International Comparisons of Education Indicators
February 2010

This article summarises comparisons of Wales with other countries, drawn from Education at a Glance (EAG) 2009, the results of PISA 2006 and other indicators published by Eurostat. Apart from the PISA indicators, all indicators relate to 2007. The indicators included reflect those for which it has been possible, to date, to produce data on a comparable basis for Wales.

Wales is measured against EU and some OECD countries for indicators in the following areas:
- Output of Educational Systems: Attainment
- Expenditure on Education: Tertiary Tuition Fees
- Enrolment and Participation
- Learning Environment: Class Sizes and Students:Staff Ratios

This article updates the one published in 2008 which mainly covered 2005 indicators. The methodology used to derive the Welsh indicators for this article is in the main consistent with the previous article. However, care should be taken when comparing Wales with individual countries over the two articles as some countries have changed methodology and this may impact on their relative change between the two years. Many of the indicators are derived from the EU Labour Force Survey and are therefore subject to variation due to sampling.

Key points on attainment levels

Achievement of 15 year olds (PISA 2006)
- The mean score for 15 year olds in Wales was similar to the OECD average for science and below the OECD average for reading and mathematics.
- Most of the variation in student performance in science in Wales was due to within school differences.

Adult attainment levels
- Wales ranked in the middle in terms of persons holding tertiary (degree) qualifications but had a relatively longer tail of persons with low or no qualifications.
- Compared with Wales, attainment levels were lower for older people in some countries but their younger cohorts were catching up or had overtaken Wales.
- Employment rates for females were strong for both graduates and those less qualified, but male employment rates less so.
- In general the position in 2007 was similar to 2005.

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1 Notes on the use of statistical articles can be found at the end of this document.
Key points on expenditure

- Tertiary fees in Wales in 2006/07 pre-variable fees were only lower than the UK within EU countries. The increase in fee levels in 2007/08 will move Wales into a group of countries above USD 4000.
- As in most OECD countries, tuition fees were higher for international students studying in Wales than national students although within the EU a further distinction is made with EU/EEA students being required to pay the same fees as home students.

Key points on enrolment and participation

- Wales possessed one of the highest rates of adult participation in lifelong learning.
- Comparatively high proportions of 15-24 year olds were neither in education nor employment nor training (NEET) in Wales, but the proportion of 25-29 year olds was similar to the OECD average.
- Relatively high proportions of international and foreign students were participating in tertiary education in Wales, with the majority originating from Europe and Asia.
- In general the position in 2007 was similar to 2005.

Key points on the learning environment

- Primary class sizes were considerably higher in Wales than most countries. Conversely secondary class sizes were smaller than average.
- Student: staff ratios were also higher in Wales, especially at primary and secondary level. The student to staff ratio for tertiary education ranked more favourably, but was still amongst the top half of countries analysed.
- In general the position in 2007 was similar to 2005.
Analysis of indicators broken down by subject area:

1) Output of educational systems: Attainment
   1.1 Educational Attainment of the 25-64 year old population
   1.2 Proportion of 25-64 year olds having completed at least upper secondary education
   1.3 Proportion of 20-24 year olds having completed at least upper secondary education
   1.4 Population that has attained at least tertiary education, by age group
   1.5 Achievement of 15 year olds
   1.6 Employment rates and educational attainment

2) Expenditure on Education – Tertiary Tuition Fees
   2.1 Annual tuition fees charged by tertiary-type A public institutions
   2.2 Level of tuition fees charged for international students in public universities

3) Enrolment and Participation
   3.1 25-64 year olds in participating in education
   3.2 Percentage of population neither in education nor in employment
   3.3 Changes in the number of pupils in primary schools
   3.4 Students in tertiary education by mode of study
   3.5 Student Mobility in Tertiary Education
   3.6 Distribution of international and foreign students in tertiary education, by country of origin
   3.7 Distribution of international and foreign students in tertiary education, by level and type of tertiary education

4) Learning Environment: Class Sizes, Student:Staff Ratios.
   4.1 Class Sizes
   4.2 Student:Staff Ratios

5) Glossary of Data Sources

References
The data used in the report are available via the following links:

b. OECD – Education At A Glance 2009: http://www.oecd.org/document/24/0,3343,en_2649_39263238_43586328_1_1_1_1,00.html
e. OECD – Programme for International Student Assessment 2006: http://www.oecd.org/document/2/0,3343,en_32252351_32236191_39718850_1_1_1,00.html
f. Higher Education Statistics Agency (HESA): www.hesa.ac.uk
g. School in Wales: General Statistics: http://wales.gov.uk/topics/statistics/publications
1) Output of Educational Systems: Attainment

Summary

- In comparison with other OECD countries, Wales ranked in the middle in terms of persons qualified to degree (tertiary) level, but had a relatively longer tail of persons with low or no qualifications.
- A third of countries had reached the EU benchmark of 85 percent of young persons completing upper secondary education, but Wales remained a few percentage points short.
- Amongst 45-54 year olds Welsh qualification levels were fairly high, but several countries were converging with Wales (or had overtaken them) in terms of qualification levels of 25-34 year olds.

1.1 Educational attainment of the 25-64 year old population

The attainment levels of the adult population have been analysed by considering the percentage of adults having reached low, medium and high levels of attainment defined below:

- **Low attainment** refers to primary, lower secondary and ‘short’ upper-secondary education (i.e. achieving less than the equivalent to 5 A*-C at GCSE)
- **Medium attainment** refers to ‘long’ upper secondary education (i.e. at or above 5 A*-C GCSE or equivalent)
- **High attainment** refers to tertiary education

- In comparison with other OECD countries, Wales ranked in the middle in terms of persons qualified to degree (tertiary) level but had a relatively longer tail of persons with low or no qualifications.
- The proportions of the adult population having achieved a high educational attainment ranged from 48 percent in Canada to 11 percent in Turkey. In Wales 28 percent had achieved high qualifications, ranking them in the middle of the OECD countries and amongst a group with similar rates. This reflects Wales’ position in 2005.
- A third of the Welsh population had obtained at most low qualifications. The percentage ranked relatively highly within OECD countries, although amongst a group of several other countries with similar percentages.
Chart 1: Educational attainment of the 25-64 year old population (2007), ordered by high attainment

Chart 2: Educational attainment of the 25-64 year old population (2007), ordered by low attainment

WELSH DATA SOURCE: EU LFS (Q2 2007)\(^a\);
REMAINING COUNTRIES: OECD – Education At A Glance 2009\(^b\), Table A1.1a
1.2 Proportion of 25-64 year olds having completed at least upper secondary education

- 67 percent of the Welsh adult population had completed at least upper secondary education (5 A*-C at GCSE or above), amongst the lower third of OECD countries.
- Wales lay in a cluster of countries around the OECD average of 70 percent, but was significantly higher than countries such as Italy and Spain. A similar position to 2005.

- Dividing the adult population into smaller segments, the individual 45-54 year old age group was better placed, with Wales performing just below the OECD average.
- A higher proportion of 25-34 year olds in Wales had completed upper secondary education than the older cohort (similarly to all OECD countries other than the United States).
- The disparities between the age groups were more evident in countries where a lower percentage of the population had completed upper secondary education. There was evidence that younger people in countries at the lower end of the total population scale - such as Italy and Spain - were far more likely to be completing upper secondary education than their older cohorts which may lead, long-term, to convergence with the Welsh figure.

WELSH DATA SOURCE: EU LFS (Q2 2007)*; REMAINING COUNTRIES: OECD – Education At A Glance 2009*, Table A1.2a

WELSH DATA SOURCE: EU LFS (Q2 2007)*; REMAINING COUNTRIES: OECD – Education At A Glance 2009*, Table A1.2a
1.3 Proportion of 20-24 year olds having completed at least upper secondary education\(^2\)

**European Benchmark:**
By 2010, at least 85 percent of 22 year olds in the European Union should have completed upper secondary education [-Detailed Analysis of Progress Towards The Lisbon Objectives in Education and Training, 2008 Report]\(^3\)

- Estimating the percentage of 22 year olds completing upper secondary education with the average percentage of 20-24 year olds, roughly a third of EU countries had already surpassed the EU benchmark in 2007.
- In the same year 77 percent of 20-24 year olds had completed upper secondary education in Wales – a slightly lower percentage than both the UK as a whole and the EU27 average.
- Compared with 2005 figures, Wales was in a similar position in 2007.

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\(^2\) The Eurostat method used to calculate the Wales figures in this chart differs slightly from the method used for the Wales figures in Charts 3 and 4.
### 20-24 year olds, by gender

- In Wales a higher percentage of young females than young males had completed at least upper secondary education.
- This was similar to those displayed in other OECD countries although the gender disparities were more obvious for the countries in which the proportion of the population (20-24) having completed secondary education was low.


<table>
<thead>
<tr>
<th>Country</th>
<th>Males</th>
<th>Females</th>
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<tbody>
<tr>
<td>Czech Republic</td>
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<td>78</td>
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<td>Slovakia</td>
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<td>68</td>
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<td>Poland</td>
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<td>Finland</td>
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<td>Wales</td>
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<td>Denmark</td>
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<td>Spain</td>
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<td>Malta</td>
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<td>50</td>
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<tr>
<td>Portugal</td>
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<td>50</td>
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<tr>
<td>EU27 Male average</td>
<td>80</td>
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<tr>
<td>EU27 Female average</td>
<td>60</td>
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</tbody>
</table>

**WELSH DATA SOURCE:** EU LFS (Q2 2007)*
**REMAINING COUNTRIES:** Eurostat – European Union Labour Force Survey (2007)*
1.4 Population having completed tertiary education, by age group

- In general the proportions of the population that had completed tertiary education varied by a far greater degree throughout the OECD countries (from 11 percent in Turkey to 48 percent in Canada) than those that had completed secondary education, and were significantly lower.
- The proportion with tertiary qualifications in Wales was lower than the UK but similar to the OECD average with 28 percent of its adult population having obtained tertiary qualifications.
- The proportions of 25-34 and 45-54 year olds attaining tertiary education were similar to the OECD averages.
- Younger people in Wales were more likely to be qualified to this level than previous cohorts. However several countries that ranked below Wales for the 45-54 age group - such as Ireland, Spain and Korea - had significantly higher proportions of young people with tertiary qualifications compared with Wales. This suggests expansion in recent years of their tertiary sector.

WELSH DATA SOURCE: EU LFS (Q2 2007)\(^a\), REMAINING COUNTRIES: OECD – Education At A Glance 2009\(^b\), Table A1.3a
1.5 Achievement of 15 year olds

Summary

• The mean score for 15 year olds in Wales was similar to the OECD average for science and below the OECD average for reading and mathematics.
• 15 year olds in Wales spent more time in science lessons in school than in most OECD countries.
• Most of the variation in student performance in science in Wales was due to within school differences.

Achievement in science

• The mean score for science attained by students in Wales was similar to the OECD average.

Performance variation in science between countries was relatively small. The variation within countries (between school and within schools) explained three times as much of the total variation between students.

• Variation in Wales was higher than the OECD average (14 percent higher). Most of this variation was due to within-school differences.

WELSH DATA SOURCE: OECD – Programme for International Student Assessment 2006*, Table S2c;
REMAINING COUNTRIES: OECD – Education At A Glance 2009*, Table A4.1a

Chart 9: Mean score in science (2006)

Chart 10: Between-school and within-school variance in student performance on the science scale (2006)

WELSH DATA SOURCE: OECD – Programme for International Student Assessment 2006*, Table S4a;
REMAINING COUNTRIES: OECD – Programme for International Student Assessment 2006*, Table 4.1a
Time spent learning science

- In most OECD countries, over half of 15 year olds had at least 2 hours of science lessons in school.
- In Wales, 90 percent of 15 year olds spent 2 hours or more per week in science lessons. Wales had the highest proportion of 15 year olds with 4 hours or more science lessons per week at school.

Top performers in science

- 11 percent of 15 year olds in Wales were top performers, defined as those who were proficient at levels 5 and 6. The OECD average was 9 percent; in Finland, New Zealand and Japan over 15 percent were top performers.
Achievement in reading and mathematics

- In both reading and mathematics the mean score in Wales was lower than the OECD average. This difference was statistically significant for both reading and mathematics.

Chart 13: Mean score in reading (2006)

Chart 14: Mean score in mathematics (2006)

WELSH DATA SOURCE: OECD – Programme for International Student Assessment 2006®, Table S6c;
REMAINING COUNTRIES: OECD – Education At A Glance 2009®, Table A4.1a
1.6 Employment Rates and Educational Attainment

Summary of Employment Rates

- As in almost all OECD countries, tertiary graduates were more likely to be in employment in Wales than those leaving education at an earlier stage.
- Welsh employment rates were similar for males and females at each educational level – e.g. compared with some countries where graduate employment was far higher for males than females. This led to Wales ranking fairly highly for females but comparatively low for males.

Employment rates of those qualified to lower secondary and no higher

- 47 percent of females and 59 percent of males in Wales who had attained no higher than lower secondary education in Wales were in employment.
- The female employment rate ranked Wales higher than the UK as a whole but lower than the OECD average.
- The employment rate for males with no higher than lower secondary education was amongst the lowest sixth of OECD countries.

Chart 15: Employment rates of 25-64 year olds with lower secondary education and no higher (2007)

WELSH DATA SOURCE: EU LFS (Q2 2007)\(^a\);
REMAINING COUNTRIES: OECD – Education At A Glance 2009\(^b\); Table A6.1a
Employment rates of tertiary graduates

- For females, the employment rate of graduates in Wales was one of the highest across the countries analysed.
- The proportions of male and female graduates in employment in Wales were similar to the 2005 figures.
- Whilst countries such as Japan and Korea had significantly low employment rates for female graduates they had some of the highest rates for males.

WELSH DATA SOURCE: EU LFS (Q2 2007)\(^a\).
REMAINING COUNTRIES: OECD – Education At A Glance 2009\(^b\), Table A6.1a
2) Expenditure on Education – Tertiary Tuition Fees

Summary

- In 2006/07 Welsh tertiary tuition fees, although lower than the UK, were the second highest in the EU but lower than countries such as USA and Korea. The increase in fee levels in 2007/08 saw Wales move into a small group of countries with fees above USD 4000.
- There were no tuition fees charged by public institutions in one-third of OECD countries
- Most OECD countries charged higher fees for international students, and Wales was no exception. The trend of not charging tuition fees to international students appeared to be diminishing.

2.1 Average Annual Tuition Fees charged by Tertiary Type A Institutions in 2006/07

- There were large differences between OECD countries and partner economies in the average tuition fees charged by tertiary type A public institutions.
- In 2006/07, there were no tuition fees charged by public institutions in one-third of OECD countries, whereas another third of countries had annual tuition fees charged by public institutions that exceeded USD 1500.
- Wales and the UK along with the Netherlands were the only EU19 countries to have annual tuition fees that represented more than USD 1500 per full-time student; these related to government-dependent institutions.
- In 2007/08, tuition fees were increased in Wales and are now equivalent to those in England. Therefore the average fee from 2007/08 will be similar to the UK average.

Chart 17 shows the annual tuition fees charged by tertiary type A public institutions for full-time national students in equivalent USD converted using PPPs. It does not take into account grants, subsidies or loans that partially or fully offset the student’s tuition fees.

![Chart 17: Average annual tuition fees charged by tertiary type A institutions to national students (2006/07)](source: OECD - Education At A Glance 2009)

SOURCE: OECD – Education At A Glance 2009, Table B5.1a
2.2 Level of Tuition Fees Charged for International Students in Public Universities

- In Wales, as for the UK more widely, higher tuition fees were charged for international students than domestic students. This was the most common payment structure implemented by OECD countries although within the EU a further distinction was made by law between EU and non-EU/EEA students with EU/EEA students being required to pay the same fees as home students.
- The same tuition fees for international and domestic students were charged by only a small selection of OECD countries.
- Despite the higher tuition fees Wales had one of the highest proportions of overseas students in tertiary education [section 3.7].
- In the absence of fees in Finland, Iceland, Norway and Sweden, the high unit monetary costs of tertiary education meant that international students place a high monetary burden on their countries of destination. For this reason, Denmark (which in the past had no tuition fees) has adopted tuition fees for non-EU and non-EEA international students as of 2006/07. Similar options are currently being discussed in Finland and Sweden, where foreign enrolments grew by more than 50 percent between 2000 and 2007 [-Education at a Glance 2009].

<table>
<thead>
<tr>
<th>Level of Tuition Fees charged for International Students in Public Universities (2006/07)</th>
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<tbody>
<tr>
<td><strong>Tuition Fee Structure</strong></td>
</tr>
<tr>
<td>Higher tuition fees for international students than for domestic students</td>
</tr>
<tr>
<td>Same tuition fees for international and domestic students</td>
</tr>
<tr>
<td>No tuition fees for either international or domestic students</td>
</tr>
</tbody>
</table>

1. For non-European Union or non-European Economic Area Students
2. Some institutions charge higher tuition fees for international students.
3. International students pay the same fees as domestic out-of-state students. However since most domestic students are enrolled in-state, international students pay higher tuition fees than most domestic students in practice.

SOURCE: OECD – Education At A Glance 2009\(^\text{b}\), Box C2.3
3) Enrolment and Participation

Summary of adult and youth participation

- A higher proportion of adults participated in lifelong learning in Wales than almost all other EU countries.
- Comparatively high proportions of 15-24 year olds were neither in education nor employment; whereas the proportion in the 25-29 age band was similar to the OECD average.
- Most countries had experienced a decline in the number of pupils attending primary schools in recent years. Wales was no exception having encountered a 1 percent decrease between 2002 and 2006.

3.1 25-64 year olds participating in education

**European Benchmark:**
By 2010, the European Union average level of participation in lifelong learning should be at least 12.5 percent of the adult working population (25-64 age group) [-Detailed Analysis of Progress Towards the Lisbon Objectives in Education and training, 2008 Report].

- Data provided by Eurostat indicated that the level of participation of adults aged 25-64 in education in Wales was higher than many of its European Counterparts.
- In 2007, around 19 percent of 25-64 year olds in Wales participated in education in the four weeks prior to the survey.
- The percentages displayed by other EU countries produced a long tail of results. 22 countries remained below the benchmark in 2007, eight of which had lower than a 5 percent participation rate.

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Chart 18: Percentage of 25-64 year olds participating in education within the last 4 weeks (2007)

3.2 Percentage of population neither in education, employment nor training (NEET)

Summary

- Wales possessed comparatively high percentages of 15-19 and 20-24 year olds neither in education nor in employment, and a percentage similar to the OECD average for those aged 25-29.
- It was the high percentages of economically ‘inactive’ persons that contributed most to the NEET figures in the older age bands in Wales.

15-19 year olds

- Wales possessed a relatively high proportion of 15-19 year olds neither in education nor in employment.
- The rate of 8 percent ranked amongst the highest third of OECD countries.
- The unemployment rate for 15-19 year olds was the highest of any OECD country.
- The figure displayed for those inactive in Wales was lower than the EU19 average, which was notably lower than the OECD average.

![Chart 19: Percentage of 15-19 year olds neither in education nor employment (2007)](image-url)

WELSH DATA SOURCE: EU LFS (Q2 2007);
REMAINING COUNTRIES: OECD – Education At A Glance 2009, Table C3.2a
20-24 year olds

- As in the majority of OECD countries, the proportion of 20-24 year olds neither in education nor employment was higher in Wales than those aged 15-19.
- The percentage of 20-24 year olds classed as NEET in Wales had increased since 2005 and was one of the highest of all OECD countries.

25-29 year olds

- The proportion of the population not in education or employment at this level was below the EU19 and OECD averages.
- The proportion was lower than that of 20-24 year olds, with a small proportion of the population being classed as unemployed and a higher proportion being economically inactive.
3.3 Changes in the number of pupils in primary schools

- Between 2002 and 2006 the number of pupils in primary schools in Wales declined by 1 percent.
- The majority of EU and Accession countries also experienced some sort of decline in numbers during the same period.
- Only a few countries experienced an increase with Slovenia, France and Spain being the only countries where numbers grew by over 5 percent.
- For those experiencing decline, Wales was ranked fourth out of the 21 countries and the decline was significantly less than that seen in many of the Accession countries.

3.4 Students in tertiary education by mode of study

This indicator presents the proportion of students in tertiary education studying full-time/part-time whereby:

- **Advanced research programmes** refer to doctorates
- **Tertiary type A education** refers to degrees, masters degrees, postgraduate qualifications and teaching courses
- **Tertiary type B education** refers to nursing, NVQ levels 4 & 5, diplomas in higher education, RSA higher diplomas, other HE below degree level, HNC, HND, BTEC etc.

**Tertiary type A education and advanced research programmes**

- The full-time/part-time split in Wales (over three-quarters full-time) was similar to the OECD average.
- The OECD average was greatly increased by the fact that in five countries all of the students in tertiary education were classified as full-time.
- When compared to the remaining countries, Wales had a relatively high percentage of students studying full-time with a figure also slightly higher than the UK as a whole.

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**Chart 23: Students in tertiary type A and advanced research programmes by mode of study (2007)**

**WELSH DATA SOURCE: HESA 2006/07**;
**REMAINING COUNTRIES: OECD – Education At A Glance 2009**, Table C1.6
Tertiary type B education

- Wales had the highest proportion of tertiary type B enrolments that were part-time amongst all OECD countries.
- There were seven countries in which 100 percent of students had been defined as full-time, consequently increasing the OECD average.

Chart 24: Students in tertiary type B education by mode of study (2007)

WELSH DATA SOURCE: HESA 2006/07;
REMAINING COUNTRIES: OECD – Education At A Glance 2009, Table C1.6
3.5 Student Mobility in Tertiary Education

International Students in Tertiary Education

This indicator is concerned with the proportion of international students who travelled to a country different than their own for the purpose of tertiary study. Student mobility is either defined on the basis of students’ country of residence or the country where students received their prior education.

- Roughly 14 percent of all students in tertiary education in Wales were international students.
- The proportion ranked relatively highly amongst the analysed countries although the comparison was limited due to the fact that this data was not readily available under this definition for numerous OECD countries.
- There was a lower percentage of international students in Wales than the UK as a whole, which in turn possessed the second largest proportion of international students out of those in the chart.

![Chart 25: International students enrolled in tertiary education as a percentage of all students (2007)](chart)

Welsh data source: HESA 06/07; Remaining countries: OECD – Education at a Glance 2009, Table C2.1
Foreign Students in Tertiary Education

This statistic considers the percentages of students in tertiary education in Wales who are non-UK citizens, rather than simply those who are classed as ‘international’ students which has the advantage of enabling Wales to be compared to a larger range of countries as this data is more widely available.

- Approximately 16 percent of all tertiary students in Wales were non-UK citizens.
- The ranking of all countries was very similar to that in the previous chart, showing Wales possessed a high percentage of foreign students enrolled in tertiary education on an international scale but a considerably lower percentage than the UK.

Chart 26: Foreign students enrolled in tertiary education as a percentage of all students (2007)

WELSH DATA SOURCE: HESA 06/07;
REMAINING COUNTRIES: OECD – Education At A Glance 2009, Table C2.1
3.6 Distribution of international and foreign students in tertiary education, by country of origin

Students in Wales

The majority of overseas (including the EU) students studying tertiary education in Wales came from Europe and Asia, with very similar percentages coming from each region and combining to represent 89 percent of the total overseas tertiary population. Students originating from Africa and America accounted for most of the remaining 11 percent.

Chart 27: Percentage of international students in tertiary education in Wales from main geographic regions (2007)

WELSH DATA SOURCE: HESA 06/07;
REMAINING COUNTRIES: OECD – Education At A Glance 2009, Table C2.2
Students in OECD Countries

Chart 28 shows the distribution of international and foreign students in tertiary education in Wales, ordered by students from Africa. The corresponding charts ordered by students from Asia, Europe and America are available upon request.

- The geographical mix of international and foreign students varied a great deal throughout the OECD countries.
- Southern European countries such as Portugal and France had very high inflows of students from Africa.
- In countries such as Australia, Japan, Korea and Greece, the vast majority of overseas students originated from Asia.
- Many European countries inevitably possessed a large percentage of students from other countries within Europe.
- In all non-American countries bar Spain, Portugal and Ireland, American students accounted for no more than a tenth of the international tertiary population.

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3 Charts 28 and 29 use International Student figures from Australia, Belgium, Canada, Denmark, Germany, Iceland, Ireland, Netherlands, New Zealand, Slovak Republic, Spain, Switzerland, United Kingdom, United States and Wales. Foreign Student figures are used for the remaining countries.
3.7 Distribution of international and foreign students in tertiary education, by level and type of tertiary education

- In all OECD countries except Spain, over 60 percent of international and foreign students in tertiary education were participating in a tertiary type A programme of study. In 12 out of the 30 countries analysed, over 90 percent of provision to international students was at this level.
- 70 percent of such students in Wales were studying tertiary type A programmes, ranking the country a little below these.
- A relatively high percentage of international tertiary students in Wales were studying tertiary type B education, equating to roughly 20 percent of the total foreign tertiary population. This was higher than most of the countries in the chart although around a quarter or higher of provision to international students in Greece, Belgium, Japan and New Zealand was at type B level.
- The remaining 10 percent of international tertiary students in Wales were participating in advanced research programmes – a fairly high proportion when compared to the figures displayed by other OECD countries.

**Chart 29: Distribution of international and foreign students by type of tertiary education, ordered by proportion of students in tertiary type A (2007)**

WELSH DATA SOURCE: HESA 06/07;
REMAINING COUNTRIES: OECD – Education At A Glance 2009, Table C2.4
4) Learning Environment: Class Sizes and Student:Staff Ratios

Summary

- Primary school class sizes in Wales were amongst the top third of OECD countries.
- Whilst class sizes tended to increase by just over two students on average between primary and secondary education, Wales and the UK both showed small reductions in class sizes at secondary level leading to improved rankings.
- Pupil teacher ratios for schools in Wales were amongst the highest within the countries analysed, but at a tertiary level the position improved.

4.1 Class Sizes

Primary Education

- The average class size in OECD countries in primary education was 21 students per class, but varied from 31 students in Korea to half that number in Luxembourg and Russia.
- At 24 students per class, the Wales average was around 3 students higher than the OECD average.
- The class size ranked between the UK and OECD averages, and amongst the top third of OECD countries and partner economies.

WELSH DATA SOURCE: Schools in Wales: General Statistics; REMAINING COUNTRIES: OECD – Education At A Glance 2009, Table D2.1
Lower Secondary Education

- While the OECD average for secondary education classes was higher than primary, Wales and the UK both showed small reductions in class sizes at lower secondary level resulting in more countries having bigger class sizes.
- Wales had an average of 22 students per class, below the UK and OECD averages.
- Class sizes ranged from 36 students per class in Korea to 18 students per class in Russia.

**Chart 31: Average class sizes in lower secondary education (public institutions) (2007)**

WELSH DATA SOURCE: Schools in Wales: General Statistics;
REMAINING COUNTRIES: OECD – Education At A Glance 2009, Table D2.1
4.2 Student:Staff Ratios

The ratio of students to staff (based on full-time equivalents) varied considerably between the different education levels. Wales possessed a similar ratio to the UK and, like the majority of EU countries, a considerably higher ratio of students to staff in higher education levels.

Primary Education

- The students to staff ratios in primary education varied considerably within OECD countries. In Wales the figure of 20 to 1, similar to the UK average, was almost double that of Hungary and Greece.
- This placed Wales with the highest students to staff ratio in the EU although countries such as Mexico and Turkey had ratios as high as nearly 30 to 1.

![Chart 32: Ratio of students to teaching staff in primary education (2007)](chart)

WELSH DATA SOURCE: Schools in Wales: General Statistics;
REMAINING COUNTRIES: OECD – Education At A Glance 2009, Table D2.2
Secondary Education

- The Wales figure of 17 students to each full-time equivalent teacher was one of the highest ratios in secondary education, again lagging behind only Mexico and Korea amongst the countries analysed.
- The UK ratio was lower with approximately 14 students to each full-time equivalent teacher.

Tertiary Education

- At tertiary level, a student teacher ratio of 17:1 placed Wales amongst the top half of countries analysed, but with a lower ratio than countries such as Italy, Belgium and Poland and similar to the UK.
- The ratios ranged from 26:1 in Greece to 9:1 in Sweden.
- The UK data in this table differed from the OECD published figure due to an improved methodology.
5) Glossary of data sources

European Union Labour Force Survey

The European Union Labour Force Survey (EU LFS) covers all the territories of the Member States of the European Union, the EFTA countries (excluding Lichtenstein), as well as Bulgaria, Croatia and Romania. In case of Cyprus, however, the data only refer to the territory under the control of the Government of the Republic of Cyprus.

It is a large household sample survey providing quarterly results on labour participation of people aged 15 and over as well as on persons outside the labour force. Persons carrying out obligatory military service are not included. The national statistical institutes are responsible for selecting the sample, preparing the questionnaires, conducting the direct interviews among households, and forwarding the results to Eurostat in accordance with the common coding scheme. The ONS are responsible for carrying out the UK Labour Force Survey.

The collection dates back to 1983 however until 1987 the EU LFS was conducted only with one reference quarter (spring) per year (quarter 1 or 2 depending on the country). Quarterly data have been progressively introduced since 1998. Starting in 2003, quarterly data are available for most of the countries; however it was not until 2005 when all Member States reported complete quarterly data. For this reason:
- the LFS detailed quarterly survey results show the available quarters (EU totals start to be available in 2005Q1 (in 2003 and 2004 they are available only for Q2)
- the LFS detailed annual survey results consist of the spring (quarter 2) results up to 2005 and annual average of quarterly results since 2005 onwards. Even though it would be possible to calculate the annual average for some countries for earlier years, for the sake of the transparency and comparability, a uniform ‘cut-off’ year 2005 was chosen for all the countries.

OECD – Education At A Glance

Across OECD countries, governments are seeking policies to make education more effective while searching for additional resources to meet the increasing demand for education.

The 2009 edition of Education at a Glance enables countries to see themselves in the light of other countries’ performance. It provides a rich, comparable and up-to-date array of indicators on the performance of education systems. The indicators look at who participates in education, what is spent on it and how education systems operate and at the results achieved. The latter includes indicators on a wide range of outcomes, from comparisons of student’s performance in key subject areas to the impact of education on earnings and on adults’ chances of employment.

Detailed analysis of progress towards the Lisbon objectives in education and training, 2008 Report

This annual report, assembled in cooperation with Eurostat, charts progress towards Europe’s targets in the area of education and training using a framework of indicators, benchmarks and statistics. It puts performance, where useful and possible, into a global perspective. The data gives an indication of the direction European education systems are moving in and of Europe’s potential to fulfil the objectives set at Lisbon.
Eurostat

Eurostat collects data from the National Statistics institutes and other competent bodies before harmonising them according to a single methodology. It publishes official harmonised statistics of the European Union, the Euro-area and the EFTA countries, thus offering comparable, reliable and objective figures on a changing Europe. Eurostat presents information on regional and country level for the enlarged Union, the candidate countries and the EFTA countries.

OECD – Programme for International Student Assessment

The Programme for International Student Assessment (PISA) is an internationally standardised assessment that was jointly developed by participating countries and administered to 15-year-olds in schools. PISA assesses how far students near the end of compulsory education have acquired some of the knowledge and skills that are essential for full participation in society. In all cycles, the domains of reading, mathematical and scientific literacy are covered not merely in terms of mastery of the school curriculum, but in terms of important knowledge and skills needed in adult life.

HESA Student Record

The Higher Education Statistics Agency (HESA) is the official agency for the collection, analysis and dissemination of quantitative information about higher education. HESA is the central source for the collection and dissemination of statistics about publicly funded UK higher education.

Schools in Wales: General Statistics

‘Schools in Wales: General Statistics’ is an annual publication prepared by the Welsh Assembly Government on latest data relating to schools in Wales. The data presented in the publication is collected through the Pupil Level Annual School Census.
Notes on the use of statistical articles

Statistical articles generally relate to one-off analyses for which there are no updates planned, at least in the short-term, and serve to make such analyses available to a wider audience than might otherwise be the case. They are mainly used to publish analyses that are exploratory in some way, for example:

- Introducing a new experimental series of data;
- A partial analysis of an issue which provides a useful starting point for further research but that nevertheless is a useful analysis in its own right;
- Drawing attention to research undertaken by other organisations, either commissioned by the Welsh Assembly Government or otherwise, where it is useful to highlight the conclusions, or to build further upon the research;
- An analysis where the results may not be of as high quality as those in our routine statistical releases and bulletins, but where meaningful conclusions can still be drawn from the results.

Where quality is an issue, this may arise in one or more of the following ways:

- being unable to accurately specify the timeframe used (as can be the case when using an administrative source);
- the quality of the data source or data used; or
- other specified reasons.

However, the level of quality will be such that it does not significantly impact upon the conclusions. For example, the exact timeframe may not be central to the conclusions that can be drawn, or it is the order of magnitude of the results, rather than the exact results, that are of interest to the audience.

The analysis presented does not constitute a National Statistic, but may be based on National Statistics outputs and will nevertheless have been subject to careful consideration and detailed checking before publication. An assessment of the strengths and weaknesses in the analysis will be included in the article, for example comparisons with other sources, along with guidance on how the analysis might be used, and a description of the methodology applied.

Articles are subject to the release practices as defined by the release practices protocol, and so, for example, are published on a pre-announced date in the same way as other statistical outputs.

Missing value symbols used in the article follow the standards used in other statistical outputs, as outlined below.

.. The data item is not available
.
- The data item is not applicable
- The data item is not exactly zero, but estimated as zero or less than half the final digit shown
* The data item is disclosive or not sufficiently robust for publication