

Full-time Young Participation by Socio-Economic Class (FYPSEC)

2009 Update

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Full-time Young Participation by Socio-Economic Class (FYPSEC): 2009 Update

Summary

The Full-Time Young Participation by Socio-Economic Class (FYPSEC) measure was introduced in 2007 and shows the proportion of young people from the top three and bottom four socio-economic classes who participate for the first time in full-time higher education, together with the difference (or “gap”) between these two participation rates.

The time series has been revised in line with changes to the underlying data sources (including revised Higher Education Initial Participation Rate (HEIPR) figures and re-weighted Labour Force Survey data) and updated with the figures for 2007/08. The time series now covers 2002/03 to 2007/08.

Following the latest revisions and updates, FYPSEC now shows that over the period 2002/03 to 2007/08, full-time young participation for the top three socio-economic classes fell from 45.2% to 41.2%, while for the bottom four socio-economic classes this has increased from 18.1% to 21.0%. The socio-economic class gap between these two participation rates has consequently narrowed by 7.0 percentage points.

As this measure draws from a number of data sources and therefore contains a number of weaknesses, it should be interpreted carefully. It is recommended that the figures are used to provide trend information (i.e. change over several years) rather than fixing on year-on-year changes. Drawing conclusions from figures for individual years is not advised.

Introduction

1. The 2007 Comprehensive Spending Review Public Service Agreement number 11 is: “To narrow the gap in educational achievement between children from low income and disadvantaged backgrounds and their peers”. One of the indicators for this PSA is the Full-time Young Participation by Socio-Economic Class (FYPSEC) measure, which looks at the gap at higher education level.

2. FYPSEC was first published in a research report in 2007¹. It initially covered 2002/03 - 2004/05. The time series has been updated annually since the initial publication.

3. FYPSEC covers English-domiciled 18-20 year old first time entrants to full-time higher education courses at UK higher education institutions and English further education colleges, who remain on their course for at least 6 months. The measure consists of three components:

1. The proportion of 18-20 year olds from the top three socio-economic classes who participate for the first time in full-time higher education;
 2. The proportion of 18-20 year olds from the bottom four socio-economic classes who participate for the first time in full-time higher education;
 3. The difference, or “gap” between these two rates.
4. Due to methodological changes to the Higher Education Initial Participation Rate (HEIPR)² on which FYPSEC is based, only FYPSEC figures for 2007/08 are entirely accurate.

¹ Kathryn Kelly & Stephen Cook, “Full-time Young Participation by Socio-Economic Class: A new widening participation measure in higher education”, *Department for Education and Skills Research Report RR806* (2007): <http://www.dfes.gov.uk/research/data/uploadfiles/RR806.pdf>

² More information on the methodological change applied to HEIPR this year is available in the SFR: <http://www.dcsf.gov.uk/rsgateway/DB/SFR/s000839/SFR02-2009webversion1.pdf>

Figures for 2002/03 to 2004/05 are less accurate, but have been included to provide some time series comparison. Estimates of how HEIPR methodology changes have affected 2002/03 to 2004/05 FYPSEC figures have been included.

Latest Figures

- The FYPSEC time series is shown in Table 1. Figures for 2002/03 to 2004/05 have been included for completeness but have been greyed out to highlight their lower levels of accuracy:

Table 1: Overall FYPSEC figures:

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Participation rate for NS-SECs 1, 2, 3	45.2%	42.0%	42.4%	43.8%	40.6%	41.2%
Participation rate for NS-SECs 4, 5, 6, 7	18.1%	18.3%	18.0%	20.3%	19.5%	21.0%
Gap	27.2%	23.6%	24.4%	23.5%	21.1%	20.2%

- Between 2002/03 and 2007/08, the gap has reduced 7.0 percentage points, and since 2005/06 by 3.3 percentage points.

- The male and female FYPSEC time series are shown in Table 2:

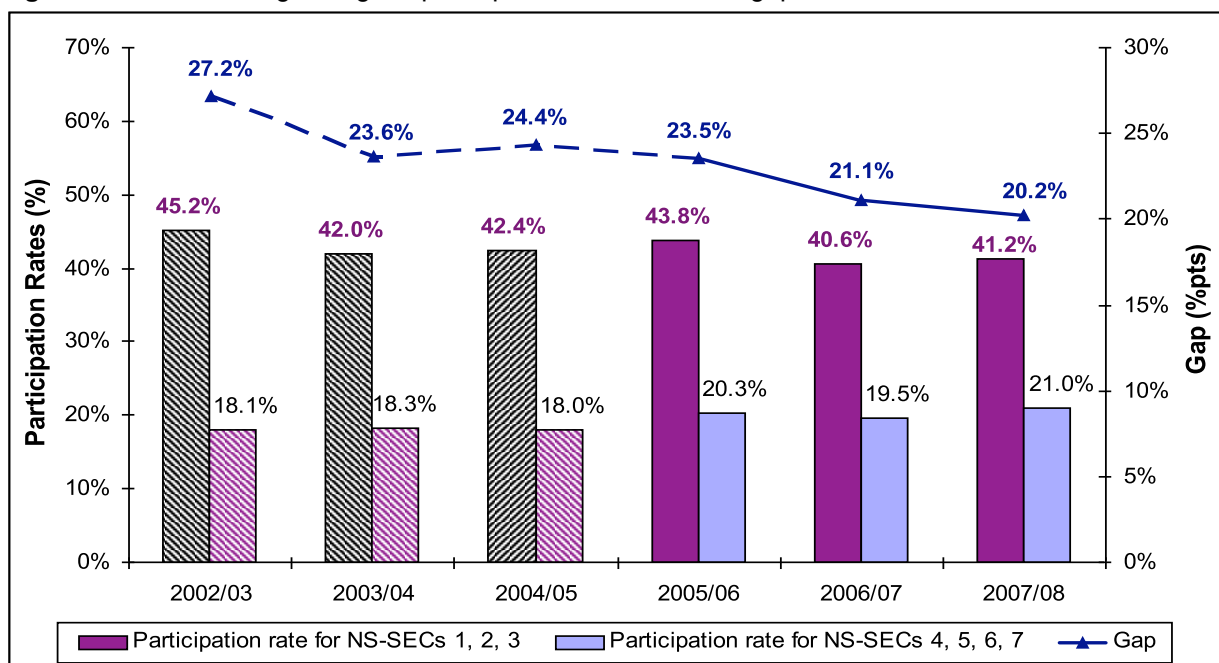
Table 2: Male & Female FYPSEC figures:

MALE	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Participation rate for NS-SECs 1, 2, 3	41.0%	37.5%	38.2%	39.4%	36.7%	37.2%
Participation rate for NS-SECs 4, 5, 6, 7	16.2%	16.0%	15.7%	17.8%	16.6%	17.8%
Gap	24.8%	21.4%	22.5%	21.6%	20.1%	19.3%
FEMALE	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Participation rate for NS-SECs 1, 2, 3	49.7%	46.8%	46.8%	48.5%	44.8%	45.6%
Participation rate for NS-SECs 4, 5, 6, 7	20.1%	20.8%	20.5%	22.9%	22.7%	24.5%
Gap	29.6%	26.0%	26.4%	25.6%	22.1%	21.1%

Note: due to rounding to one decimal place, the change in gap may not appear to correspond to the gaps shown for individual years.

- For males, between 2002/03 and 2007/08, the gap has reduced 5.5 percentage points, and since 2005/06 by 2.3 percentage points.
- For females, between 2002/03 and 2007/08, the gap has reduced 8.5 percentage points, and since 2005/06 by 4.5 percentage points.
- The overall FYPSEC figures (both participation rates and their gap) are also illustrated in Figure 1 below:

Figure 1: Chart showing change in participation rates and their gap, 2002/03 – 2007/08



Calculation details

Numerator

11. This measure is based on the students making up the 18, 19 and 20 year old full-time components of the Higher Education Initial Participation Rate (HEIPR)³. Students qualifying for the HEIPR are English-domiciled first-time entrants to higher education courses, which are expected to last for at least six months, at UK Higher Education Institutions and English Further Education Colleges, and who remain on their course for at least six months.
12. The numbers of students from each socio-economic class (NS-SEC) are determined for 18, 19 and 20 year olds separately. The students fall into three groups:
 - (a) Those with known NS-SEC;
 - (b) Those with unknown NS-SEC and known home postcode;
 - (c) Those with unknown NS-SEC and unknown home postcode.
13. The NS-SEC information on students in group (a) is obtained from the HESA Student Record.
14. NS-SEC information on students in group (b) is estimated using their home postcode, because there is a relationship between a person's socio-economic class and where they live. Using the home postcode an area-based measure of higher education participation level (Participation Of Local Areas, or POLAR), can be applied to each student. POLAR information is supplied by HEFCE. Initially, using only those students whose NS-SEC and home postcode are known (i.e. group (a) above), the distribution of students from each NS-SEC among the POLAR classifications is determined. The distribution of group (b) among the POLAR classifications is then determined using their home postcode, and the distribution of known NS-SEC applied to these students according to their POLAR classifications. This allocates the students of group (b) among the NS-SECs in a reasonably informed way.

³ "Participation Rates in Higher Education: Academic Years 1999/2000 – 2007/08 (Provisional)" Statistical First Release, published by DIUS (2009)
<http://www.dcsf.gov.uk/rsgateway/DB/SFR/s000839/SFR02-2009webversion1.pdf>

15. Finally, groups (a) and (b) are aggregated and the proportions of all these students who are in each NS-SEC are applied to the students of group (c). Therefore the complete unknowns are allocated to NS-SECs according to the distribution of students with known and estimated NS-SEC.
16. Having obtained the number of full-time initial participants of each age, in each NS-SEC, the numbers in the top three NS-SECs are summed together, as are the numbers in the lower four NS-SECs.

Denominator

17. Up to, and including, 2007/08, the NS-SEC of university entrants aged under 21 is determined by their higher-earning parent's occupation. In order to provide a comparable NS-SEC breakdown for the denominator, Labour Force Survey (LFS) socio-economic class data are used which relate to the Household Representative Persons who are parents within families with 13, 14 or 15 year old children in England. The 13-15 year old proxy is applied because 18-20 year olds living with parents form a biased cohort (predominantly in full-time education).
18. The number of people in each NS-SEC is converted to a proportion by dividing the number in each NS-SEC by the total number of people with known classification. Therefore those who remain unclassified are assumed to belong to the socio-economic classes in proportion to those whose NS-SEC is recorded. This is not identical to the method used in the numerator, but this assumption is made in the absence of postcode information in the available LFS household datasets.
19. The 18, 19 and 20 year old populations of England are taken from the DCSF academic year population estimates, which are based on Office for National Statistics (ONS) population estimates. The total NS-SEC proportions for the aggregated 13 - 15 year olds are applied to the number of 18, 19 and 20 year olds in the population of England, in order to calculate the number of people of each age, in each NS-SEC. The numbers in the top three NS-SECs are summed together, as are the numbers in the lower four NS-SECs.

Calculation

20. For each individual age, the full-time participation rate for the top three NS-SECs can be determined by dividing the number of initial entrants in the top three NS-SECs by the population in the top three NS-SECs. The same calculation is repeated on the student and population numbers in the bottom four NS-SECs. For each group, the 18, 19 and 20 year old participation rates are summed together to provide overall initial participation rates for 18-20 year olds, one for NS-SECs 1, 2 and 3, and the other for NS-SECs 4, 5, 6 and 7.

Revisions & updates

21. It has been necessary to make a number of revisions to FYPSEC due to changes in the underlying data. The revisions include the following:
 - FYPSEC is based on the 18, 19 and 20 year old components of the Higher Education Initial Participation Rate (HEIPR), therefore any changes to HEIPR will affect FYPSEC. This year the methodology for HEIPR changed⁴ and this has affected FYPSEC in that participation rates are slightly higher than originally estimated.
 - In order to estimate the socio-economic breakdown of the underlying population, we use the Labour Force Survey (LFS). Following the recent revision of the ONS population estimates to more accurately account for the effects of migration, all Labour Force

⁴ More information on the methodological change applied to HEIPR this year is available in the SFR: <http://www.dcsf.gov.uk/rsgateway/DB/SFR/s000839/SFR02-2009webversion1.pdf>

Survey datasets were re-weighted according to the revised population estimates. Therefore FYPSEC has now been revised using the re-weighted Labour Force Survey data.

-FYPSEC has also been updated with the latest ONS population estimates.

22. As 2007/08 data from all sources has become available, the time series has now been updated to include a 2007/08 figure.

Estimate of effects of methodology changes

23. Due to revisions and updates to underlying data sources, the below table shows this year's time series against last year's in order to quantify the effects of these changes:

Table 3: Comparison of 2008 and 2009 time series

	Year of publication	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Participation rate for NS-SECs 1, 2, 3	2009	45.2%	42.0%	42.4%	43.8%	40.6%	41.2%
	2008	44.1%	40.9%	41.2%	42.8%	39.5%	-
	Difference (%pts)	1.1%	1.1%	1.2%	1.0%	1.1%	-
Participation rate for NS-SECs 4, 5, 6, 7	2009	18.1%	18.3%	18.0%	20.3%	19.5%	21.0%
	2008	17.5%	17.8%	17.4%	19.8%	19.0%	-
	Difference (%pts)	0.6%	0.5%	0.6%	0.5%	0.5%	-
Gap	2009	27.2%	23.6%	24.4%	23.5%	21.1%	20.2%
	2008	26.5%	23.1%	23.7%	22.9%	20.5%	-
	Difference (%pts)	0.7%	0.5%	0.7%	0.6%	0.6%	-

24. Table 3 shows that the impact on the two participation rates has been reasonably consistent across the time series, showing a difference of approximately 1.1%pts for NS-SEC 1-3, 0.5%pts for NS-SEC 4-7 and 0.6%pts for the gap between the two participation rates.

Caveats

25. The FYPSEC measure contains a number of weaknesses and as such should be interpreted carefully. It is recommended that the figures are used to provide trend information (i.e. change over several years) rather than fixing on year-on-year changes. Drawing conclusions from figures for individual years is not advised.
26. The measure draws together several data sources, including two administrative sources and sample survey data. Therefore the figures are subject to some uncertainty and volatility.
27. The measure is restricted to young full-time entrants so it only provides a partial picture of participation in higher education.
28. Changes in the methodology of HEIPR, on which FYPSEC is based, have impacted on the calculation of FYPSEC. FYPSEC has been revised to the baseline of 2005/06, and this is correct to the accuracy quoted. Figures for earlier years are estimates and are provided to give an indication of time series comparison only
29. The socio-economic class variable will not always be accurate:
 - For the young students included in this measure, socio-economic class is derived from the student's higher earning parent's occupation. This is subject to error on the part of the student (i.e. entering the wrong occupation) and on the part of the coding (i.e. wrongly classifying an ambiguous or unfamiliar occupation description).
 - The proportion of students with unknown socio-economic class has been increasing over the time series. To some extent the measure accounts for unknowns by estimating socio-economic class based on postcode, as there is a relationship between a person's socio-economic class and where they live. However, while this is a more informed approach than simply assuming the unknown socio-economic class is distributed in the same way as the known socio-economic class, this is obviously still not perfect.
 - Socio-economic class is derived differently for young and mature students. For those aged under 21, socio-economic class is based on the student's higher-earning parent's occupation at the time of applying. For those aged 21 and over, socio-economic class is based on the student's own occupation at the time of applying. As a result, the socio-economic class variable is not comparable across all age ranges.
 - The coverage of the socio-economic class variable is very poor for part-time students. This is because the occupation information is obtained via the UCAS application form, which is only used by applicants for full-time HE courses.
30. The measure makes use of proxy data for the underlying population. When considering the relevant socio-economic class breakdown of the population, we look at the socio-economic class of the parents of 13, 14 and 15 year olds on the Labour Force Survey instead of parents of 18, 19 and 20 year olds. This is because the small number of 18-20 year olds who are included in the Labour Force Survey with their parents are predominantly those who are in full-time education. Therefore a sample based on these people would be heavily biased towards those who participate in higher education. So 13-15 year olds are used as a proxy for 18-20 year olds in this case. This removes the problems of bias and small numbers but does introduce some uncertainty in that a parent's occupation (and therefore socio-economic class) could change from the time their child is 13 to the time s/he is 18.

Future changes to FYPSEC

31. For the 2008/09 academic year, the wording of the question on which students' socio-economic class is based changed as follows:
 - 2007/08 and earlier:
"If you are under 21, please give the occupation of your parent, step-parent or guardian who earns the most. If he or she is retired or unemployed, give their most recent occupation. If you are 21 or over, please give your own occupation."
 - 2008/09:
"If you are in full-time education, please state the occupation of the highest-earning family member of the household in which you live. If he or she is retired or unemployed, give their most recent occupation. If you are not in full-time education, please state just your own occupation."
32. The question therefore changed from distinguishing between students who were under 21 or 21 and over, to distinguishing between those who were or were not in full-time education. This caused comparability issues between 2007/08 and 2008/09 and figures can only be reliably compared if scope is limited to students aged 18 and under.
33. The change to the wording of the question will impact on the 2008/09 FYPSEC: it will not be possible to produce 2008/09 figures which are comparable to the earlier time series.
34. From 2009/10 the question returned to the original wording, but a response option stating "prefer not to say" has been included.
35. For all years students report the occupation as free text, which is then matched to an occupation code and, subsequently, a socio-economic class. Students' socio-economic class would be classified as unknown for the following reasons:
 - They do not enter an occupation;
 - The occupation they entered could not be matched to an occupation code.

From 2009/10, students' socio-economic class would also be classified as unknown if:

 - They apply the "prefer not to say" response.
36. Although the return to the original question wording in 2009/10 will allow figures to be calculated which are comparable to 2007/08 and earlier years, the addition of the "prefer not to say" option is likely to have an impact the number of students with unknown socio-economic class in future years.

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