

# Participation Rates for Welsh Students in Higher Education within the UK during 2003/04

25 October 2006

W06/43HE



## **PARTICIPATION RATES FOR WELSH STUDENTS IN HIGHER EDUCATION WITHIN THE UK DURING 2003/04**

### **INTRODUCTION**

- 1 This report presents information about the levels of participation in higher education (HE) across Wales for the academic years 2001/02, 2002/03 and 2003/04.
- 2 The report seeks to provide an update on participation information for earlier academic years which has previously been published by the Higher Education Funding Council for Wales (HEFCW) in the report Participation Rates for Welsh Students in Higher Education within the UK during 2000/2001 (W03/17HE). A number of changes have been introduced to the methodology used in this report, which are explained at Annex B and therefore caution should be exercised when making comparisons between this report and W03/17HE.
- 3 Information on participation rates in HE is presented in a series of maps and charts in Section 1. The analysis is displayed by Unitary Authority, and the maps show how participation levels vary with age, mode of study and gender across Wales. The corresponding charts provide an alternative method for displaying the data. Comparison between participation rates for each of the groups within each Unitary Authority follows and is presented in a series of charts in Section 2.
- 4 Context statistics regarding both the HE sector in Wales and student participation trends between the academic years 2001/02 and 2003/04 are provided in the tables of Annex A.

### **BACKGROUND**

- 5 'Reaching Higher' is the Welsh Assembly Government's (WAG) strategy for a competitive, robust and sustainable HE sector in Wales. As part of this strategy, a key educational priority of WAG and HEFCW is to increase the number of people studying for HE level qualifications. This policy drive focuses on widening participation; that is, increasing the number of HE students from neighbourhoods where the proportion of the population studying within the HE sector (i.e. the participation rate) is traditionally very low.
- 6 The published performance indicators for UK higher education institutions (HEIs), (HEFCE publication 2003/59, [www.hefce.ac.uk/learning/perfind/2003/](http://www.hefce.ac.uk/learning/perfind/2003/) for 2001/02, and Higher Education Statistics Agency (HESA) online publications from 2002/03 onwards, [www.hesa.ac.uk/pi](http://www.hesa.ac.uk/pi)) show that Wales performs well in comparison with the rest of the UK in providing access to HE for people from disadvantaged areas. However, in order to maintain and improve on this position it is necessary to analyse and review periodically the patterns of participation across Wales, as well as to encourage institutions to target students from disadvantaged areas through incentives such as funding premiums for widening access and other initiatives.
- 7 This report presents a snapshot of the distribution of Welsh domiciled HE students within publicly funded UK HEIs (including the Open University), and further education colleges (FECs), in the academic years 2001/02, 2002/03 and 2003/04. The analysis is based on data collected by HESA, WAG, the Learning and Skills Council and the Scottish Funding Council.

## THE METHODOLOGY

- 8 The participation rates in this report are presented according to the 22 Unitary Authorities of Wales. Each Welsh student's Unitary Authority of domicile was derived from the postcode of the student's home address. The student participation rates for these areas could most simply be defined as the number of HE students from the area divided by the resident population. However, such a definition of participation does not lead to figures which can be fairly compared between regions due to the difference in regional population gender and age profiles.
  - 9 To take account of the different gender and age profiles of a local area, the Welsh national participation rates, aggregated by age and gender, were used to calculate the number of HE students that could be **expected** to come from any particular Unitary Authority. The expected number of students for an area is the number of students that would be domiciled in that area if the participation patterns mirrored those for all of Wales.
  - 10 The **Standard Participation Rate** (SPR) used throughout this report allows regional participation rates to be fairly compared to each other. It is defined as the difference between the number of HE students domiciled in an area divided by the expected number of students for that area, from the Wales standardised national average (which is 100). Although not strictly a rate as the difference has been taken from the national average, it is referred to throughout this document as the SPR and is used for clarity.
  - 11 If a particular region has a negative SPR then there were fewer HE students from that area than would be expected based on the Welsh national average. A region with an SPR value greater than 0 has a larger percentage of the population studying for a HE qualification than expected, and a region with an SPR of 0 has a level of participation exactly in line with the national average.
  - 12 The participation rate data used in generating the maps, charts and tables in this report have taken account of:
    - students returning invalid or missing postcodes;
    - amendments to census data to locate students at their home addresses;
    - mid-year population estimates
- Further technical details of the calculation methods used are given in Annex B.
- 13 To calculate an accurate participation rate for an area it is necessary to have the number of students from the area, determined by their home postcode, and the total number of people from the area, provided by population data which places students at their home address.
  - 14 Population data used in this report are obtained from the 2001 Census. Due to changes in the way the census was collected in 2001 students are placed at their term-time address. Annex B explains why this is a problem and how a base population has been estimated to locate students at their home address.
  - 15 Problems encountered in determining an appropriate base population may cause an issue for calculating accurate participation rates for full-time undergraduates aged under 25 years from Ceredigion. Participation of this group of students from Ceredigion is shown to be very low however previous publications have shown it to be high. This may be due to the very different profiles of the resident and domiciled student populations of Aberystwyth, which is impacting on the method used in this report to determine the base population. Details of this issue are discussed in Annex B.
  - 16 Therefore, participation rates presented in this report provide a general picture and should be considered best estimates. In addition, the data are not sufficiently accurate to be analysed for geographies smaller than Unitary Authorities, therefore it has not been possible to provide participation maps for small areas.

## WELSH HIGHER EDUCATION STUDENTS

- 17 In 2003/04 there were nearly 109,000 Welsh domiciled students studying for HE qualifications in HEIs and FECs in the UK. Three quarters of these students were studying in Wales (including Open University students). Of all the Welsh domiciled students over half (59 per cent) were female. Almost half of all students were full-time undergraduates and of these the majority were under 25 years old. However, of the 46 per cent of Welsh students studying on a part-time basis most were 25 years of age or older. Although student numbers have grown from just over 103,000 to nearly 109,000 across the three year period, this picture remains relatively unchanged as shown in the summary table below. A breakdown of the mode, gender, level and age of Welsh domiciled students is provided in Tables 1 to 3 of Annex A.

Summary Statistic	2001/02	2002/03	2003/04
Number of Welsh domiciled HE students	103,314	107,194	108,695
Proportion studying in Wales	74%	75%	75%
Proportion of females	57%	58%	59%
Proportion studying full-time	53%	53%	54%
Proportion of which aged under 25 years of age	81%	81%	81%
Proportion studying full-time undergraduate	47%	47%	48%
Proportion of which aged under 25 years of age	84%	84%	83%
Proportion studying part-time	47%	47%	46%
Proportion of which aged 25 years of age and over	84%	82%	82%

## WELSH NATIONAL PARTICIPATION RATES

- 18 The calculated national participation rates for 2001/02 to 2003/04 are shown in Table 5 of Annex A. Nearly 4 per cent of the Welsh population were engaged in HE in 2003/04 with the participation of Welsh females in HE slightly higher than that of males. The participation rates were highest for 18 to 19 year olds, with over one quarter studying for a HE qualification.
- 19 The percentage of the population engaged in HE rose between 2001/02 and 2003/04 as student numbers increased. The increase was not uniform across all age or gender categories. Overall the participation of Welsh males has remained the same while the participation of Welsh females has increased. There is a marked increase in participation of 16 to 17 year olds in 2002/03; this is due to increased uptake of student associateship schemes at the University of Glamorgan. In other age categories there has been little change in the participation rate of males except a noticeable drop for those aged 18 to 19 years. There has been an increase in the participation of females in all age categories except those aged 18 to 19 years which remained the same during the period. Table 5 shows how the national participation rates have changed over the three years by gender and age.

## INTERPRETING THE MAPS

- 20 The maps in Section 1, broken down by Unitary Authority show data for 2003/04 and have been drawn on the same fixed ranges of SPR so as to allow comparison between maps. Areas coloured in yellow show regions where the participation within HE was closely in line with the national average. Areas which are either red or orange had participation rates greatly below the national average, whilst areas in shades of green had high or very high participation in HE.

- 21 In each map legend the number of Unitary Authorities which fall into each participation range are shown in parentheses. The actual SPRs for each Unitary Authority are given in the tables beneath the maps. The SPRs for each Unitary Authority, in ranked order, are also displayed in a chart to allow an alternative method of comparison.
- 22 Maps for earlier years are not presented in this report; for SPRs for 2001/02 and 2002/03 please refer to Tables 6a-6d in Annex A.

## **COMMENTARY ON MAPS**

### **Overview**

- 23 The maps in this report show the SPRs for 2003/04. They show that there were large variations in levels of participation in HE between Unitary Authorities in this year. Residents of certain Unitary Authorities were found to be two or three times as likely to be studying in HE than residents of other Unitary Authorities. For information on SPRs for 2001/02 and 2002/03 please refer to Annex A.
- 24 The Unitary Authorities with the lowest SPRs in the south were Blaenau Gwent, Caerphilly and Torfaen, and in the north were Wrexham and Flintshire. The highest SPRs were found in Carmarthenshire, Monmouthshire and Ceredigion.

### **Participation by mode of study**

- 25 The SPRs for Welsh domiciled HE students by mode of study were analysed by full-time and part-time study, shown in Maps 2 and 3 respectively. In these maps, postgraduate research students (PGR) have been excluded due to the different nature of their study. There were more Unitary Authorities with participation rates below the national average for part-time students, and the range was wider with Ceredigion having an SPR 70 per cent greater than the national average and Wrexham having an SPR 27 per cent below. For full-time students Monmouthshire had the greatest participation with a rate of 44 per cent above the national average and Blaenau Gwent had the lowest at 33 per cent below.
- 26 Excluding students studying for low-credit courses from the analysis for part-time study (Map 4), shows that the national variation in part-time participation rates is slightly less with Ceredigion having an SPR of 56 per cent above the national average and Wrexham having an SPR 19 per cent below. A student on a low-credit course is defined as a student who is studying for less than 10 per cent of a full time equivalent (FTE). The Unitary Authorities with the largest proportion of students enrolled on low-credit courses were Gwynedd with 23 per cent of part-time students on low-credit courses, Ynys Môn with 21 per cent and Ceredigion with 21 per cent. (See Table 7b, Annex A.)

### **Participation of full-time undergraduate students by age**

- 27 SPRs for full-time undergraduate students were analysed by age (Maps 5 and 6). Over eighty per cent of full-time undergraduates were under 25 and the participation levels for this age group varied widely across Wales. Notably, Ceredigion had a very low participation rate for this group of students. This may to some extent be due to the limitations of the method used to determine a census population with students enumerated at their home address. Further details are given in Annex B. The participation rates for the full-time undergraduates aged over 25 also varied widely across Wales but the distribution was quite different to that for young undergraduates with very high participation rates in the Unitary Authorities in the north of Wales.

## **Participation by gender**

- 28 The national participation rates for female students were slightly higher than those for male students. However, there was not a strong regional component to the difference in rates between male and female students, and with the exception of Powys where male participation was 10 per cent below the national average and female participation was 14 per cent above the national average, both share a similar participation distribution across Wales. This can be seen in the similarities between Maps 7 and 8.

## **ETHNICITY**

- 29 In the 2003/04 academic year, 4 per cent (4,050) of the Welsh domiciled student population were from ethnic minorities. The numbers of students from ethnic minorities living in each Unitary Authority varied from 36 in Anglesey to 1,578 in Cardiff. Due to the small numbers involved and the high concentration of ethnic minorities living in urban Cardiff, Swansea and Newport, it has not been possible to provide a meaningful map of participation rates broken down by ethnicity. However, it can be noted that the 2001 census showed that only 2.1 per cent of the Welsh population aged 16 and over were from ethnic minorities. Therefore, overall, ethnic minorities are well-represented within HE. However, this picture is unlikely to be consistently true across all ethnic groups and all areas of Wales.

## **UNITARY AUTHORITY PROFILE**

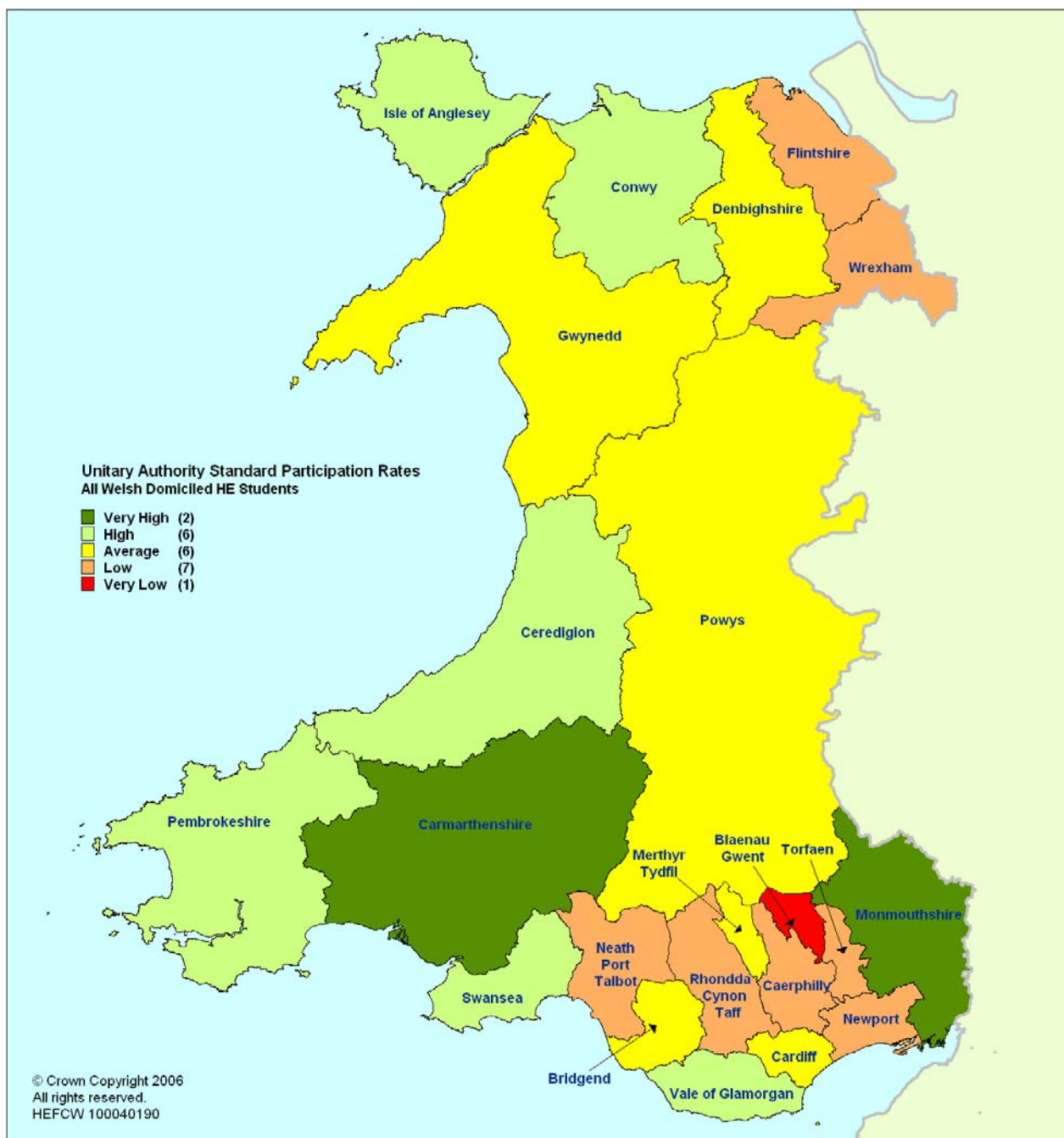
- 30 A comparison of the SPRs calculated for each age, mode of study and gender group within each Unitary Authority is displayed in the charts of Section 2. Whilst the SPRs may be similar across groups, in some Unitary Authorities they vary.
- 31 For example, in Blaenau Gwent participation is greatly below the national average for each group (all more than 20 per cent below the national average) and appears highlighted in red in each relevant map. In Carmarthenshire, with the exception of full-time undergraduates aged 25 and over, participation is greatly above the national average for each group (all more than 20 per cent above the national average) and appears highlighted in dark green on each relevant map. Participation amongst full-time undergraduates aged 25 and over in Carmarthenshire is however, still above average.
- 32 In Merthyr Tydfil, although participation in the groups varies below and above the national average, participation is close to the national average for each group except part-time, as they are all within +/- 5 per cent of the national average (appear highlighted in yellow in the relevant maps). Participation of part-time students from Merthyr Tydfil is above average, at 13 per cent above the national average. In Monmouthshire there is great variation in participation between the different groups. Participation of part-time students is close to the national average; participation of full-time undergraduates aged under 25 years is greatly above the national average (57 per cent above) but participation of full-time undergraduates aged 25 and over is greatly below the national average (21 per cent below).
- 33 It can be seen that participation of full-time undergraduates aged under 25 from Ceredigion appears to be greatly below the national average (26 per cent below). As noted in paragraph 27 this may not reflect the true position due to the limitations of the census data available, discussed in Annex B. However, it can be seen in Ceredigion that participation of part-time students is greatly above average (70 per cent above). If insufficient students enumerated at their term-time address have been removed from the population as noted in Annex B, this implies that the part-time participation figure for Ceredigion would increase further if fully accurate population data were available.

## **PARTICIPATION RATE TRENDS**

- 34 Tables 6a-6d compare student SPRs calculated for the academic years 2001/02, 2002/03 and 2003/04. As all three sets of figures are SPRs which have been normalised to the yearly national average rates broken down by gender and age, it is not appropriate to compare the SPRs from different years directly. However, the standard deviation (shown in the tables) can be used to measure the variation of participation rates across the country, where the larger the standard deviation the greater the variation in rates.
- 35 The national variation in student participation rates by area of domicile in 2003/04 was lower than in 2001/02. That is, although there were still areas of very low participation across Wales in 2003/04, the gap between participation levels in different areas is shown to be less in 2003/04 than 2001/02. This trend is true both for full-time and part-time students (Tables 6a and 6b). This can be illustrated by considering the student numbers in Table 7a. Between 2001/02 and 2003/04 the number of students from the low participation areas of Blaenau Gwent, Caerphilly, Wrexham and Torfaen increased by 7%. Over the same period the number of students from the high participation areas of Carmarthenshire, Ceredigion, Monmouthshire and Vale of Glamorgan increased by 2%. This difference between growth rates has caused the gap between areas of high and low participation to narrow.
- 36 Future analyses will continue to monitor this apparent narrowing of the gap between low and high participation areas.

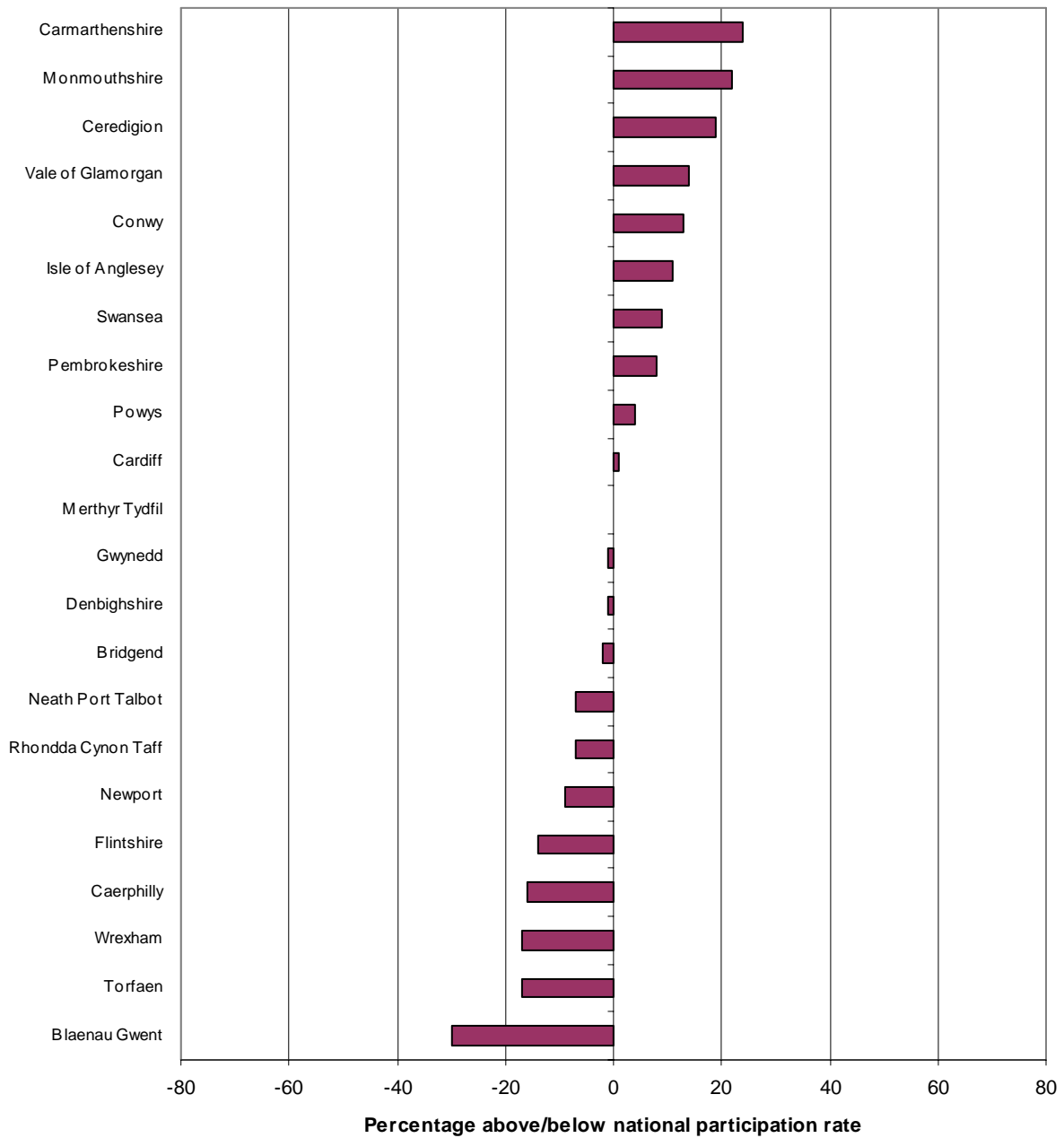
# **SECTION 1**

**Map 1: Standard Participation Rates for all Welsh Domiciled HE Students in 2003/04**



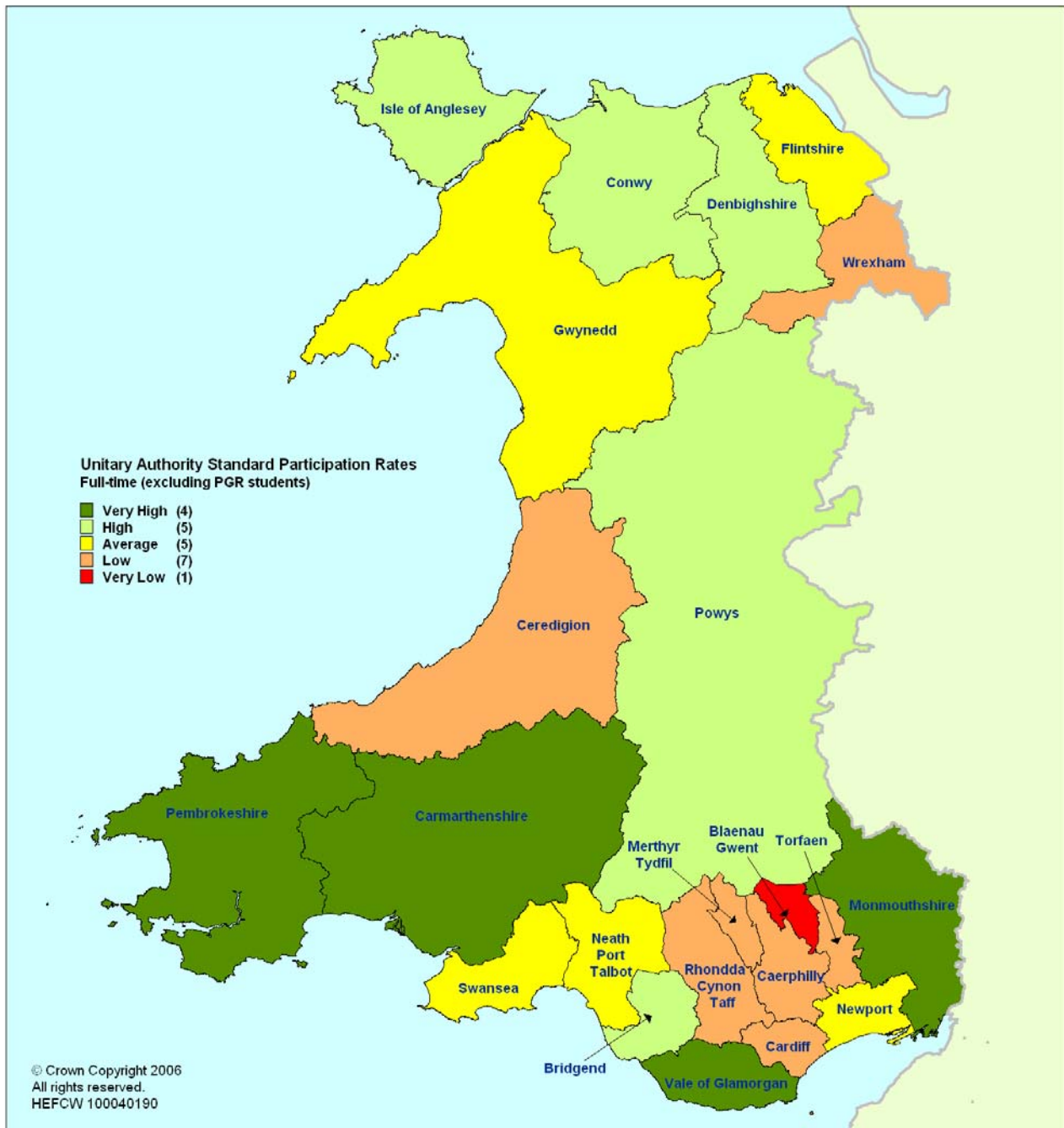
Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	11	Neath Port Talbot	-7
Gwynedd	-1	Bridgend	-2
Conwy	13	Vale of Glamorgan	14
Denbighshire	-1	Rhondda Cynon Taff	-7
Flintshire	-14	Merthyr Tydfil	0
Wrexham	-17	Caerphilly	-16
Powys	4	Blaenau Gwent	-30
Ceredigion	19	Torfaen	-17
Pembrokeshire	8	Monmouthshire	22
Carmarthenshire	24	Newport	-9
Swansea	9	Cardiff	1

**Chart 1: Standard Participation Rates for all Welsh Domiciled HE Students in 2003/04**



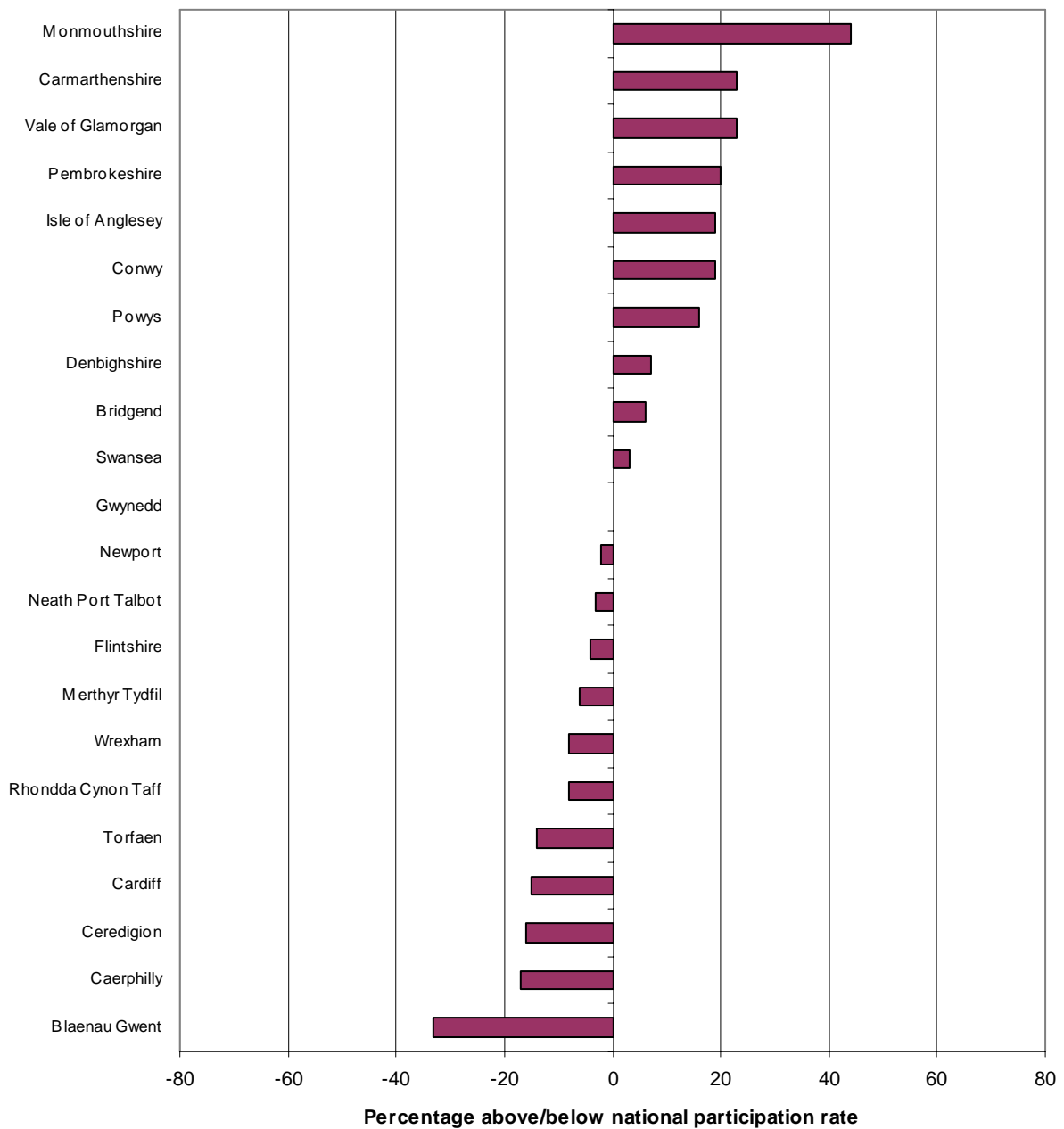
Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	11	Neath Port Talbot	-7
Gwynedd	-1	Bridgend	-2
Conwy	13	Vale of Glamorgan	14
Denbighshire	-1	Rhondda Cynon Taff	-7
Flintshire	-14	Merthyr Tydfil	0
Wrexham	-17	Caerphilly	-16
Powys	4	Blaenau Gwent	-30
Ceredigion	19	Torfaen	-17
Pembrokeshire	8	Monmouthshire	22
Carmarthenshire	24	Newport	-9
Swansea	9	Cardiff	1

**Map 2: Standard Participation Rates for all Full-time Students in 2003/04 (excluding PGR students)**



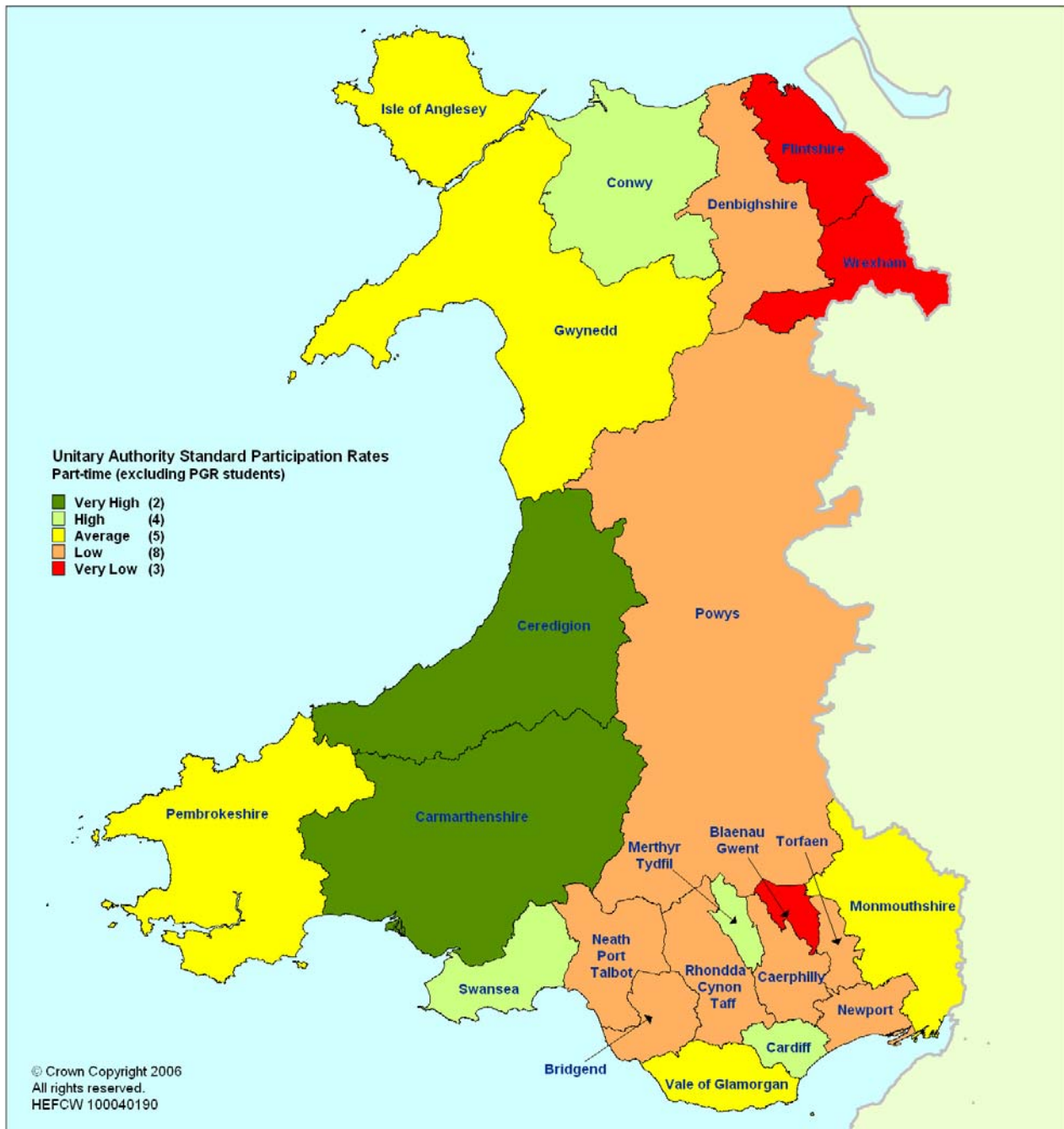
Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	19	Neath Port Talbot	-3
Gwynedd	0	Bridgend	6
Conwy	19	Vale of Glamorgan	23
Denbighshire	7	Rhondda Cynon Taff	-8
Flintshire	-4	Merthyr Tydfil	-6
Wrexham	-8	Caerphilly	-17
Powys	16	Blaenau Gwent	-33
Ceredigion	-16	Torfaen	-14
Pembrokeshire	20	Monmouthshire	44
Carmarthenshire	23	Newport	-2
Swansea	3	Cardiff	-15

**Chart 2: Standard Participation Rates for all Full-time Students in 2003/04 (excluding PGR students)**



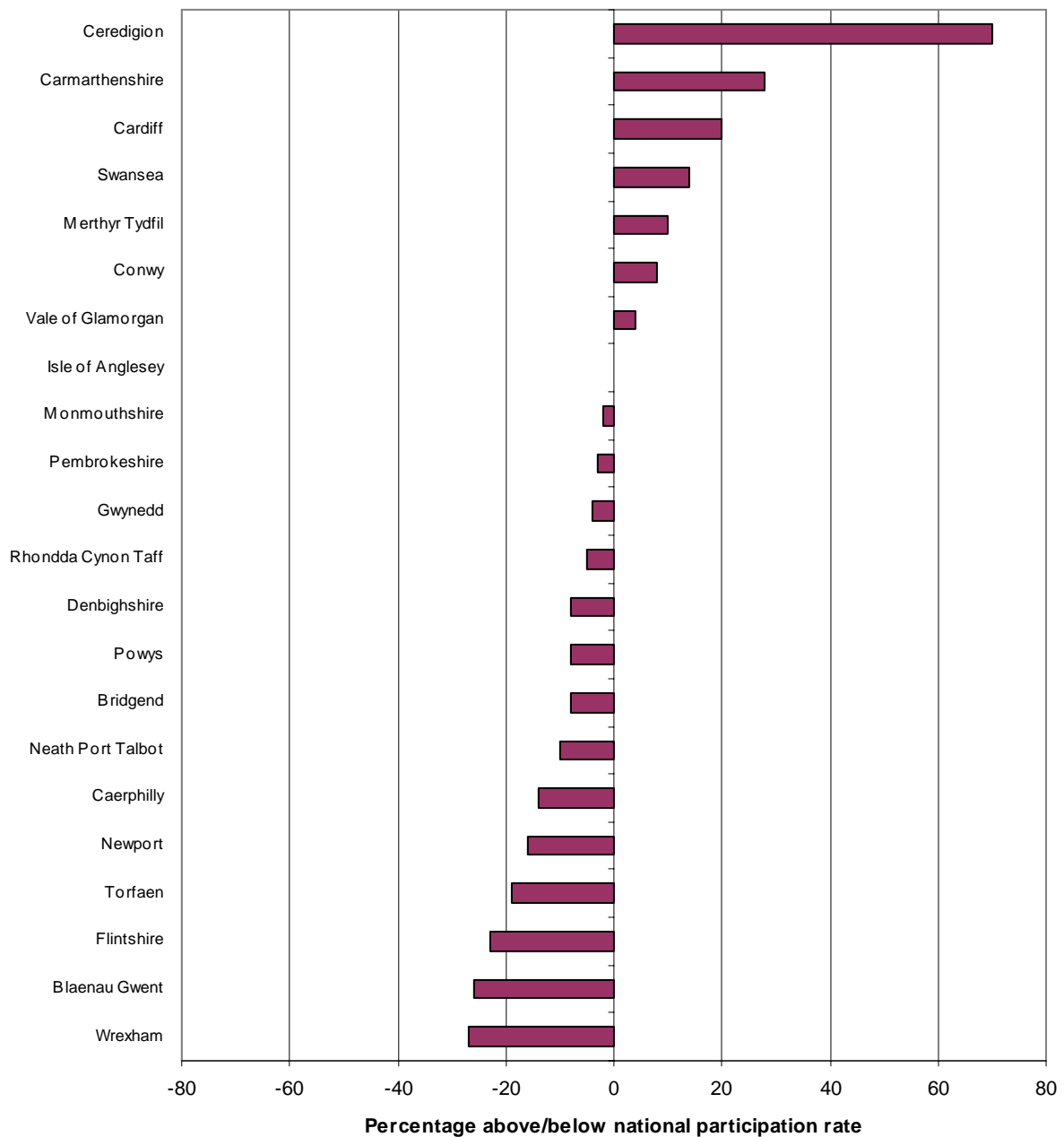
Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	19	Neath Port Talbot	-3
Gwynedd	0	Bridgend	6
Conwy	19	Vale of Glamorgan	23
Denbighshire	7	Rhondda Cynon Taff	-8
Flintshire	-4	Merthyr Tydfil	-6
Wrexham	-8	Caerphilly	-17
Powys	16	Blaenau Gwent	-33
Ceredigion	-16	Torfaen	-14
Pembrokeshire	20	Monmouthshire	44
Carmarthenshire	23	Newport	-2
Swansea	3	Cardiff	-15

**Map 3: Standard Participation Rates for all Part-time Students in 2003/04 (excluding PGR students)**



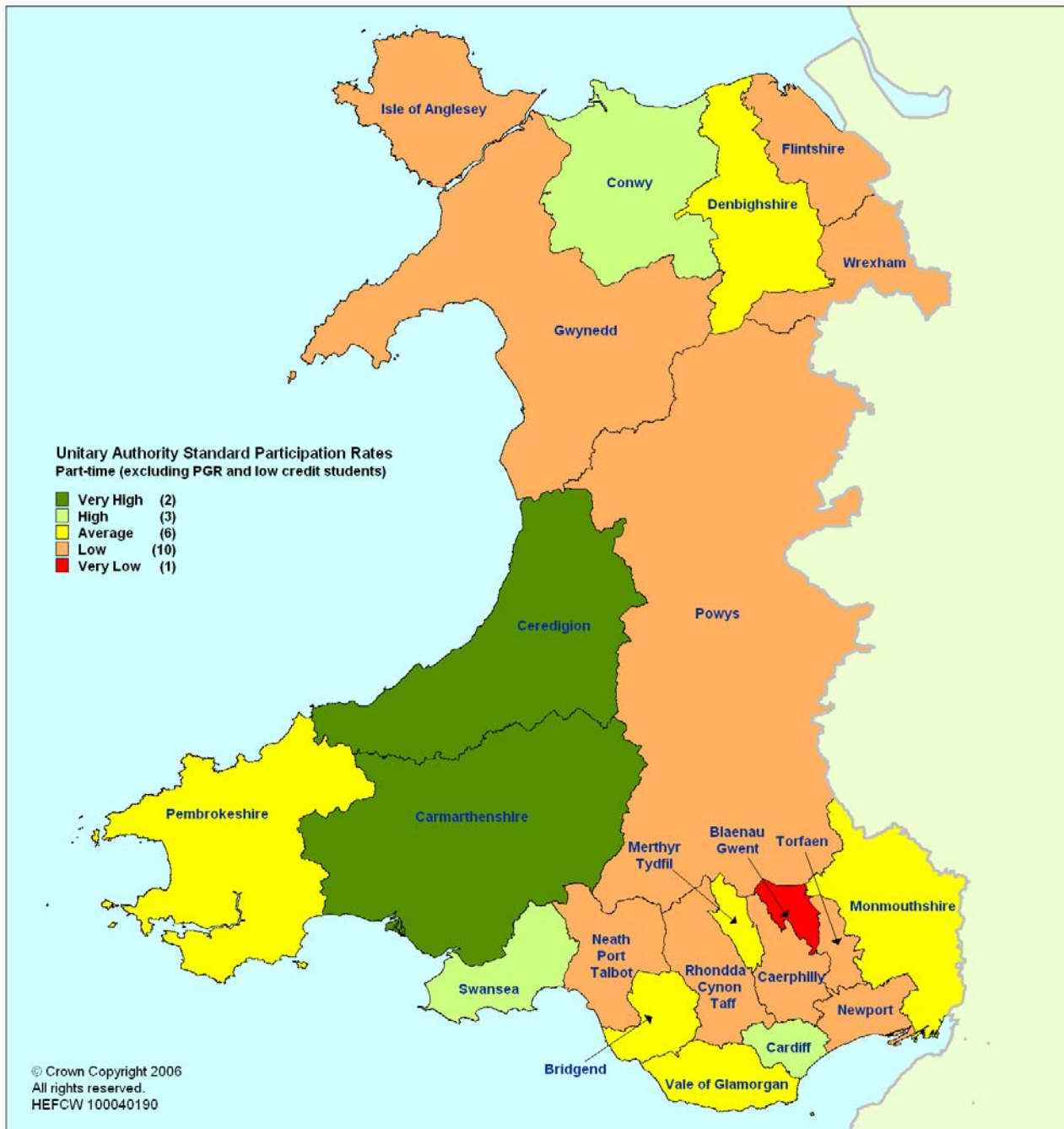
Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	0	Neath Port Talbot	-10
Gwynedd	-4	Bridgend	-8
Conwy	8	Vale of Glamorgan	4
Denbighshire	-8	Rhondda Cynon Taff	-5
Flintshire	-23	Merthyr Tydfil	10
Wrexham	-27	Caerphilly	-14
Powys	-8	Blaenau Gwent	-26
Ceredigion	70	Torfaen	-19
Pembrokeshire	-3	Monmouthshire	-2
Carmarthenshire	28	Newport	-16
Swansea	14	Cardiff	20

**Chart 3: Standard Participation Rates for all Part-time Students in 2003/04 (excluding PGR students)**



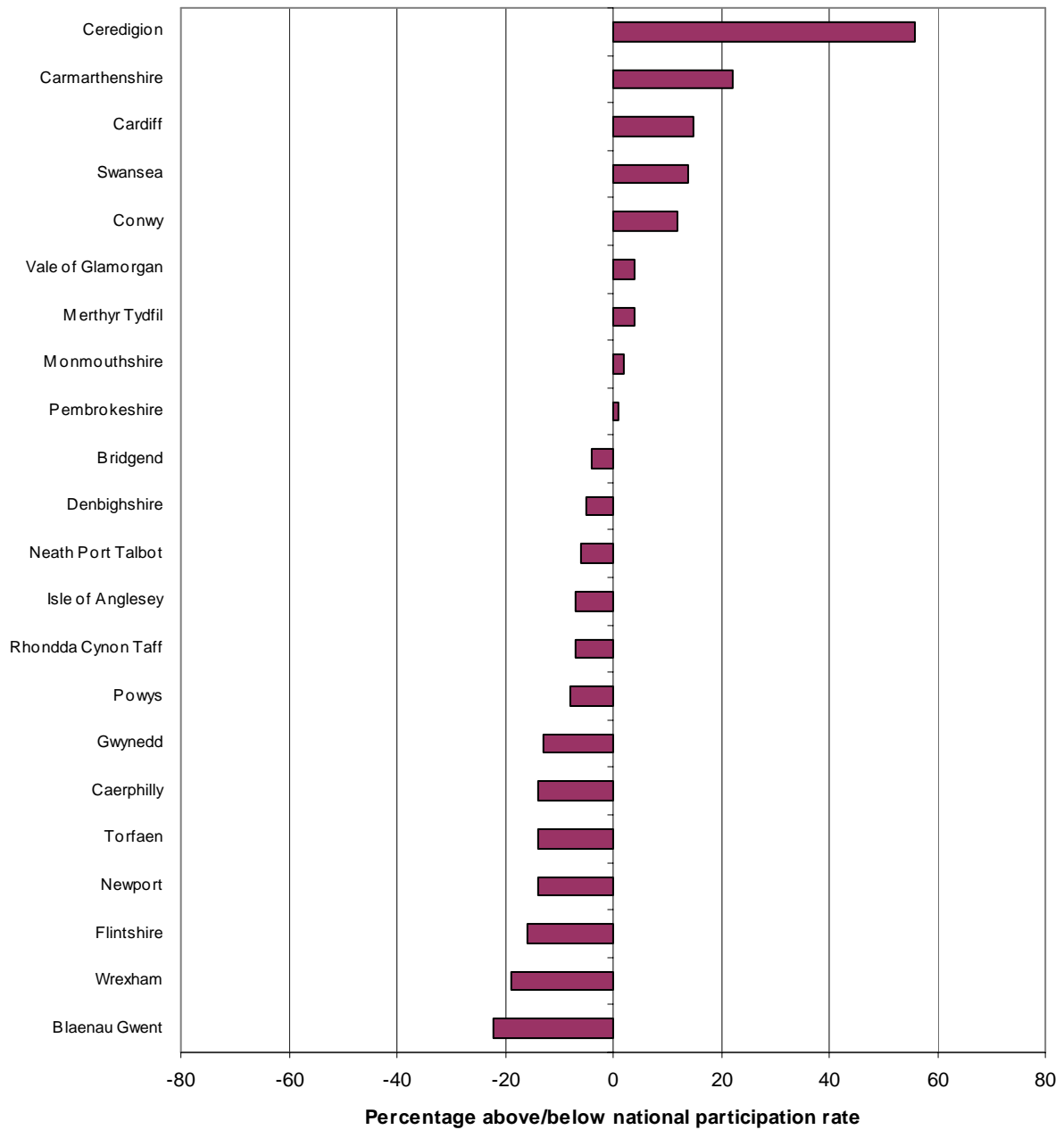
Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	0	Neath Port Talbot	-10
Gwynedd	-4	Bridgend	-8
Conwy	8	Vale of Glamorgan	4
Denbighshire	-8	Rhondda Cynon Taff	-5
Flintshire	-23	Merthyr Tydfil	10
Wrexham	-27	Caerphilly	-14
Powys	-8	Blaenau Gwent	-26
Ceredigion	70	Torfaen	-19
Pembrokeshire	-3	Monmouthshire	-2
Carmarthenshire	28	Newport	-16
Swansea	14	Cardiff	20

**Map 4: Standard Participation Rates for all Part-time Students in 2003/04 (excluding PGR and low credit students)**



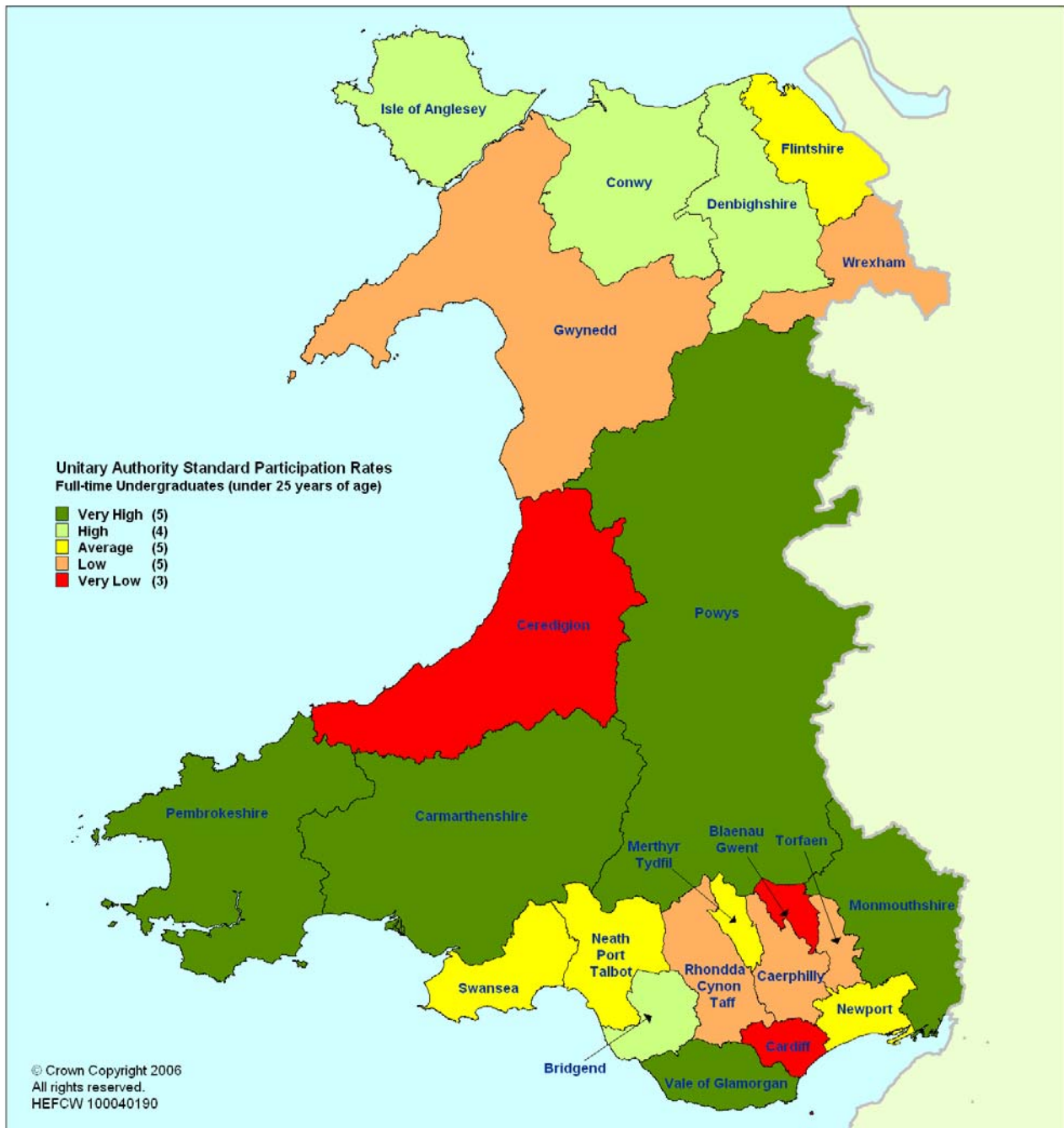
Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	-7	Neath Port Talbot	-6
Gwynedd	-13	Bridgend	-4
Conwy	12	Vale of Glamorgan	4
Denbighshire	-5	Rhondda Cynon Taff	-7
Flintshire	-16	Merthyr Tydfil	4
Wrexham	-19	Caerphilly	-14
Powys	-8	Blaenau Gwent	-22
Ceredigion	56	Torfaen	-14
Pembrokeshire	1	Monmouthshire	2
Carmarthenshire	22	Newport	-14
Swansea	14	Cardiff	15

**Chart 4: Standard Participation Rates for all Part-time Students in 2003/04 (excluding PGR and low credit students)**



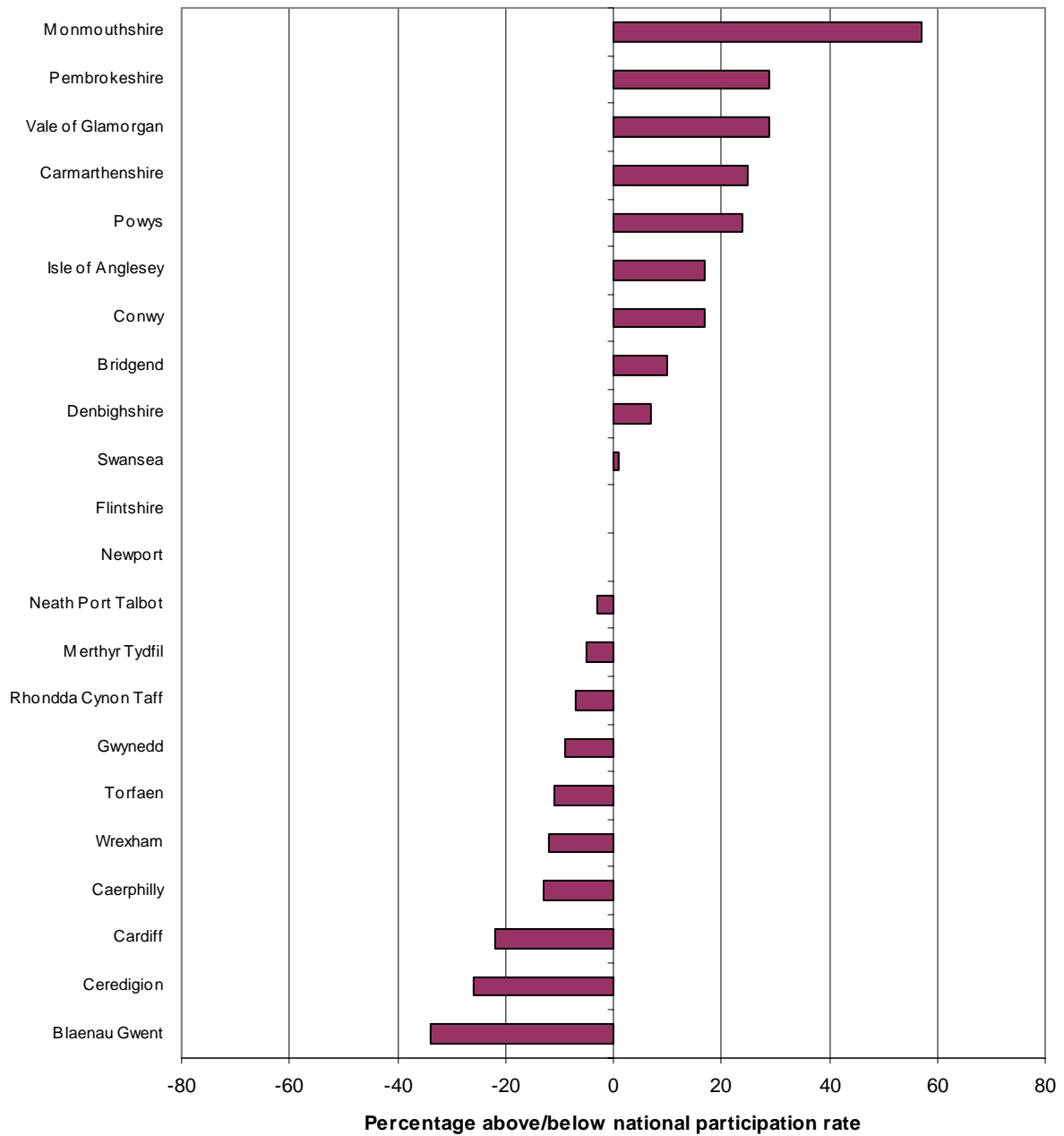
Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	-7	Neath Port Talbot	-6
Gwynedd	-13	Bridgend	-4
Conwy	12	Vale of Glamorgan	4
Denbighshire	-5	Rhondda Cynon Taff	-7
Flintshire	-16	Merthyr Tydfil	4
Wrexham	-19	Caerphilly	-14
Powys	-8	Blaenau Gwent	-22
Ceredigion	56	Torfaen	-14
Pembrokeshire	1	Monmouthshire	2
Carmarthenshire	22	Newport	-14
Swansea	14	Cardiff	15

**Map 5: Standard Participation Rates for Full-time Students in 2003/04 (undergraduates under 25 years of age)**



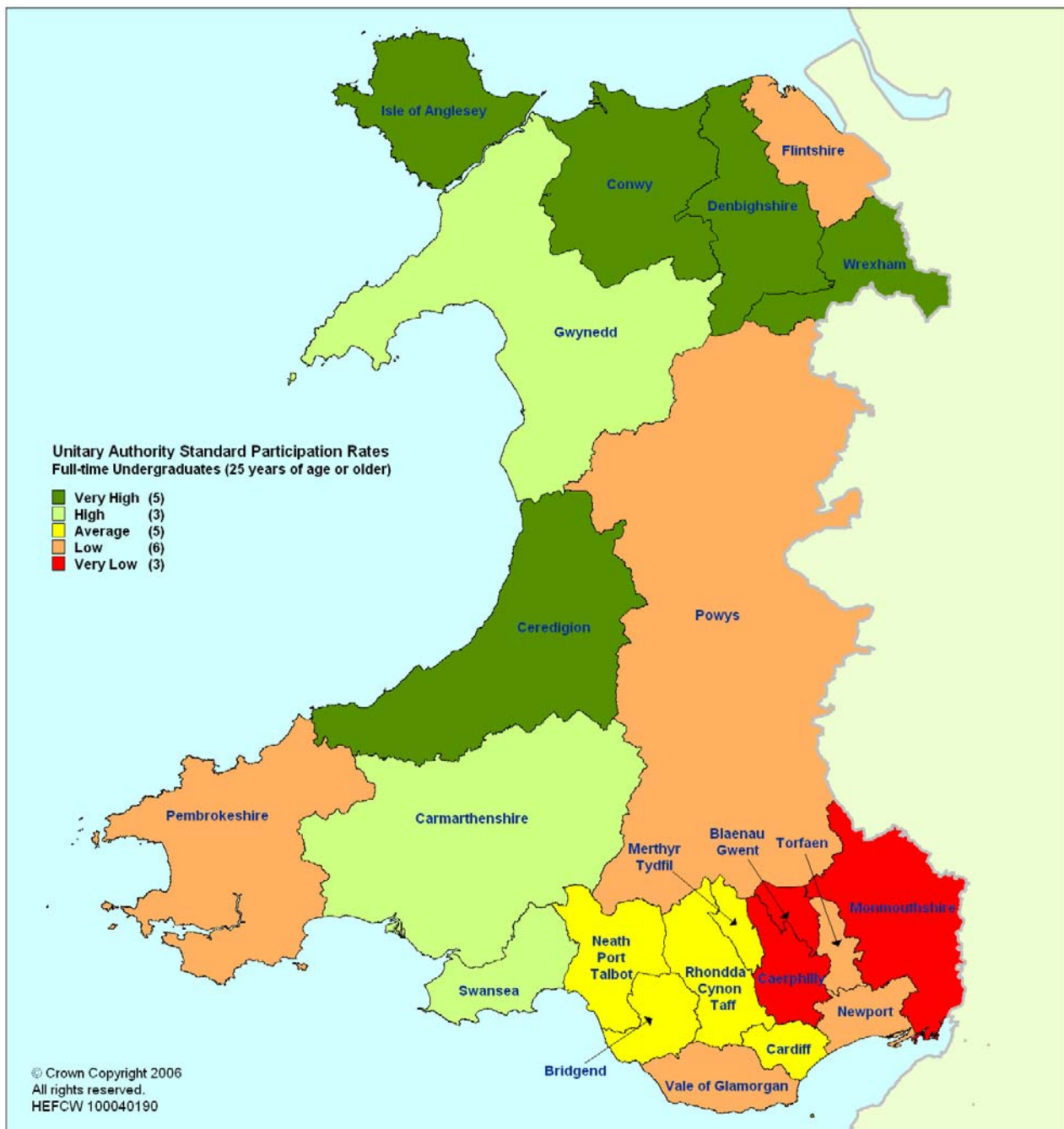
Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	17	Neath Port Talbot	-3
Gwynedd	-9	Bridgend	10
Conwy	17	Vale of Glamorgan	29
Denbighshire	7	Rhondda Cynon Taff	-7
Flintshire	0	Merthyr Tydfil	-5
Wrexham	-12	Caerphilly	-13
Powys	24	Blaenau Gwent	-34
Ceredigion	-26	Torfaen	-11
Pembrokeshire	29	Monmouthshire	57
Carmarthenshire	25	Newport	0
Swansea	1	Cardiff	-22

**Chart 5: Standard Participation Rates for Full-time Students in 2003/04  
(undergraduates under 25 years of age)**



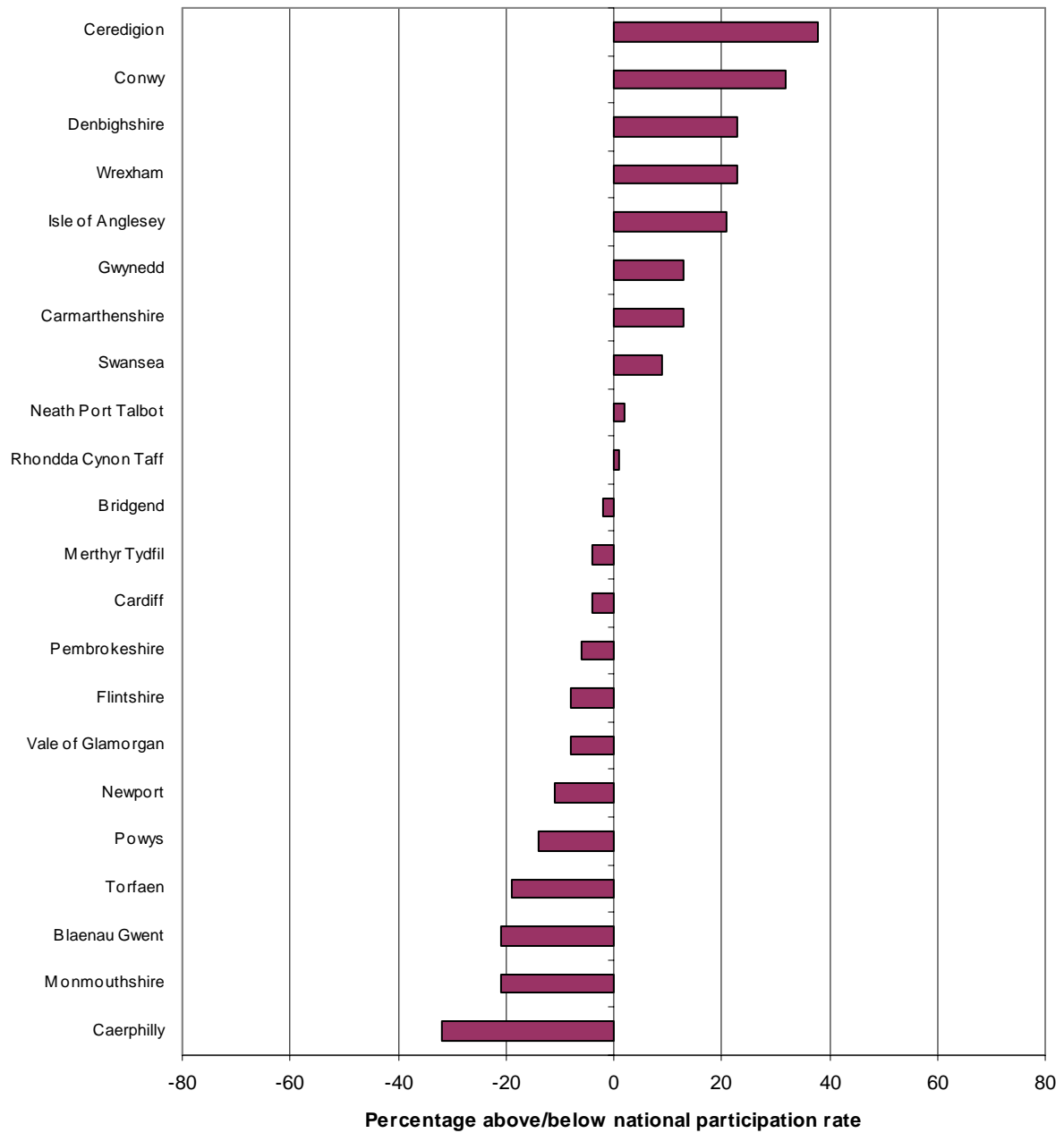
Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	17	Neath Port Talbot	-3
Gwynedd	-9	Bridgend	10
Conwy	17	Vale of Glamorgan	29
Denbighshire	7	Rhondda Cynon Taff	-7
Flintshire	0	Merthyr Tydfil	-5
Wrexham	-12	Caerphilly	-13
Powys	24	Blaenau Gwent	-34
Ceredigion	-26	Torfaen	-11
Pembrokeshire	29	Monmouthshire	57
Carmarthenshire	25	Newport	0
Swansea	1	Cardiff	-22

**Map 6: Standard Participation Rates for Full-time Students in 2003/04 (undergraduates 25 years of age or older)**



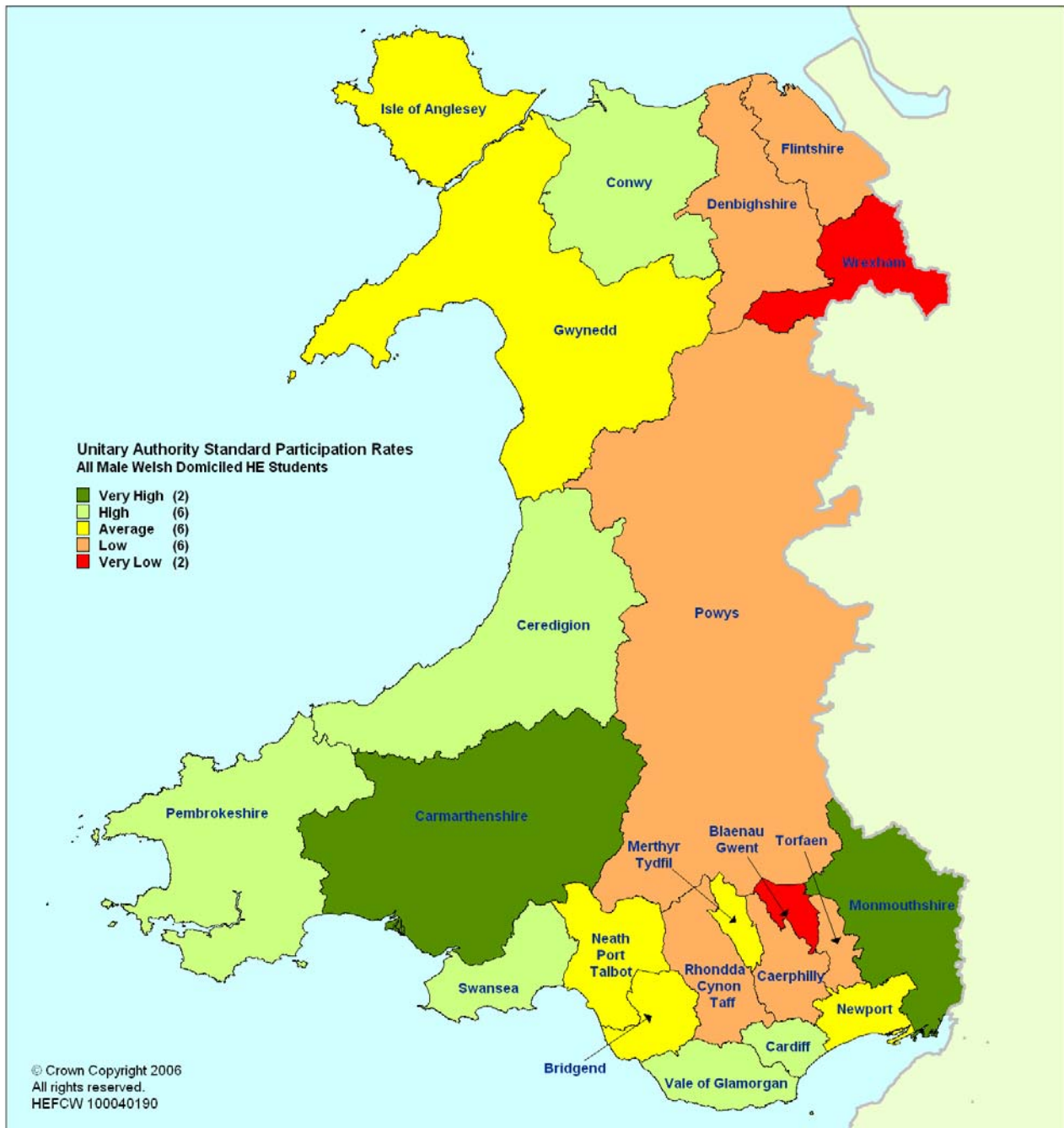
Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	21	Neath Port Talbot	2
Gwynedd	13	Bridgend	-2
Conwy	32	Vale of Glamorgan	-8
Denbighshire	23	Rhondda Cynon Taff	1
Flintshire	-8	Merthyr Tydfil	-4
Wrexham	23	Caerphilly	-32
Powys	-14	Blaenau Gwent	-21
Ceredigion	38	Torfaen	-19
Pembrokeshire	-6	Monmouthshire	-21
Carmarthenshire	13	Newport	-11
Swansea	9	Cardiff	-4

**Chart 6: Standard Participation Rates for Full-time Students in 2003/04  
(undergraduates 25 years of age or older)**



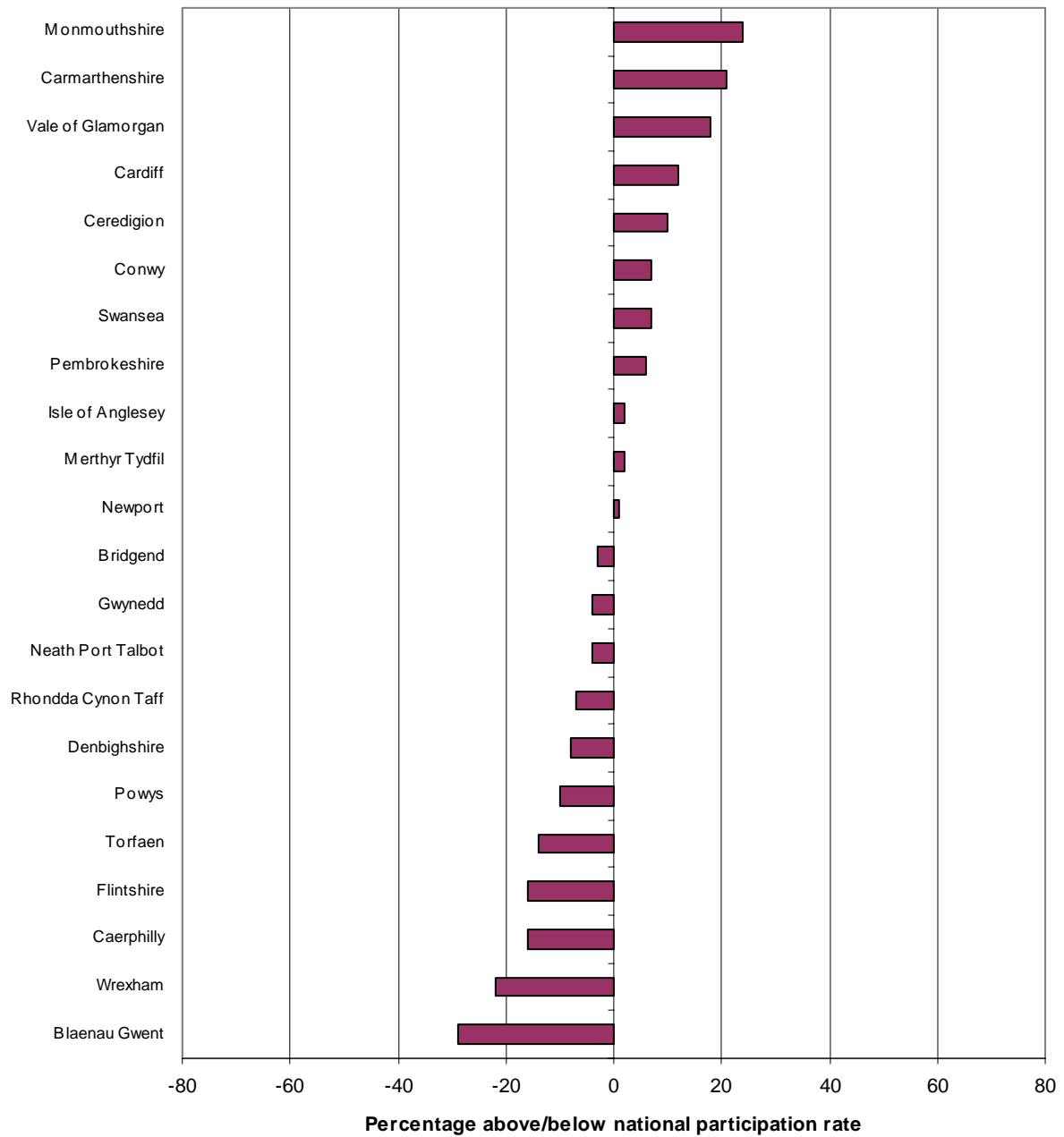
Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	21	Neath Port Talbot	2
Gwynedd	13	Bridgend	-2
Conwy	32	Vale of Glamorgan	-8
Denbighshire	23	Rhondda Cynon Taff	1
Flintshire	-8	Merthyr Tydfil	-4
Wrexham	23	Caerphilly	-32
Powys	-14	Blaenau Gwent	-21
Ceredigion	38	Torfaen	-19
Pembrokeshire	-6	Monmouthshire	-21
Carmarthenshire	13	Newport	-11
Swansea	9	Cardiff	-4

**Map 7: Standard Participation Rates for Male Students in 2003/04**



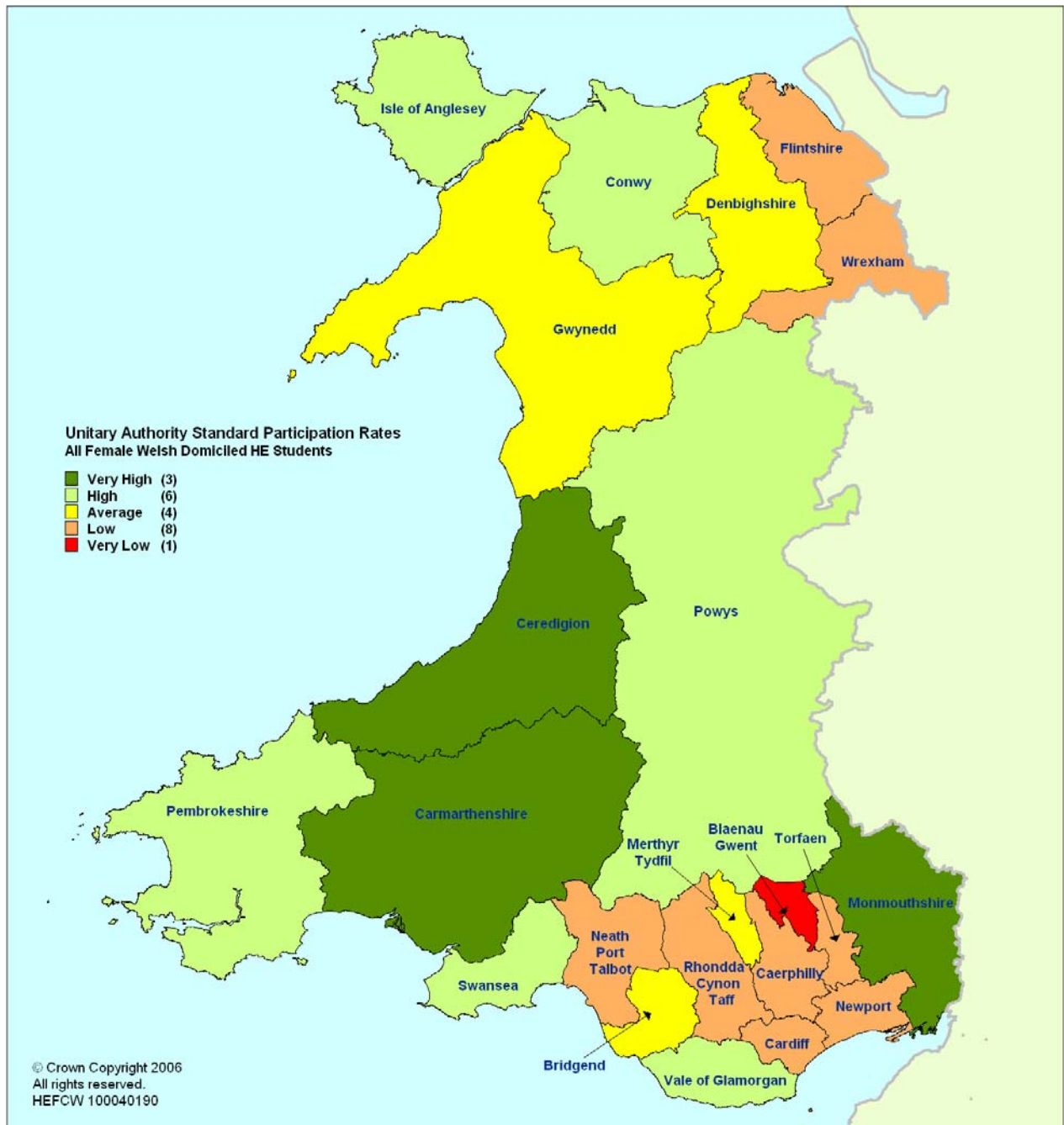
Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	2	Neath Port Talbot	-4
Gwynedd	-4	Bridgend	-3
Conwy	7	Vale of Glamorgan	18
Denbighshire	-8	Rhondda Cynon Taff	-7
Flintshire	-16	Merthyr Tydfil	2
Wrexham	-22	Caerphilly	-16
Powys	-10	Blaenau Gwent	-29
Ceredigion	10	Torfaen	-14
Pembrokeshire	6	Monmouthshire	24
Carmarthenshire	21	Newport	1
Swansea	7	Cardiff	12

**Chart 7: Standard Participation Rates for Male Students in 2003/04**



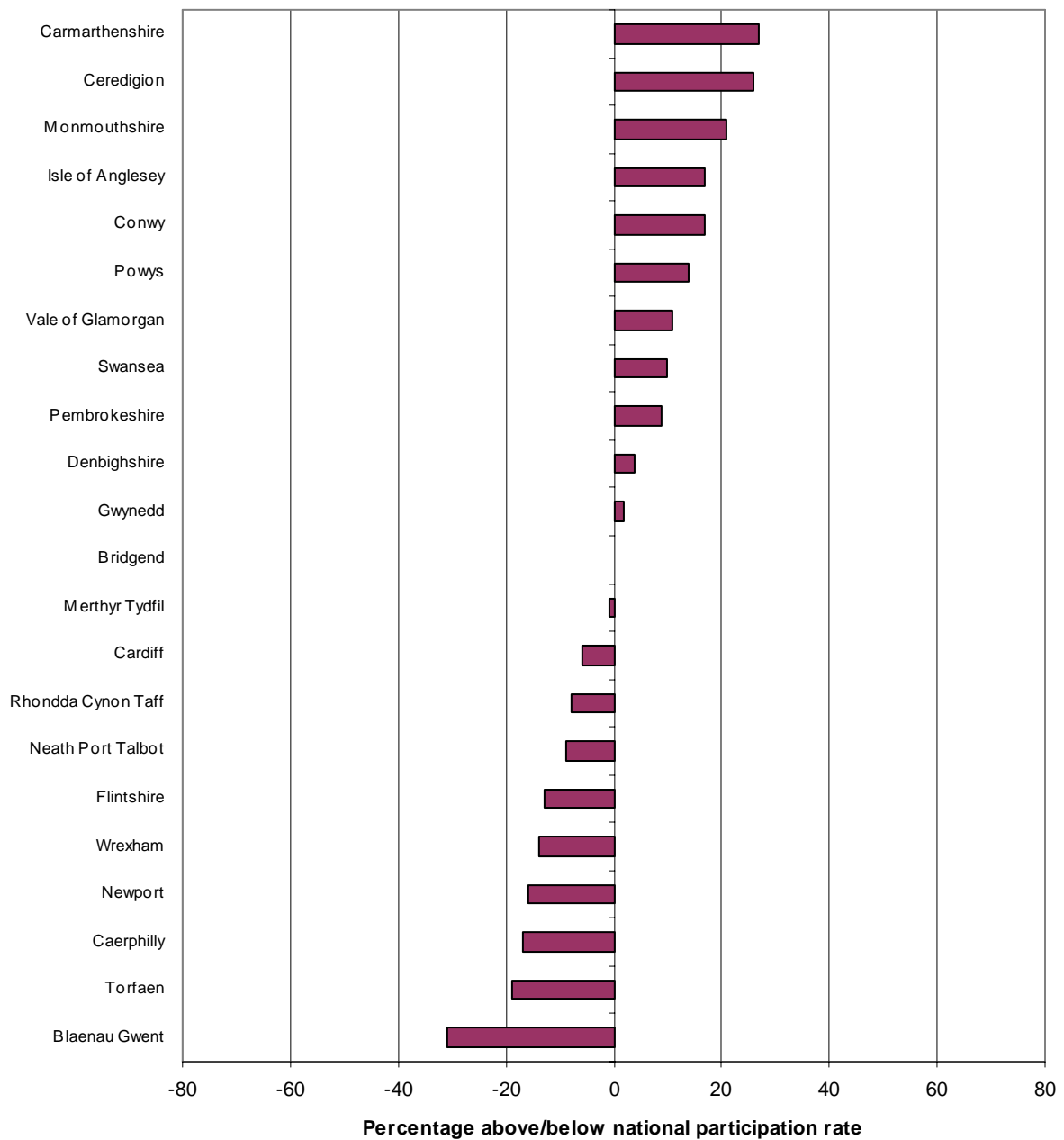
Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	2	Neath Port Talbot	-4
Gwynedd	-4	Bridgend	-3
Conwy	7	Vale of Glamorgan	18
Denbighshire	-8	Rhondda Cynon Taff	-7
Flintshire	-16	Merthyr Tydfil	2
Wrexham	-22	Caerphilly	-16
Powys	-10	Blaenau Gwent	-29
Ceredigion	10	Torfaen	-14
Pembrokeshire	6	Monmouthshire	24
Carmarthenshire	21	Newport	1
Swansea	7	Cardiff	12

**Map 8: Standard Participation Rates for Female Students in 2003/04**



Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	17	Neath Port Talbot	-9
Gwynedd	2	Bridgend	0
Conwy	17	Vale of Glamorgan	11
Denbighshire	4	Rhondda Cynon Taff	-8
Flintshire	-13	Merthyr Tydfil	-1
Wrexham	-14	Caerphilly	-17
Powys	14	Blaenau Gwent	-31
Ceredigion	26	Torfaen	-19
Pembrokeshire	9	Monmouthshire	21
Carmarthenshire	27	Newport	-16
Swansea	10	Cardiff	-6

**Chart 8: Standard Participation Rates for Female Students in 2003/04**

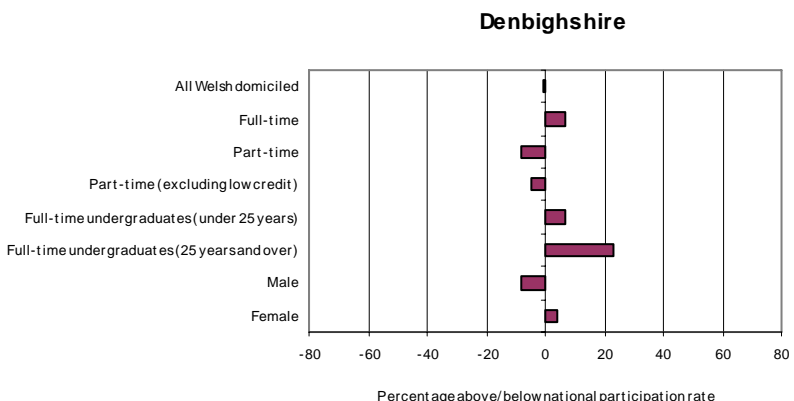
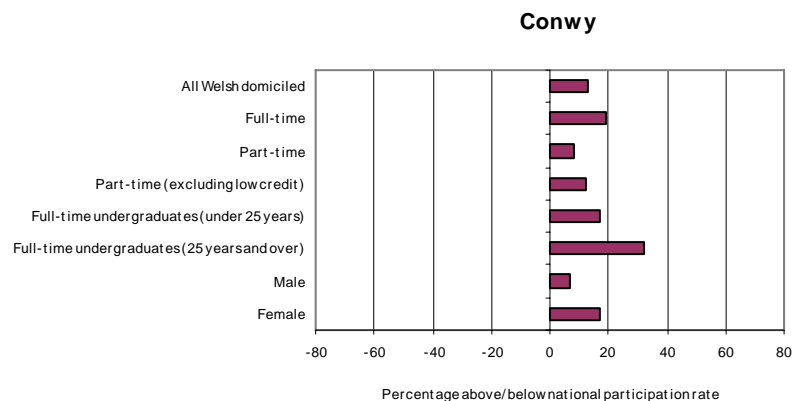
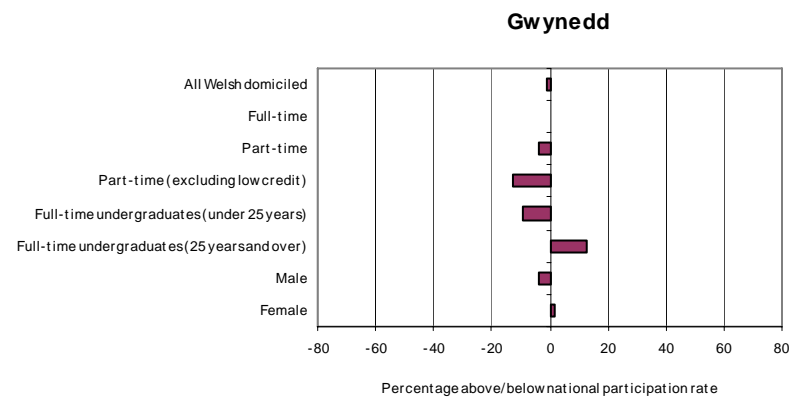
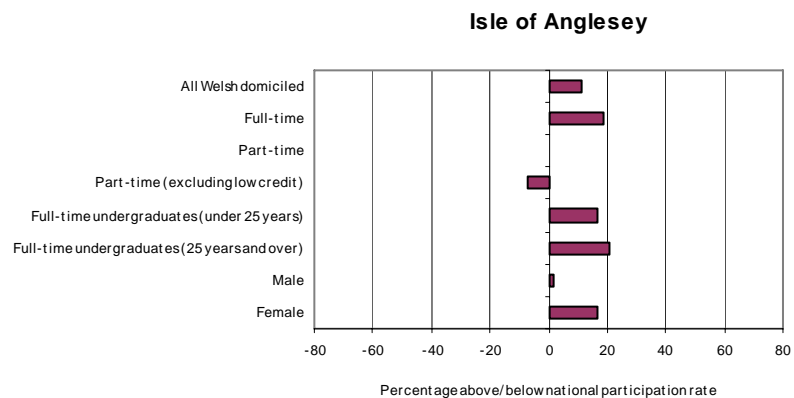


Unitary Authority	Standard Participation Rate	Unitary Authority	Standard Participation Rate
Isle of Anglesey	17	Neath Port Talbot	-9
Gwynedd	2	Bridgend	0
Conwy	17	Vale of Glamorgan	11
Denbighshire	4	Rhondda Cynon Taff	-8
Flintshire	-13	Merthyr Tydfil	-1
Wrexham	-14	Caerphilly	-17
Powys	14	Blaenau Gwent	-31
Ceredigion	26	Torfaen	-19
Pembrokeshire	9	Monmouthshire	21
Carmarthenshire	27	Newport	-16
Swansea	10	Cardiff	-6



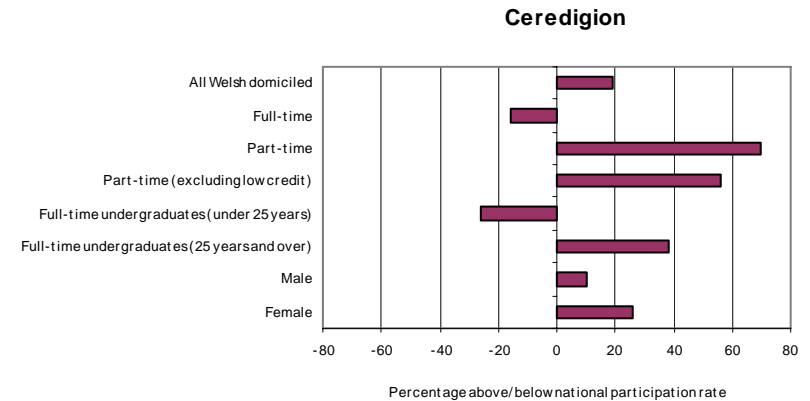
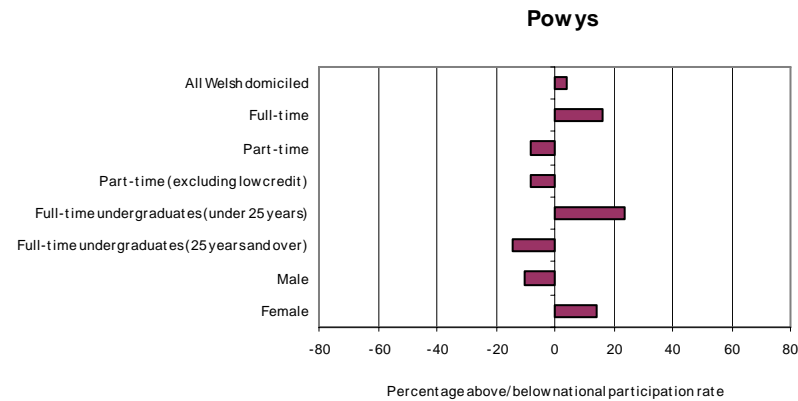
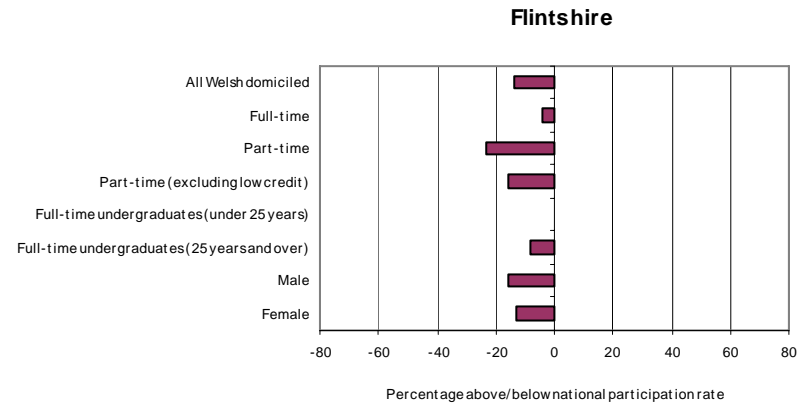
## **SECTION 2**

## Comparison of Standard Participation Rates for each Unitary Authority by age, mode of study and gender in 2003/04



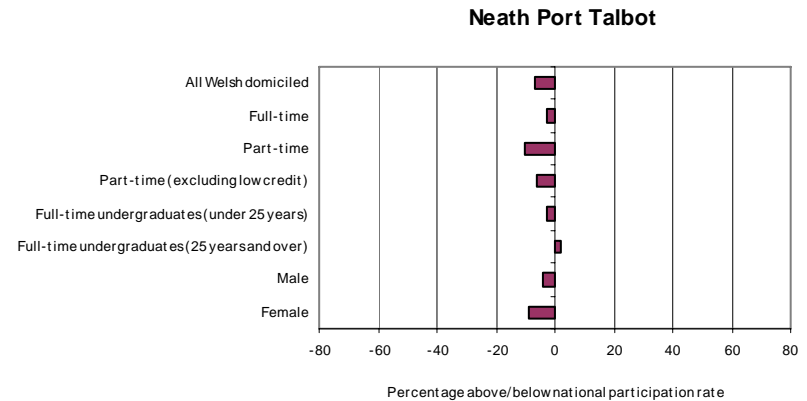
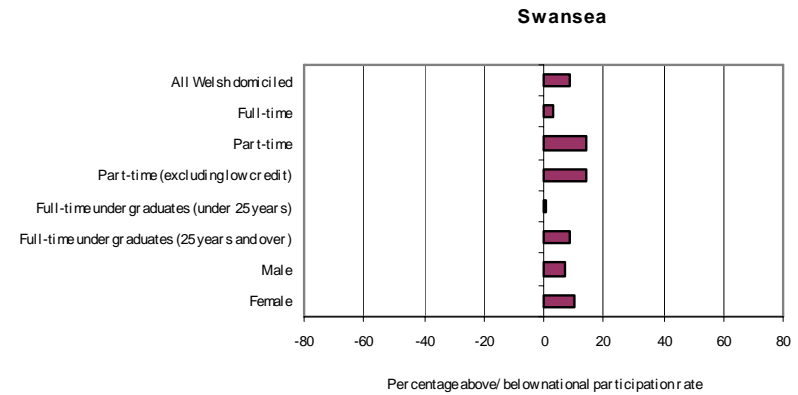
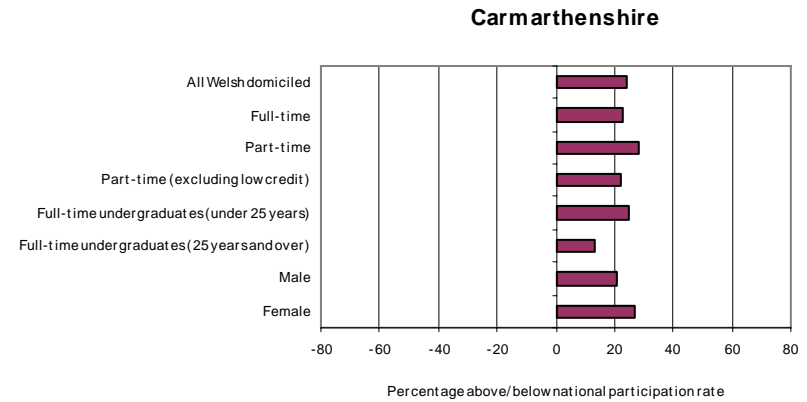
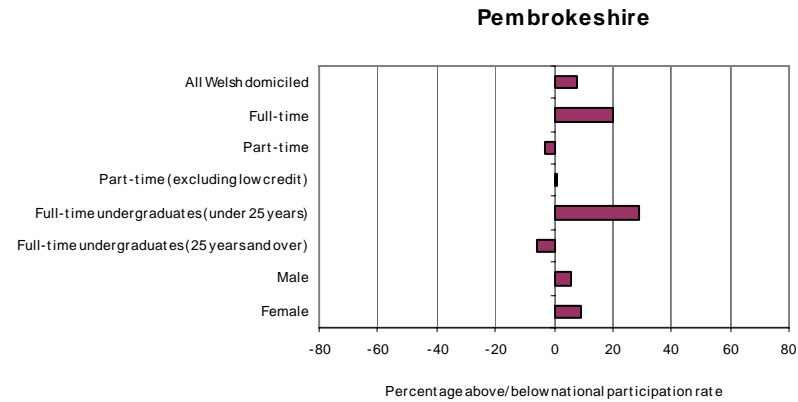
Unitary Authority	All Welsh domiciled	Full-time (excluding PGR)	Part-time (excluding PGR)	Part-time (excluding PGR and low credit)	Full-time undergraduates (under 25 years)	Full-time undergraduates (25 years and over)	Male	Female
Isle of Anglesey	11	19	0	-7	17	21	2	17
Gwynedd	-1	0	-4	-13	-9	13	-4	2
Conwy	13	19	8	12	17	32	7	17
Denbighshire	-1	7	-8	-5	7	23	-8	4

## Comparison of Standard Participation Rates for each Unitary Authority by age, mode of study and gender in 2003/04



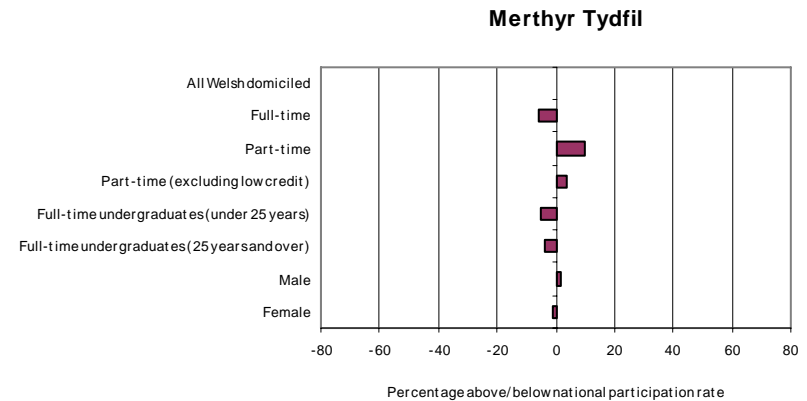
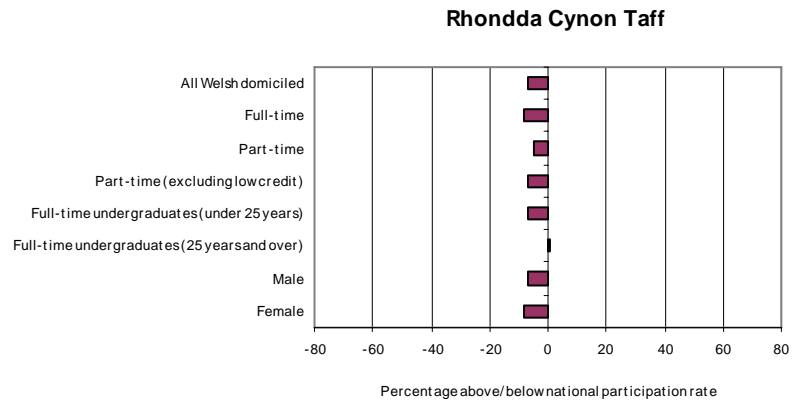
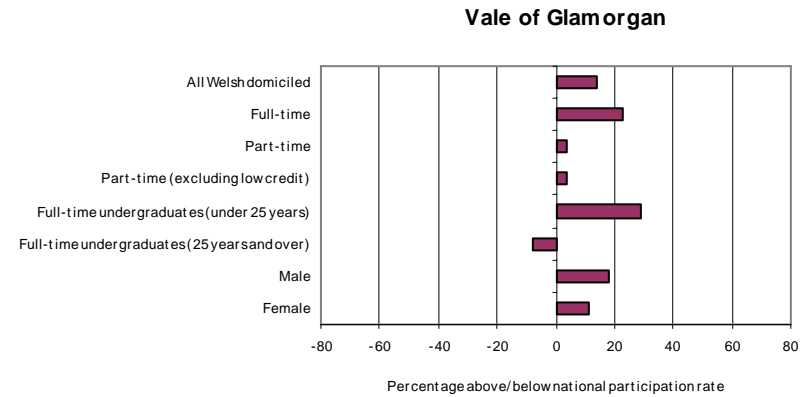
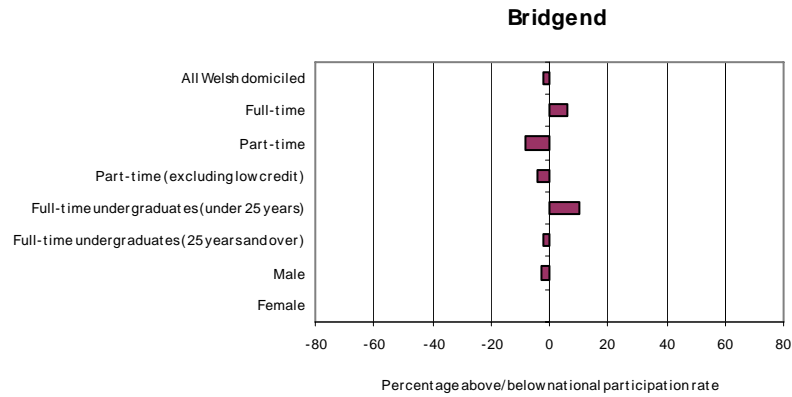
Unitary Authority	All Welsh domiciled	Full-time (excluding PGR)	Part-time (excluding PGR)	Part-time (excluding PGR and low credit)	Full-time undergraduates (under 25 years)	Full-time undergraduates (25 years and over)	Male	Female
Flintshire	-14	-4	-23	-16	0	-8	-16	-13
Wrexham	-17	-8	-27	-19	-12	23	-22	-14
Powys	4	16	-8	-8	24	-14	-10	14
Ceredigion	19	-16	70	56	-26	38	10	26

## Comparison of Standard Participation Rates for each Unitary Authority by age, mode of study and gender in 2003/04



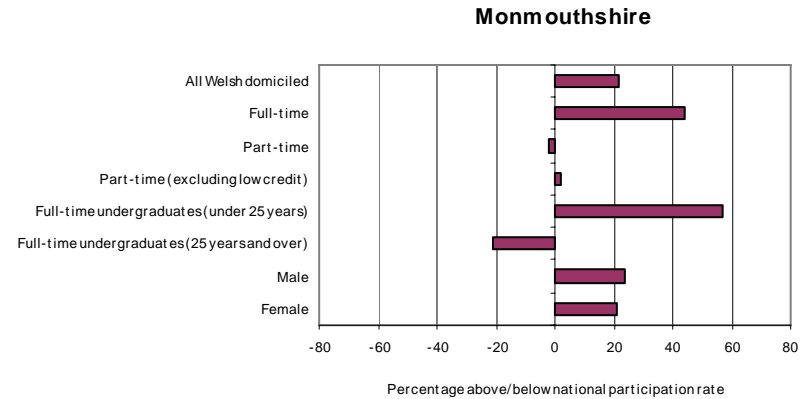
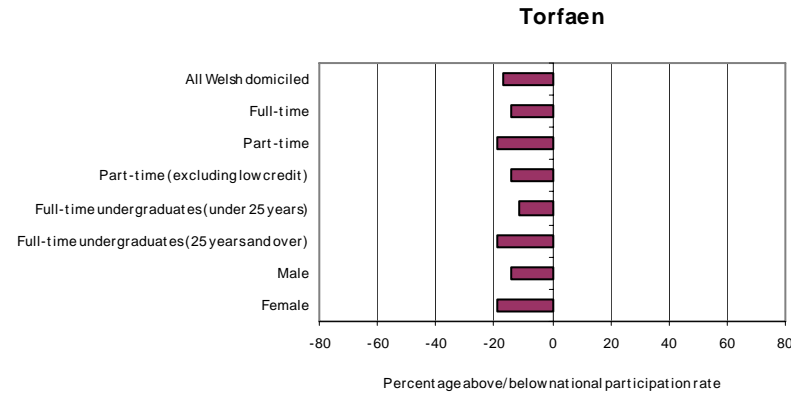
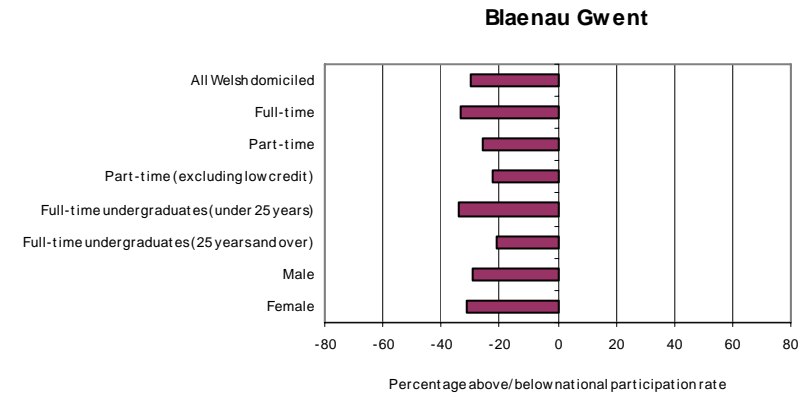
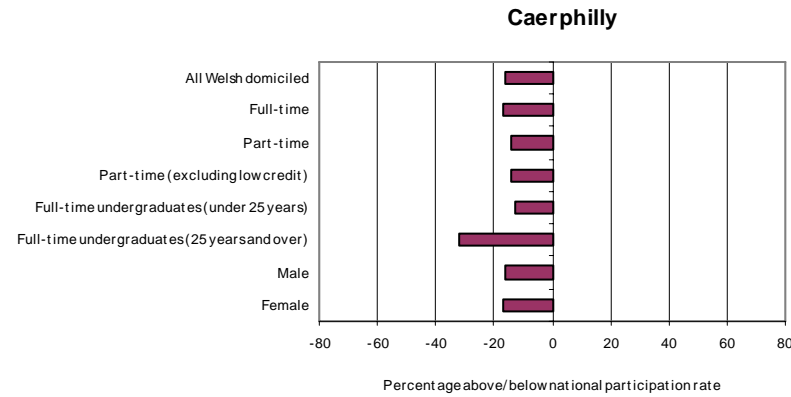
Unitary Authority	All Welsh domiciled	Full-time (excluding PGR)	Part-time (excluding PGR)	Part-time (excluding PGR and low credit)	Full-time undergraduates (under 25 years)	Full-time undergraduates (25 years and over)	Male	Female
Pembrokeshire	8	20	-3	1	29	-6	6	9
Carmarthenshire	24	23	28	22	25	13	21	27
Swansea	9	3	14	14	1	9	7	10
Neath Port Talbot	-7	-3	-10	-6	-3	2	-4	-9

## Comparison of Standard Participation Rates for each Unitary Authority by age, mode of study and gender in 2003/04



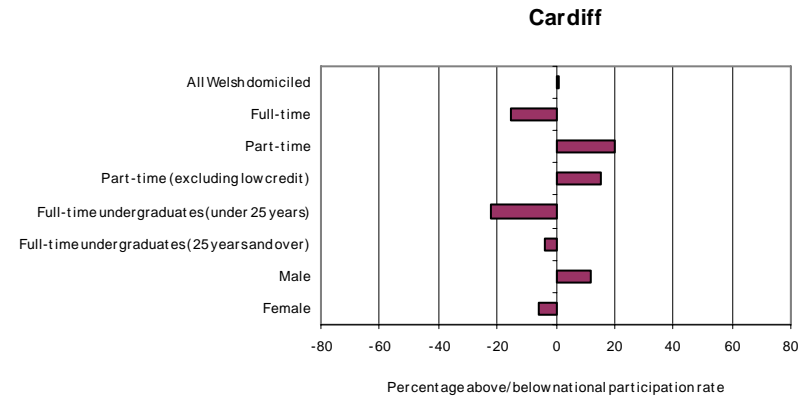
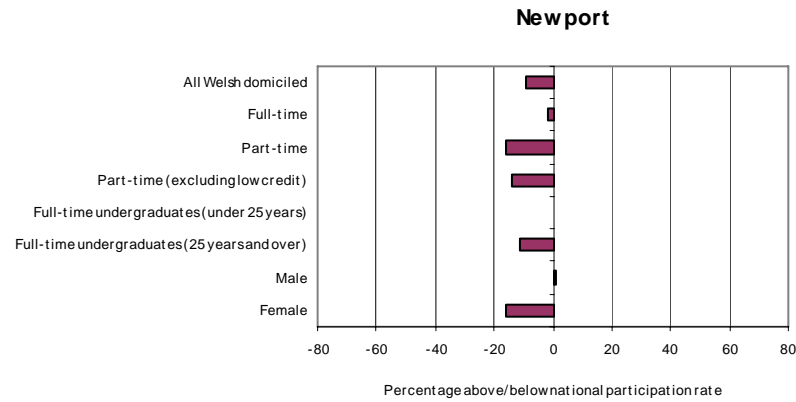
Unitary Authority	All Welsh domiciled	Full-time (excluding PGR)	Part-time (excluding PGR)	Part-time (excluding PGR and low credit)	Full-time undergraduates (under 25 years)	Full-time undergraduates (25 years and over)	Male	Female
Bridgend	-2	6	-8	-4	10	-2	-3	0
Vale of Glamorgan	14	23	4	4	29	-8	18	11
Rhondda Cynon Taff	-7	-8	-5	-7	-7	1	-7	-8
Merthyr Tydfil	0	-6	10	4	-5	-4	2	-1

## Comparison of Standard Participation Rates for each Unitary Authority by age, mode of study and gender in 2003/04



Unitary Authority	All Welsh domiciled	Full-time (excluding PGR)	Part-time (excluding PGR)	Part-time (excluding PGR and low credit)	Full-time undergraduates (under 25 years)	Full-time undergraduates (25 years and over)	Male	Female
Caerphilly	-16	-17	-14	-14	-13	-32	-16	-17
Blaenau Gwent	-30	-33	-26	-22	-34	-21	-29	-31
Torfaen	-17	-14	-19	-14	-11	-19	-14	-19
Monmouthshire	22	44	-2	2	57	-21	24	21

## Comparison of Standard Participation Rates for each Unitary Authority by age, mode of study and gender in 2003/04



Unitary Authority	All Welsh domiciled	Full-time (excluding PGR)	Part-time (excluding PGR)	Part-time (excluding PGR and low credit)	Full-time undergraduates (under 25 years)	Full-time undergraduates (25 years and over)	Male	Female
Newport	-9	-2	-16	-14	0	-11	1	-16
Cardiff	1	-15	20	15	-22	-4	12	-6



# **ANNEXES**



## ANNEX A : TABLES

Table 1 : Welsh Domiciled Students by Mode and Level of Study 2003/04

INSTITUTIONS	Full-time				Part-time				TOTAL
	UG (degree)	UG (other)	PG (taught)	PG (research)	UG (degree)	UG (other)	PG (taught)	PG (research)	
Welsh HEIs	26,283	5,268	3,282	949	4,215	23,703	6,236	708	<b>70,644</b>
UK (non-Welsh) HEIs	18,309	977	1,440	637	820	1,966	2,337	296	<b>26,782</b>
Open University	0	0	0	1	3,187	2,742	619	26	<b>6,575</b>
Welsh FECs	118	686	2	0	95	2,897	41	0	<b>3,839</b>
GB (non-Welsh) FECs	92	147	0	0	19	565	32	0	<b>855</b>
<b>TOTAL</b>	<b>44,802</b>	<b>7,078</b>	<b>4,724</b>	<b>1,587</b>	<b>8,336</b>	<b>31,873</b>	<b>9,265</b>	<b>1,030</b>	<b>108,695</b>

Notes :

1) UG = undergraduate, PG = postgraduate

2) UK = United Kingdom, GB = Great Britain, HEIs = Higher Education Institutions, FECs = Further Education Colleges

Table 2 : Welsh Domiciled Students by Gender, Mode of Study and Age Group 2003/04

INSTITUTIONS	Male				Female				TOTAL
	FT		PT		FT		PT		
	Under 25	25 and over	Under 25	25 and over	Under 25	25 and over	Under 25	25 and over	
Welsh HEIs	11,457	3,193	3,097	10,327	15,146	5,986	3,697	17,741	<b>70,644</b>
UK (non-Welsh) HEIs	9,075	811	379	1,938	10,591	886	435	2,667	<b>26,782</b>
Open University	0	1	230	2,557	0	0	522	3,265	<b>6,575</b>
Welsh FECs	263	112	374	846	194	237	336	1,477	<b>3,839</b>
GB (non-Welsh) FECs	114	30	73	208	86	9	66	269	<b>855</b>
<b>TOTAL</b>	<b>20,909</b>	<b>4,147</b>	<b>4,153</b>	<b>15,876</b>	<b>26,017</b>	<b>7,118</b>	<b>5,056</b>	<b>25,419</b>	<b>108,695</b>

Notes :

1) UK = United Kingdom, GB = Great Britain, HEIs = Higher Education Institutions, FECs = Further Education Colleges

2) Age is the student's age on 31<sup>st</sup> August 2003

**Table 3 : Welsh Domiciled Students by Full-Time Equivalent 2003/04**

INSTITUTIONS	Less than 10% of an FTE	Greater than 10% of an FTE	TOTAL
Welsh HEIs	6,338	64,306	<b>70,644</b>
UK (non-Welsh) HEIs	298	26,484	<b>26,782</b>
Open University	634	5,941	<b>6,575</b>
Welsh FECs	*	3,839	<b>3,839</b>
GB (non-Welsh) FECs	*	855	<b>855</b>
<b>TOTAL</b>	<b>7,270</b>	<b>101,425</b>	<b>108,695</b>

Notes :

- 1) UK = United Kingdom, GB = Great Britain HEIs = Higher Education Institutions, FECs = Further Education Colleges
- 2) FTE = Full-time equivalent
- 3) \* FTE not available for FEC data

**Table 4 : Welsh Domiciled Students by Postcode 2003/04**

INSTITUTIONS	Students with Identifiable Postcodes	Students with Unidentified Postcodes	% of postcodes which are unidentifiable	TOTAL
Welsh HEIs	67,925	2,719	4%	<b>70,644</b>
UK (non-Welsh) HEIs	26,393	389	1%	<b>26,782</b>
Open University	6,534	41	1%	<b>6,575</b>
Welsh FECs	3,600	239	6%	<b>3,839</b>
GB (non-Welsh) FECs	852	3	0%	<b>855</b>
<b>TOTAL</b>	<b>105,304</b>	<b>3,391</b>	<b>3%</b>	<b>108,695</b>

Notes :

- 1) Unidentifiable postcodes are invalid postcodes returned by institutions

**Table 5 : National Participation Rates for all Welsh Domiciled Students 2001/02 – 2003/04**

AGE	Percentage of Population in Higher Education					
	2001/02		2002/03		2003/04	
	Male	Female	Male	Female	Male	Female
16 to 17 years old	0.9	1.2	1.9	2.7	2.2	3.3
18 to 19 years old	24.9	30.1	23.6	29.7	23.0	30.0
20 to 24 years old	16.8	18.8	16.2	19.2	15.9	19.3
25 to 29 years old	5.6	7.1	5.6	7.6	5.7	7.9
30 to 39 years old	3.9	5.1	3.8	5.4	3.6	5.6
40 to 49 years old	2.5	3.9	2.5	4.2	2.4	4.2
50 to 59 years old	1.2	1.7	1.2	1.8	1.2	1.9
<b>All ages</b>	<b>3.2</b>	<b>3.9</b>	<b>3.2</b>	<b>4.1</b>	<b>3.2</b>	<b>4.2</b>

Table 6a : Trends in Standard Participation Rates by Mode of Attendance 2001/02 – 2003/04

Unitary Authority	Standard Participation Rates for all Welsh Students			Standard Participation Rates for Full-time Students*		
	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04
Isle of Anglesey	9	18	11	23	24	19
Gwynedd	5	7	-1	7	9	0
Conwy	17	12	13	30	25	19
Denbighshire	-2	-4	-1	5	6	7
Flintshire	-12	-15	-14	-6	-5	-4
Wrexham	-18	-18	-17	-11	-8	-8
Powys	4	0	4	18	15	16
Ceredigion	30	29	19	-14	-14	-16
Pembrokeshire	12	7	8	21	17	20
Carmarthenshire	27	28	24	22	23	23
Swansea	5	5	9	2	3	3
Neath Port Talbot	-14	-13	-7	-10	-7	-3
Bridgend	-1	-3	-2	3	3	6
Vale of Glamorgan	16	15	14	22	21	23
Rhondda Cynon Taff	-13	-10	-7	-13	-11	-8
Merthyr Tydfil	4	9	0	-13	-3	-6
Caerphilly	-21	-16	-16	-18	-16	-17
Blaenau Gwent	-32	-30	-30	-35	-37	-33
Torfaen	-16	-13	-17	-15	-11	-14
Monmouthshire	30	24	22	56	50	44
Newport	-6	-9	-9	1	-4	-2
Cardiff	0	0	1	-14	-16	-15
<b>Standard Deviation</b>	<b>16.8</b>	<b>15.9</b>	<b>14.1</b>	<b>20.7</b>	<b>19.0</b>	<b>17.7</b>

Notes :

\* excludes PGR students

Table 6b : Trends in Standard Participation Rates for Part-time Students 2001/02 – 2003/04

Unitary Authority	Standard Participation Rates for Part-time Students*			Standard Participation Rates for Part-time Students (excluding low-credit students)*		
	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04
Isle of Anglesey	-9	10	0	-7	17	-7
Gwynedd	0	3	-4	-6	-5	-13
Conwy	6	1	8	11	10	12
Denbighshire	-8	-13	-8	-7	-10	-5
Flintshire	-18	-25	-23	-16	-21	-16
Wrexham	-26	-28	-27	-23	-23	-19
Powys	-10	-13	-8	-10	-12	-8
Ceredigion	91	87	70	53	65	56
Pembrokeshire	6	-1	-3	6	1	1
Carmarthenshire	35	34	28	22	25	22
Swansea	7	7	14	6	6	14
Neath Port Talbot	-17	-18	-10	-16	-15	-6
Bridgend	-4	-8	-8	3	0	-4
Vale of Glamorgan	10	8	4	11	7	4
Rhondda Cynon Taff	-11	-8	-5	-5	-8	-7
Merthyr Tydfil	25	25	10	34	6	4
Caerphilly	-23	-15	-14	-18	-14	-14
Blaenau Gwent	-27	-21	-26	-24	-19	-22
Torfaen	-16	-13	-19	-12	-10	-14
Monmouthshire	4	-1	-2	7	3	2
Newport	-12	-14	-16	-10	-11	-14
Cardiff	14	18	20	12	15	15
<b>Standard Deviation</b>	<b>25.7</b>	<b>25.0</b>	<b>21.3</b>	<b>18.8</b>	<b>19.4</b>	<b>17.3</b>

Notes :

\* excludes PGR students

**Table 6c : Trends in Standard Participation Rates for Full-time Undergraduate Students by Age 2001/02 – 2003/04**

Unitary Authority	Standard Participation Rates for Full-time Undergraduate Students (under 25 years of age)			Standard Participation Rates for Full-time Undergraduate Students (25 years of age or older)		
	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04
Isle of Anglesey	18	19	17	25	25	21
Gwynedd	-3	-2	-9	35	33	13
Conwy	29	23	17	31	25	32
Denbighshire	6	6	7	21	23	23
Flintshire	2	1	0	-24	-15	-8
Wrexham	-12	-11	-12	8	19	23
Powys	28	25	24	-12	-20	-14
Ceredigion	-26	-25	-26	39	41	38
Pembrokeshire	26	24	29	12	-1	-6
Carmarthenshire	23	26	25	14	11	13
Swansea	-2	-1	1	8	12	9
Neath Port Talbot	-6	-4	-3	-19	-13	2
Bridgend	5	6	10	7	-1	-2
Vale of Glamorgan	30	29	29	-12	-12	-8
Rhondda Cynon Taff	-14	-12	-7	-3	2	1
Merthyr Tydfil	-11	0	-5	-7	4	-4
Caerphilly	-13	-12	-13	-36	-33	-32
Blaenau Gwent	-36	-38	-34	-24	-20	-21
Torfaen	-13	-9	-11	-19	-13	-19
Monmouthshire	68	65	57	-3	-13	-21
Newport	3	-1	0	-6	-10	-11
Cardiff	-19	-21	-22	4	-3	-4
<b>Standard Deviation</b>	<b>23.5</b>	<b>22.4</b>	<b>21.3</b>	<b>20.5</b>	<b>19.5</b>	<b>18.4</b>

**Table 6d : Trends in Standard Participation Rates by Gender 2001/02 – 2003/04**

Unitary Authority	Standard Participation Rates for Male Students			Standard Participation Rates for Female Students		
	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04
Isle of Anglesey	5	12	2	12	23	17
Gwynedd	5	7	-4	5	8	2
Conwy	11	8	7	22	15	17
Denbighshire	-6	-11	-8	1	1	4
Flintshire	-13	-16	-16	-11	-15	-13
Wrexham	-20	-21	-22	-17	-16	-14
Powys	-5	-9	-10	11	7	14
Ceredigion	14	14	10	41	39	26
Pembrokeshire	13	7	6	12	8	9
Carmarthenshire	24	22	21	30	32	27
Swansea	4	5	7	6	6	10
Neath Port Talbot	-13	-10	-4	-15	-15	-9
Bridgend	-6	-5	-3	3	-2	0
Vale of Glamorgan	20	19	18	12	12	11
Rhondda Cynon Taff	-12	-12	-7	-13	-9	-8
Merthyr Tydfil	2	9	2	5	9	-1
Caerphilly	-18	-14	-16	-23	-18	-17
Blaenau Gwent	-31	-28	-29	-33	-31	-31
Torfaen	-16	-12	-14	-16	-13	-19
Monmouthshire	28	23	24	31	25	21
Newport	2	-1	1	-12	-15	-16
Cardiff	10	10	12	-7	-7	-6
<b>Standard Deviation</b>	<b>15.3</b>	<b>14.4</b>	<b>13.8</b>	<b>18.8</b>	<b>18.0</b>	<b>15.9</b>

Table 7a : Trends in Student Numbers by Mode of Attendance 2001/02 – 2003/04

Unitary Authority	Number of all Welsh Students				Number of Full-time Students*			
	2001/02	2002/03	2003/04	% change 01/02 to 03/04	2001/02	2002/03	2003/04	% change 01/02 to 03/04
Isle of Anglesey	2,433	2,734	2,588	6%	1,384	1,428	1,406	2%
Gwynedd	4,405	4,603	4,314	-2%	2,400	2,463	2,320	-3%
Conwy	4,006	3,980	4,053	1%	2,144	2,120	2,086	-3%
Denbighshire	3,011	3,037	3,195	6%	1,596	1,635	1,703	7%
Flintshire	4,621	4,579	4,689	1%	2,461	2,529	2,625	7%
Wrexham	3,824	3,951	4,013	5%	2,126	2,229	2,277	7%
Powys	4,232	4,269	4,487	6%	2,351	2,356	2,462	5%
Ceredigion	3,968	4,080	3,869	-2%	1,539	1,587	1,608	4%
Pembrokeshire	4,312	4,319	4,406	2%	2,369	2,372	2,512	6%
Carmarthenshire	7,440	7,728	7,625	2%	3,628	3,729	3,814	5%
Swansea	8,713	9,043	9,482	9%	4,526	4,676	4,879	8%
Neath Port Talbot	3,980	4,175	4,520	14%	2,099	2,208	2,380	13%
Bridgend	4,375	4,426	4,564	4%	2,246	2,292	2,447	9%
Vale of Glamorgan	4,770	4,963	5,024	5%	2,544	2,631	2,775	9%
Rhondda Cynon Taff	7,297	7,744	8,029	10%	3,769	3,929	4,161	10%
Merthyr Tydfil	2,003	2,166	2,011	0%	857	968	971	13%
Caerphilly	4,725	5,151	5,191	10%	2,470	2,583	2,600	5%
Blaenau Gwent	1,595	1,700	1,701	7%	760	758	829	9%
Torfaen	2,567	2,769	2,658	4%	1,296	1,391	1,388	7%
Monmouthshire	3,574	3,583	3,560	0%	2,086	2,076	2,053	-2%
Newport	4,472	4,509	4,587	3%	2,424	2,395	2,545	5%
Cardiff	12,990	13,685	14,130	9%	6,347	6,460	6,764	7%
<b>All Wales</b>	<b>103,313</b>	<b>107,194</b>	<b>108,696</b>	<b>5%</b>	<b>53,422</b>	<b>54,815</b>	<b>56,605</b>	<b>6%</b>

Note :

1) Totals might differ slightly to figures in Tables 1 to 3 due to rounding.

\* Excludes PGR students

Table 7b : Trends in Student Numbers for Part-time Students 2001/02 – 2003/04

Unitary Authority	Number of Part-time Students*				Number of Part-time Students (excluding low-credit students)*			
	2001/02	2002/03	2003/04	% change 01/02 to 03/04	2001/02	2002/03	2003/04	% change 01/02 to 03/04
Isle of Anglesey	958	1,218	1,101	15%	878	1,128	869	-1%
Gwynedd	1,844	1,986	1,849	0%	1,558	1,609	1,420	-9%
Conwy	1,785	1,788	1,894	6%	1,651	1,679	1,671	1%
Denbighshire	1,356	1,345	1,430	5%	1,224	1,208	1,256	3%
Flintshire	2,052	1,951	1,990	-3%	1,894	1,812	1,863	-2%
Wrexham	1,610	1,627	1,650	2%	1,505	1,535	1,561	4%
Powys	1,790	1,824	1,930	8%	1,603	1,598	1,643	2%
Ceredigion	2,289	2,361	2,138	-7%	1,644	1,816	1,683	2%
Pembrokeshire	1,886	1,887	1,836	-3%	1,679	1,659	1,621	-3%
Carmarthenshire	3,685	3,859	3,677	0%	2,975	3,137	2,992	1%
Swansea	3,922	4,090	4,337	11%	3,481	3,558	3,702	6%
Neath Port Talbot	1,800	1,888	2,047	14%	1,642	1,702	1,827	11%
Bridgend	2,050	2,048	2,039	-1%	1,970	1,946	1,816	-8%
Vale of Glamorgan	2,120	2,212	2,130	0%	1,913	1,902	1,824	-5%
Rhondda Cynon Taff	3,392	3,673	3,720	10%	3,257	3,191	3,143	-4%
Merthyr Tydfil	1,125	1,173	1,014	-10%	1,085	867	819	-25%
Caerphilly	2,167	2,480	2,504	16%	2,071	2,212	2,145	4%
Blaenau Gwent	812	913	848	4%	754	818	759	1%
Torfaen	1,224	1,332	1,222	0%	1,149	1,197	1,106	-4%
Monmouthshire	1,405	1,411	1,402	0%	1,291	1,279	1,241	-4%
Newport	1,951	2,033	1,955	0%	1,801	1,824	1,724	-4%
Cardiff	6,094	6,682	6,764	11%	5,418	5,772	5,654	4%
<b>All Wales</b>	<b>47,317</b>	<b>49,781</b>	<b>49,477</b>	<b>5%</b>	<b>42,443</b>	<b>43,449</b>	<b>42,339</b>	<b>0%</b>

Note :

1) Totals might differ slightly to figures in Tables 1 to 3 due to rounding.

\* Excludes PGR students

**Table 7c : Trends in Student Numbers for Full-time Undergraduate Students by Age  
2001/02 – 2003/04**

Unitary Authority	Number of Full-time Undergraduate Students (under 25 years of age)				Number of Full-time Undergraduate Students (25 years of age or older)			
	2001/02	2002/03	2003/04	% change 01/02 to 03/04	2001/02	2002/03	2003/04	% change 01/02 to 03/04
Isle of Anglesey	1,016	1,045	1,055	4%	209	218	222	6%
Gwynedd	1,710	1,717	1,655	-3%	394	403	364	-8%
Conwy	1,616	1,567	1,535	-5%	345	344	386	12%
Denbighshire	1,225	1,230	1,285	5%	287	308	326	14%
Flintshire	2,013	2,012	2,050	2%	320	377	430	34%
Wrexham	1,618	1,632	1,635	1%	389	450	493	27%
Powys	1,931	1,955	1,987	3%	275	265	300	9%
Ceredigion	1,100	1,134	1,167	6%	235	251	260	11%
Pembrokeshire	1,930	1,951	2,071	7%	312	293	295	-5%
Carmarthenshire	2,819	2,908	2,966	5%	493	504	547	11%
Swansea	3,433	3,543	3,728	9%	629	683	704	12%
Neath Port Talbot	1,665	1,742	1,815	9%	289	324	396	37%
Bridgend	1,699	1,770	1,892	11%	387	374	385	-1%
Vale of Glamorgan	2,082	2,139	2,235	7%	277	293	326	18%
Rhondda Cynon Taff	2,869	2,985	3,187	11%	614	669	702	14%
Merthyr Tydfil	671	767	753	12%	138	158	152	10%
Caerphilly	1,971	2,032	2,055	4%	306	334	359	17%
Blaenau Gwent	569	568	617	8%	143	153	159	11%
Torfaen	1,003	1,072	1,093	9%	195	218	212	9%
Monmouthshire	1,701	1,723	1,688	-1%	208	196	188	-10%
Newport	1,886	1,869	1,967	4%	354	353	366	3%
Cardiff	4,702	4,741	4,869	4%	948	933	1,002	6%
<b>All Wales</b>	<b>41,229</b>	<b>42,102</b>	<b>43,305</b>	<b>5%</b>	<b>7,747</b>	<b>8,101</b>	<b>8,574</b>	<b>11%</b>

Note :

1) Totals might differ slightly to figures in Tables 1 to 3 due to rounding.

**Table 7d : Trends in Student Numbers by Gender 2001/02 – 2003/04**

Unitary Authority	Number of Male Students				Number of Female Students			
	2001/02	2002/03	2003/04	% change 01/02 to 03/04	2001/02	2002/03	2003/04	% change 01/02 to 03/04
Isle of Anglesey	1,036	1,112	1,010	-3%	1,397	1,622	1,578	13%
Gwynedd	1,875	1,914	1,722	-8%	2,530	2,689	2,592	2%
Conwy	1,656	1,629	1,620	-2%	2,349	2,351	2,433	4%
Denbighshire	1,263	1,207	1,255	-1%	1,748	1,830	1,940	11%
Flintshire	2,025	1,969	1,940	-4%	2,596	2,610	2,749	6%
Wrexham	1,650	1,626	1,577	-4%	2,174	2,325	2,436	12%
Powys	1,722	1,684	1,671	-3%	2,510	2,584	2,815	12%
Ceredigion	1,465	1,495	1,463	0%	2,503	2,585	2,406	-4%
Pembrokeshire	1,868	1,825	1,806	-3%	2,444	2,494	2,600	6%
Carmarthenshire	3,080	3,076	3,029	-2%	4,360	4,651	4,597	5%
Swansea	3,816	3,898	3,967	4%	4,897	5,146	5,515	13%
Neath Port Talbot	1,780	1,848	1,945	9%	2,201	2,327	2,575	17%
Bridgend	1,819	1,850	1,877	3%	2,557	2,576	2,687	5%
Vale of Glamorgan	2,111	2,136	2,138	1%	2,659	2,826	2,886	9%
Rhondda Cynon Taff	3,188	3,204	3,339	5%	4,109	4,540	4,691	14%
Merthyr Tydfil	837	892	831	-1%	1,166	1,274	1,180	1%
Caerphilly	2,131	2,240	2,182	2%	2,594	2,912	3,008	16%
Blaenau Gwent	693	724	708	2%	902	976	993	10%
Torfaen	1,119	1,184	1,156	3%	1,448	1,585	1,502	4%
Monmouthshire	1,540	1,518	1,521	-1%	2,034	2,065	2,039	0%
Newport	2,072	2,056	2,072	0%	2,400	2,454	2,515	5%
Cardiff	5,902	6,149	6,257	6%	7,088	7,536	7,873	11%
<b>All Wales</b>	<b>44,648</b>	<b>45,236</b>	<b>45,086</b>	<b>1%</b>	<b>58,666</b>	<b>61,958</b>	<b>63,610</b>	<b>8%</b>

Note :

1) Totals might differ slightly to figures in Tables 1 to 3 due to rounding.

## ANNEX B : TECHNICAL DETAILS

## PARTICIPATION RATES

- 1 A basic measure of participation of people in HE from a Unitary Authority might be:

$$\frac{\text{Total number of students from Unitary Authority}}{\text{Population of Unitary Authority}} \times 100 \quad (1)$$

but this definition does not lead to figures which can be fairly compared between Unitary Authorities due to the difference in population gender and age profiles in each area.

- 2 For example, a particular Unitary Authority may have an average or above average participation rate for young people, but may also have a higher than average number of older people living there which would result in an overall lower participation rate, as older people have either already completed their HE studies or are less likely to enter HE for other reasons. To allow for fair comparison and to account for regional variations, we have calculated standardised participation rates. To do this, we have used the expected number of students in a particular Unitary Authority as the denominator. Furthermore, the expected number of students in the denominator is the sum of the expected number of students for each of 18 age and gender groups and this helps to further account for regional variations.
- 3 In mathematical terms, the definition used within this report to calculate a "Standard Participation Rate" for each Unitary Authority and category of students to be considered (e.g. full-time) is

$$\left( \frac{\text{Actual number of students from Unitary Authority in category}}{\sum_{\text{all } x} \text{Expected number of students from Unitary Authority in category}_x} \right) \times 100 - 100 \quad (2)$$

where  $x$  is each age and gender group and where

$$\text{Expected number of students from Unitary Authority in category}_x = \text{Population of Unitary Authority}_x \times \text{National participation rate}_x \quad (3)$$

and

$$\text{National participation rate}_x = \frac{\text{Total number of Welsh students in category}_x}{\text{Population of Wales}_x} \quad (4)$$

- 4 This provides a standardised measure, showing the per cent variation from the standardised national participation rate, which is 100. Therefore if a standard participation rate is calculated as 0, participation is in line with the national average, if it is calculated to be a negative figure then participation is below the national average and if positive is above the national average.

## METHODS OF POSTCODE ANALYSIS

- 5 To arrive at standard participation rates for each of the 22 Unitary Authorities in Wales, every student's home postcode must be mapped to its own particular Unitary Authority. Out of 108,695 Welsh HE students in 2003/04 it was found that 3 per cent had missing, unreadable or invalid postcodes.

- 6 A 97 per cent success rate at mapping students to Unitary Authorities is good compared to earlier years; however, the geographical distribution of students with unidentified postcodes is not known and may not necessarily be uniform across Wales. The missing data could therefore result in distortion of the participation rate profile. Unitary Authorities have been assigned to students with unidentifiable postcodes by assuming that they are from the same Unitary Authorities as fellow Welsh domiciled students from their particular institution, dividing them proportionately between the Unitary Authorities according to the profile of their fellow students.

### **POPULATION DATA**

- 7 To derive participation rates it is necessary to have a breakdown of the local population, thus the data used in this analysis are split according to gender and 9 age categories.
- 8 The population figures used have been arrived at by combining census based population data with population growth rate data. The base population data used were 2001 census output area data modified to place students at their home address. For each academic year a growth rate has been applied to the population data. This has been derived for combinations of gender, age group and Unitary Authority from mid-year population estimate data. For example, 2004 mid-year population estimate data was used to grow the Census 2001 data for use in calculating the 2003/04 participation rates.
- 9 To calculate the participation rate of people from a particular area involved in HE, as noted in paragraph 13 of the main text, we require the number of students from the area, determined by their home postcode, and the total number of people from the area, provided by population data which places students at their home address.
- 10 The way in which the population was enumerated during the 2001 Census changed from the method used during the 1991 Census. Full-time students were enumerated at their term-time address only, with limited information collected in relation to their home address. The base population used in all Census 2001 statistics places students at their term-time address. The limited information collected on students at their home address does not allow the flexibility of accurately changing the base population to place students at their home address. This is an issue when calculating participation rates, particularly for areas which have high densities of students during term-time such as Cardiff and Aberystwyth, as the population count will be too high resulting in a participation rate lower than the true participation rate of those domiciled in these areas.

### **Determining the base population**

- 11 To determine an appropriate base population, students enumerated at their term-time address need to be removed from the Census 2001 data and the same students, enumerated at their home address need to be added back.
- 12 It is possible to determine from Census 2001 data the exact number of students whose term-time and home addresses are different, enumerated at their home address, but it is not possible to cross reference this data with all students enumerated at their term-time address in order to identify which students to remove, therefore the number of students to be removed must be estimated from available data.
- 13 Students studying in Wales could be from anywhere else in the UK, therefore UK census data is used to estimate the proportion of students to remove. Using UK census data, we know that the number of students to remove will be equal to the number of students to be added. Therefore dividing the number of UK students whose term-time and home addresses are different (enumerated at their home address) by the number of UK students not living with parents (enumerated at their term-time address) gives a proportion of forty one per cent. This proportion of students, enumerated at their term-time address, is removed from each Unitary Authority population.

- 14 However, it is likely that the majority of the students whose term-time and home addresses are different are younger. Therefore to take this into account the students which are removed are profiled according to the age/gender proportions of UK students whose term-time and home addresses are different.
- 15 Finally, the actual number of students whose term-time and home addresses are different, enumerated at their home address is then added back to each appropriate Unitary Authority to derive an estimate of the population with students located as far as is possible at their home address.

#### **Rationale for method of determining base population**

- 16 The advantage of this method is that it produces the best estimate, given available data, of a population with students located at their home address which is essential for calculating participation rates. The disadvantage of this method is that it assumes that the same proportion of the population in each Unitary Authority was recorded as a full-time student living away from home when the 2001 Census was taken, and that the age distribution of these students was also the same in each Unitary Authority.
- 17 This may particularly be an issue for participation rates calculated for Ceredigion. Map 5 shows that participation of full-time undergraduates from Ceredigion aged under 25 years is very low. When calculating participation rates for earlier years, using population data available from the 1991 Census which placed students at their home address, participation of this group of students from Ceredigion has been shown to be high, for example, see figure H7 of the joint HEFCW ELWa publication Higher Education, Further Education and Training Statistics in Wales: 2002/03.
- 18 Ceredigion is the Unitary Authority within which the University of Wales, Aberystwyth is located. More than 60% of full-time undergraduate new entrants at the University of Wales, Aberystwyth come from England, as shown in figure S3 of the HEFCW publication Welsh Higher Education Statistics 2003/04, and Table 1.4 of the same publication shows that there were 6,079 full-time undergraduate enrolments at this HEI. It is well known that the term-time population of Aberystwyth is much greater than the population during vacation times, although data from Census 2001 is not available to show this.
- 19 It may be that the proportion of students enumerated at their term-time address to be removed from the Census 2001 data is substantially greater than the forty one percent calculated above, and the number of students from the area added back is considerably smaller. As noted in paragraph 10 this will result in the size of the population of the area being over-estimated, causing the participation rate to be lower than the true participation rate of those domiciled in the area.
- 20 A sensitivity analysis was conducted recalculating participation rates for increasing proportions of students enumerated at their term-time address removed from Ceredigion and correspondingly reduced proportions removed from the other Unitary Authorities, maintaining overall forty one per cent of students not living with their parents enumerated at their term-time address removed from the Welsh population. There was little or no effect for most student groups and most Unitary Authorities. Undergraduate students aged under 25 years were the most affected. When the proportion removed from Ceredigion was increased to 80 per cent, the thematic banding (Very Low, Low, Average, High, Very High) reduced one level for five Unitary Authorities, although the participation rate calculated by the original method for four of these areas was within five percentage points of the boundary of the thematic banding. The banding for Ceredigion increased to Average.
- 21 In light of the results of this sensitivity analysis and the absence of population data with students placed at their home address or suitable data that may provide information to enable the correct proportions of students at their term-time address to be removed from the population data, the method of determining a best estimate of the population with

students enumerated at their home address used in this report was considered to be acceptable.

**Future analyses**

- 22 The HESA student record has undergone a review and has been restructured for the 2007/08 academic year. The home postcode of the student is already collected, however, the introduction of a field to collect the student's term-time postcode will allow, for the first time, the mapping of the movements of students between term-time and home addresses. This information may present the opportunity to further improve the method for modifying the population to locate students at their home address. However, it will not be possible to calculate accurate participation rates until the 2011 Census becomes available, when it is hoped that it will once again be possible to determine a population with students enumerated at their home address.

**STUDENT DATA**

- 23 This analysis includes individual students, returned on the HESA student record, who were active within the academic year, that is between 1 August 2003 and 31 July 2004 for 2003/04 except:
- dormant students (those who have ceased studying but have not formally de-registered),
  - incoming and visiting exchange students
  - students studying for the whole of their programme of study outside of the UK
  - students who are writing up and
  - sabbatical students
- 24 To select Welsh domiciled students, the student's home postcode was mapped using HEFCW's postcode database which contains postcodes which are either presently in use in the UK or have historically been in use sometime within the period since 1997. The postcode data are derived from data provided by Ordnance Survey and Royal Mail. Postcodes are mapped to the geographies within which the centroid of the postcode falls.