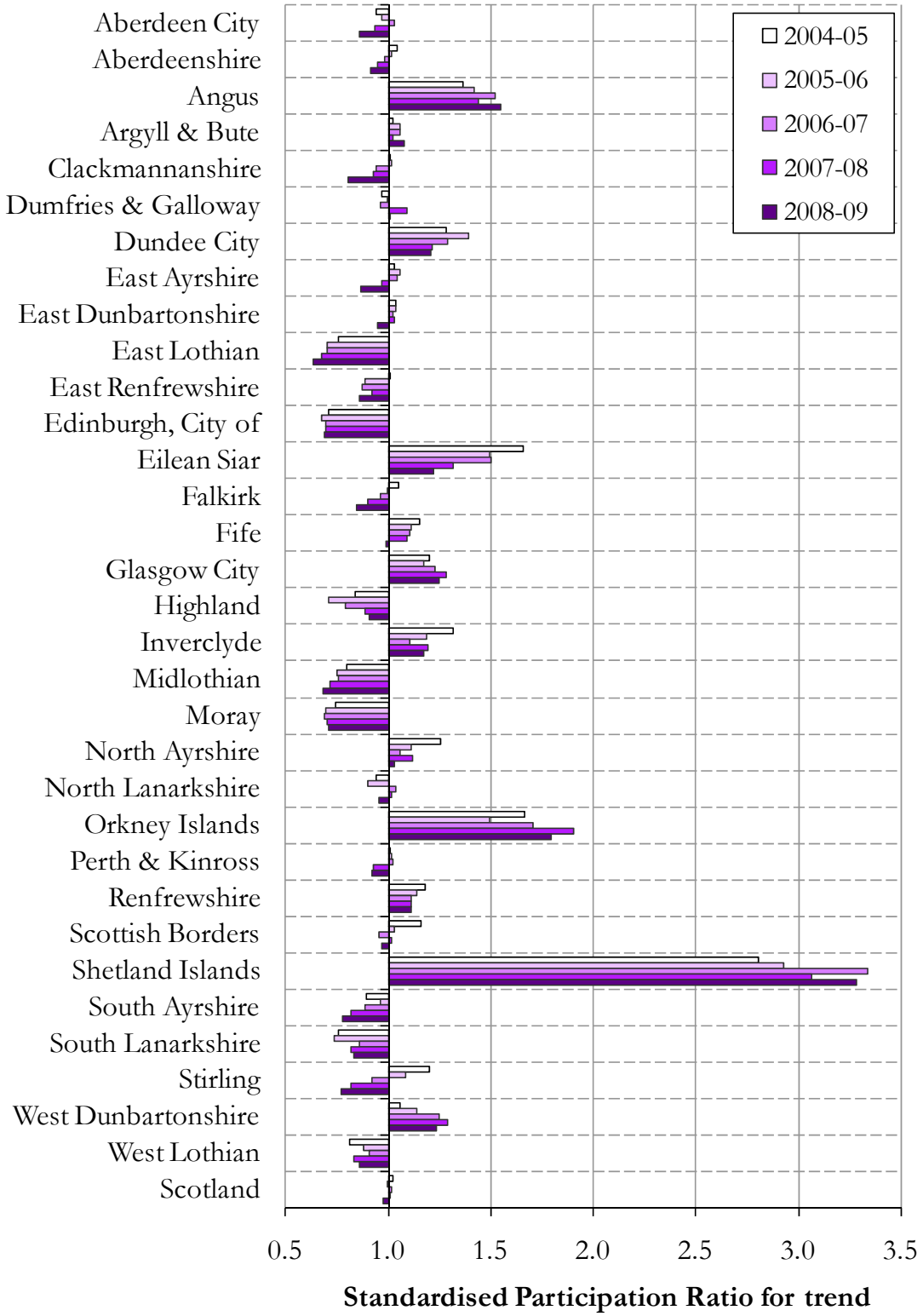
Table 3.5.1 Participation in FE by local authority

Local Authority	Headcount			FTE	
	2008-09 Rate /1000	2008-09 SPR	Trend (2004-05 to 2008-09)	2008-09 Rate /1000	2008-09 SPR
Aberdeen City	54.8	0.89		13.9	0.78
Aberdeenshire	57.9	0.94	↓	16.0	0.88
Angus	95.0	1.60		21.9	1.26
Argyll & Bute	65.6	1.11		14.5	0.83
Clackmannanshire	52.2	0.83		19.4	1.03
Dumfries & Galloway	60.7	1.04		13.0	0.77
Dundee City	78.4	1.25		23.9	1.27
East Ayrshire	55.7	0.89	↓	20.8	1.11
East Dunbartonshire	60.2	0.97		14.3	0.77
East Lothian	40.8	0.65		14.4	0.77
East Renfrewshire	55.2	0.88		12.7	0.68
Edinburgh, City of	44.8	0.71		15.4	0.86
Eilean Siar	74.4	1.26		15.7	0.90
Falkirk	54.7	0.87	↓	17.2	0.93
Fife	63.6	1.02	↓	21.7	1.18
Glasgow City	83.5	1.29		24.5	1.28
Highland	56.1	0.93		16.7	0.95
Inverclyde	74.9	1.21		25.2	1.38
Midlothian	44.2	0.70		17.3	0.91
Moray	44.7	0.73		16.1	0.87
North Ayrshire	65.5	1.06	↓	23.8	1.29
North Lanarkshire	62.5	0.98		18.6	0.98
Orkney Islands	112.6	1.85		17.6	0.97
Perth & Kinross	57.2	0.95		14.3	0.81
Renfrewshire	71.4	1.15		20.2	1.10
Scottish Borders	59.7	1.00		16.5	0.95
Shetland Islands	214.7	3.37		23.2	1.19
South Ayrshire	47.5	0.80	↓	17.1	0.99
South Lanarkshire	53.4	0.86		15.5	0.85
Stirling	51.3	0.79	↓	15.6	0.77
West Dunbartonshire	80.6	1.27		21.0	1.12
West Lothian	56.9	0.88		18.4	0.96
Scotland	**62.4**	**1.00**		**18.4**	**1.00**

Notes

A statistical model has been used to identify areas where the trend in participation is likely to be real rather than a result of random fluctuations.

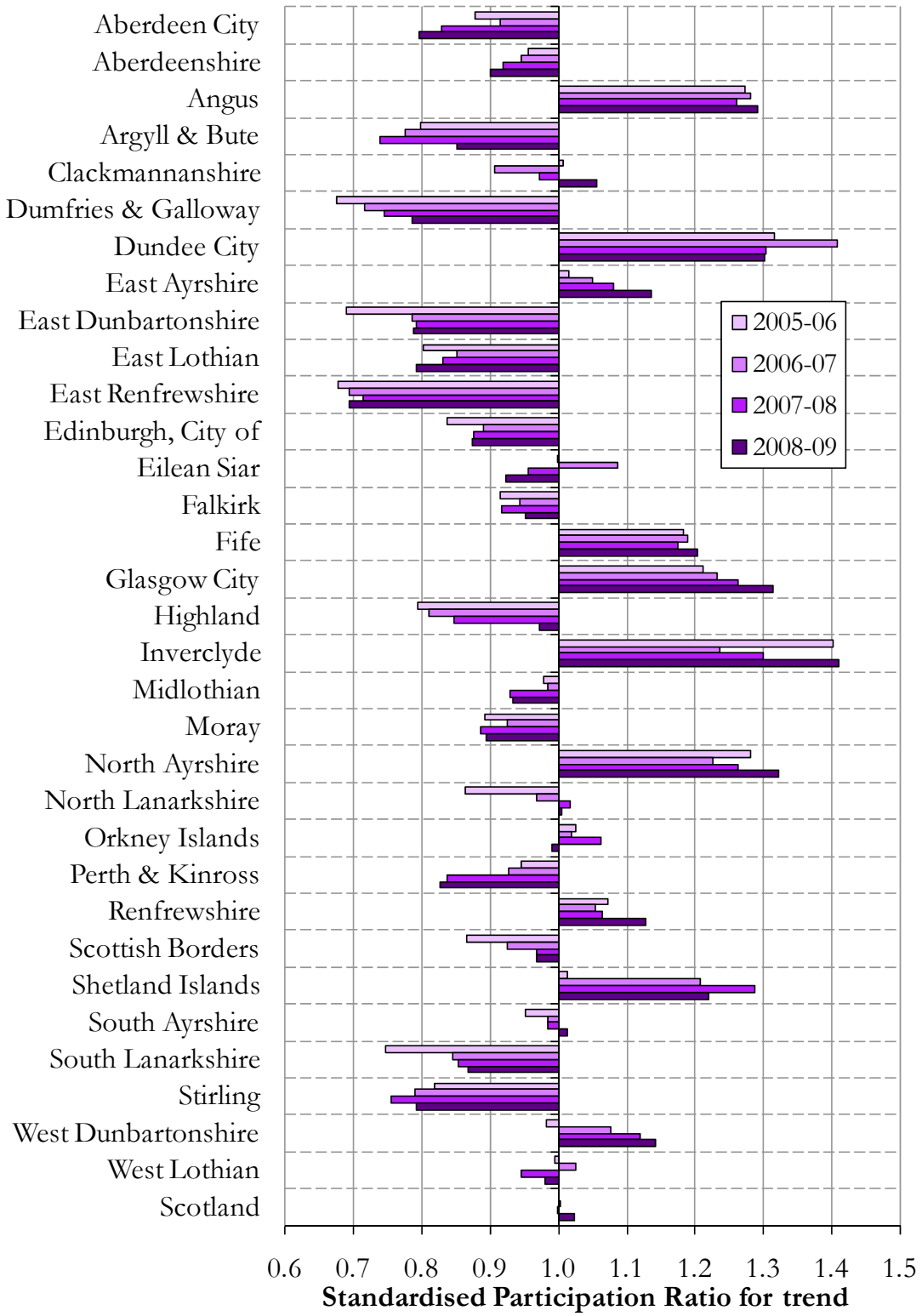
Figure 3.5.1 Trends in standardised headcount participation in FE by local authority



Notes

The five-year national average Standardised Participation Ratio (SPR) for trend is one. Thus SPRs above or below one are above or below this national average.

Figure 3.5.2 Trends in standardised FTE participation in FE by local authority



Notes

The two-year national average Standardised Participation Ratio (SPR) for trend is one. Thus SPRs above or below one are above or below this national average.

3.6. Participation within deprivation classes

The Scottish Index of Multiple Deprivation 2009 (SIMD) (Scottish Government, 2009) ranks each of the 6,505 Scottish Neighbourhood Statistics data zones using a score derived from seven domains of deprivation: income; employment; health; education, skills and training; geographic access to services; crime; and housing. This ranking was used to group the data zones into two classes: the most deprived data zones, which contain approximately 20 per cent of the 2009 mid-year population, and the rest. The two classes are termed the 'most deprived' and the 'less deprived'.

Table 3.6.1 and Table 3.6.2 show participation rates, in terms of headcount and FTE, in FE by deprivation class and year together with the ratio of participation from the most deprived data zones to that from the less deprived. This is an indicator of how strongly participation is related to deprivation in an area. In particular

- this ratio, for headcount participation, has increased since 2004-05 from 1.24 to 1.43 so that participation in the most deprived data zones is about 43 percent higher than that in the less deprived;

- headcount participation has declined overall in the less deprived class but risen in the most deprived class; and

- in terms of FTE, participation is 60 to 75 percent higher in the most deprived class compared to less deprived. This indicates that the average FTE per participant is also higher in the most deprived areas. This is in part, due to students from less deprived areas being more likely to undertake short, non-vocational, study.

Table 3.6.1 Headcount participation in FE by deprivation class and year

Year	Deprivation class		Ratio of most to less deprived
	Less deprived	Most deprived	
	Rate/1,000		
2004-05	62.7	77.9	1.24
2005-06	60.6	77.1	1.27
2006-07	61.2	80.8	1.32
2007-08	60.2	83.3	1.38
2008-09	57.6	82.1	1.43

Table 3.6.2 FTE participation in FE by deprivation class and year

Year	Deprivation		Ratio of most to less deprived
	Less deprived	Most deprived	
	Rate/1,000		
2005-06	15.6	24.9	1.60
2006-07	15.9	25.8	1.62
2007-08	15.9	26.7	1.68
2008-09	16.0	28.1	1.75

Figure 3.6.1 and Figure 3.6.2 show trends over years in participation by deprivation class and by gender and age group respectively. These indicate that:

- for men and women, participation declined in the less deprived class and rose in the most deprived;
- among the 'young', participation increased in both classes between 2004-05 and 2008-09; and
- among the 'mature', participation decreased slightly in the less deprived class and stayed steady in the most deprived class.

Figure 3.6.1 Trends in headcount participation in FE by gender and deprivation class

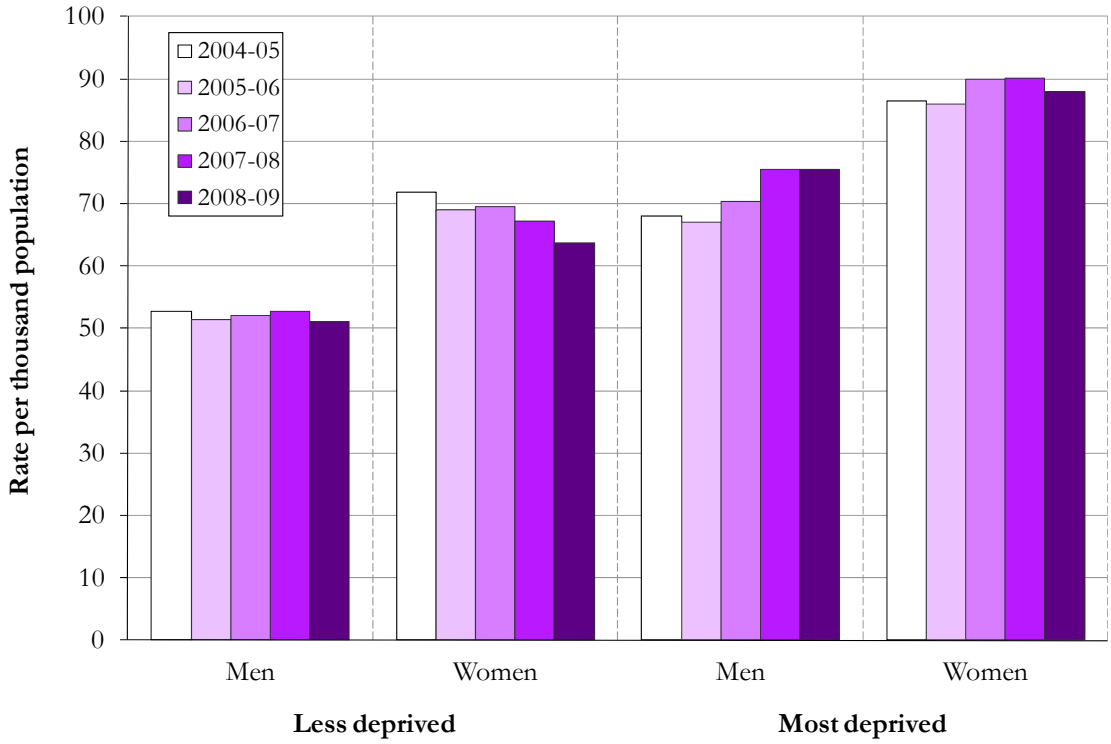
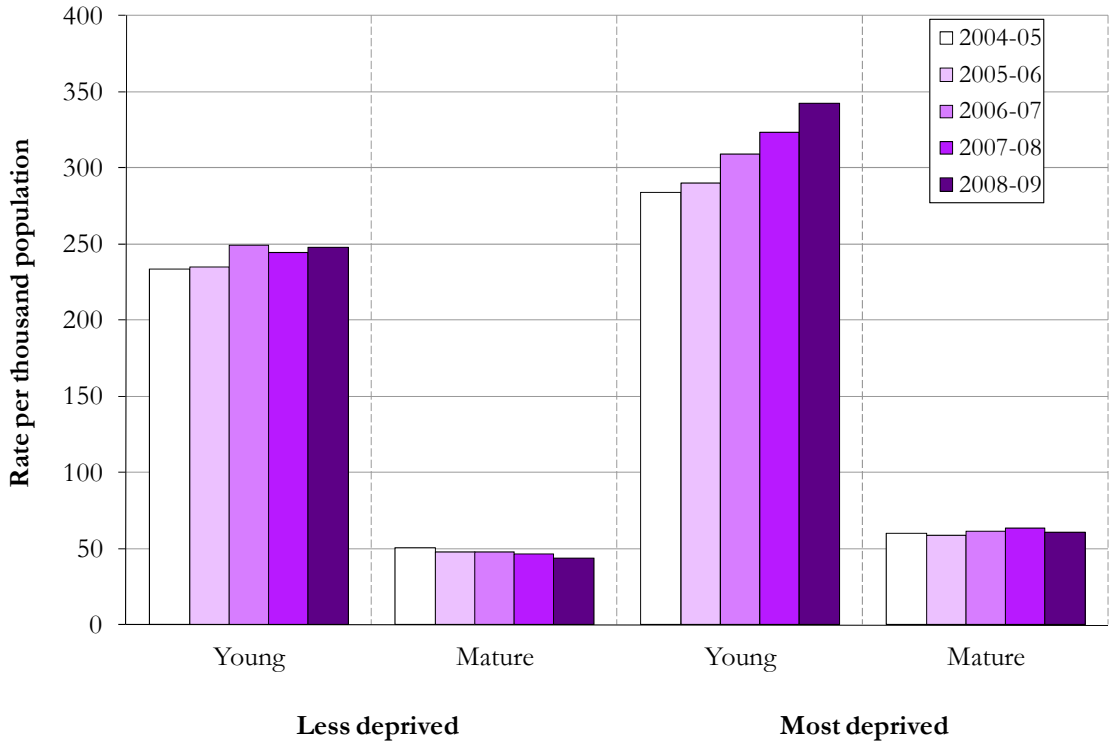


Figure 3.6.2 Trends in headcount participation in FE by age group and deprivation class



Notes

Young = 16-19, Mature = 20 and over.

Table 3.6.3 shows participation rates in FE by deprivation class and local authority for 2008-09 together with the ratio of participation from the most deprived data zones to that from the less deprived. A number of local authorities have relatively small populations in the most deprived data zones and are therefore likely to have fluctuating participation rates. These have been indicated in the table.

Excluding those with small populations, the following local authorities have relatively high participation in their most deprived data zones compared to the less deprived: Scottish Borders, Edinburgh, Aberdeenshire and Aberdeen City.

Conversely, the following have relatively low participation in their most deprived data zones: Clackmannanshire, Falkirk, North and South Lanarkshire, Inverclyde, East Ayrshire and West Dunbartonshire.

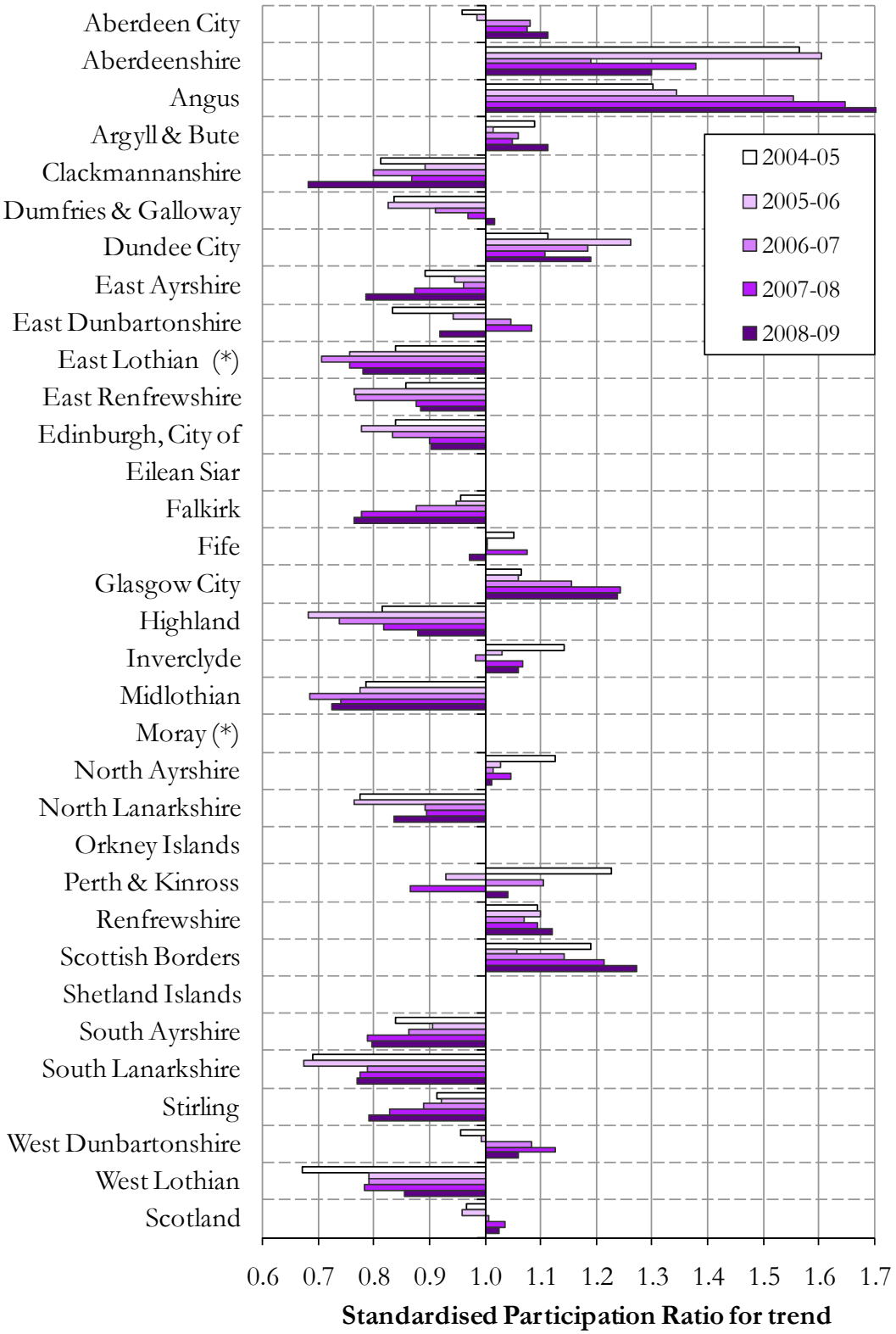
Figure 3.6.3 shows trends in headcount participation by local authority in the most deprived data zones. Trends that are less likely to be due to random fluctuations were identified using a statistical model. An upward trend was evident in a number of localities: Glasgow City, Dumfries and Galloway, East Renfrewshire, Edinburgh City, Highland, Renfrewshire, North and South Lanarkshire.

Table 3.6.3 Headcount participation in FE by local authority and deprivation class, 2008-09

Local Authority	Deprivation class: Less deprived (Rate/1,000)	Deprivation class: Most deprived (Rate/1,000)	Ratio of most to less deprived
Aberdeen City	50.0	89.5	1.79
Aberdeenshire	57.0	98.0	1.72
Angus	92.0	149.7	1.63
Argyll & Bute	64.0	86.1	1.35
Clackmannanshire	51.0	56.0	1.10
Dumfries & Galloway	58.5	81.5	1.39
Dundee City	68.9	93.9	1.36
East Ayrshire	52.7	62.4	1.18
East Dunbartonshire	59.5	76.5	1.29
East Lothian (*)	39.6	70.9	1.79
East Renfrewshire	54.2	72.1	1.33
Edinburgh, City of	40.5	74.3	1.83
Eilean Siar	74.5	-	-
Falkirk	53.7	60.5	1.13
Fife	60.4	77.8	1.29
Glasgow City	68.9	99.3	1.44
Highland	54.5	70.8	1.30
Inverclyde	70.1	81.1	1.16
Midlothian	43.0	60.1	1.40
Moray (*)	44.5	-	-
North Ayrshire	58.3	80.4	1.38
North Lanarkshire	61.0	66.1	1.08
Orkney Islands	112.6	-	-
Perth & Kinross	55.8	85.4	1.53
Renfrewshire	65.9	87.9	1.33
Scottish Borders	57.7	105.0	1.82
Shetland Islands	214.9	-	-
South Ayrshire	44.8	61.5	1.37
South Lanarkshire	51.9	60.1	1.16
Stirling	50.1	65.7	1.31
West Dunbartonshire	77.6	86.8	1.12
West Lothian	54.1	69.4	1.28
Scotland	**57.6**	**82.0**	**1.42**

Notes
* = local authorities that have a relatively small population in the most deprived deprivation class (below 3,000 in 2008).
- = no population in that class.

Figure 3.6.3 Trends in standardised headcount participation in FE from data zones in the most deprived class, by local authority



Notes

* = based on a relatively small population (below 3,000 in 2008)

Eilean Siar, Moray, Orkney Islands and Shetland Islands have no data zones in the most deprived class.

4. Participation in higher education

This section covers participation in HE by Scottish students at universities within the UK and at Scotland's colleges. Students who are Scottish domiciled but studying abroad are not included, but they are likely to be relatively few. Students studying at all levels, postgraduate, first degree or sub-degree ('other undergraduate'), have been included unless otherwise stated. However, students classified as 'writing up', on sabbatical or 'dormant' are excluded.

The numbers presented here will differ slightly from those presented elsewhere in, for example, *Higher Education in Scotland: a Baseline Report* (SHEFC, 2004 and SFC, 2008b) and *Students in Higher Education Institutions* (eg HESA, 2009). This is because in this report

- only students domiciled in Scotland are included;
- the student population is defined differently, by, for example, excluding students who are writing up; and
- we have attempted to avoid double counting of students who enrol more than once in a year.

As well as number of students (headcount), participation is also presented in terms of FTE. For students at universities, FTE is estimated with reference to a full-time full-year student who would normally receive an FTE of one. FTE for those on part-time courses or who leave part way through a year are estimated pro-rata on either a credit or time basis. For students in FE colleges in Scotland a broadly comparable FTE was calculated based on the number of hours of study as a proportion of the expected number of hours for a full-time course. See Appendix 1 for more information.

It should be borne in mind that the number of people studying in HE in any year will depend, to some extent, on the length of courses, the numbers studying part-time and on levels of non-completion. An increase in the numbers completing courses in a shorter time will also tend to reduce participation rates. This would happen, for example, if more students on higher national courses articulate into the second or subsequent years of a degree course rather than having to start in year one. Focusing on entrants to HE largely avoids these issues, and young entrants are covered in section 4.7.

4.1. Overview

Table 4.1.1 summarises the number of students, FTE and participation rates in HE between 2004-05 and 2008-09 both including and excluding Open University (OU) students. Both groups are presented because the drop in overall participation since 2004-05 is partly due to shifts in the type of course taken by students at the OU. More students are taking courses whose years of study fall completely within standard academic years. One result of this is that inactive students are being recorded as 'dormant' more quickly than before and so more students are being excluded from our analysis. Trends in FTEs are largely unaffected because the excluded OU students would have zero or very low FTEs. The numbers should stabilise in a few years as the pattern of study settles down, although it is apparent that the participation in 2007-08 and 2008-09 is lower than previous years.

Table 4.1.1 Participation in HE

a) including the OU

	Headcount		FTE	
	Count	Rate/1,000	Count	Rate/1,000
2004-05	237,833	57.4	160,158	38.7
2005-06	237,087	56.9	159,350	38.2
2006-07	233,704	55.7	157,732	37.6
2007-08	227,514	53.6	157,632	37.1
2008-09	230,018	53.8	159,299	37.3
% change 2007-08 to 2008-09	1.1	0.5	1.1	0.4

b) excluding the OU

	Headcount		FTE	
	Count	Rate/1,000	Count	Rate/1,000
2004-05	217,515	52.5	154,407	37.3
2005-06	217,783	52.3	153,824	36.9
2006-07	218,584	52.1	152,235	36.3
2007-08	208,650	49.1	152,298	35.9
2008-09	210.875	49.3	153,669	36.0
% change 2007-08 to 2008-09	1.1	0.4	0.9	0.3

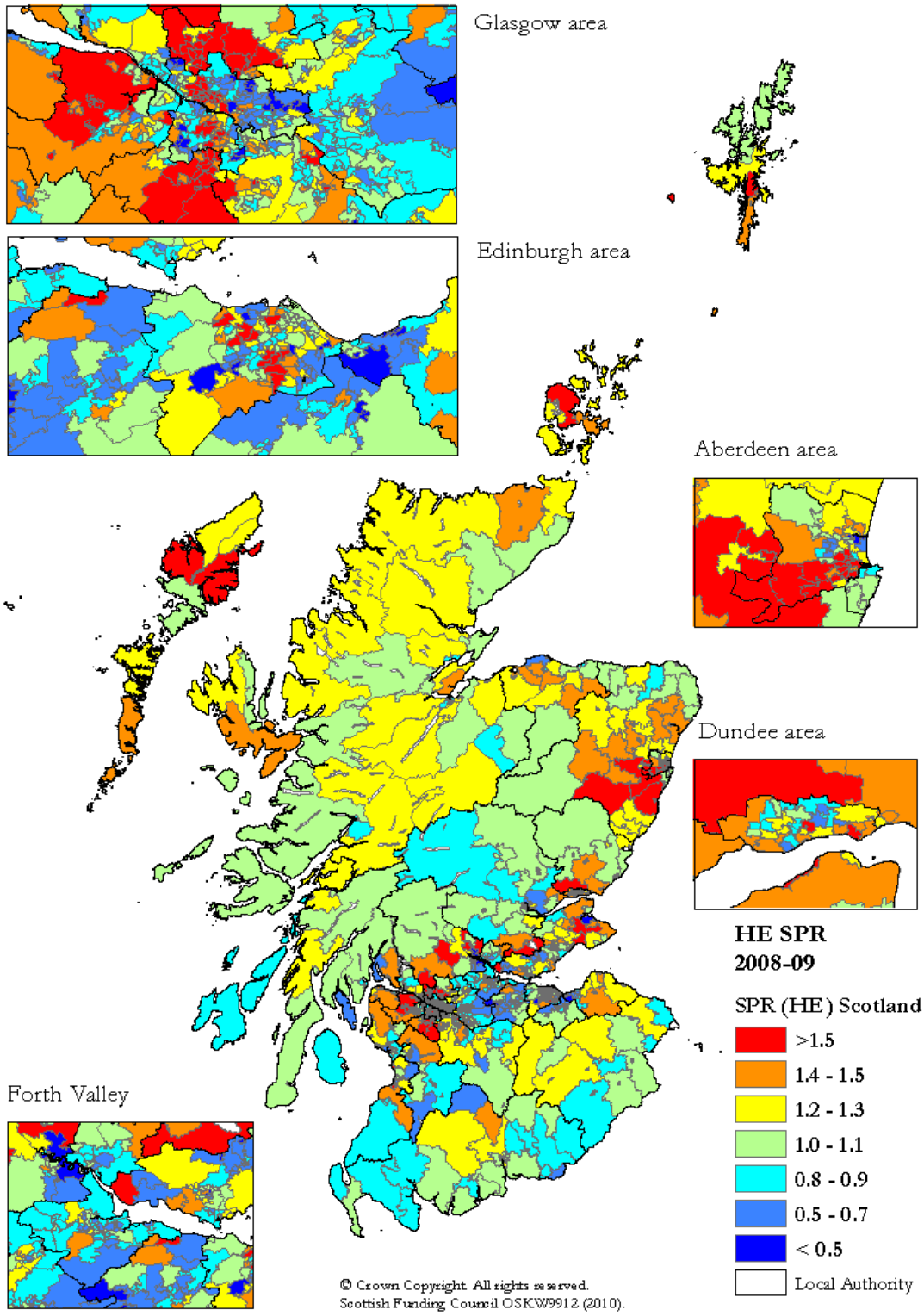
Notes
Rates/1,000 are the number of students per thousand head of the population aged 16 and over.

Geographical variation in participation in 2008-09 is illustrated in Figure 4.1.1. Areas with particularly high participation are mainly in or around the major cities although some are also found in parts of Orkney, Eilean Siar, Aberdeenshire, Stirling and in east Fife. Particularly low participation is found mainly within parts of Glasgow, Edinburgh, central Scotland, and east Fife.

Areas that have shown an increasing or decreasing trend in participation are highlighted in Figure 4.1.2. Most local authority areas show a mixture of areas of decreasing trend or no evidence of a trend. A clear increase in trend is only evident in parts of Glasgow, central Scotland, Aberdeen, Edinburgh and Shetland Islands.

Variation in FTE participation is shown in Figure 4.1.3. Comparing with Figure 4.1.1, some areas, such as parts of the Lothians and some areas around Aberdeen, are relatively higher in terms of FTE because they tend to have a higher proportion of full-time students. Conversely, areas such as the Highlands tend to have a higher proportion of part time students.

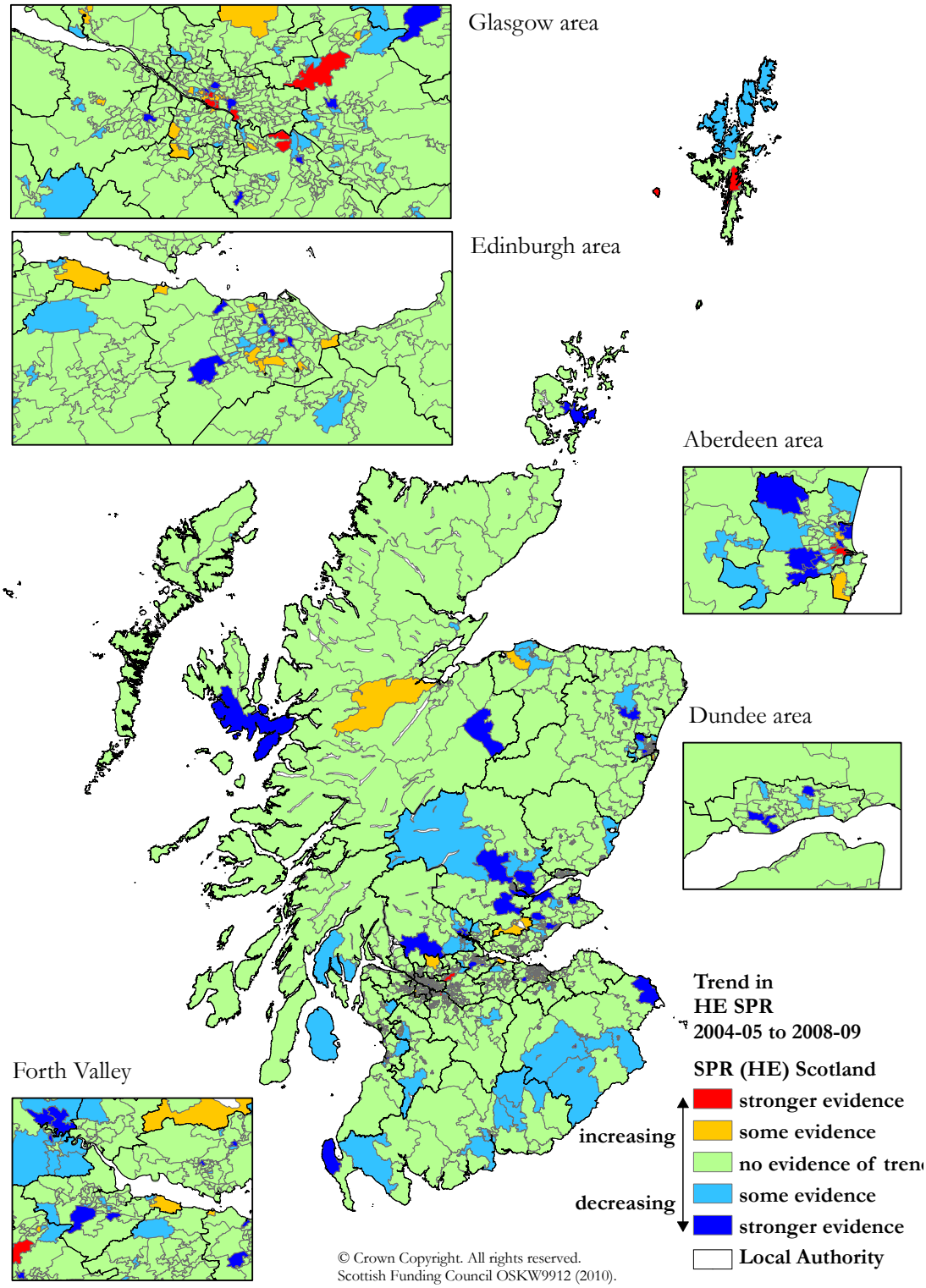
Figure 4.1.1 Geographical variation in headcount participation in HE, 2008-09



Notes

The Standardised Participation Ratio (SPR) compares the number of participants in an area with what would be expected if national age-gender specific participation rates were applied to the area's population. The SPR ensures areas with differing age-gender distributions are comparable. The national SPR is one. Areas in cyan are close to the national value.

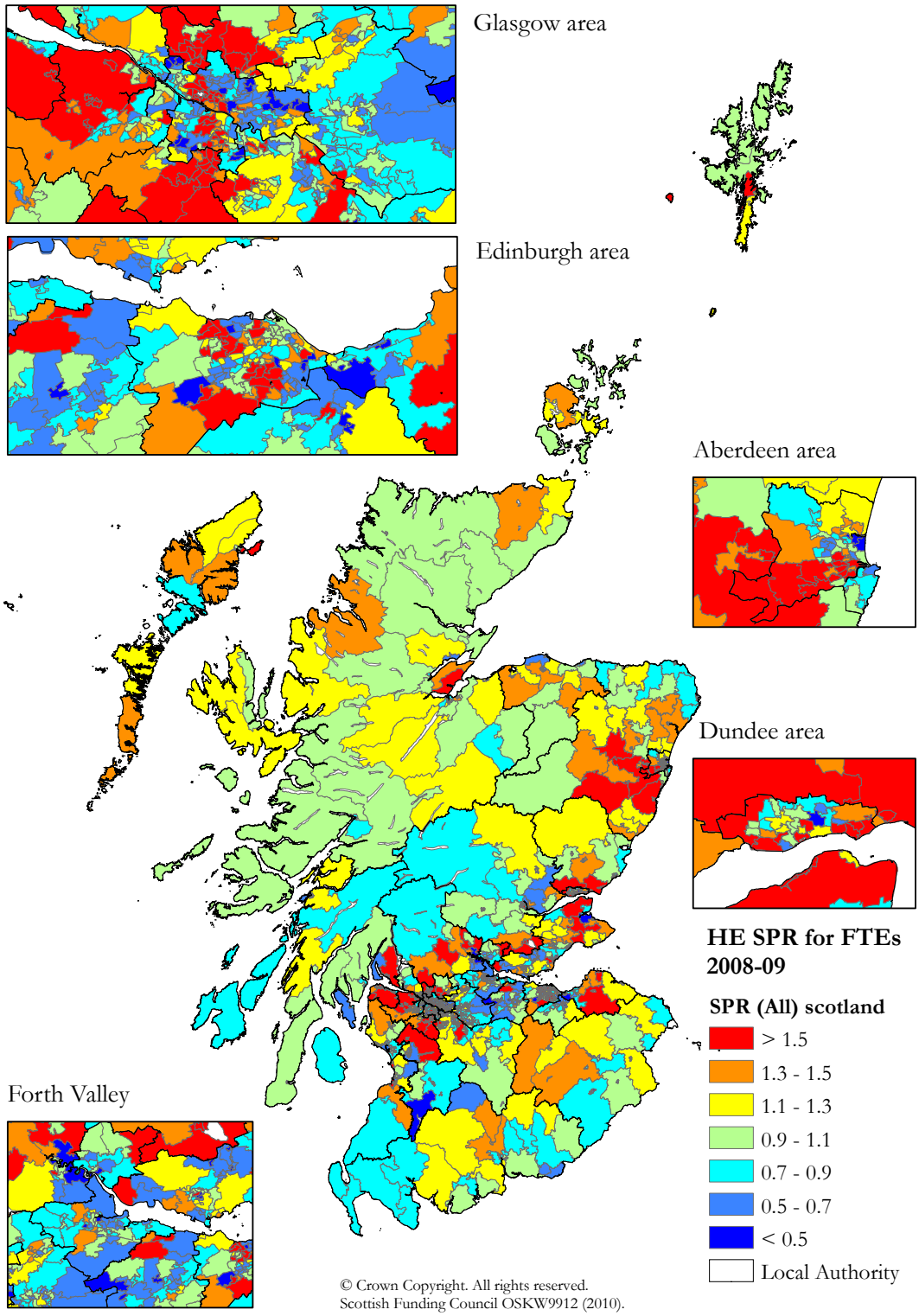
Figure 4.1.2 Change in headcount participation in HE, 2004-05 to 2008-09



Notes

The map highlights those areas which have shown an increasing or decreasing trend in SPR as derived from a statistical model. See Appendix 1 for more information.

Figure 4.1.3 Geographical variation in FTE participation in HE, 2008-09



4.2. Trends by age and gender

Trends by age and gender are summarised in Figure 4.2.1 and Figure 4.2.2. Participation by both men and women has declined both in terms of headcount and FTE between 2004-05 and 2008-09.

Participation is consistently higher by women than men, and it should be noted that the difference in the overall participation rates ('All ages') is affected by the fact that there are rather more elderly women than men in the adult population. As participation is low in the elderly they have the effect of reducing overall rates and more so in women than men. Thus, the difference between men and women in the 'Working age' rates is rather larger than in the 'All ages' rate.

Looking at change for young people under 21, there has been a drop in participation since 2004-05, but there is a small increase in 2008-09.

Figure 4.2.1 Headcount participation rates in higher education by age and gender

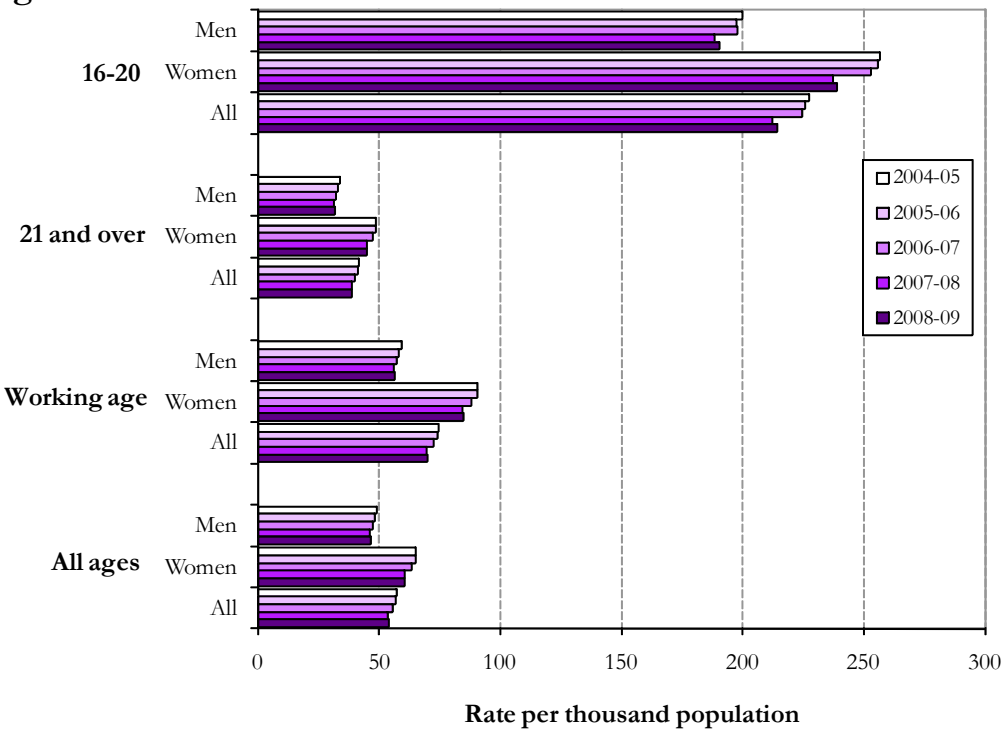
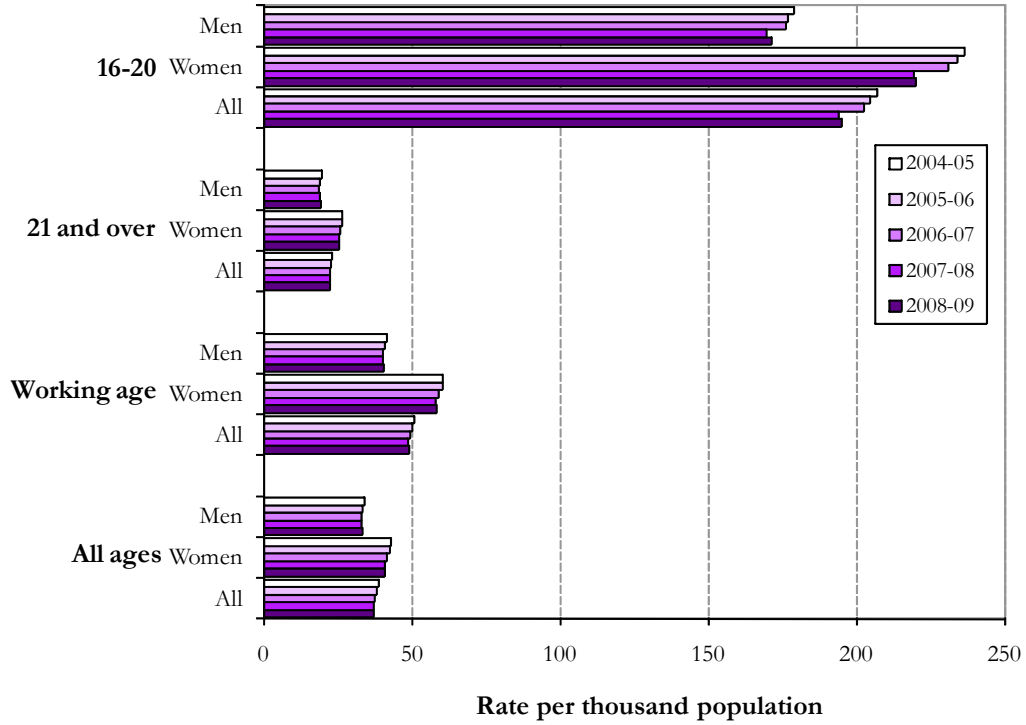


Figure 4.2.2 FTE participation rates in higher education by age and gender



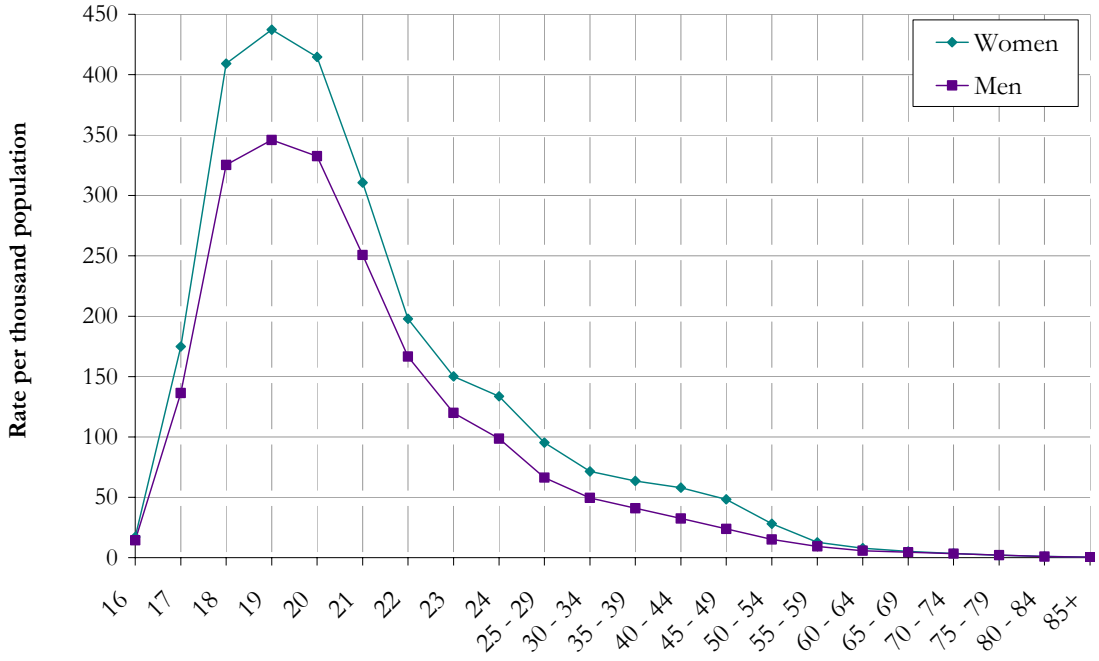
Notes

Rates are calculated using the relevant population group, eg women aged between 16 and 20.

The age distribution of participation in men and women is shown for 2004-05 and 2008-09 in Figure 4.2.3. Participation is higher in women at most ages and the gap between male and female participation is at its maximum at age 19. These features are seen in both years presented.

Figure 4.2.3 Participation rates in HE by age and gender, 2004-05 and 2008-09

a) 2004-05



b) 2008-09

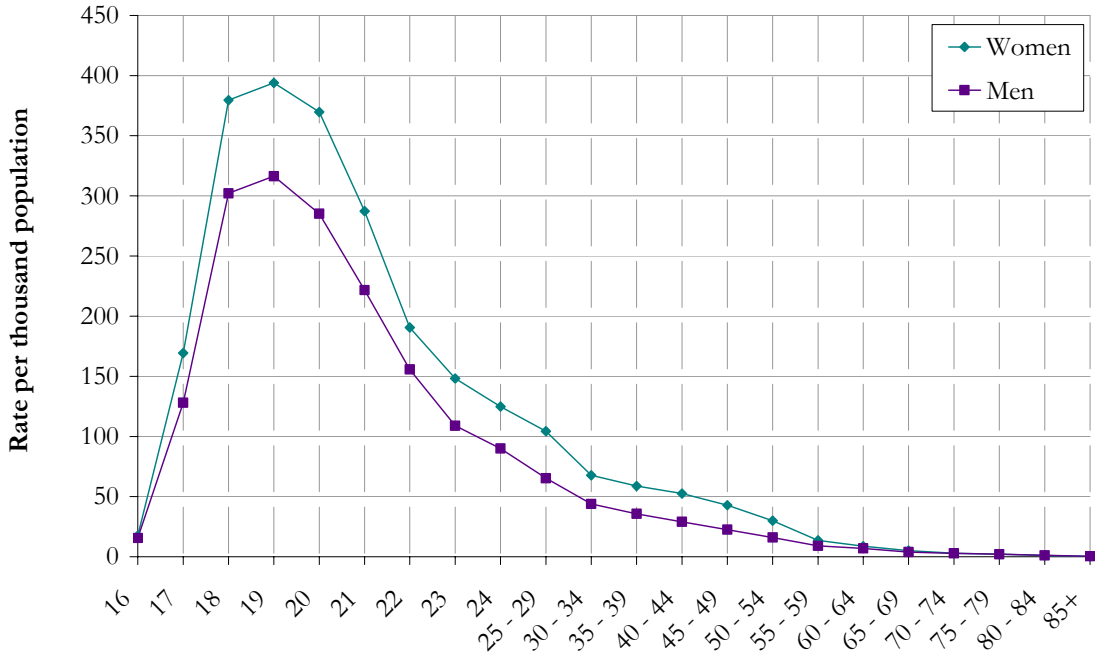


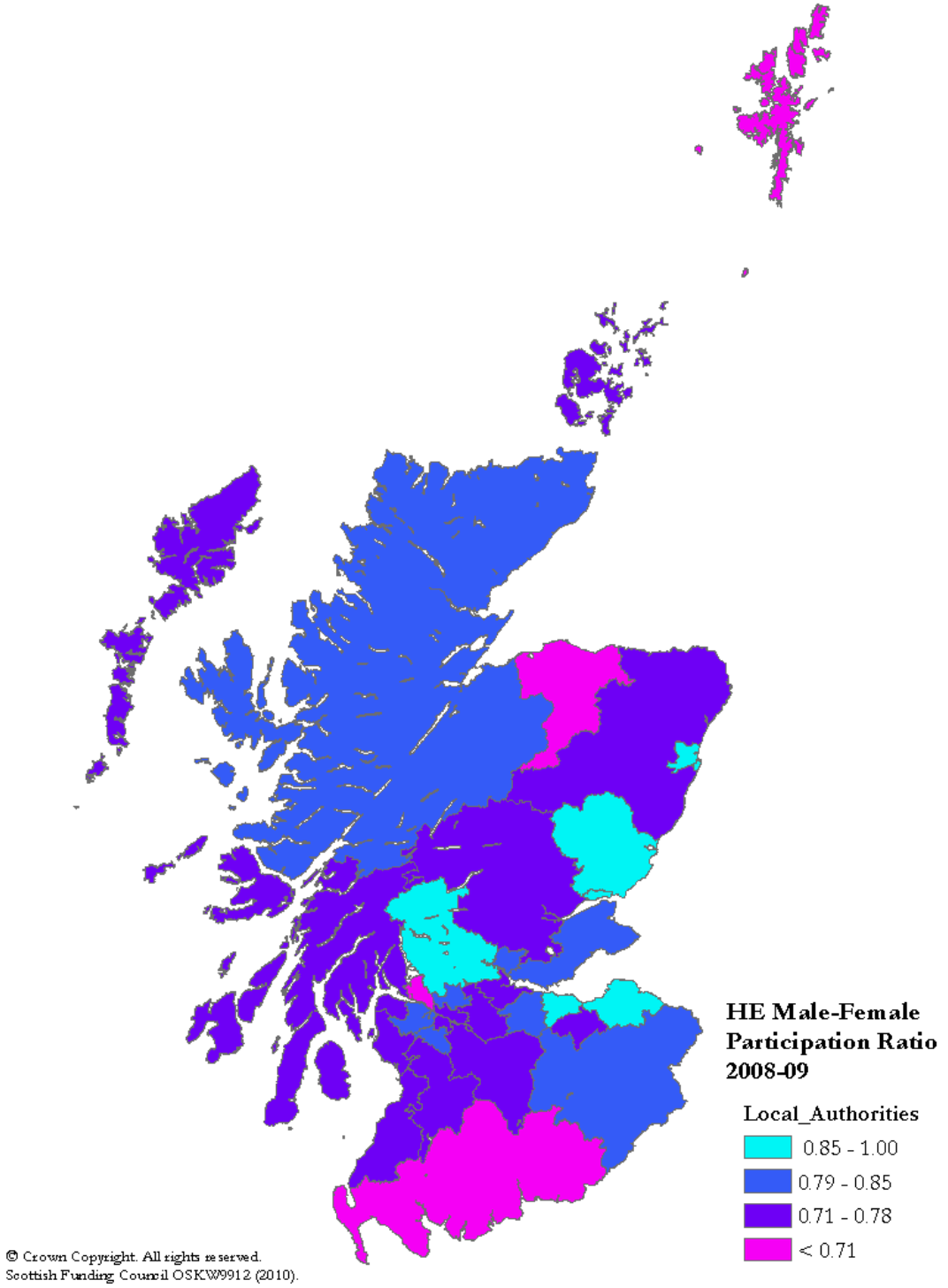
Figure 4.2.4 illustrates variation between local authorities in gender balance in 2008-09, measured as the ratio of the participation rate for young (16-20 year old) men to that for young women. Areas with a value below one are those where young men are less likely to go into HE than women and the converse is true for values greater than one. In this case, all values were less than one. The map shows that

- men are less likely to be in HE than women in all local authorities;
- participation in young men is highest relative to women in Dundee City, Aberdeen, Angus, Stirling, Edinburgh and East Lothian; and
- it is lowest in Dumfries and Galloway, West Dunbartonshire, Moray and the Shetland Islands.

For Scotland as a whole, the participation rate for young men is about three-quarters than that for women (Figure 4.2.1).

It should be noted however that the degree of gender balance will vary between years and relatively small changes may result in a change of class on the map.

Figure 4.2.4 Gender balance among young participants in HE by local authority, 2008-09 (< 1 means young men less likely to participate than young women)



Notes

The scale shows the ratio of young male to female participation rates. Thus, values are less than one where young men are less likely to participate than young women. The converse is true for values greater than one. Click map for more information.

4.3. Trends by mode of study

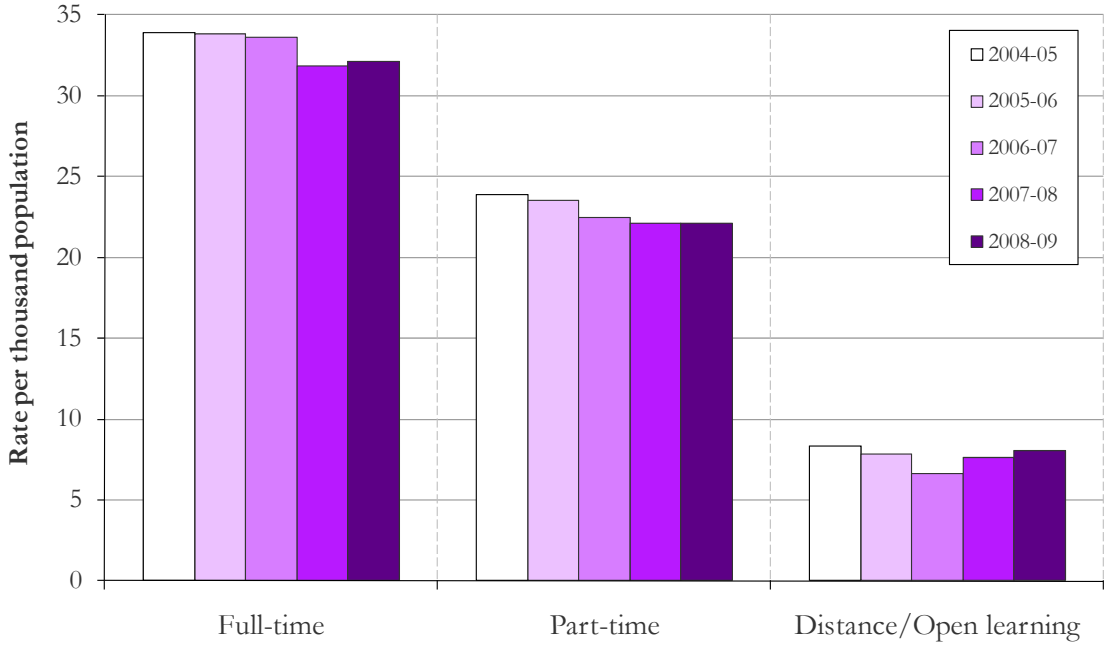
Figure 4.3.1 shows the rates of participation according to mode of study. The small numbers of students on 'short full-time' courses have been classed as part-time.

Both full-time and part-time participation have declined since 2004-05. In terms of FTE rates the decline is around three percent for full-time, and five percent for part-time courses.

Within the colleges 'distance/open learning' students include those on courses designed for private study and flexible learning. The vast majority of all distance learners are mature students (21 and over) and around 56 percent are studying at the OU. Around 14 per cent of all HE students are enrolled on distance/open learning courses. It should be noted however, that many institutions allow a range of mixed modes of study with students able to move between distance and face-to-face learning. Thus the student record may not always clearly differentiate distance/open learning modes from other forms of part-time study.

Overall, between 2004-05 and 2008-09, participation rates in distance/open learning decreased by four percent in terms of headcount, and increased by just over one percent in terms of FTE. However, between 2007-08 and 2008-09, these rates increased by five percent and around seven percent for headcount and FTE respectively. Click here for further information.

Figure 4.3.1 Participation in HE by mode of study



Trends in full-time and part-time participation for men and women are illustrated separately in Figure 4.3.2. Full-time and part-time participation rates in men have declined gradually since 2004-05.

Within the colleges both full-time and part-time participation has declined slightly (Figure 4.3.3). In the universities, full-time participation has declined slightly since 2004-05, although the rates in 2007-08 and 2008-09 are similar.

Figure 4.3.2 Headcount participation in HE by mode of study and gender

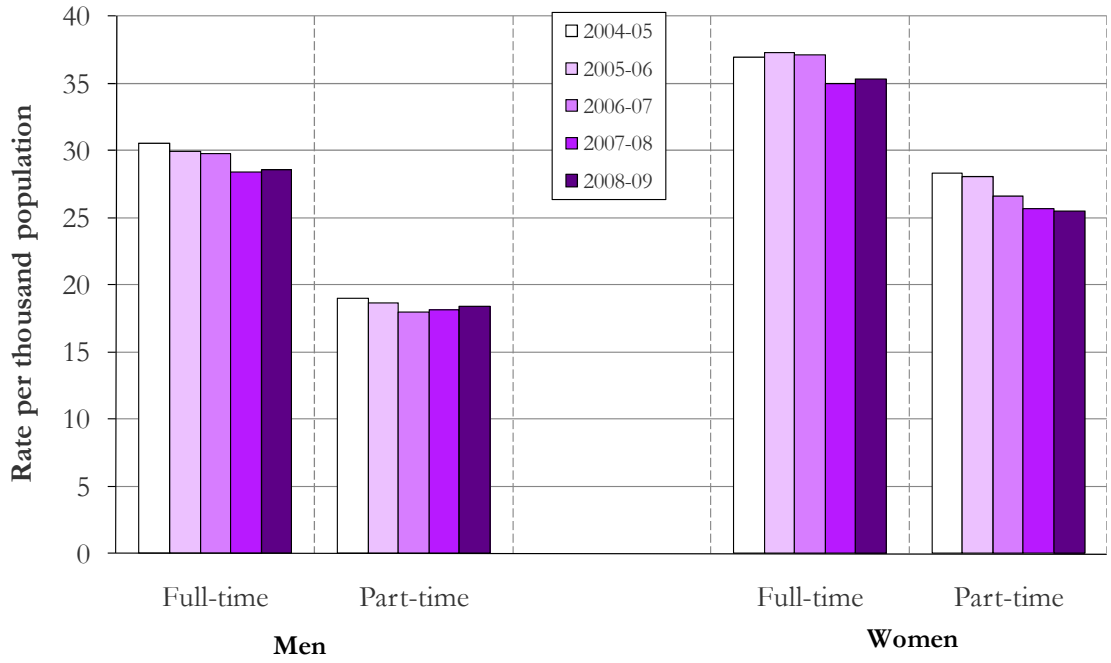


Figure 4.3.3 Headcount participation in HE within colleges and universities by mode of study

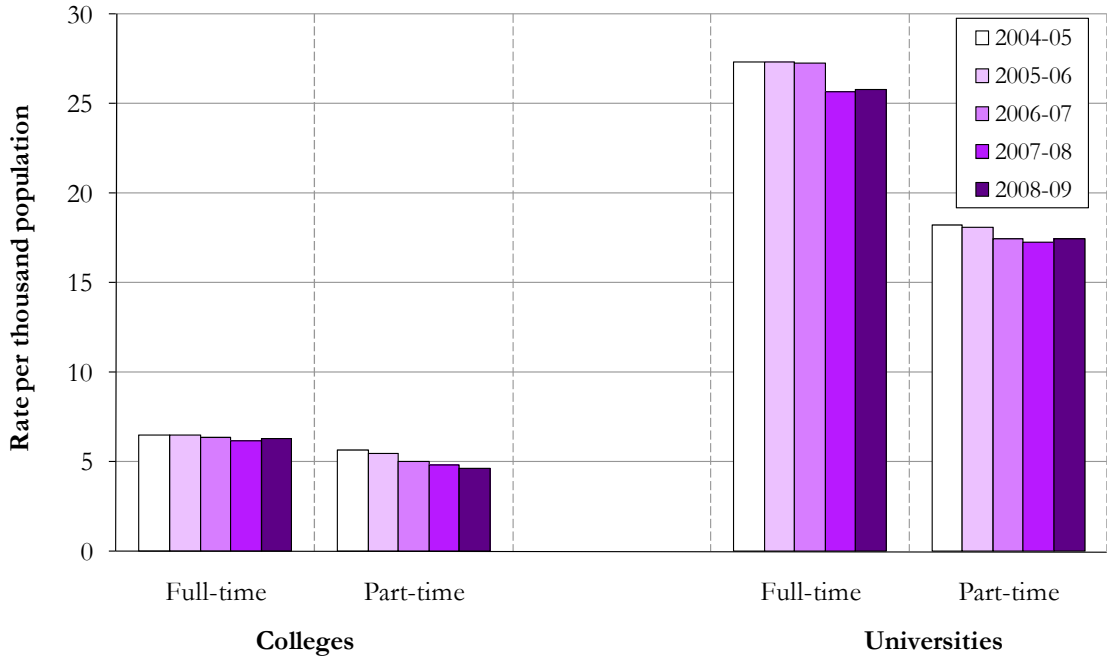


Figure 4.3.4 shows the geographical variation in the percentage of students that are studying part-time, for young and mature students separately. Overall, only about nine percent of young students studied part-time in 2008-09 but the percentage is relatively high in the Shetlands, Moray, Eilean Siar and East Ayrshire and relatively low in Inverclyde, East Renfrewshire, Perth and Kinross, Stirling, East Dunbartonshire, Edinburgh, East and Mid-Lothians.

Among mature students, part-time study is much more common, at 57 per cent of students overall. Again the percentage studying part-time is relatively high in the Shetlands and Orkney Islands. Conversely, the percentage is relatively low in Dundee and Edinburgh cities.

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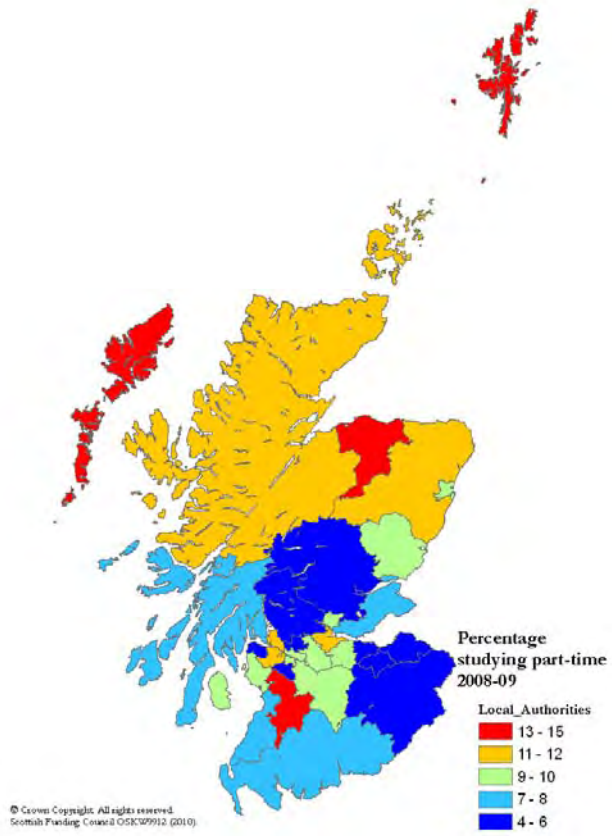
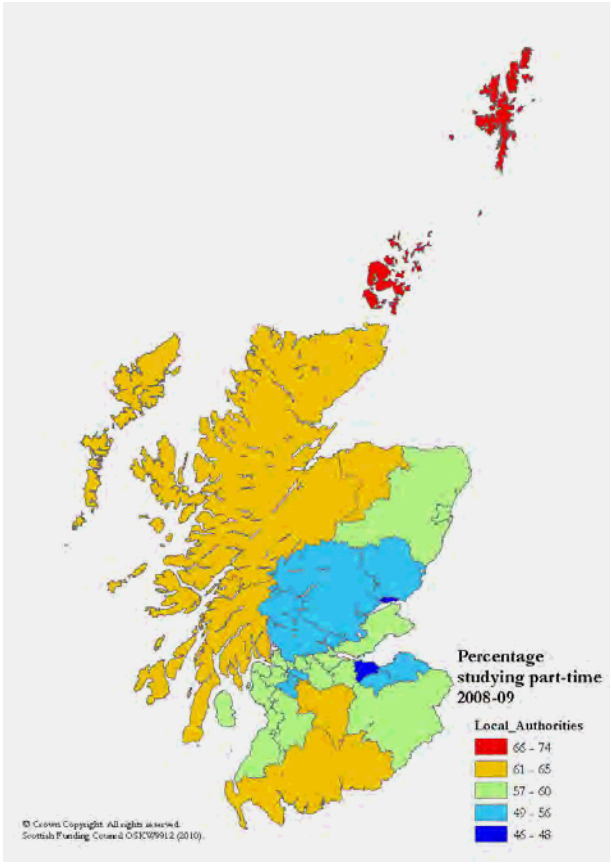
Figure 4.3.4 Percentage of HE students studying part-time, by age and local authority, 2008-09

a) Young students



b) Mature students



Notes

Areas coloured green are close to the national percentages. Click maps for more information.

4.4. Trends by level of study

Figure 4.4.1 shows participation rates according to level of study. OU undergraduate students are shown separately. Students at the OU study individual modules and are not required to link these to a specific qualification aim. They may do so at some point but the circumstances and timing of this can vary considerably from one student to another. The decline in OU participation between 2004-05 and 2006-07 is largely due to the restructuring of courses described in section 4.1, although as expected the numbers are stabilising.

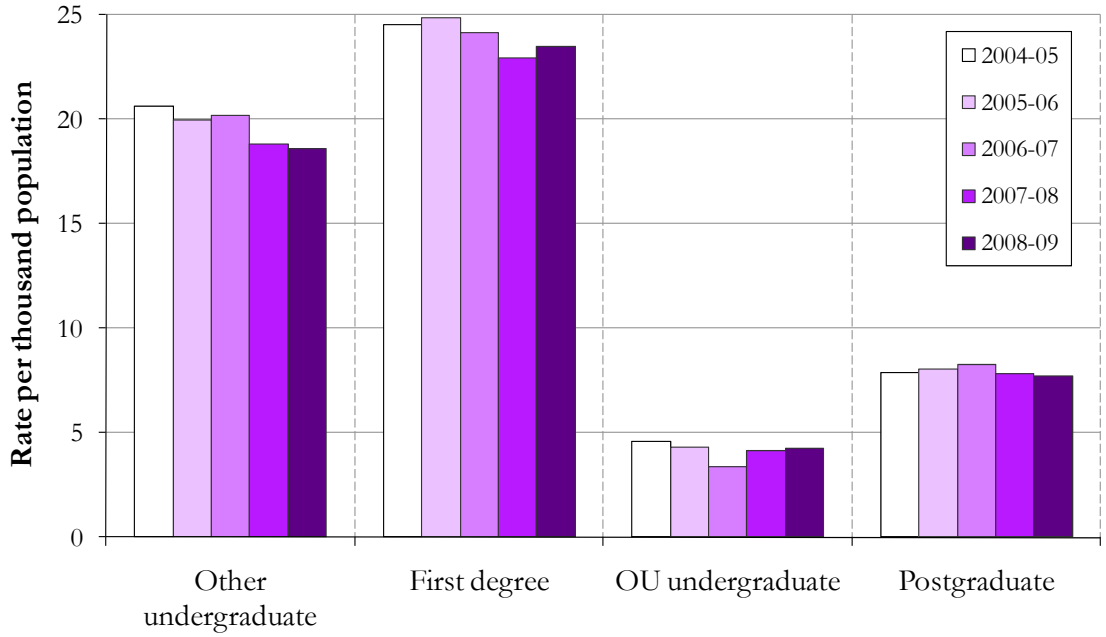
The category 'Other undergraduate' comprises a variety of qualification aims. Within the colleges the vast majority of HE students fall into this category and most are studying for an HNC, HND, or HN units. The number studying for these has declined between 2004-05 and 2008-09 (Figure 4.4.2).

Excluding the OU, the most popular qualification aims for 'Other undergraduates' within the universities are undergraduate credits, which may be counted towards other HE qualifications, followed by Diploma of Higher Education and HNC/HND. The number studying for undergraduate credits has increased whereas Diploma and HNC/HND numbers have declined overall (Figure 4.4.3). 'Other undergraduate' numbers at universities have also declined since 2004-05.

Thus, the decline in the total number of 'Other undergraduates' in colleges and universities as a whole, as shown in Figure 4.4.1, has mainly been in those studying for HNCs, HNDs or Diplomas. 'Other undergraduates' headcount and FTE rates declined by ten percent between 2004-05 and 2008-09.

Participation has decreased overall between 2004-05 and 2008-09 for those studying for first degrees; while the number of postgraduates increased gradually up to 2006-07, then decreased.

Figure 4.4.1 Participation in HE by level of study



Notes

There is a small overlap between the levels of study as some students studied courses at more than one level in the same year.

Figure 4.4.2 Headcount participation in HE within colleges by level of study

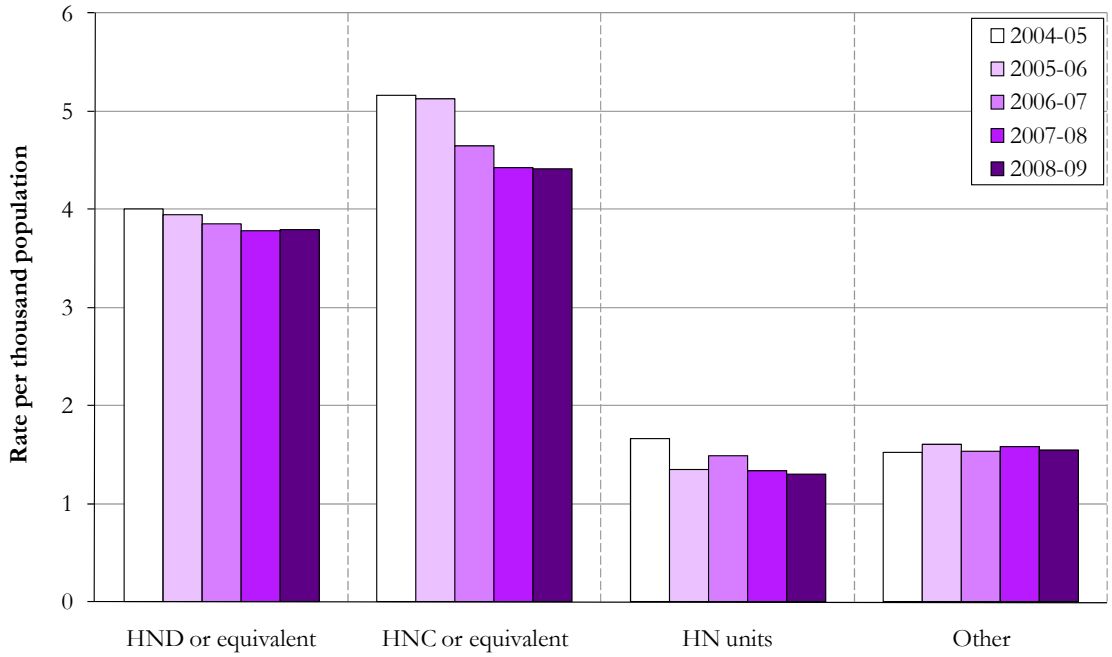


Figure 4.4.3 Headcount participation in HE within universities by level of study (excluding Open University undergraduate students)

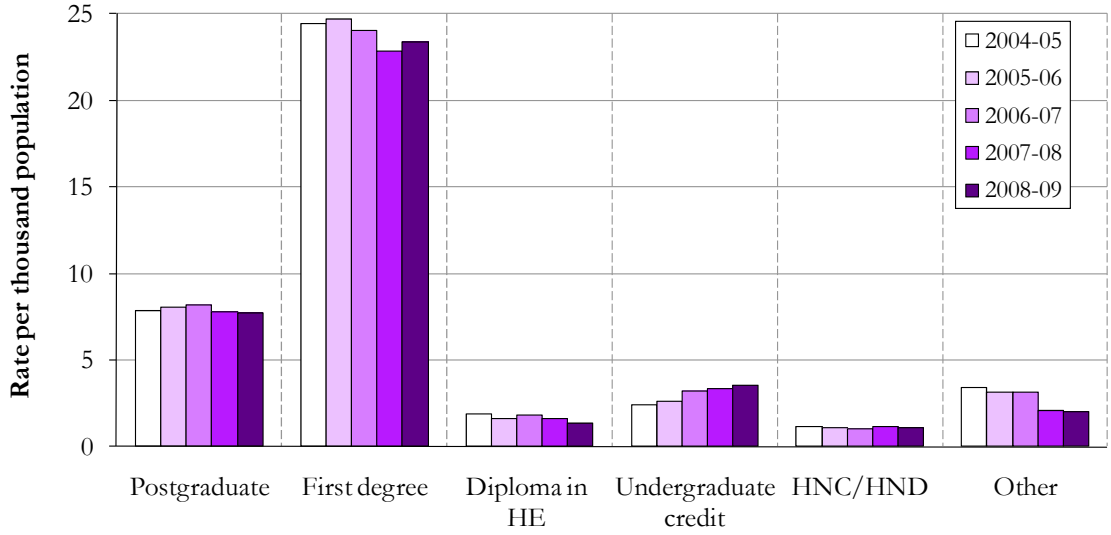


Figure 4.4.4 and Figure 4.4.5 show trends in headcount and FTE participation by level of study and gender. Participation among men has declined in all areas, although the decline in participation in postgraduate degrees is slight. Participation among women at postgraduate level peaked in 2006-07; otherwise there is a decline in participation at first degree and 'Other undergraduate' level.

Figure 4.4.4 Headcount participation in HE by level of study and gender (excluding OU undergraduate students)

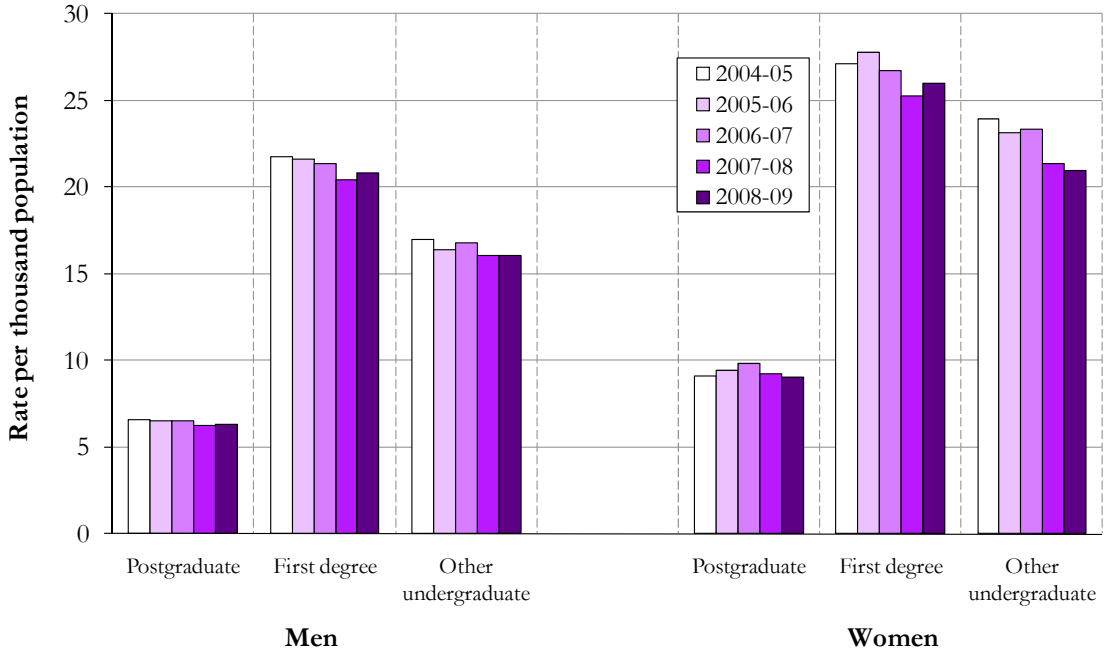
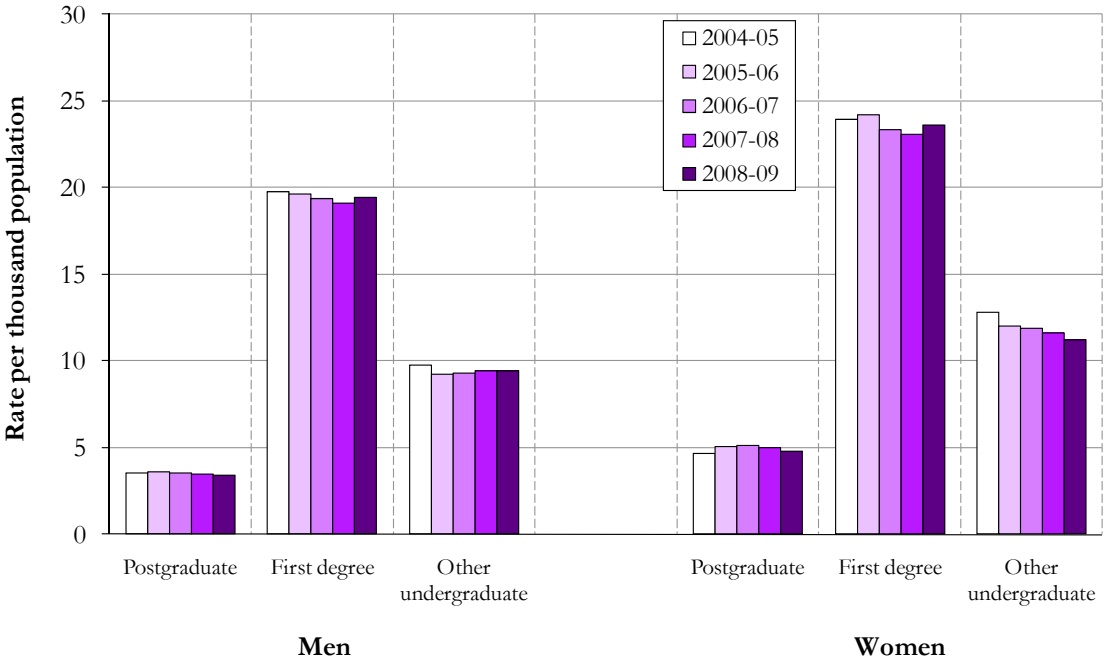


Figure 4.4.5 FTE participation in HE by level of study and gender (excluding OU undergraduate students)



4.5. Local authority trends

Table 4.5.1 summarises current levels of participation in HE by local authority and trends since 2004-05. Figure 4.5.1 and Figure 4.5.2 show trends in standardised participation for headcount and FTE respectively.

In 2008-09:

- East Dunbartonshire and East Renfrewshire have particularly high participation in terms of both headcount and FTE. Both areas have a relatively high proportion of school leavers entering HE (see Appendix 2);
- Falkirk, West Lothian and Midlothian have the lowest standardised participation at around 80 per cent of the national rate for both headcount and FTE; and
- Dumfries and Galloway has one of the lowest raw rates of participation but has a relatively high standardised rate because it has a relatively old population compared to other local authorities (in 2008 an estimated 52 per cent of those above school leaving age (16 and over) were 50 or over compared to 43 per cent for Scotland as a whole).

Between 2004-05 and 2008-09:

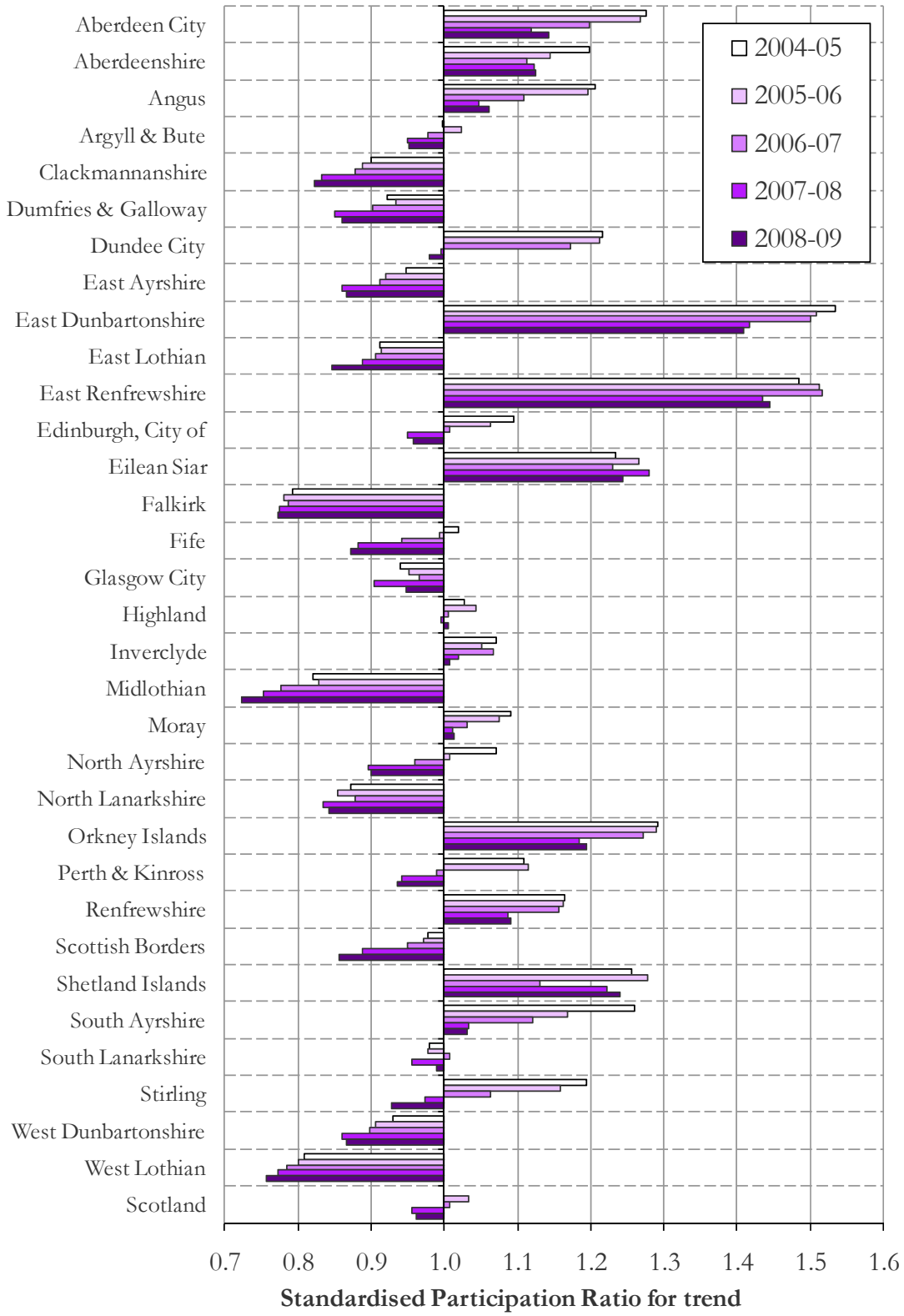
- the majority of local authorities have experienced a declining trend in participation both in terms of headcount and FTE.

Table 4.5.1 Participation in higher education by local authority

Local authority	Headcount			FTE	
	2008-09 Rate /1,000	2008-09 SPR	Trend (2004-05 to 2008-09)[1]	2008-09 Rate /1,000	2008-09 SPR
Aberdeen City	65.9	1.19	↓	41.3	1.08
Aberdeenshire	59.7	1.17	↓	39.7	1.13
Angus	53.2	1.10	↓	37.9	1.15
Argyll & Bute	48.4	0.99	↓	32.8	0.96
Clackmannanshire	45.7	0.85	↓	32.9	0.89
Dumfries & Galloway	42.5	0.89	↓	29.1	0.89
Dundee City	57.7	1.02	↓	42.9	1.07
East Ayrshire	48.0	0.90	↓	33.4	0.90
East Dunbartonshire	74.8	1.46	↓	54.1	1.52
East Lothian	45.8	0.88	↓	34.0	0.94
East Renfrewshire	78.4	1.50		58.1	1.59
Edinburgh City	56.7	0.99	↓	40.4	1.04
Eilean Siar	62.7	1.29		40.1	1.19
Falkirk	42.7	0.80		30.1	0.82
Fife	49.7	0.91	↓	34.0	0.88
Glasgow City	58.8	0.98		40.4	0.97
Highland	51.9	1.04		34.1	1.00
Inverclyde	55.7	1.05		39.6	1.07
Midlothian	40.2	0.75	↓	28.8	0.77
Moray	54.3	1.05	↓	34.1	0.95
North Ayrshire	48.8	0.93	↓	34.4	0.95
North Lanarkshire	48.1	0.87		34.1	0.90
Orkney Islands	62.1	1.24	↓	38.0	1.09
Perth & Kinross	49.7	0.97	↓	35.6	1.00
Renfrewshire	60.1	1.13	↓	41.0	1.12
Scottish Borders	43.1	0.89	↓	29.9	0.90
Shetland Islands	67.6	1.29		41.4	1.13
South Ayrshire	53.1	1.07	↓	37.6	1.10
South Lanarkshire	54.3	1.03		37.0	1.02
Stirling	55.1	0.96	↓	39.9	0.97
West Dunbartonshire	49.4	0.90	↓	35.0	0.92
West Lothian	43.6	0.79	↓	31.0	0.81
Scotland	**53.8**	1.00		**37.3**	1.00

[1] A statistical model has been used to identify areas where the trend in participation is likely to be real rather than a result of random fluctuations

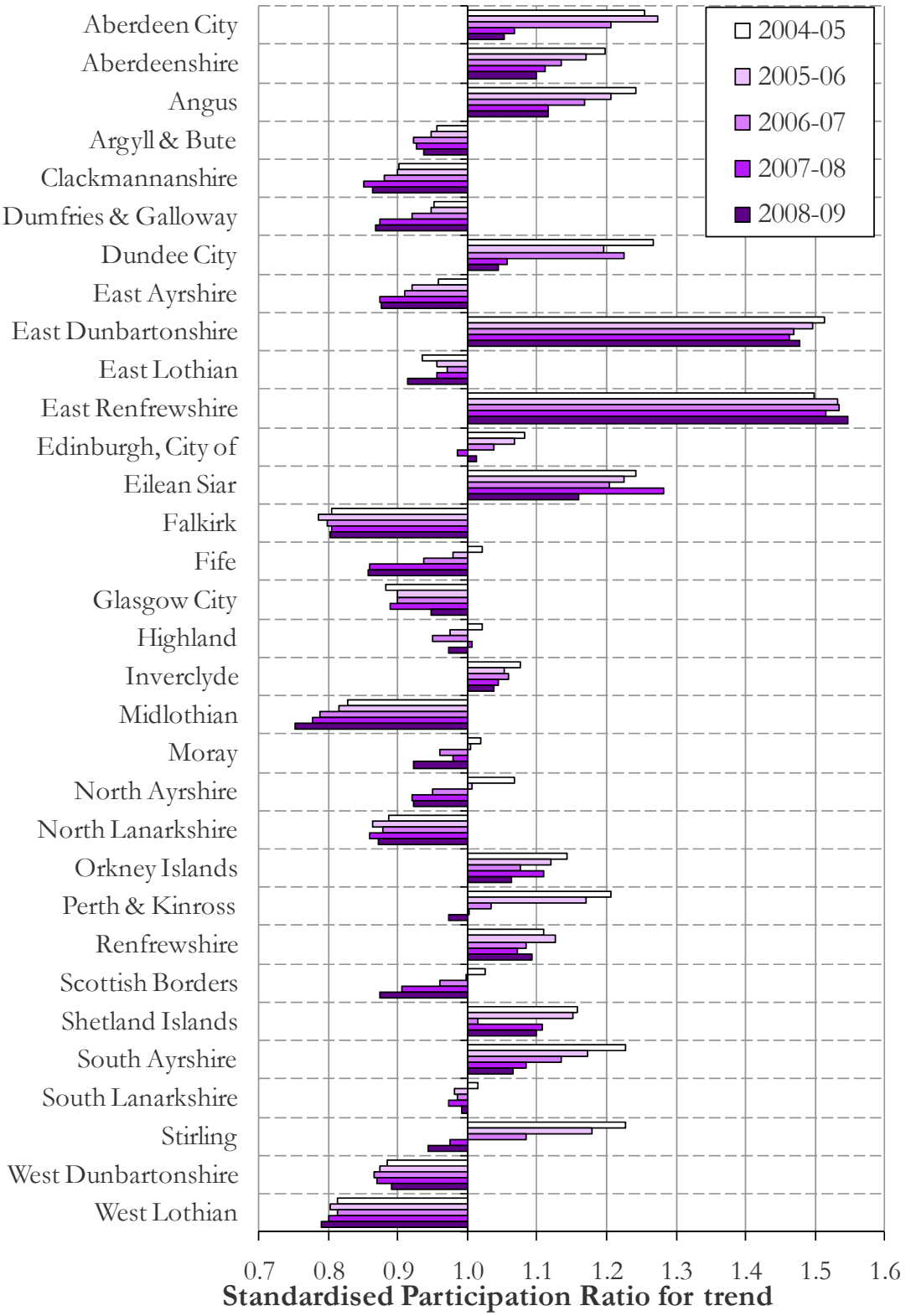
Figure 4.5.1 Trends in standardised headcount participation in HE by local authority



Notes

The five-year national average Standardised Participation Ratio (SPR) for trend is one. Thus SPRs above or below one are above or below this national average.

Figure 4.5.2 Trends in standardised FTE participation in HE by local authority



4.6. Participation within deprivation classes

The Scottish Index of Multiple Deprivation 2009 (SIMD) (Scottish Government, 2009) ranks each of the 6,505 Scottish Neighbourhood Statistics data zones using a score derived from seven domains of deprivation: income; employment; health; education, skills and training; geographic access to services; crime; and housing. This ranking was used to group the data zones into two classes: the most deprived data zones, which contain approximately 20 per cent of the 2009 mid-year population, and the rest. The two classes are termed the 'most deprived' and the 'less deprived'.

Table 4.6.1 shows participation rates in HE by deprivation class and year together with the ratio of participation from the most deprived data zones to that from the less deprived. This is an indicator of how strongly participation is related to deprivation in an area. In particular

- this ratio has increased since 2004-05 from 0.60 to 0.64 so that participation in the most deprived data zones is about two-thirds that in the less deprived; and
- participation has declined in the less deprived class and peaked in 2005-06 in the most deprived. At least part of the change since 2004-05 will result from the changes in course arrangements at the OU (see Section 4.1).

Table 4.6.1 Headcount participation in HE by deprivation class and year

Year	Deprivation		Ratio of most to less deprived
	Less deprived	Most deprived	
	Rate/1,000		
2004-05	62.5	37.3	0.60
2005-06	61.7	37.5	0.61
2006-07	60.3	37.0	0.61
2007-08	57.8	36.3	0.63
2008-09	57.9	37.2	0.64

Figure 4.6.1 and Figure 4.6.2 show trends in participation by deprivation class and by gender and age group respectively. These indicate that:

- for men and women, participation has declined in the less deprived data zones;
- young participation declined in the less deprived data zones, and slightly increased in the most deprived zones; and
- mature participation was little changed in the most deprived, although there was a slight decline in the least deprived zones.

Figure 4.6.1 Trends in headcount participation in HE by gender and deprivation class

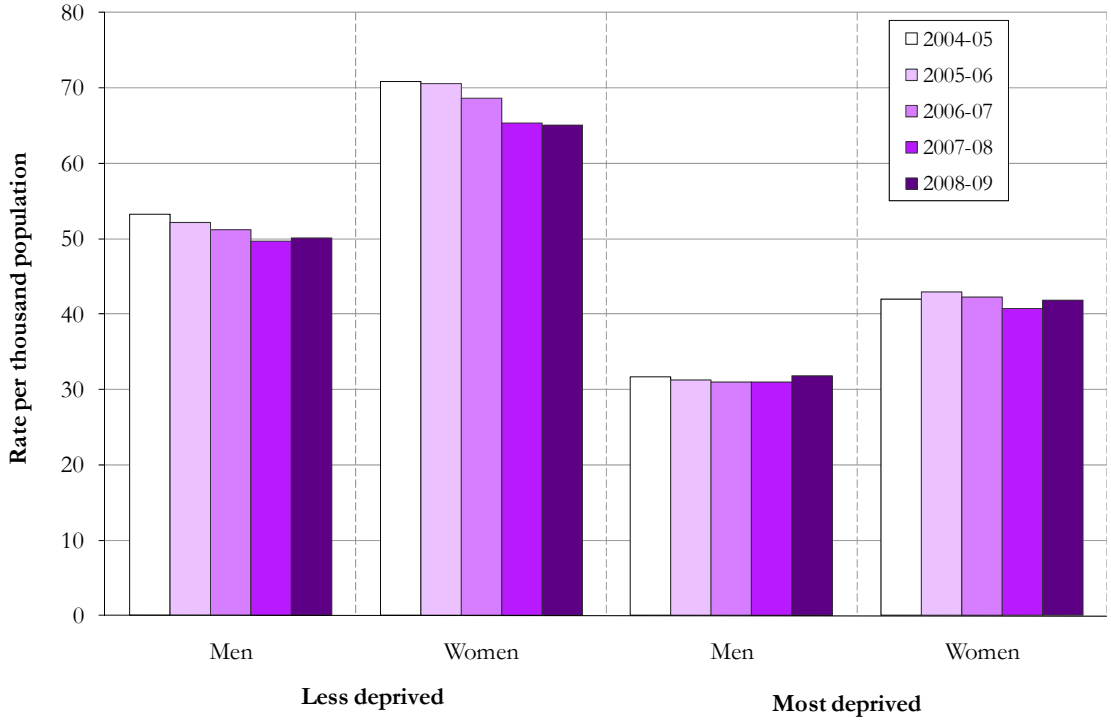
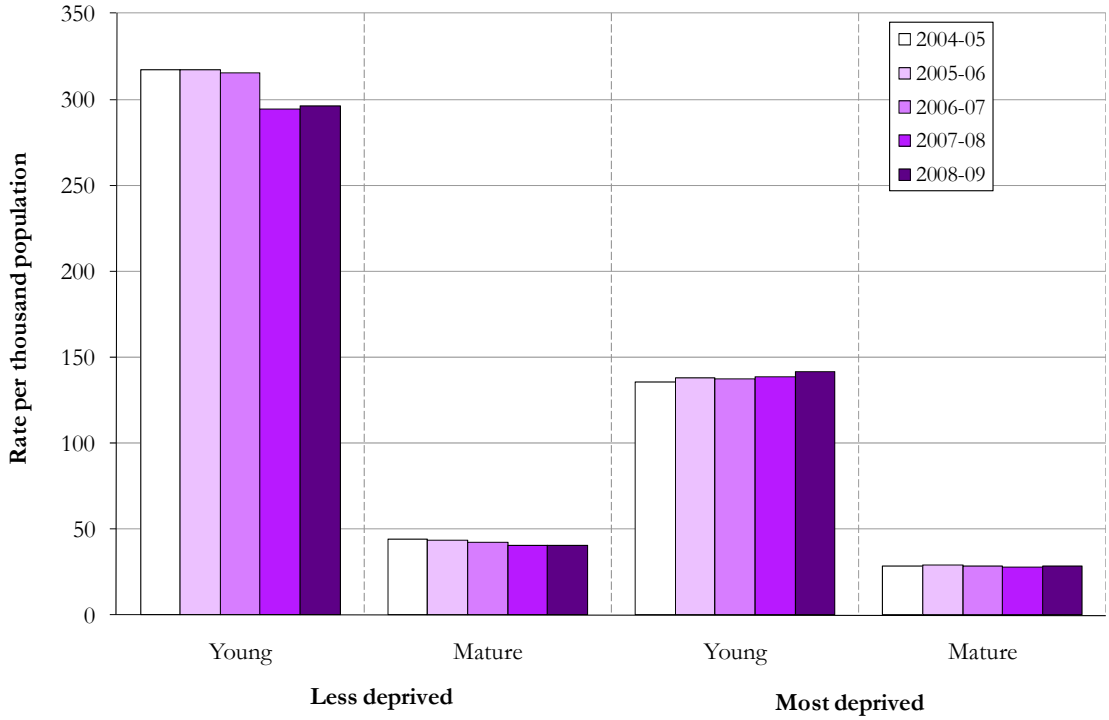


Figure 4.6.2 Trends in headcount participation in HE by age group and deprivation class



Notes
Young = 16 - 20, Mature = 21 and over

Table 4.6.2 shows participation rates in HE by deprivation class and local authority for 2008-09 together with the ratio of participation from the most deprived data zones to that from the less deprived. A number of local authorities have relatively small populations in the most deprived class and are therefore likely to have fluctuating participation rates. These have been indicated in the table.

Excluding those with small populations, the following local authorities have relatively low participation in their most deprived data zones compared to the less deprived: Glasgow City and Stirling. Conversely, the following have relatively high participation in their most deprived data zones: Midlothian, North Ayrshire, Perth and Kinross, Highland, Renfrewshire, Angus and West Dunbartonshire.

Figure 4.6.3 shows trends in headcount participation by local authority in the most deprived data zones. Trends that are less likely to be due to random fluctuations were identified using a statistical model. Perth and Kinross; West Lothian; Dundee City; Fife, East, South and North Ayrshire all experienced decreases in participation. South Lanarkshire and Glasgow City showed an increase in participation.

Table 4.6.2 Headcount participation in HE by local authority and deprivation class, 2008-09

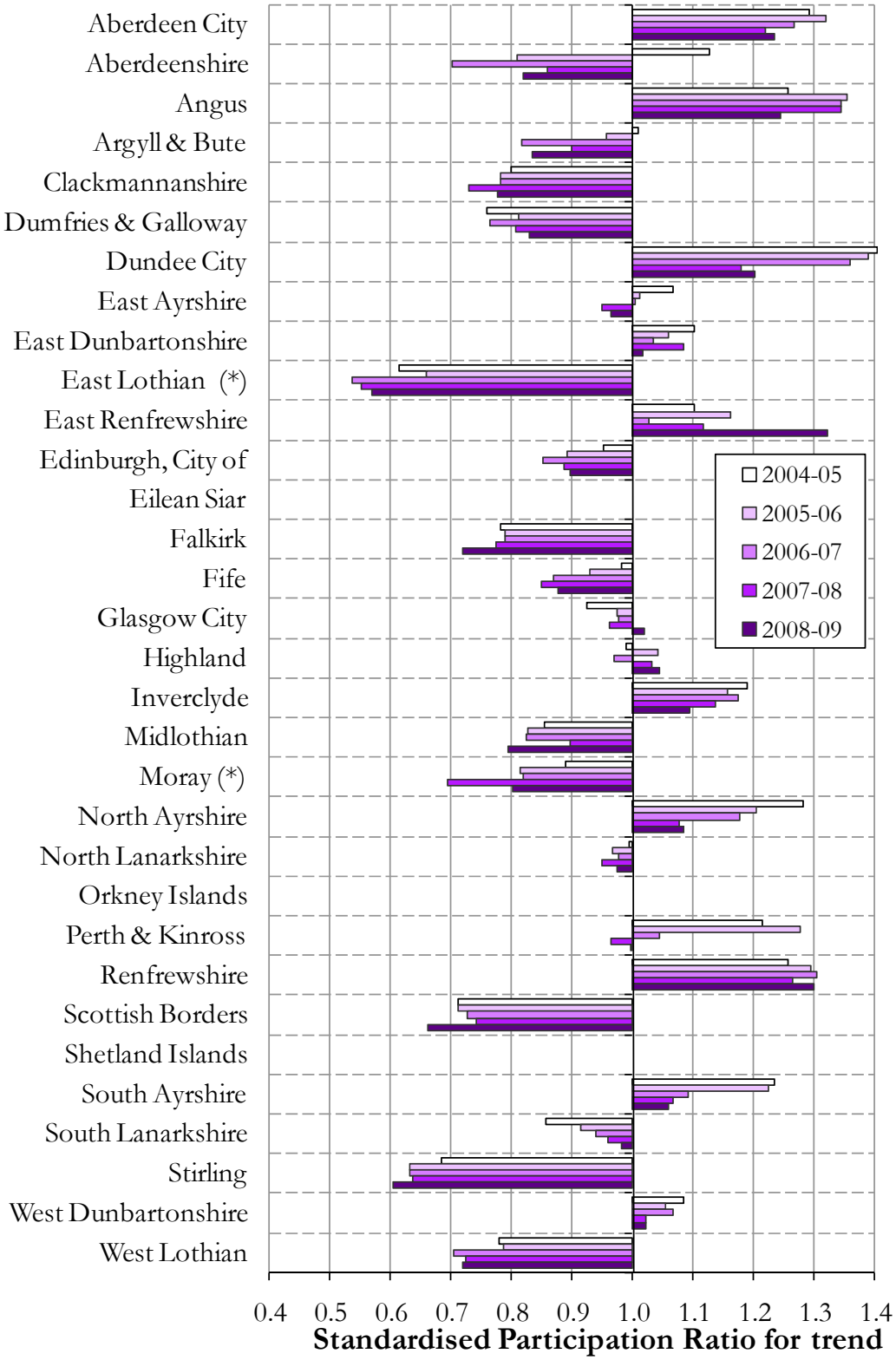
Local Authority	Deprivation class: Less deprived Rate/1,000	Deprivation class: Most deprived Rate/1,000	Ratio of most to less deprived
Aberdeen City	68.5	47.2	0.69
Aberdeenshire	60.3	31.3	0.52
Angus	53.6	46.1	0.86
Argyll & Bute	49.9	28.9	0.58
Clackmannanshire	50.9	29.1	0.57
Dumfries & Galloway	43.8	30.0	0.68
Dundee City	66.1	44.2	0.67
East Ayrshire	54.3	33.9	0.63
East Dunbartonshire	76.4	38.9	0.51
East Lothian (*)	46.7	23.2	0.50
East Renfrewshire	80.4	48.9	0.61
Edinburgh, City of	59.9	35.5	0.59
Eilean Siar	62.8	-	-
Falkirk	45.5	26.2	0.58
Fife	53.6	32.3	0.60
Glasgow City	77.4	38.9	0.50
Highland	53.3	38.8	0.73
Inverclyde	68.9	38.4	0.56
Midlothian	40.9	31.4	0.77
Moray (*)	55.1	30.3	0.55
North Ayrshire	53.6	38.9	0.73
North Lanarkshire	53.7	35.4	0.66
Orkney Islands	62.1	-	-
Perth & Kinross	50.3	39.8	0.79
Renfrewshire	64.2	47.9	0.75
Scottish Borders	44.0	23.9	0.54
Shetland Islands	67.7	-	-
South Ayrshire	56.2	37.5	0.67
South Lanarkshire	58.7	35.2	0.60
Stirling	57.9	22.1	0.38
West Dunbartonshire	54.6	39.0	0.71
West Lothian	47.3	27.1	0.57
Scotland	57.9	37.2	0.64

Notes

* = local authorities that have a relatively small population in the most deprived deprivation class (below 3,000 in 2008).

- = no population in that class.

Figure 4.6.3 Trends in standardised headcount participation in HE from data zones in the most deprived class, by local authority



Notes

* = based on a relatively small population (below 3,000 in 2008)

Eilean Siar, Moray, Orkney Islands and Shetland Islands have no data zones in the most deprived class.

4.7. Trends for young entrants

The number of new young entrants to HE provides an up-to-date picture of likely future trends in young participation. A decline in the number of entrants will be reflected in subsequent years by a decline in the total number of participants as more people complete courses and leave HE than start in HE for the first time.

First time entrants to HE in the universities have been identified as those in their first year of study and who do not hold an existing HE qualification. Within the colleges, where previous qualification information is less complete, entrants are simply defined as those in the first year of an HE course. The vast majority of young, under 21, entrants to the colleges will have had no, or very limited, previous HE experience. Note that young entrants are those aged between 16 and 20.

Entrant participation has also been presented in terms of a *participation index*. Last year this participation index was referred to as Age Participation Index (API), but this name has been dropped to avoid confusion with the API used by the Scottish Government. The Scottish Government API is used to report on trends in the proportion of young Scots entering HE for the first time (Scottish Government, 2008). It is calculated as the number of 17-20 year olds entering full-time HE in each year as a percentage of the number of 17 year olds in the population for that year. It is an estimate of the share of 17 year olds who will enter HE before they are 21, if current trends continue.

Our figures for *participation index* are higher than those published by the Scottish Government mainly because we have used a broader definition of an entrant. However, both sets of figures illustrate similar trends.

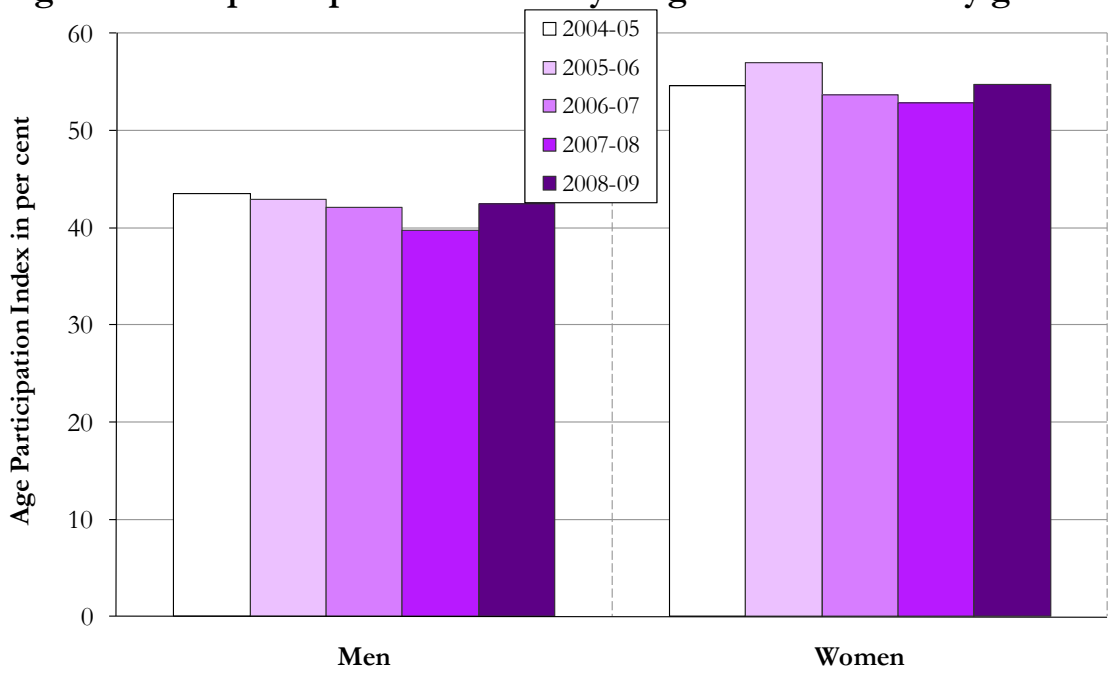
Table 4.7.1 shows numbers and FTE for young entrants and *participation index* for full-time study. Headcount and FTE have both increased overall by around three to four percent between 2004-05 and 2008-09. Part-time numbers have increased since 2004-05 by 32 per cent. *Participation index* fell between 2004-05 and 2007-08, although there was an increase in 2008-09.

Table 4.7.1 Participation in HE for young entrants

	2004-05	2005-06	2006-07	2007-08	2008-09
Headcount					
Part-time only	3,710	3,952	4,465	4,244	4,890
Full-time	32,793	33,268	31,290	30,886	33,131
Total	36,503	37,220	35,755	35,130	38,021
FTE	31,883	32,518	30,755	30,613	32,841
Participation Index	49	50	48	46	48

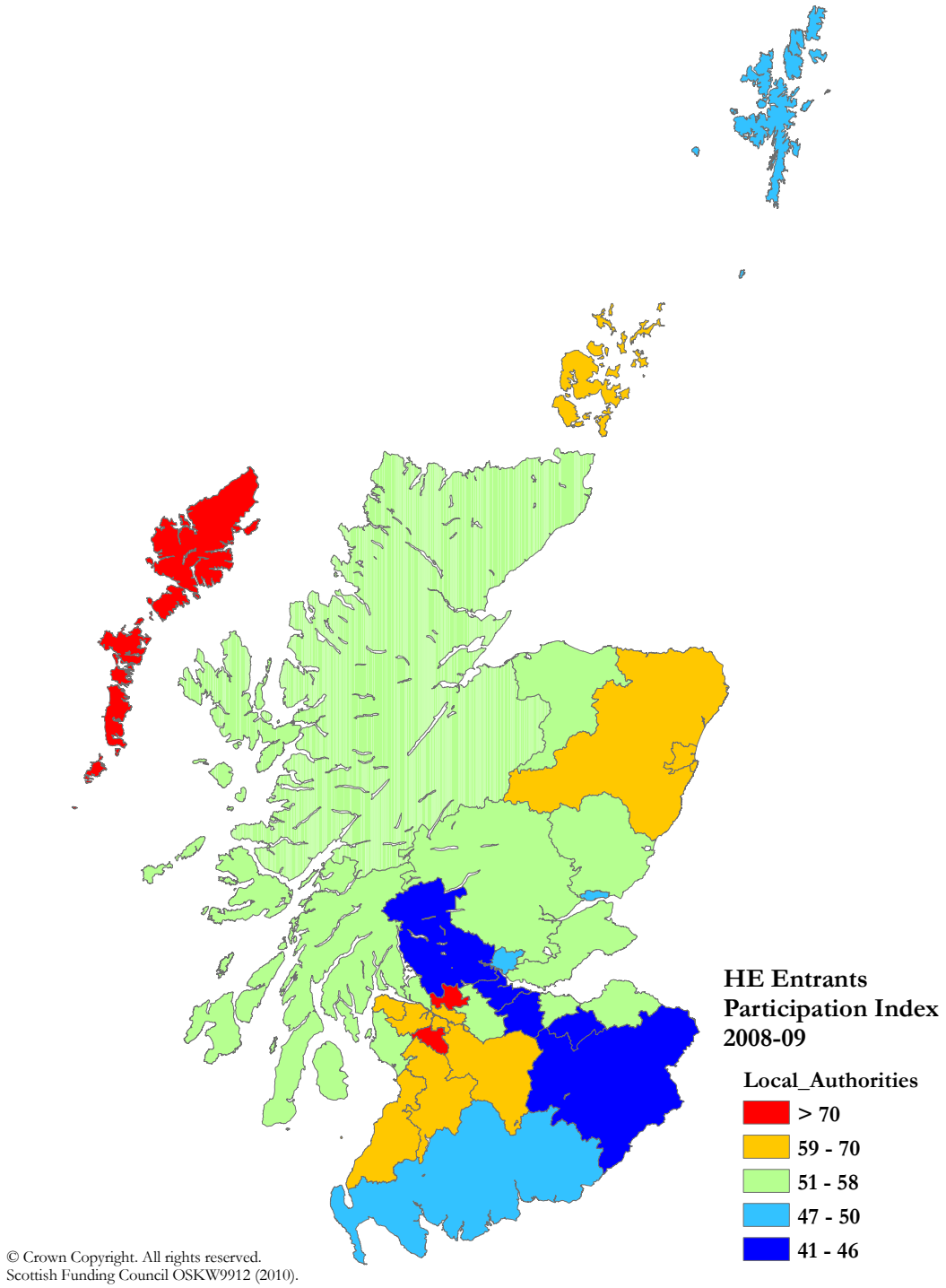
Figure 4.7.1 illustrates trends amongst men and women separately in *participation index*. *Participation index* has declined overall in both men and women but recent changes have been different. *Participation index* for women increased in 2005-06 but declined again since.

Figure 4.7.1 A participation index for young entrants to HE by gender



Geographical variation in *participation index* is shown in Figure 4.7.2. Eilean Siar, East Renfrewshire and East Dunbartonshire have relatively large numbers of young full-time entrants, which is in accord with the relatively high proportion of school leavers going into HE from these areas (see Appendix 2, Figure A2.4). *Participation index* is lowest in Stirling, Falkirk, West Lothian, Midlothian and the Scottish Borders.

Figure 4.7.2 Participation index by local authority, 2008-09



Notes

Local authorities coloured light blue are close to the national participation index.

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Appendix 1: Methodology

Further detail of the methods used to prepare and analyse the data used in this report is presented in a separate technical report, which is available on request.

Data sources

The principal sources of data are the Further Education Statistics student record (FES) for FE and HE participation within the college sector; the Higher Education Statistics Agency (HESA) student records for HE participation in the university sector; and population estimates from the General Register Office Scotland (GROS). Data from the pupil census of publicly-funded schools in Scotland were also included in some analyses. All pupils, including those at special schools, were included.

FES student record

The FES student record contains details of all enrolments on courses at FE Colleges in Scotland that attract funding from the SFC.

The enrolment data were used to estimate a headcount of the number of participants on FE and HE courses in each academic year, and FTE measure that roughly quantifies a student's total study time in relation to that for a full-time course. Multiple enrolments by an individual student were detected by matching enrolments by students with the same student number, initials, gender, date of birth and the same or similar surname.

The FTE for each enrolment was calculated in a way designed to be broadly comparable with data from the HESA student record. FTE for full-time enrolments is calculated as the proportion of course days completed, so those completing a course get an FTE of one. For part-time enrolments FTE was estimated using the number of hours of study as a proportion of the expected number of hours for a full-time course. This was set at 720 hours for FE enrolments, 600 hours for Higher National Diploma courses and 480 hours for other HE enrolments. The number of hours of study had to be imputed for non-funded students, using information from students on the same or similar courses.

FTE could not be calculated reliably for each year of courses split across two academic years. Therefore students on these courses were given an FTE for the whole course when in their final year of study. This should not substantially affect overall estimates of FTE where the full-course FTE

given to final year students will compensate for first year students getting a zero FTE, but may slightly bias estimates for small geographical areas.

For each student, the FTE for each enrolment were summed to give an overall FTE and, where relevant, a separate FTE for their HE and FE courses. A maximum FTE of one is set for all students from the FES record except those on courses for special needs students whose full-time courses can take rather longer than 720 hours of study. These were allowed a maximum FTE of two.

Because of a change to the definition of full-time FE courses in 2005-06, it is not possible to reliably estimate a comparable FTE for earlier years. Prior to 2005-06, the actual number of hours of study for full-time courses is unknown but in many cases will have been rather less than the 720 hours required from 2005-06 onwards. Therefore, for participation in FE, and for combined FE and HE participation, we have only presented FTE for 2005-06 onwards.

HESA student record

The HESA student record covers all students enrolled at a university in the UK for each academic year. Thus, this analysis does not cover students studying abroad. The student record includes the institution's academic judgement of a student's FTE which is calculated by the institutions with reference to a full-time, full-year student who would normally receive an FTE of one. FTE for those on part-time courses or who leave part way through a year are estimated pro-rata on either a credit or time basis. A complication arises when an academic year spans two HESA years which runs from 1 August to the 31 July. Institutions are not required to split a student's FTE across the years provided the overall FTE for the programme of study is correct. This will not affect overall estimates of FTE but may slightly bias estimates for small geographical areas.

Inclusions/Exclusions

For each academic year students and school pupils were included if their domicile was in Scotland and they were 16 or over by the 28 February of the academic year in question. Thus the vast majority of schoolchildren who were not eligible to leave school either prior to, or during the academic year were excluded. Nonetheless, as the school census is carried out in September we have unavoidably included pupils who leave school in December rather than staying on for post-compulsory education. In addition, there will be a small amount of double counting when pupils leave

school in December and then undertake an FE or HE course in the same academic year.

For some courses at FE colleges that are funded from sources other than the SFC (full cost recovery courses) only a summary of the number of enrolments is available. These have, of necessity, been excluded as there is insufficient information to identify multiple enrolments by the same individuals. However, the vast majority of courses are funded by the SFC and in 2007-08 data was unavailable for only about 23,000 enrolments.

Population estimation

GROS has published annual mid-year population estimates for Scotland by data zone, gender and single year of age for 2004 to 2008. As with the 2001 census, full-time students and school children studying away from home are recorded at their term-time address which raises an issue for measuring participation. To estimate the proportion of an area's resident population which is engaged in study, students should ideally be recorded at their home residence. Otherwise, the resident population will be over-estimated for areas with significant amounts of student accommodation and under-estimated for areas with students studying away from home.

Information is available from the 2001 census on the number of school children and students in full-time education living away from home in term-time and on the number of full-time students and school children in an area by their accommodation type. Those recorded as living in student group households or educational establishments are likely to be living away from home. For each area and year, the number of students away from home and the number who live elsewhere were estimated and used to estimate the area's resident population. This revised estimate of the mid-year population was then aged by three months to provide estimates of the population on the 1 October.

These estimates of the resident population may still be inaccurate in that we can only calculate very approximate estimates for the number of students. However, they will be closer to the true resident population than the GROS published figures.

Comparable figures for the number of students according to their age on 1 October were then used to calculate participation rates.

Measuring participation

National levels of participation for student subgroups have been presented as rates per thousand head of population. However, to facilitate an examination of geographical variation in participation some standardisation is required as different areas are likely to have different participation rates simply because one area has a different demographic composition – an older population or a different gender balance for example. Such rates have therefore been standardised by comparing the observed number of participants to what would be expected if national age-gender specific participation rates applied. This gives rise to a *Standardised Participation Ratio* (SPR) where values above or below one indicate that the area has higher or lower participation respectively than Scotland as a whole, taking into account the area's age-gender composition.

FTE has been presented in the same way as headcount: as population rates and SPRs.

Mapping participation

Participation has been mapped using the Scottish Neighbourhood Statistics Intermediate Geography. Intermediate geography areas, or intermediate zones, are aggregations of data zones within local authorities and contain between 2,500 and 6,000 people. Data zones are too small to provide stable participation rates and too numerous to allow easy detection of geographical patterns. There are 1,235 intermediate zones thereby providing a reasonable level of local detail.

Students were allocated to data zones, and thence to intermediate zones, using their home postcode. Data zones for students whose postcode was missing, invalid or found to match an institutional postcode were imputed using a process called hot-decking. This uses characteristics which are available for all students which help estimate where a student's data zone is likely to be. For FE college students, their campus and local authority were used as the characteristics, whereas the student's previous institution (usually a school or FE college) and local authority were used for university students. Overall, data zones for 1.8 per cent of both college and university students were imputed.

Participation has been mapped in terms of the SPR using a common scale that shows in green those areas close to the national rates and uses shades of yellow to red and of blue for those above or below the national rates respectively. Inevitably when values are mapped using a small set of classes

(colours), some values will be close to the boundary with the adjacent class. This should be kept in mind when interpreting the maps.

A problem arises when SPRs for relatively small areas like intermediate zones are based on a small number of participants. An extreme value for the SPR can arise by chance that doesn't reflect the underlying level of participation for that area. Smoothed estimates of the underlying SPR can be obtained by using statistical models that incorporate information about the participation in the neighbourhood surrounding each area. If participation in this neighbourhood tends to be homogeneous then it makes sense to use this neighbourhood as a guide to what the area's SPR would be if more information were available. The resulting SPRs are called shrinkage estimates because the models tend to shrink an area's SPR towards the SPR of the whole neighbourhood.

However, the shrinkage estimate is only substantially different from the original SPR if the number of participants is small and the neighbourhood is fairly uniform. Thus models have little effect on maps of overall FE or HE participation but more so for subgroups of students.

Smoothed estimates are presented using, for simplicity, the local authority containing each intermediate zone as the neighbourhood.

Detecting trends

To examine change in participation within intermediate zones and local authorities, participation rates were standardised using the combined national rates across the five years included in the study, rather than the rates for each year separately. The resulting measure is termed the Standardised Participation Ratio for Trend, or Trend SPR for short. Thus the Trend SPR will be greater than one for years with a higher participation than the overall national rate across the five years.

Statistical models were used to identify significant trends over the five years considered (ie those not likely to be simply due to random fluctuation). The models take account of the consistency that is likely in an area's participation from one year to the next as some of the same students will be studying in both years and many of the factors that affect an area's participation will change slowly.

Deprivation

To examine levels of participation in relation to deprivation, the Scottish Index of Multiple Deprivation 2009 (SIMD) was used (Scottish

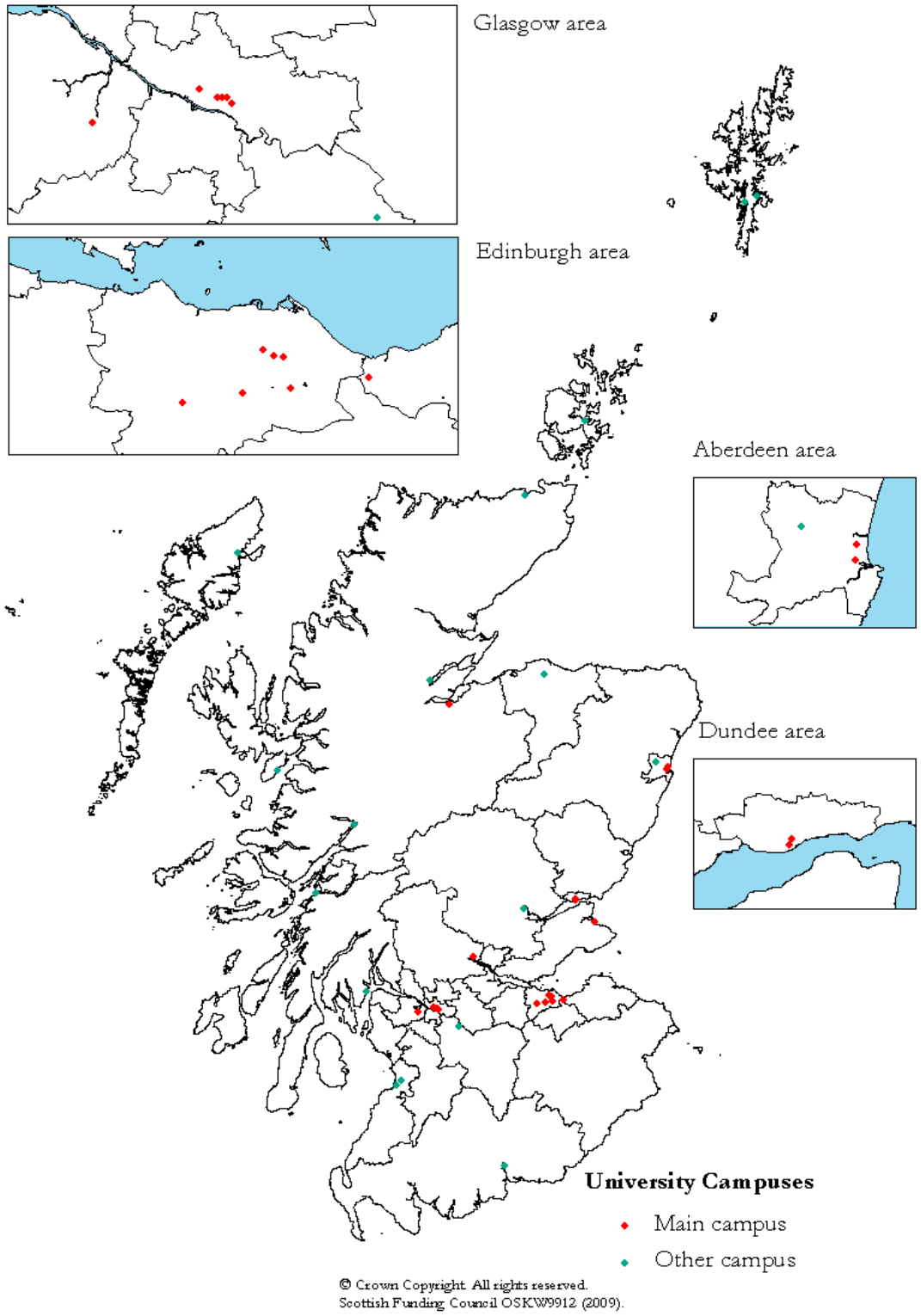
Government, 2009). This provides a ranking for each data zone derived from seven domains of deprivation: income; employment; health; education, skills and training; geographic access to services; crime; and housing. This is in contrast to the 2007-08 report where the 2006 SIMD version was used. The ranking was used to group the data zones into two classes: the most deprived data zones, which contain approximately 20 per cent of the 2008 mid-year population, and the rest.

Two classes were used in preference to a common alternative of dividing the data zones into five quintiles of equal population. This is because the SIMD is designed to primarily detect particularly deprived areas and the less deprived quintiles are not so clearly distinguishable.

It should also be noted that earlier academic years are also being compared with SIMD 2009, and that in some areas which are now recorded as deprived might not have been recorded as deprived in previous editons of SIMD.

Appendix 2: Context maps

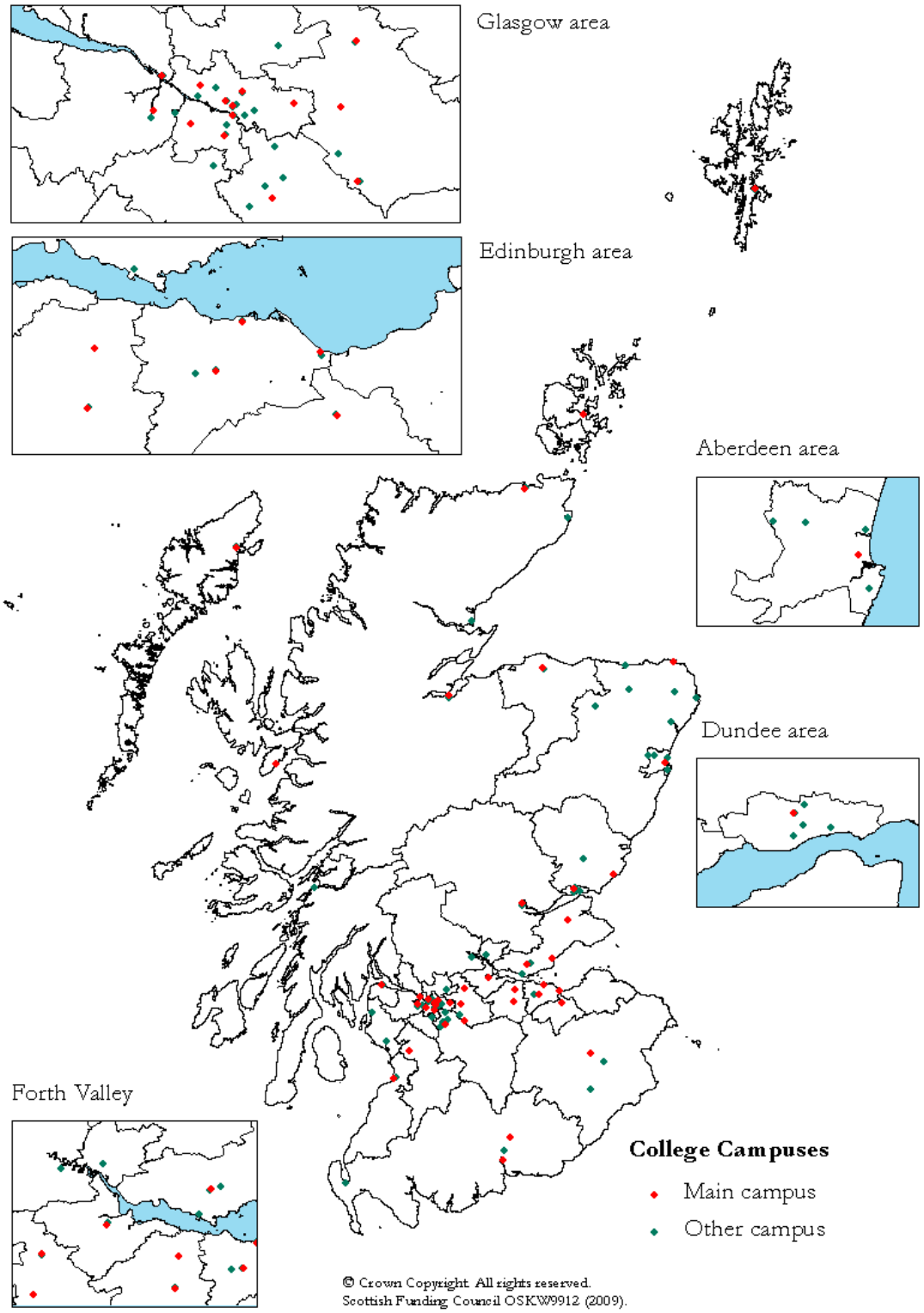
Figure A2.1 University campus locations, 2008-09



Notes

Campuses identified from a combination of university websites and HESA student returns, and was not updated from 2007-08, as no new main campuses were formed.

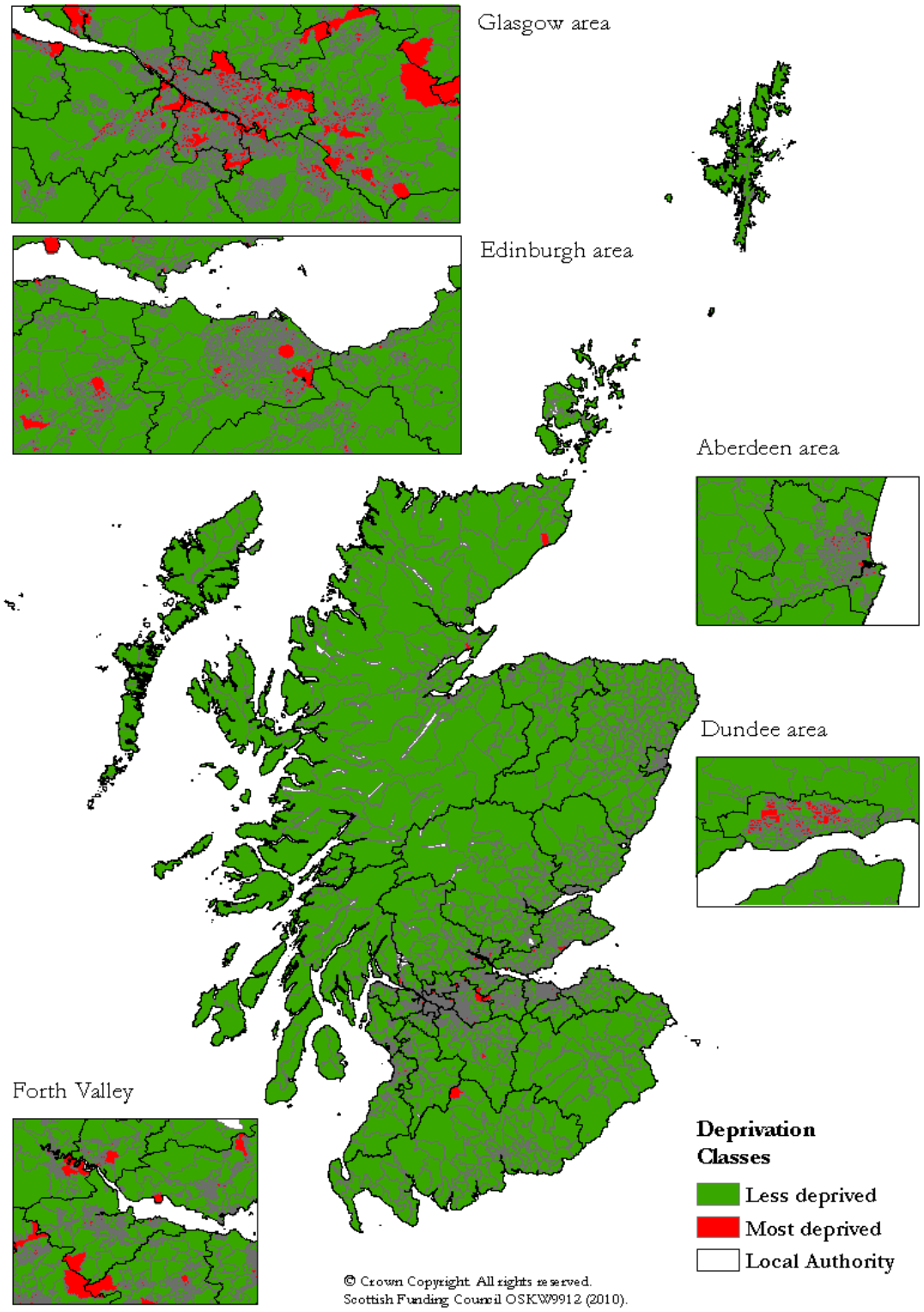
Figure A2.2 College campus locations, 2008-09



Notes

Only campuses with more than 500 enrolments (excluding outreach centres) from 2007-08 are shown. Locations identified from college returns. This was not updated as no new campuses were formed.

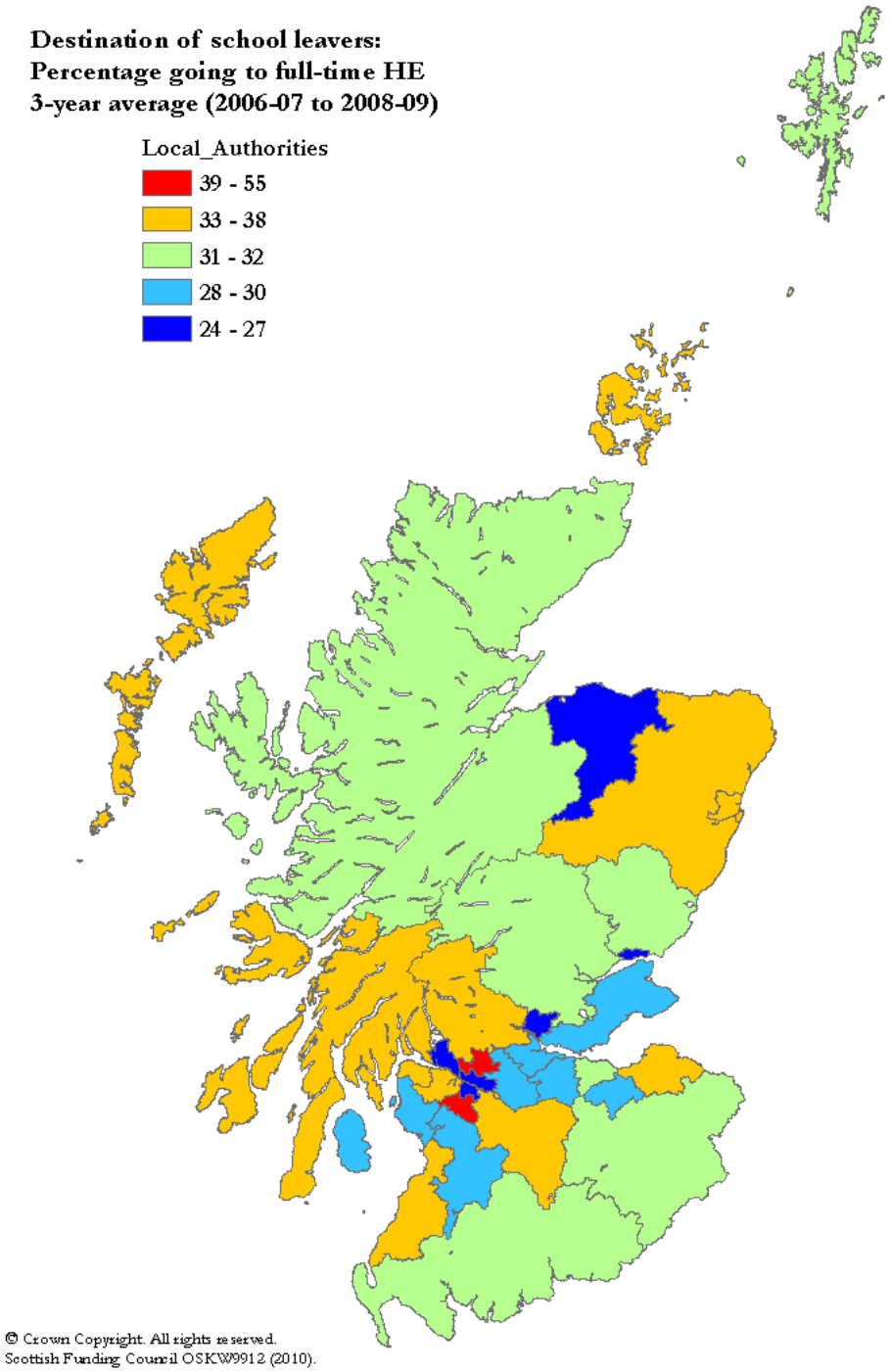
Figure A2.3 Scottish Index of Multiple Deprivation, most deprived data zones, 2009



Notes

Classes derived from the Scottish Index of Multiple Deprivation 2009 (Scottish Government, 2009). See Appendix 1 for more information.

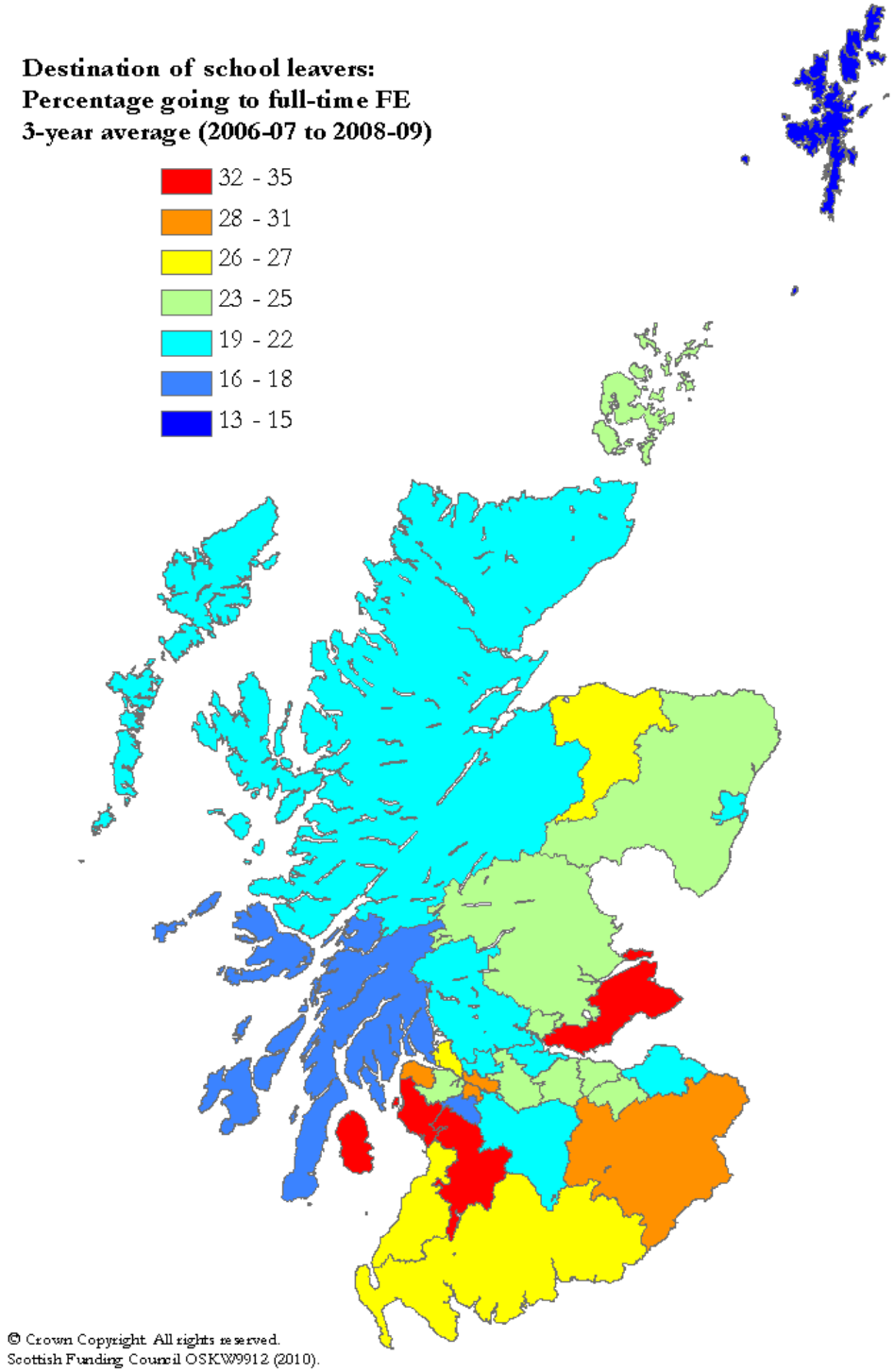
Figure A2.4 Percentage of school leavers from publicly-funded schools going to full-time HE, by local authority, 2006-07 to 2008-09



Notes

Source: Destinations of Leavers from Scottish Schools: 2008/09. (Scottish Government, 2010). To smooth out annual fluctuations, percentages are an average of 2006-07, 2007-08 and 2008-09 rates. Areas coloured green are close to the national average.

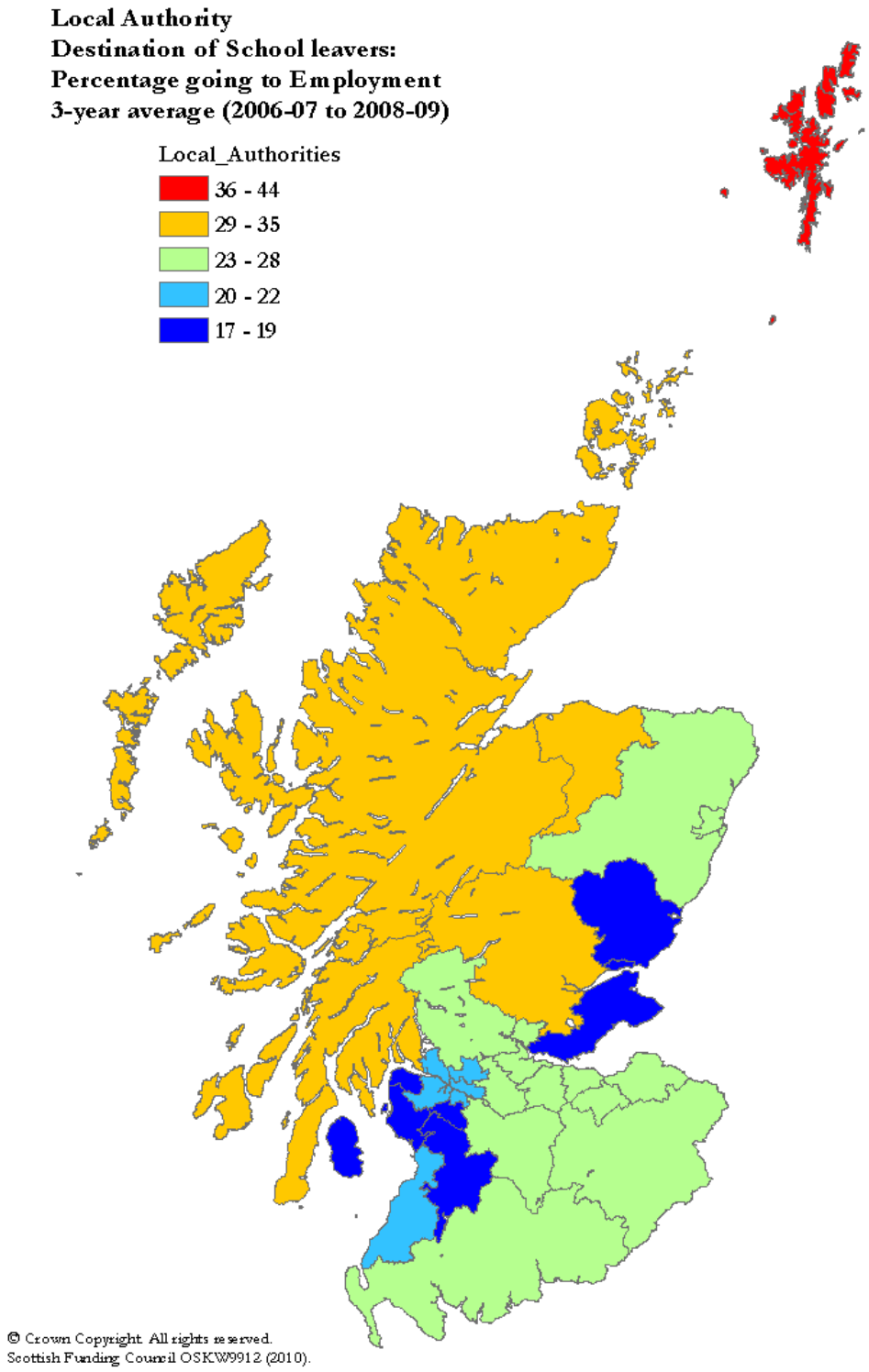
Figure A2.5 Percentage of school leavers from publicly-funded schools going to full-time FE, by local authority, 2006-07 to 2008-09



Notes

Source: Source: Destinations of Leavers from Scottish Schools: 2008/09. (Scottish Government, 2010). To smooth out annual fluctuations, percentages are an average of 2006-07, 2007-08 and 2008-09. Areas coloured yellow are close to the national average.

Figure A2.6 Percentage of school leavers from publicly-funded schools going to employment, by local authority, 2006-07 to 2008-09



Notes

Source: Destinations of Leavers from Scottish Schools: 2008/09. (Scottish Government, 2010).
To smooth out annual fluctuations, percentages are an average of 2006-07, 2007-08 and 2008-09 rates. Areas coloured navy are close to the national average.
To be employed school leavers must be working for a minimum of 21 hours per week and be in receipt of payment from their employers.