

See also SFR02/2010, SFR 31/2010 and SFR27/2011<sup>1</sup>

## Understanding Participation in Selected AS level Subjects and Continuation to Full A level

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### Summary

- The interaction of KS5 cashing behaviour and discounting methodology can lead to undercounting of AS levels and a distorted grade distribution for AS levels.
  - The true rate of age 16-19 AS level history participation is not 47,000 / 7%, as might be suggested by a comparison of SFR02/2010 with SFR31/2010, but approximately 63,000, or 10% of young people who were 17 at the start of the 2009/10 academic year.
  - The continuation rate from AS to A2 is therefore 71%, and not 96% as a comparison of the SFRs might suggest.
  - These effects could grow or shrink over time without any change in underlying participation, if cashing/re-sitting behaviour were to change.
  - Undercounting of AS levels is strongest in independent and grammar schools where cashing is more likely to be delayed to year 13.
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### Background

Historic published data for AS level entries is not suitable for assessing participation in individual AS level subjects because the interaction of “cashing” behaviour and the discounting methodology applied to historic SFR tables, results in an undercount of the number of students who completed the course of study. AS levels are only captured within the data in the year when they are “cashed in” - this is when the school or college applies to the awarding body for a result to be awarded, based on exams and coursework entered by the student. There have been significant numbers of entries for which no AS level result was ever published because they were cashed in the same year as the corresponding A level, and discounted from the published figures. See tables 3 and 4 in SFR27/2011, which for the first time presents AS entries and results with and without discounting applied.<sup>2</sup>

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<sup>1</sup> This paper refers to figures released in SFR02/2010, which provides final AS level figures for academic year 2008/09 and SFR 31/2010 which provided provisional A level figures for academic year 2009/10. SFR27/2011 provides figures for 2010/11. These SFRs can be found at: <http://www.education.gov.uk/researchandstatistics/statistics/a00198407/>

<sup>2</sup> The SFR AS level entries, even accounting for discounting, are not directly comparable with the analysis in this paper. The basis of the analysis in this paper is longitudinal cohort data covering 2008-2010 drawn from the National Pupil Database; the basis of the entry data reported in the SFR is a ‘snapshot’ extract of qualifications cashed in 2011 only.

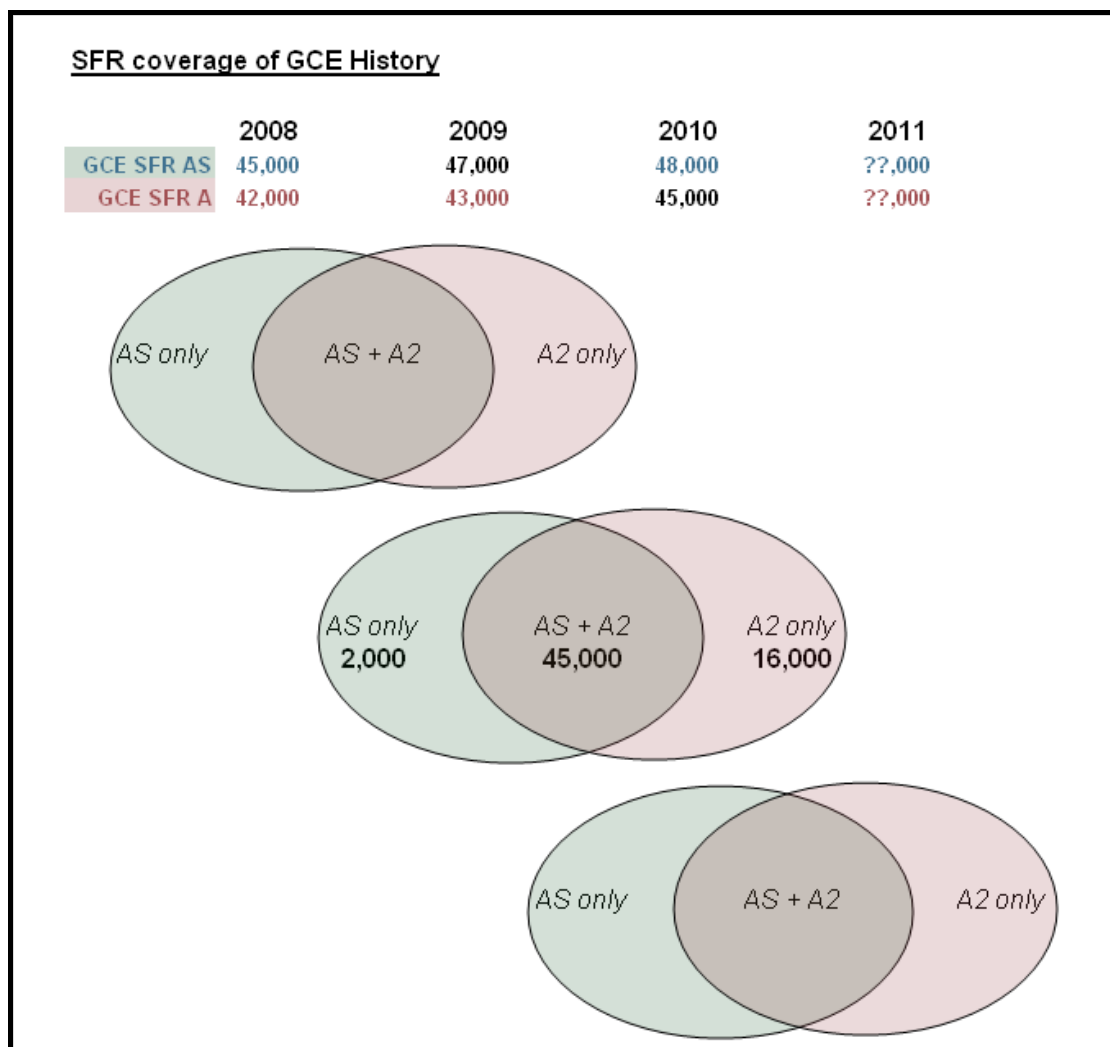
Because AS levels are counted only when they are cashed in a separate year to any subsequent A level, it is likely that changes to “cashing in” behaviour over time, such as more schools cashing their AS levels in year 12 rather than year 13, could cause changes in the published numbers of AS level entries that are not related to real changes in the numbers of students completing the requirements for AS level qualifications.

### **Data & Method**

The data used cover A levels entered in 2010 by 16-19 year olds in England. These records were matched back to AS levels cashed in 2009 and 2008. Including 2008 AS records increased the rate of matched and cashed AS levels by up to 5% (of A level entries) depending on the subject in question. 2007 cashed AS levels were also matched to the 2010 data, but added only a negligible number of matches, so were excluded from the analysis.

### **Breakdown of the Published Figures for GCE History**

History is used here as an example of the cashing and discounting effects, but these exist to differing extents in all GCE subjects. From SFR 31/2010, there were 45,000 A level history entries in 2010, and in the previous year there were 47,000 AS level history entries (SFR02/2010). In the absence of information about discounted AS levels, it appears that the continuation rate from AS to A2 is around 96%. From a population of 659,000, the rate of participation at AS level appears to be 7%. However, this is a considerable overestimate of the true rate of continuation between years 12 and 13, and an *underestimate* of the rate of participation at AS level. Longitudinal analysis of the National Pupil Database generates the following breakdown.



### **How many AS level entries were there in total (before discounting)?**

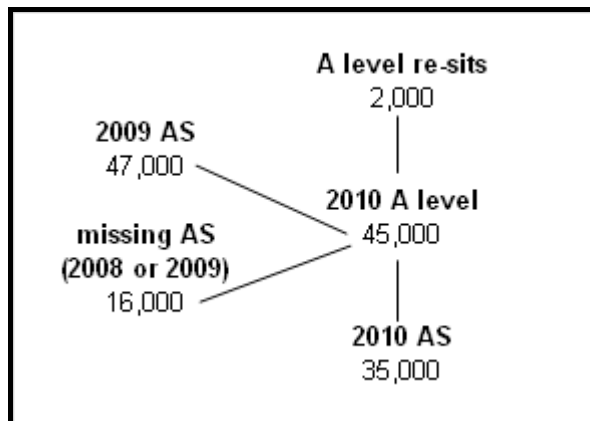
As only 65% of history A levels in 2010 matched to a published AS level in 2009 or 2008, yet all must have been preceded by an AS level, the true rate of AS level participation is not 47,000, but approximately 63,000, or 10% of young people who were 17 at the start of the 2009/10 academic year.

### **What proportion of AS level entrants continued to A2 to complete their A level?**

Following from the true number of AS level awards, it can be seen that the true number of AS levels which were not continued to A2 must be 16,000 – considerably higher than the 2,000 that a continuation rate derived from the SFR figures would suggest. The continuation rate from AS to A2 is therefore 71% and not 96% as it might appear from a comparison of SFR02/2010 and SFR31/2010.

### **Looking Forward from 2009 AS levels...**

Another way to summarise this analysis is to take the 2009 published AS figures and look forwards: there were 47,000 history AS levels in the published figure, plus 16,000 “missing” AS levels which corresponded to A levels in 2010. 45,000 (71%) went on to complete a history A level in 2010; 2,000 of which (3%) were by students with two or more A level history entries (i.e. with re-sits).



#### **And Backward from 2010 A levels...**

Taking 2010 history A levels and looking backwards reveals more variation in the pattern of qualifications taken: there were 45,000 A levels, of which 35,000 (78%) had a cashed AS level in the same year, 31,000 (68%) had a cashed AS level in 2009, and 3,000 (5%) had a cashed AS level in 2008. 31,000 (68%) of A level students cashed their AS level at least twice.

#### **What other consequences does the cashing/discounting have?**

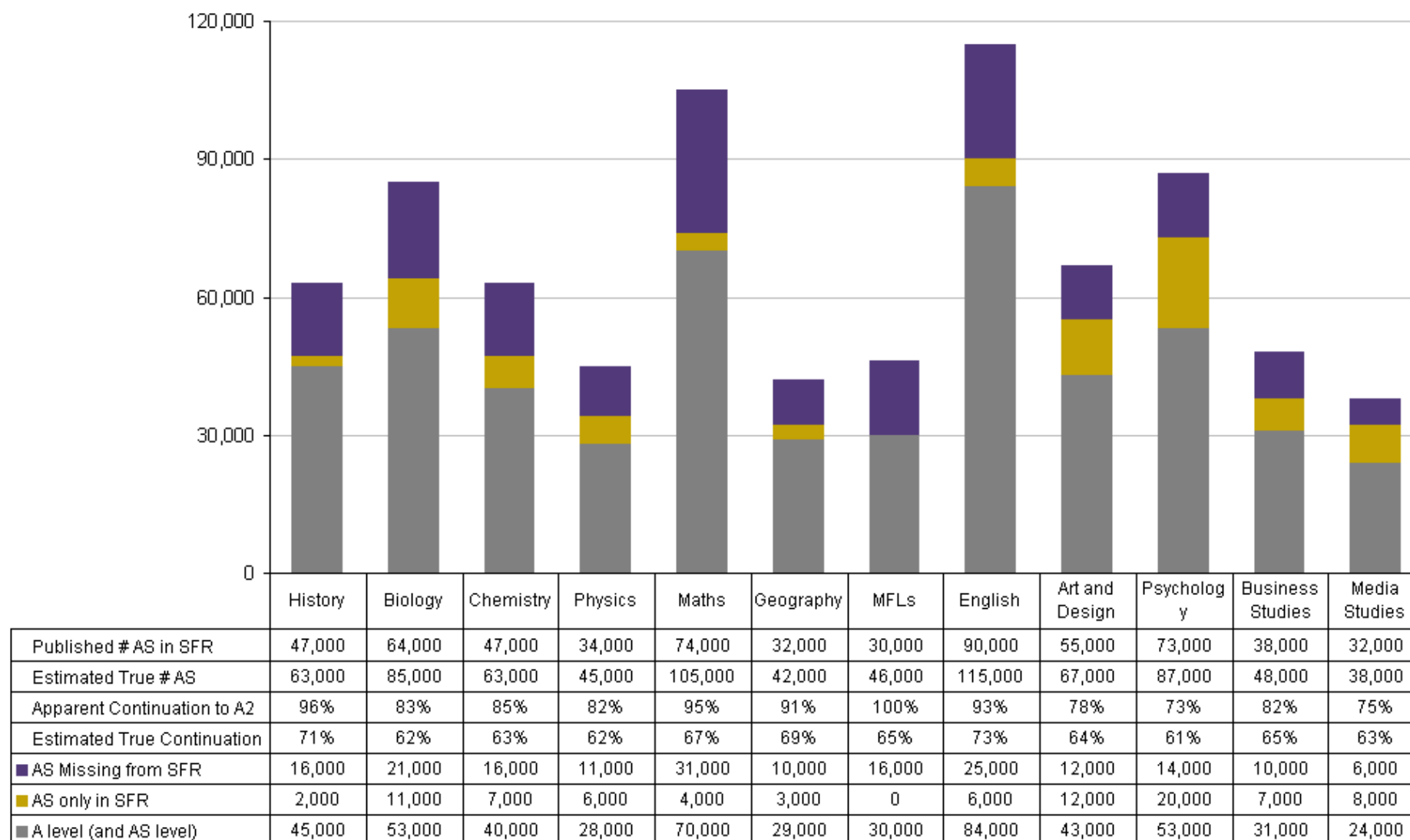
The distribution of AS level grades reported is affected by the “missing” AS levels. Second and subsequent awards of the same subject at AS level may also affect the grade distribution.

Summary analysis of selected **other subjects** appears in annex A.

Analysis of GCE history entries by **institution type** appears in annex B.

The distribution of **GCE qualification profiles** by institution type appears in annex C.

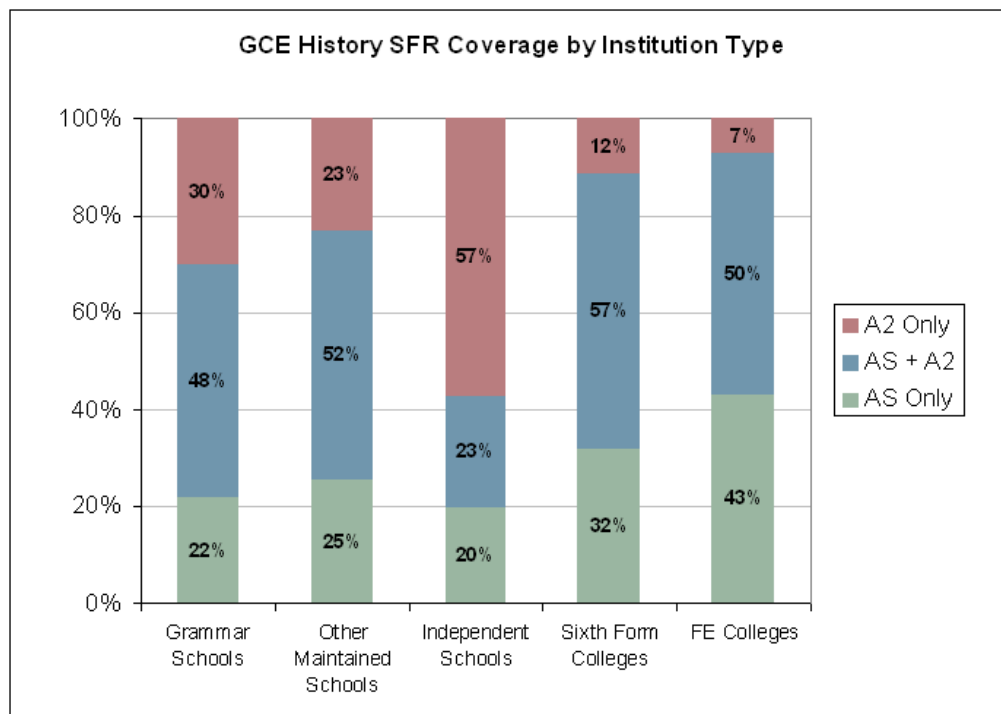
## Annex A: Selected Other Subjects



## Annex B: Institution Types

The undercounting of history AS levels is most pronounced for independent schools, for which over half of AS qualifications are discounted from the published figures because of delayed cashing, or because they were taken in year 11. The pink portions of each bar show the A levels for which the preceding AS level is missing. The pink and blue bar portions combined represent the proportion of AS entrants who continued to A level; the rate of continuation is highest in independent schools, followed closely by grammar schools and then other maintained schools; sixth form and FE colleges have lower rates of continuation.

The types of GCE entry which include AS level re-sits are least prevalent in independent schools and most prevalent in FE and sixth form colleges.



## Annex C

**Mix of GCE Candidate Profiles by Number of A levels and AS levels Entered**  
*(includes General Studies and/or Critical Thinking)*

