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Assessment**

AS level trends 2017

Research Report

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Contents

Contents	1
Executive summary.....	2
List of abbreviations	3
Introduction.....	4
Background.....	4
Summary of existing research	5
Data and methods.....	8
Subjects reformed at the time of research.....	8
National data.....	9
Analysis	10
Head of Department survey	11
Student survey	11
Findings	12
Research question 1: What are the national trends in AS level uptake?	12
Research question 2: How has AS level provision changed?	17
Research question 3: Are students taking decoupled AS levels in their A level subjects?	26
Research question 4: Are students taking decoupled AS levels on their own?	32
Research question 5: What are the reasons for students taking, or not taking, decoupled AS levels?	35
Research question 6: How do Heads of Department view decoupled AS levels?	50
Discussion	54
Uptake	54
Provision	55
Views towards decoupled AS levels	57
Conclusions	57
References	59
Appendix A	60
Head of Department survey – additional details	60
Student survey – additional details	65
Appendix B	70

Executive summary

This report presents findings from an ongoing research project monitoring the impact of the AS and A level reforms in England that came into effect from September 2015. Three studies were conducted in the spring of 2017, during the second year of teaching of decoupled AS and A levels. The first study analysed national entries and results data, in order to look at changes in the provision and uptake of AS and A levels. In the other two studies, surveys were conducted of Year 12 and 13 students and Heads of Department to further investigate the provision and uptake of AS and A levels, and, particularly, to strengthen our understanding of the reasons behind student and centre decisions.

Key findings were the following:

- Steep decreases in AS level uptake occurred in the first and second years of teaching decoupled AS and A levels.
- Analysis of provision identified two main centre responses to the AS/A level reforms: either maintaining pre-reform patterns of entry, or reducing AS provision almost entirely. A partial reduction in AS provision was less common.
- Year 12 AS level candidates in 2015/16 were far more likely than those in the previous cohort to be taking only 1 or 2 AS levels, and to be taking AS levels only in non-reformed subjects. Survey data confirmed that many students were taking decoupled A levels without the corresponding AS level.
- The proportion of students taking an AS-only subject (i.e., without continuing the subject to A level) was much smaller in the Year 12 survey sample than in the Year 13 sample. There was little difference with regard to why they were taking their AS-only subjects.
- AS level uptake has decreased at different rates in different subjects, but the decrease has been steep in all subjects. The survey data revealed very little evidence for the influence of subject-specific factors on AS level decisions. Instead, results suggested that centre level policy was the dominant factor in AS level uptake.
- Amongst the Heads of Department whose students were taking a decoupled A level without the AS, many indicated that this was because of negative impacts on the A level, either in terms of student focus or teaching time. University-related factors were also commonly cited, especially the belief that it was not a requirement for university admission.
- Many Heads of Department who completed the survey were still expecting to offer AS levels, and the reasons given resonated with pre-reform uses of AS levels. In particular, decoupled AS levels were considered useful for university applications, giving students exam practice, and helping students decide if they wanted to carry on with the A level. The AS level was also used by many Heads of Department as a way for students to 'drop' a subject after starting it as an A level.

List of abbreviations

A level	Advanced level
AS level	Advanced Subsidiary level
DfE	Department for Education
EPQ	Extended Project Qualification
GQ	General Qualification
HoD	Head of Department
JCQ	Joint Council for Qualifications
KS4	Key Stage 4
KS5	Key Stage 5
NPD	National Pupil Database
NUS	National Union of Students
OCR	Oxford, Cambridge and RSA Examinations
Ofqual	Office of Qualifications and Examinations Regulation
UCAS	The Universities and Colleges Admissions Service
VQ	Vocational Qualification

Introduction

This report presents findings from an ongoing research project monitoring the impact of the AS and A level reforms in England that came into effect from September 2015. The findings reported here are from research carried out in Spring 2017. The research questions included in the present report are those concerned directly with trends in the uptake and provision of AS levels.

Background

The DfE announced its intention to reform AS and A levels in 2010 (DfE, 2010). In 2013, it was confirmed that AS levels were to be decoupled from A levels, which meant that AS level assessments would no longer be part of A levels, and, therefore, marks in AS level assessments would not count towards students' final A level grades (Gove, 2013; Ofqual, 2013). Besides the decoupling, the recent reforms have incorporated changes to content, the return to fully linear assessment, and the withdrawal of some subjects altogether. The reforms have also coincided with separate changes to the education system in England, such as how funding is allocated to institutions offering Key Stage 5 (KS5) education. It is important to monitor the impact of current reforms because they have the potential to affect both the subjects studied and the qualifications held by students in England when they leave school or college.

Monitoring the impact of the current reforms is difficult for various reasons. The most obvious of these is that there was a phased introduction of decoupled AS and A levels over three years, which resulted in a mixed economy of "old-style" and decoupled qualifications. AS/A level subjects were grouped into tranches (see Table 1): tranche 1 subjects were reformed for first teaching in September 2015, and first assessed in June 2016, while tranche 2 subjects were reformed for first teaching in September 2016 and first assessed in June 2017. Decoupled qualifications in tranche 3 subjects were only taught from September 2017. When examining the impact on schools and colleges during the phased introduction period, and analysing the qualifications taken by the first cohorts to be taught decoupled qualifications (the first of whom only completed their A levels in summer 2017), it is important to remember that the practices and trends observed are likely to include both temporary ('while things are still changing') responses as well as more permanent responses. The support of qualitative data is necessary to try to disentangle these.

The transition to linear, end of course, assessment also means that detailed information about the students taking each qualification is available later than in the pre-reform system. Entries and results for reformed AS level candidates are available only from the end of Year 12, and entries for reformed A levels only from the end of Year 13, whereas previously candidates would have been sitting (and receiving results for) AS and A level modules from as early as January of Year 12. Related to this, it has become more difficult to separate out subject uptake and qualification uptake at KS5. Previously, the great majority of Year 13 A level candidates certificated their AS level in the same subject at the end of Year 12, giving a good indication of subject uptake. Since the decoupling, however, the number of Year 12 AS candidates reflects only the number of Year 12 students who took the AS level in that subject - large numbers of other Year 12 students may be studying that subject for A level-only entry in Year 13.

The factors noted above complicate efforts to monitor the impact of AS and A level reform, and limit what can be concluded from entry and results data alone. They explain why survey research on the impact of the reforms has been particularly necessary, in order to investigate motivations, intentions for future change, and decisions about students' overall programmes of study.

Summary of existing research

Prior to the introduction of reformed AS and A levels, Sutch, Zanini, and Benton (2015) analysed patterns in existing AS and A level entry data in order to consider the likely outcomes of the reforms. Sutch et al. highlighted the fact that the decoupled qualifications "offered scope for a variety of arrangements" (p. 111) in terms of KS5 provision. In particular, there would be scope for many roles – including no role at all – for the new, decoupled AS level. With the Department for Education (DfE) and Ofqual having presented no "compelling reason for its existence" (p. 113), Sutch et al. concluded that the new AS level appeared vulnerable, especially in the light of clear pressure on school and college resources.

Early indications of responses to AS/A level reforms came from annual surveys of schools and colleges carried out by UCAS. The first survey, carried out in 2014, revealed a high level of uncertainty about plans for provision in the first year of teaching decoupled qualifications (2015/16). In particular, the survey found that "a quarter of schools have yet to decide what provision they will offer less than a year before they are due to deliver these courses" (UCAS, 2015, p. 17). The decoupled AS level was a key area of uncertainty. Two thirds of institutions reported that they would offer the decoupled AS level in at least some subjects, and just over half said they would offer it in all the reformed subjects they taught (p. 19).

The early UCAS surveys found that many institutions were adopting a "wait and see" approach, namely, "maintaining their current AS offer for now and reviewing their programmes once the full suite of revised A levels is available from 2017" (UCAS, 2015, p. 5). Two thirds of all respondents said that they would be revisiting their decision once all A levels were reformed; the proportion was highest among state schools and academies (67% and 68%), and lower among independent schools (56%) (UCAS, 2015, p. 23). Just under a quarter of institutions, mostly state schools and academies, expected that the reform of AS and A levels would lead to fewer students choosing A levels in future (UCAS, 2015, p. 6).

In interpreting the findings of the UCAS surveys, the limitations imposed by the sample should be noted. In particular, as acknowledged by UCAS, the responding centres were not representative samples of centre types, and also not representative of the student population (see for example UCAS, 2015, p. 10).

Zanini and Williamson (2016) used PLAMS (Post-16 Learning Aims) data to investigate the qualifications being studied by students in 2015/16. PLAMS data lists the qualifications being studied by individual students, for all students in England in state-funded secondary schools with sixth forms. The PLAMS data for Year 12 students in 2015/16 showed a substantial decrease in the number of AS levels being studied. However, whilst the number of AS levels being studied was lower than in previous years, the most common AS/A level combination remained 4 AS levels, as in previous years. This appeared consistent with the finding from UCAS (2015, p. 5) showing that many centres intended to maintain their pre-reform

provision in 2015/16. The PLAMS data showed no evidence of a move away from A levels in response to the reforms, and no evidence of a shift away from already-reformed subjects in favour of non-reformed subjects. The major limitation of the PLAMS research was that PLAMS data covers only certain centre types, with no data available for colleges or independent schools.

National aggregated entry figures for AS levels in 2015/16 confirmed that AS uptake decreased substantially after the introduction of decoupled qualifications (Ofqual, 2016). Ofqual noted that the decrease was not solely due to changes in AS entries in reformed subjects: entries for AS levels overall fell by 14%, and entries fell in most subjects, not just those that had been reformed (Ofqual, 2016, p. 6). This pattern suggested a trend of moving away from AS levels more generally. Among reformed subjects, the decrease in AS entries varied, as the learning aims data for this cohort had predicted (Zanini & Williamson, 2016).

In its most recent survey, UCAS (2017) found that provision of AS levels in 2016/17 had decreased more than previously anticipated, highlighting the uncertainty of centres' previous intentions and an apparently accelerated move away from AS level provision. UCAS found that 29% of respondents were offering the decoupled AS in all reformed subjects in 2016/17, and 30% were offering the decoupled AS in some subjects, whereas results from the previous survey had indicated that 59% would offer the decoupled AS in all subjects, and 15% in some (UCAS, 2017, p. 3). UCAS also found that the proportion of centres intending to revisit their decision on AS level provision for 2017/18 had decreased, which they suggest may be due to centres having in fact already revisited their decision: the accelerated decrease in AS entries is consistent with this account, if centres had decided upon a move away from AS levels sooner than intended (UCAS, 2017, p. 3).

The national aggregated entry data for 2017 revealed a 42% drop in AS level uptake between 2015/16 and 2016/17, much larger than the 14% drop between 2014/15 and 2015/16 (Ofqual, 2017). For tranche 1 subjects, AS entries in June 2017 (the second assessment session for these subjects) were substantially lower than in June 2016. Entries for A levels in June 2017, however, had not changed from previous years. This supports the conclusion from PLAMS data that the introduction of reformed AS/A levels resulted in no overall move away from A levels, for the cohort beginning KS5 in September 2015 (Zanini & Williamson, 2016).

Ofqual noted that entries for AS levels in 2017 again fell in almost all subjects, not just subjects for which the AS and A level had already been decoupled (Ofqual, 2017, p. 6). Ofqual stated that the decrease in AS entries in 2017 was due to "a number of factors" and listed three in particular: "the decoupling of AS from A levels as part of the government policy reforms of AS and A levels, funding for 16 to 19, and centres being more likely to enrol students onto three subjects in year 12 rather than four subjects" (Ofqual, 2017, p. 6). Centres surveyed about their responses to AS/A level reform have suggested that the move from four subjects to three is itself a response to the combination of AS/A level reform with changes to 16-19 funding rules (UCAS, 2017).

Prior research and monitoring of AS and A level reform clearly indicate that a decrease in the uptake of AS levels occurred from 2015 onwards. Many finer details of students' and

centres' responses, however, remain uncertain. As part of the wider research project monitoring the impact of AS and A level reform, the research reported here aimed to establish more precisely what changes to uptake and provision of AS levels had occurred since the first teaching of decoupled qualifications in 2015/16, and to provide insights into students' and centres' reasoning. Our research questions were the following:

1. What are the national trends in AS level uptake?
2. How has AS level provision changed?
3. Are students taking decoupled AS levels in their A level subjects?
4. Are students taking decoupled AS levels without the corresponding A levels?
5. What are the reasons for students taking, or not taking decoupled AS levels?
6. How do Heads of Department view decoupled AS levels?

As previously noted, the research in this report is part of a wider overall project looking at the effects of AS and A level reform. Additional research questions in this wider project address variations in the impact of the reforms across different centre types and different subgroups of students, and how the decoupled AS and A levels fit within students' overall KS5 programmes of study. These research questions are not addressed in this report.

Data and methods

This report contains findings from three studies conducted to explore the effects of AS and A level reforms. All three studies were conducted in the spring of 2017, during the second year of teaching of decoupled AS and A levels. The first study analysed national entries and results data, in order to look at changes in the provision and uptake of AS and A levels. The other two studies conducted surveys to further investigate the provision and uptake of reformed AS and A levels, and, particularly, to strengthen our understanding of the reasons behind student and centre decisions.

Subjects reformed at the time of research

Decoupled AS and A levels have been launched in three tranches. At the time of the survey (spring 2017), students in both Year 12 and Year 13 could have been studying a mixture of decoupled and non-decoupled AS/A levels, but different (decoupled) subjects were available to the students in the two year groups. Therefore, the findings of the survey must be interpreted taking into account the reform phase in which the students would have started studying for their AS and A levels. For ease of reference, Table 1 presents details of the phased introduction of subjects.

Table 1: Ofqual (2017) timetable for decoupled AS and A levels

Tranche	First teaching	First AS results	First A level results	Subjects	Availability to survey students
1	September 2015	Summer 2016	Summer 2017	Art and Design Biology Business Chemistry Computer Science Economics English Language English Language and Literature English Literature History Physics Psychology Sociology	Years 12 and 13
2	September 2016	Summer 2017	Summer 2018	Ancient Languages Dance Drama and Theatre Geography Modern Foreign Languages Music Physical Education Religious Studies	Year 12 only

3	September 2017	Summer 2018	Summer 2019	Accounting Ancient History Archaeology Classical Civilisation Design and Technology Electronics Environmental Science Film Studies Further Mathematics Geology Government and Politics History of Art Law Mathematics Media Studies Music Technology Philosophy Statistics	Neither Year 12 nor Year 13 students
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National data

Two types of national data (for England only) were analysed. The first was data on assessment entries for the years 2014-2017 collated by Ofqual¹. The second source was KS5 assessment results for 2015 and 2016 (the most recent available) from the National Pupil Database (NPD). Table 2 summarises the coverage of these data sources, in relation to reformed AS and A levels.

Table 2 Data sources and their coverage of reformed AS and A levels

Data	Ofqual entries data	NPD 2016 KS5 data
Entries		
Tranche 1 reformed AS levels, June 2016	Y	Y
Tranche 1 and 2 reformed AS levels, June 2017	Y	-
Tranche 1 reformed A levels, June 2017	Y	-
Results		
Tranche 1 reformed AS levels, June 2016	-	Y
Tranche 1 & 2 reformed AS levels, June 2017	-	-
Tranche 1 reformed A levels, June 2017	-	-
Other information		
Candidate characteristics	-	Y
Candidate programme of study	-	-
AS level subject	Y	Y
Centre characteristics	[some]	Y

¹ Data available here: <https://www.gov.uk/government/statistics/summer-2017-exam-entries-gcses-level-1-2-certificates-as-and-a-levels-in-england>, and summarised in Ofqual (2017).

The key advantage of the Ofqual entries data was that it included entries for both June 2016 and June 2017, and therefore provided information about both the first and second years of assessment in reformed AS qualifications. The main disadvantage of the Ofqual entries data was that it could not support analysis at centre or candidate levels. These levels of analysis are possible using NPD data, but KS5 NPD results were available only for the first year of assessment, June 2016. The 2016 NPD was able to provide detailed information about those students who sat an AS level in June 2016. It is worth emphasising, however, that the 2016 NPD could provide only partial information about the 2015/16 Year 12 cohort overall, since it only contained data for qualifications they had taken in Year 12, and this had important consequences:

1. The 2016 NPD could not describe the overall programme of study for students in Year 12 in 2015/16. A Year 12 student who appeared in the 2016 NPD may also have been studying for multiple two-year qualifications, but there was no way to tell this from the 2016 NPD, since these qualifications will only appear in the NPD once the student has been assessed (at the end of Year 13, in 2017).
2. We could not tell which AS level candidates were “A level students”, and which were taking a mixed programme of study that included an AS level.
3. We could not tell anything about Year 12 students studying only qualifications assessed in Year 13 (i.e., the 2016/17 academic year). For example, we had no knowledge about any student studying only three reformed A levels.

From the Ofqual entries data, we selected two samples of interest:

1. All AS level entries from Year 12 students in England, for 2014 - 2017
2. All A level entries from Year 13 students in England, for 2014 - 2017

From the KS5 NPD for 2015 and 2016, we selected the following:

1. All AS level results from Year 12 students in England
2. All students in England who took at least one AS level in Year 12

It is important to remember that both the Ofqual entries data and NPD only included pre-reform AS levels if they had been certificated, that is, if the student had received an overall AS level result (by “cashing in” their AS level modules). State-funded centres in the pre-reform system were required to certificate their AS level entries as a condition of funding, but substantial numbers of independent centres did not certificate AS levels for all A level students. This issue does not arise for decoupled AS and A levels, since they are not modular qualifications (certification therefore occurs automatically). Caution was therefore needed when interpreting changes to AS level uptake and provision, as later sections discuss.

Analysis

The research questions were answered using descriptive statistics. To analyse AS entry trends, we analysed aggregated AS level entries for each subject across 2014-2017. We included entries from summer 2014 in order to give more context for the changes that occurred between 2014/15 and 2015/16, with the introduction of the first decoupled qualifications. Our analysis focused on relative increases and decreases in AS level entries

between years, and on when these occurred in relation to the introduction of decoupled qualifications. In order to provide context for the AS level entry trends, we also carried out a brief analysis of A level entries.

Trends in AS level provision² were investigated by analysing AS level entry data from June 2016 using the unit of individual exam centres. We compared statistics including the number of centres with Year 12 AS level entries, the number offering AS levels in tranche 1 subjects, and the number of entries per centre, with the corresponding statistics from June 2015.

Head of Department survey

The survey was targeted at Heads of Department who were involved in deciding KS5 provision in their centre. The survey was created and completed online via SurveyMonkey between March and May 2017. Respondents were entered into a prize draw for one £100 Amazon voucher for completing the survey.

Analyses were restricted to the 250 responses from respondents who confirmed that they were Heads of Departments (HoDs), including acting or deputy Heads, and involved in deciding KS5 provision. Responses were analysed using SAS to calculate descriptive statistics, primarily counts and percentages.

The HoD survey respondents represented a range of different centre types, most commonly school sixth forms, in proportions broadly representative of the distribution of centre types in England (see Appendix A). The respondents also represented a range of subjects, with Geography the most common department type.

Student survey

Two student surveys were created, one tailored for Year 13 students and one tailored for Year 12 students. Most of the differences between the Year 13 and Year 12 surveys concerned the wording of the questions so that it corresponded to the year group of the students. The survey was created and completed online via SurveyMonkey between March and May 2017. It took approximately 10 minutes to complete. Respondents were entered into a prize draw for one £100 Amazon voucher for completing the survey.

Analyses were restricted to the 90 Year 13 students and 529 Year 12 students who confirmed that they were in the target year group for their survey, were studying at least one AS/A level subject, and were not repeating the year. Responses were analysed using SAS to calculate descriptive statistics, primarily counts and percentages.

Almost all respondents were of the typical age for their year group. Female students and those with high prior attainment were overrepresented among respondents (see Appendix A for detailed description of respondents).

² A centre was considered to have AS provision in a given subject if at least one candidate took an AS level in that subject at that centre. We were not able to capture cases where a centre had offered a subject, but there was no uptake. Hence, we considered provision only in the sense defined above.

Findings

Research question 1: What are the national trends in AS level uptake?

The findings presented in this section are from analysis of Ofqual's collated entry data, published in June 2017. Figures 1 to 3 show the number of Year 12 AS level entries by subject, from 2014 to 2017. The subjects are grouped by reform tranche: tranche 1 subjects were reformed for first teaching in September 2015, and first assessed in June 2016, and tranche 2 subjects were reformed for first teaching in September 2016 and first assessed in June 2017. Decoupled qualifications in tranche 3 subjects were taught from September 2017 and will be first assessed in June 2018.

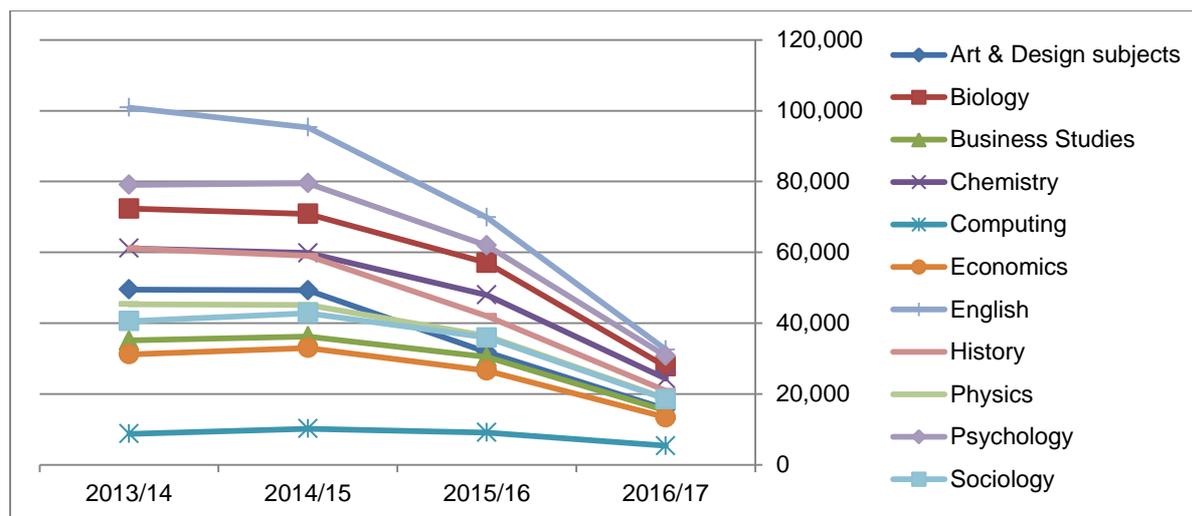


Figure 1: AS level entries in tranche 1 subjects, Year 12 students in England only

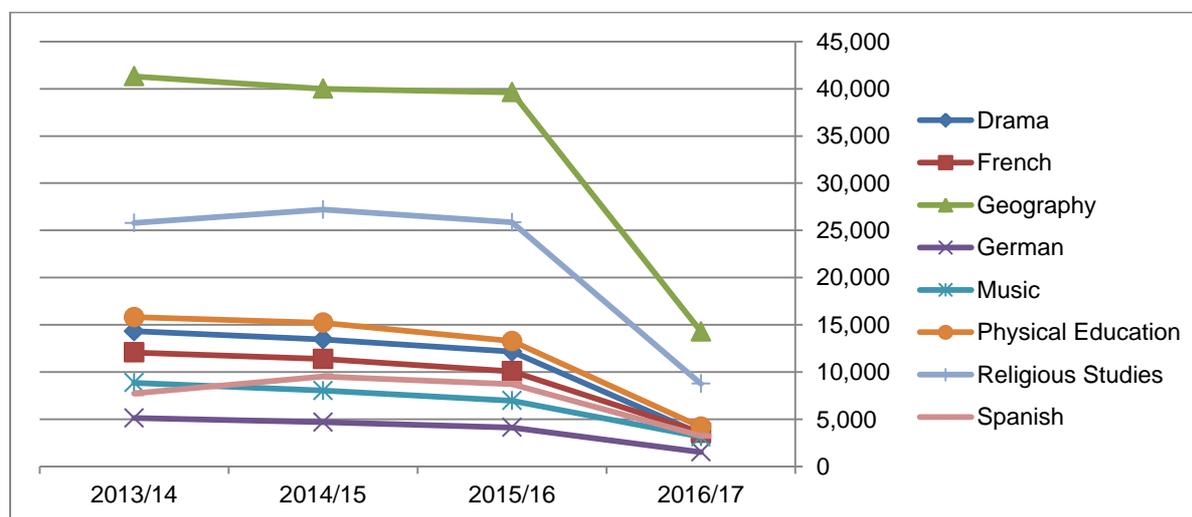


Figure 2: AS level entries in tranche 2 subjects, Year 12 students in England only

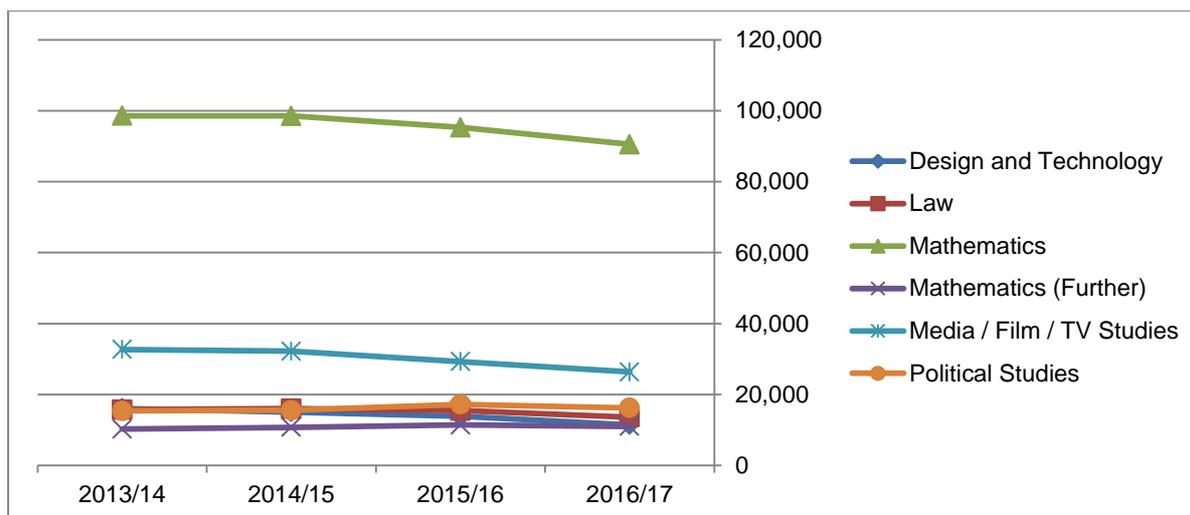


Figure 3: AS level entries in tranche 3 subjects, Year 12 students in England only

The numbers of AS level entries by Year 12 students in June 2016 were much lower than in June 2015, an expected result following the decoupling of AS levels from A levels (Ofqual, 2017). Year 12 students, overall, entered fewer AS levels in both reformed and non-reformed subjects, but the drop in entries was largest for the reformed (tranche 1) subjects. The total number of AS level entries in June 2017 was lower still. As expected from the decrease in tranche 1 entries in June 2016, there was a large drop in tranche 2 entries in June 2017 when these subjects were first assessed. Interestingly tranche 1 subjects showed an even larger decrease in June 2017, the second year they were assessed. As Figure 1 shows, the drop in AS entries for tranche 1 subjects was steeper between 2015/16 and 2016/17 than between 2014/15 and 2015/16.

Figure 4 plots the decrease in AS level entries per subject according to the number of years of teaching of the decoupled qualifications, in each case, comparing entry numbers to the entries in the last year prior to the introduction of the reformed AS in that subject³. So, for tranche 1 subjects, it shows the decrease in entries in the first year of teaching (2015/16 entries compared with 2014/15 entries) and in the second year of teaching (2016/17 entries compared with 2014/15 entries). For tranche 2 subjects, it shows the decrease after the first year of teaching only (2016/17 entries compared with 2015/16 entries). Figure 4 confirms that the decrease for tranche 2 subjects in the first year of teaching (2016/17) was much larger than the decrease for tranche 1 subjects in the first year of teaching (2015/16), and for many subjects larger than the total decrease for tranche 1 subjects over the first two years of teaching. This is particularly striking given that entries in tranche 2 subjects had already decreased slightly between 2014/15 and 2015/16, before the introduction of the decoupled AS levels in these subjects (Figure 2).

AS entries in reformed subjects did not decrease equally for all subjects, as the varying slopes in Figures 1 to 4 partially show. In the first year of reformed AS levels, there were

³ For numbers of entries, see Table A17, Appendix B.

particularly large decreases in entries for Art & Design subjects (-35%), English (-27%) and History (-29%).

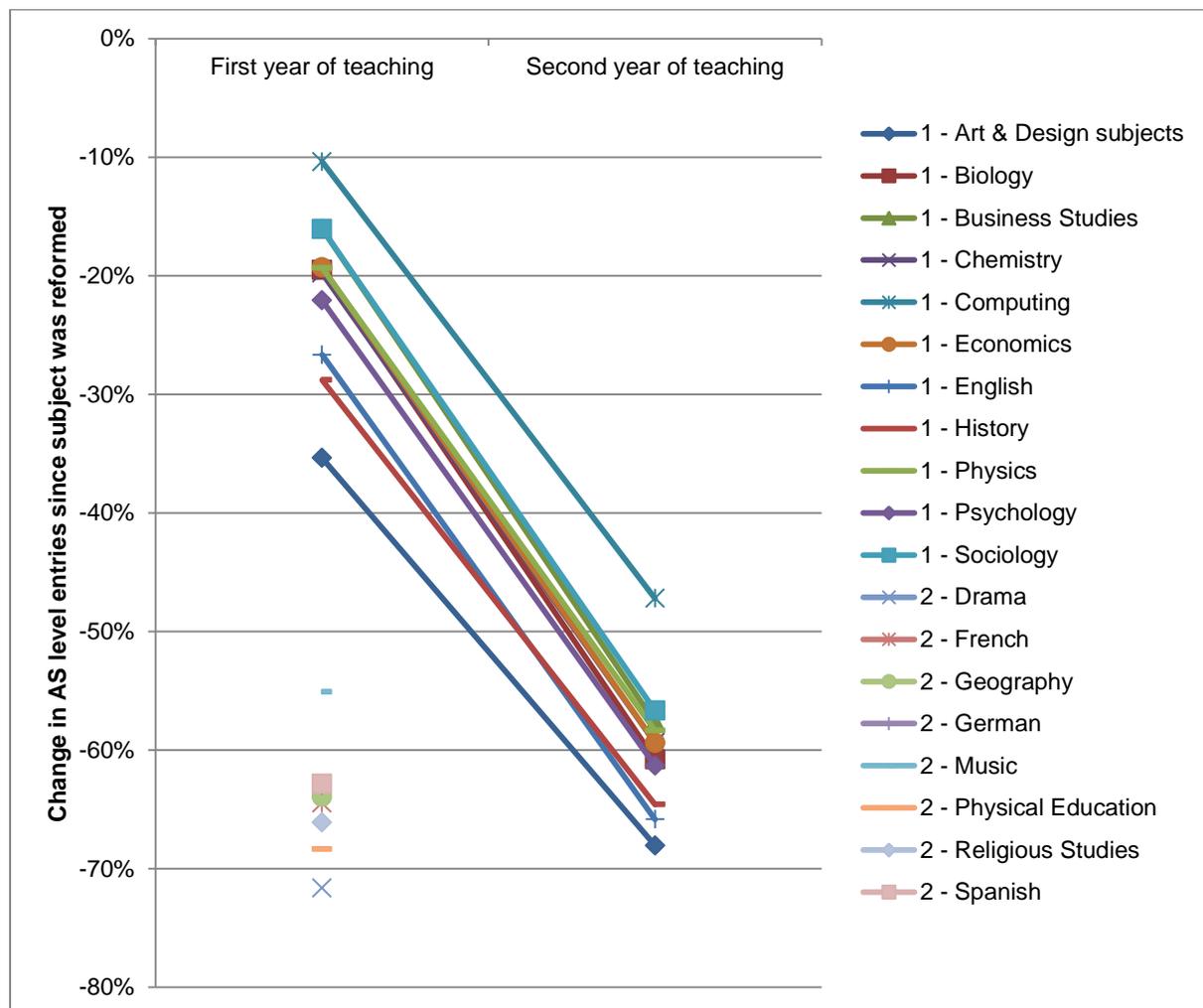


Figure 4: Decreases in Year 12 AS entries, by year of teaching for decoupled qualifications

Numbers of A level entries, in contrast to AS level entries, have remained broadly stable since the introduction of decoupled qualifications in September 2015. Figures 5 to 7 show the A level entries for Year 13 students from 2013/14 to 2016/17, according to the reform tranche of the subject. The charts show no clear difference between tranche 1 subjects and tranche 2 and 3 subjects, in terms of changes to entries that occurred after the introduction of reformed A levels. For most subjects in tranche 1, entries in 2016/17 (the first assessment of any reformed A levels) were slightly higher than in previous years. The visual evidence in Figure 5 suggests that these increases reflect the longer term entry trends in these subjects rather than representing a change due to the introduction of the reformed specifications.

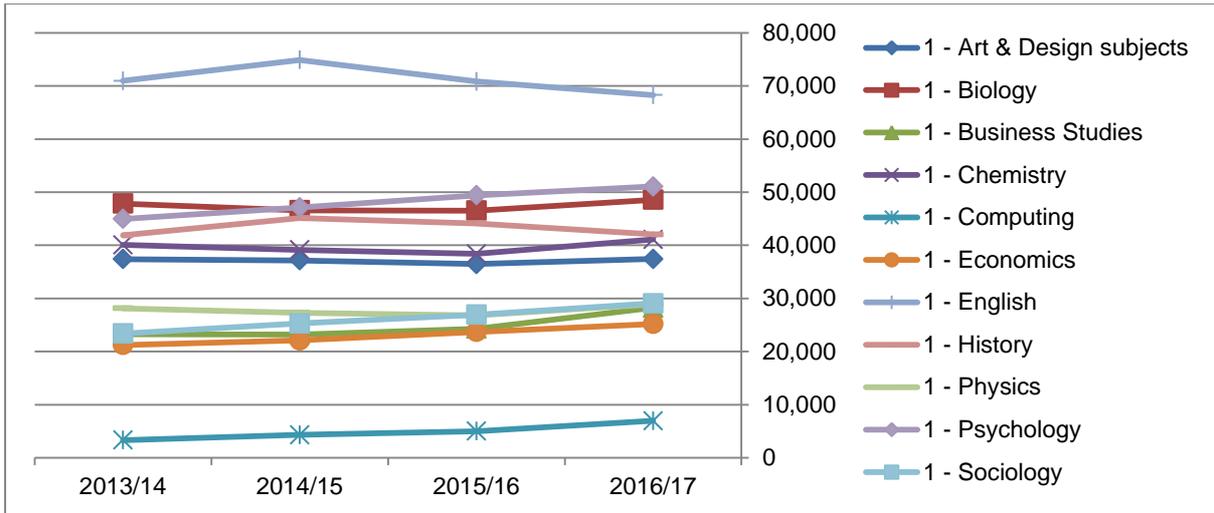


Figure 5: A level entries in tranche 1 subjects, Year 13 students only

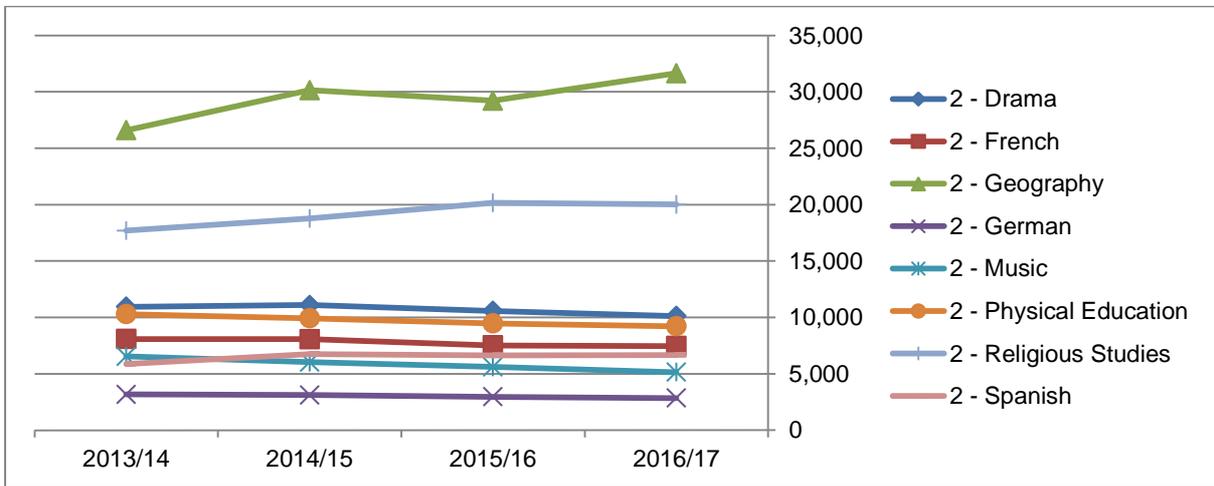


Figure 6: A level entries in tranche 2 subjects, Year 13 students only

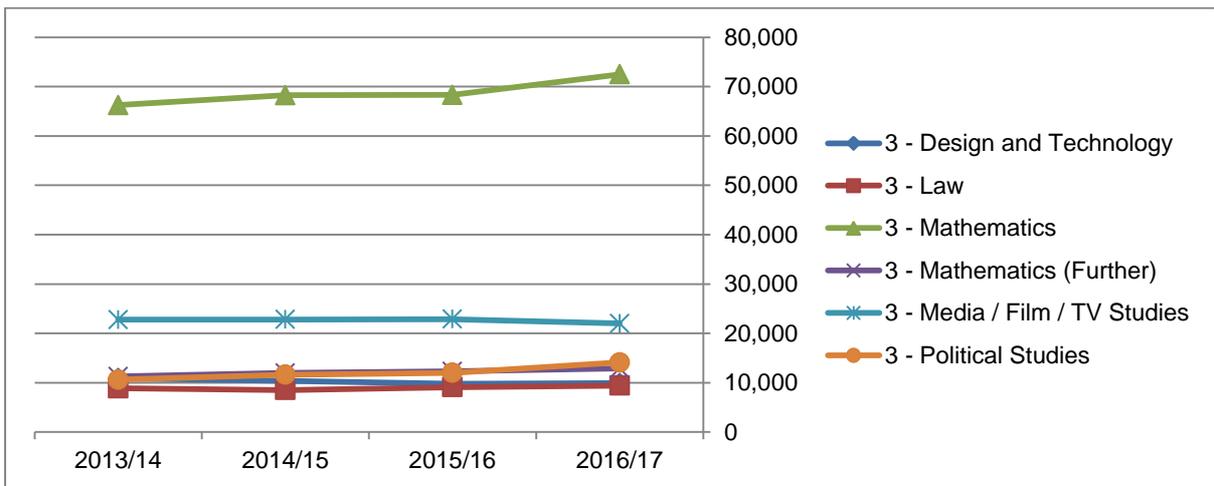


Figure 7: A level entries in tranche 3 subjects, Year 13 students only

By aggregating Year 13 A level entries according to the reform status of the subject (tranche 1, tranche 2, etc.), it is possible to examine whether the introduction of reformed AS and A levels coincided with any net 'shift' between groups of subjects. This was an area investigated by Zanini and Williamson (2016), following up the suggestion that subject choice could be influenced by whether the A level in that subject had already been reformed.

As Table 3 shows, the proportion of A levels taken in tranche 1 (reformed) subjects since the introduction of reformed AS/A levels in September 2015 has in fact increased: from 57.8% in 2014/15 to 59.4% in 2017. This should however be interpreted in light of the longer term trends: entries in Psychology, Sociology, Economics and Computing (all tranche 1) increased every year from 2014 to 2017, as shown in Figure 5, and entries in Mathematics (tranche 3) have also been increasing in recent years. Overall, the balance of entries shown in Table 3 does not suggest that there has been a shift between A level subjects in different reform tranches due to the introduction of decoupled qualifications. This is consistent with the findings based on learning aims data (Zanini & Williamson, 2016).

The strongest trend evident in Table 3 is the steady decrease in entries in subjects that are not being reformed (top row). The decrease precedes the actual withdrawal of these subjects, and may reflect centre policies (e.g., reducing provision of subjects likely to be withdrawn), and signalling from universities/employers (e.g., about 'facilitating' subjects).

Table 3: Year 13 A level entries by year and reform tranche of subject (Ofqual entries data)

Subject group	2016/17	%	2015/16	%	2014/15	%	2013/14	%
Not being reformed	32,320	4.7%	38,840	5.8%	46,340	6.8%	54,460	8.1%
1	406,820	59.4%	392,490	58.6%	392,230	57.8%	382,450	57.1%
2	93,110	13.6%	92,150	13.8%	93,930	13.8%	89,230	13.3%
3	140,850	20.6%	134,410	20.1%	133,550	19.7%	130,720	19.5%
Subject contains mix of tranches ⁴	11,640	1.7%	12,200	1.8%	12,800	1.9%	12,790	1.9%
	684740		670090		678850		669650	

AS candidates within the Year 12 cohort

An important piece of contextual data for understanding trends in AS level uptake is the size of the overall cohort. Table 4 shows the total number of Year 12 AS level candidates, for both 2014/15 (students in the first year of teaching of decoupled qualifications) and 2015/16. It also shows, for each year, two indications of cohort size taken from the DfE's most recent statistical report on 16-18 participation rates (DfE, 2017). The population size (the maximum potential cohort size) is the number of young people in England aged 16 at the start of the academic year in question. The Year 12 cohort is the subset of young people in England aged 16 who were recorded as being in full time education for that academic year.

Table 4 shows that the potential cohort size and number of young people in full time education decreased by 1% between 2014/15 and 2015/16. The number of Year 12

⁴ Some of the A level subjects for which Ofqual reported entries, e.g. "Classical subjects", in fact incorporate qualifications from more than one reform tranche.

students taking at least one AS level decreased more markedly, by 4%. Year 12 AS candidates therefore represented a smaller proportion of their cohort than in 2014/15: just under half of the Year 12 cohort in 2015/16 took an AS level, compared to just over half in 2014/15.

Table 4: Year 12 cohort size by year, students in England

Group	2015/16	2014/15	Change
Population aged 16, in England ⁵	630,100	636,600	- 1%
Year 12 cohort (aged 16, in England, in full time education) ⁶	548,800	556,400	- 1%
Year 12 AS level candidates ⁷	270,889	283,350	- 4%
Proportion of Year 12 cohort taking an AS level	49%	51%	

Research question 2: How has AS level provision changed?

We investigated changes to provision of AS levels through analysis of centre-level data from the NPD, and through the Head of Department survey. Analysis of AS level provision using NPD data considered state-funded centres and independent centres separately, since not all independent centres certificated AS levels in the pre-reform system.

NPD analysis – state funded centres

To investigate changes to AS level provision, we considered state-funded centres that had made Year 12 AS entries in 2014/15, the last year before the introduction of decoupled qualifications. We excluded from analysis any atypically small centres: those in the smallest 5% measured either by number of AS candidates in 2014/15 (fewer than 8) or by number of AS subjects offered in 2014/15 (fewer than 4). This excluded 140 (6%) of state-funded centres, but these centres contributed only 1,518 (0.2%) of state-funded centres' Year 12 AS entries in 2014/15. In total, 2,081 centres remained for analysis.

After excluding the smallest centres, we analysed changes in provision between 2014/15 and 2015/16, considering various centre-level variables, including number of subjects offered at AS, number of AS entries, and number of AS candidates.

Table 5 shows a reduction in AS level provision between 2014/15 and 2015/16 in terms of subjects offered, entries and number of candidates. The median number of subjects offered (both tranche 1 and non-tranche 1) decreased only slightly, from 23 to 20. The median number of AS entries fell from 297 to 231, a decrease of 22%. In tranche 1 (T1) subjects, the median number of entries fell from 175 to 110, a decrease of 34%, whereas in non-tranche 1 subjects, the median number of entries fell only 10%.

⁵ Population estimate is taken directly from Table 1a (value labelled "Population") of "Main SFR tables" in the document collection for SFR 29/2017 (DfE, 2017). Note that student age is 'academic age', i.e. the age of the student on 31st August at the start of the academic year (see technical notes, DfE, 2017, pp. 3-4). Hence, the "Population" value for young people aged 16, at time "end 2014", gives the population estimate for young people who were aged 16 on 31st August 2014, i.e. those who based on age could potentially be in Year 12 in 2014/15.

⁶ Year 12 cohort size is calculated from Table 1a (DfE, 2017), multiplying percentage in "Full-time education" by "Population", for those aged 16.

⁷ Students in Year 12 taking at least one AS level, calculated from NPD KS5 results data.

Table 5: Measures of Year 12 AS level provision (n=2,081 state-funded centres)

Centre variable	Median 2014/15	Median 2015/16
Number of AS subjects offered	23	20
Number of T1 AS subjects	11	9
Number of non-T1 AS subjects offered	12	11
Number of Y12 AS level entries	297	231
Number of Y12 AS level entries in T1 subjects	175	115
Number of Y12 AS level entries in non-T1 subjects	122	110
Number of Y12 AS candidates	93	84

Figure 8 shows the distributions of number of AS level subjects offered by state-funded centres, by year. Figure 8a shows the distributions for tranche 1 subjects: the 2015/16 distribution still shows a distinct ‘peak’ around 11 subjects, the 2014/15 median, but a second ‘peak’ occurs around zero subjects, indicating that a large minority of state-funded centres in 2015/16 offered no AS levels in tranche 1 subjects. Figure 8b shows the distributions for subjects not in tranche 1, where the difference between 2014/15 and 2015/16 is less substantial.

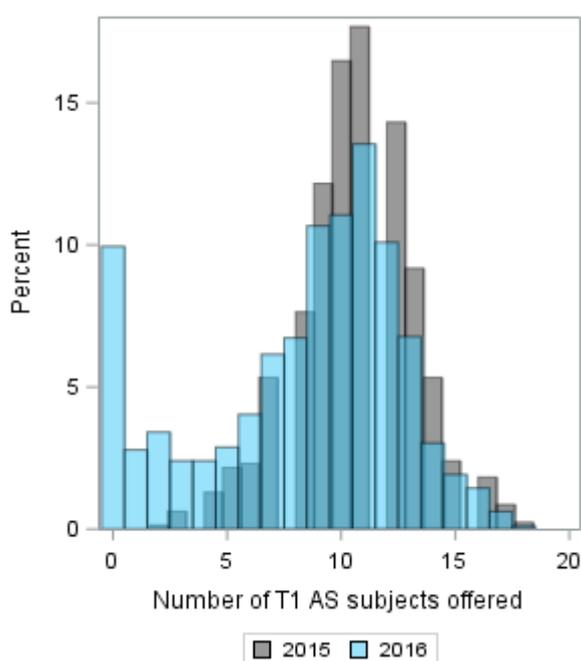


Figure 8a

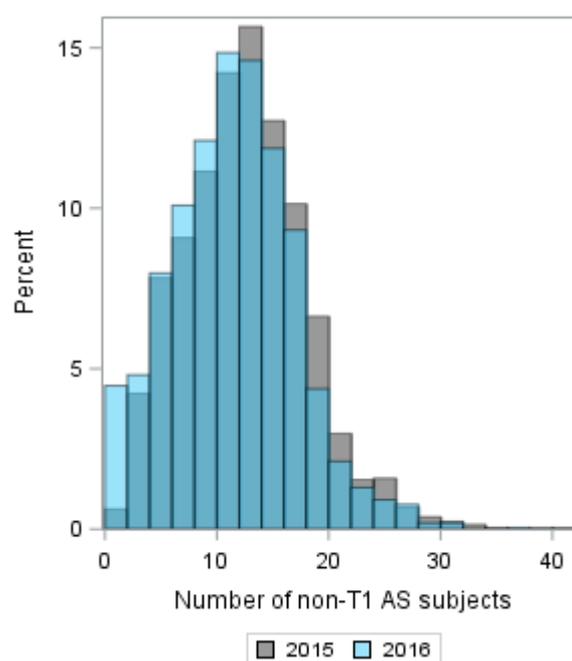


Figure 8b

Figure 8: Distributions of number of AS subjects offered (n=2,081 state-funded centres)

Table 6 summarises the provision of AS levels in 2015/16: 97% of state-funded centres that had made Year 12 AS level entries in 2014/15 also made Year 12 AS level entries in at least one AS level subject in 2015/16, and 90% of state-funded centres entered Year 12 candidates in at least one tranche 1 AS level in 2015/16. Of the 64 centres not offering any AS level subjects in 2015/16, all had offered at least one non-tranche 1 subject in 2014/15, so the data indicates some changes to provision beyond non-entry for decoupled tranche 1

AS levels. More than half of the centres concerned were classified as small, in terms of their 2014/15 provision. Centres may have restricted AS entry due to changes in funding, may have entered students for alternative qualifications, or may have been in the process of reducing or removing sixth form provision more widely.

Table 6: AS level provision in 2015/16 (n=2,081 state-funded centres)

Aspect of provision		Yes	No
Any AS level subjects in 2015/16	N	2017	64
	%	96.92	3.08
Any tranche 1 AS subjects in 2015/16	N	1874	207
	%	90.05	9.95

Whereas Table 5 and Figure 8 demonstrate changes in AS level provision by state-funded centres overall, Table 7 and Table 8 summarise changes within individual centres. For each measure of AS provision, centres were classified according to whether provision decreased, remained the same, or increased. Table 7 shows that around 70% of state-funded centres decreased the number of subjects in which they entered Year 12 candidates for AS levels between 2014/15 and 2015/16.

Table 7: Centre-level changes to number of AS subjects offered, state-funded centres

Aspect of provision	Number (%) of centres	Decreased	No change	Increased
Number of AS subjects offered (all subjects)	N	1442	261	378
	%	69.29	12.54	18.16
Number of T1 AS subjects offered	N	1129	649	303
	%	54.25	31.19	14.56
Number of non-T1 AS subjects offered	N	1174	398	509
	%	56.42	19.13	24.46

Table 8 shows that just under 60% of state-funded centres made fewer Year 12 AS entries in 2015/16 compared to in 2014/15. For over 60% of state-funded centres, the number of Year 12 AS entries in tranche 1 subjects was lower than in 2014/15.

Table 8: Centre-level changes to number of AS entries, state-funded centres

Aspect of provision	Number (%) of centres	Decreased	No change (+/- 10%)	Increased
Number of AS entries (all subjects)	N	1236	548	297
	%	59.39	26.33	14.27
Number of T1 subject AS entries	N	1270	484	327
	%	61.03	23.26	15.71
Number of non-T1 subject AS entries	N	996	590	495
	%	47.86	28.35	23.79

To look more closely at the changes centres made between 2014/15 and 2015/16, Figure 9 shows the distribution of centres' percentage change in tranche 1 Year 12 AS entries between 2014/15 and 2015/16. The chart is broken down according to change in the number of tranche 1 subjects offered, as shown in Table 8: the aim is to reveal the extent of change in provision for each category. Centres that made fewer than 20 Year 12 entries in tranche 1 subjects in 2014/15 (placing them in the lowest 10% of centres with tranche 1 entries) were excluded in order to remove extreme percentage increases from the charts.

Figure 9 highlights two different types of centre behaviour in the first year of teaching decoupled qualifications. A large number of state-funded centres – particularly among those where the number of tranche 1 AS subjects offered stayed the same or increased – are clustered around a percentage change of zero. For these centres, Year 12 AS level entries in tranche 1 subjects in 2015/16 were roughly the same as in 2014/15, and it appears that AS provision was largely maintained as it was in 2014/15. Another large subset of centres – 30% of those that had reduced the number of tranche 1 AS subjects – reduced their Year 12 AS level entries in tranche 1 subjects by close to 100%.

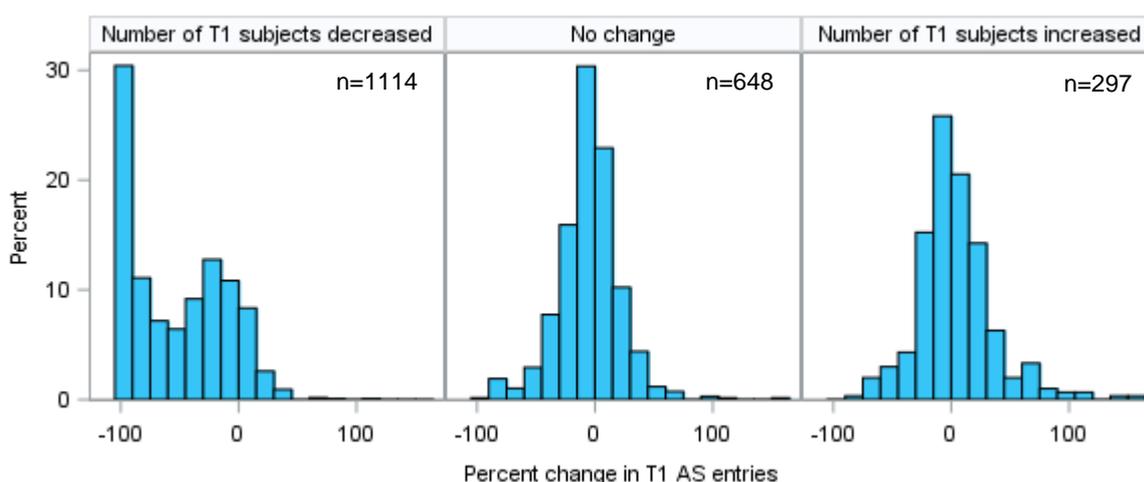


Figure 9: Change in number of AS entries in tranche 1 subjects, 2014/15 to 2015/16. State-funded centres with at least 20 T1 AS entries in 2014/15 (n=2,059).

NPD analysis – independent centres

As noted earlier, independent centres presented challenges for analysis of AS level entry, due to non-certification of AS levels in the pre-reform system. Analysis by centre (Figure 10) strongly suggests that AS level certification was a centre-level decision: centres tended to either certificate AS levels for all A levels, or for none.

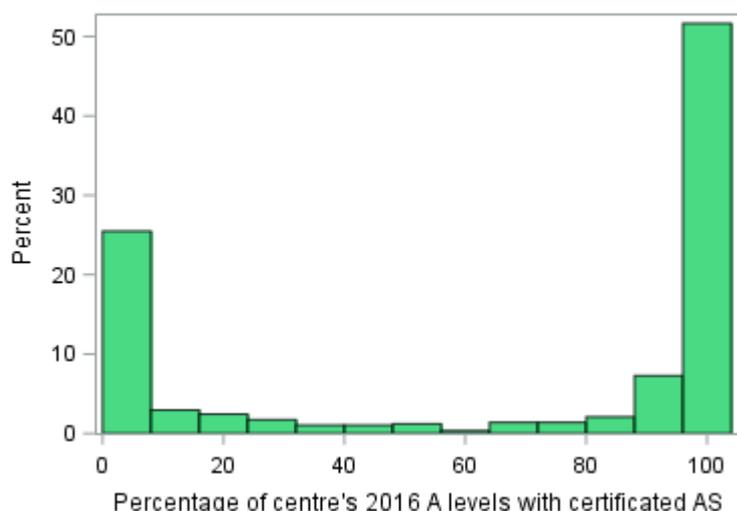


Figure 10: Distribution of independent centres by proportion of 2016 A levels with certificated AS

To analyse independent centre AS level provision, we considered all independent centres that had certificated AS or A levels (or both) in 2014/15. We excluded centres in the smallest 5% by either number of AS or A level candidates, or number of AS and A level entries, leaving 570 independent centre centres for analysis.

We classified independent centres according to their pre-reform A level entry strategies, in case changes to AS entries varied according to the centre’s pre-reform patterns of entry. The classifications were as follows: “With AS” if at least 90% of A levels had a corresponding certificated AS level; “Without AS” if at least 90% of A levels had no corresponding AS level; “Mixed” if between 10% and 90% of A levels had a corresponding AS level; “Unknown” if there were no A level entries from that centre to classify.

Table 9: Pre-reform A level strategy of independent centres with AS or A level entries in 2014/15

Pre-reform A level entry strategy	Number of centres	%
With AS	320	56%
Without AS	150	26%
Mixed	68	14%
Unknown	19	3%
	570	

Table 10 shows the proportion of these centres that entered any Year 12 students for AS levels increased from 85% in 2014/15 to 92% in 2015/16.

Table 10: Proportion of independent centres making Y12 AS entries

Any Y12 AS entries	2014/15		2015/16	
	Number of centres	%	Number of centres	%
Yes	483	85%	527	92%
No	87	15%	43	8%
	570		570	

Table 11 shows a net increase in the proportion of independent centres that entered candidates for tranche 1 AS levels, from 75% in 2014/15 to 81% in 2015/16.

Table 11: Independent centres making Y12 AS entries in tranche 1 subjects

Any Y12 T1 AS entries	2014/15		2015/16	
	Number of centres	%	Number of centres	%
Yes	425	75%	460	81%
No	145	25%	110	19%
	570		570	

These findings on AS provision by independent centres can appear surprising in light of previous research. When surveyed by UCAS during 2015/16, 30% of independent centres said they were offering no AS levels in reformed subjects (UCAS, 2016, p. 9), whereas Table 11 shows that 80% of independent centres did in fact enter Year 12 students for AS levels in reformed subjects in 2015/16. This discrepancy may be due to differences in the samples analysed: the UCAS data reflects the views of independent schools from among all UCAS-registered centres who responded to the UCAS survey, whereas Table 11 considers all independent centres in England that made at least 7 AS or A level entries in 2014/15, with at least 4 candidates.

Table 12 indicates that there was a high level of change in the AS subjects for which independent centres made entries. Overall, only 12% of centres showed no change between 2014/15 and 2015/16 in the number of AS subjects offered. Considering only tranche 1 AS subjects, 20% of independent centres showed no change in the number offered, whilst 40% decreased the number offered and 40% increased the number offered. Among non-tranche 1 subjects, there was a stronger trend towards reducing the number of subjects offered.

Table 12: Centre-level changes to number of AS subjects offered, independent centres (n=570)

Aspect of provision			Decreased	No change	Increased
Number of AS subjects offered	All subjects	N	269	67	234
		%	47.19	11.75	41.05
	T1 subjects	N	230	114	226
		%	40.35	20	39.65
	Non-T1 subjects	N	256	163	151
		%	44.91	28.6	26.49

Table 13 shows that 42% of independent centres made fewer AS entries in 2015/16 than in 2014/15. This proportion was much lower than for other centre types (see Table 8).

Table 13: Centre-level changes to number of AS entries, independent centres (n=570)

Aspect of provision			Decreased	No change (+/- 10%)	Increased
Number of AS entries	All subjects	N	240	147	183
		%	42.11	25.79	32.11
	T1 subjects	N	235	191	144
		%	41.23	33.51	25.26
	Non-T1 subjects	N	250	189	131
		%	43.86	33.16	22.98

Analysis of independent centre AS entries according to pre-reform A level strategy showed substantial differences. Table 14 shows that the changes in AS entry numbers from independent centres look very different when examined according to pre-reform A level strategy. In particular, when only centres who had previously been certificating AS levels are considered, the decrease in reformed subject AS entries between 2014/15 and 2015/16 was 36%. Thus, for these centres, the decrease in AS provision was substantial, as previous evidence has suggested. On the other hand, for centres where pre-reform A levels had not generally been accompanied by certificated AS levels, there was an extremely large increase in reformed subject AS levels.

Table 14: Changes in AS entries from independent centres, by pre-reform A level entry strategy

A level strategy	Reformed	Entries 2016	Entries 2015	Change
[too few to determine]	Non-reformed AS	38	.	.
	Reformed AS	199	.	.
Mixed	Non-reformed AS	2,014	1,858	8%
	Reformed AS	2,751	2,362	16%
Unknown	Non-reformed AS	95	58	64%
	Reformed AS	88	43	105%
With AS certification	Non-reformed AS	22,044	27,025	-18%
	Reformed AS	20,656	32,425	-36%
Without AS	Non-reformed AS	669	291	130%
	Reformed AS	5,800	187	3002%
		54,354	64,249	

Figure 11 shows the proportion of independent centres that decreased, maintained, or increased the number of AS subjects offered, according to pre-reform A level strategy. This shows that over 60% of centres whose A levels were accompanied by certificated AS levels decreased the number of AS subjects offered between 2014/15 and 2015/16. For centres whose pre-reform A levels were not generally accompanied by certificated AS levels, only 20% reduced the number of AS subjects between 2014/15 and 2015/16, and in fact almost 70% increased the number of AS subjects offered.

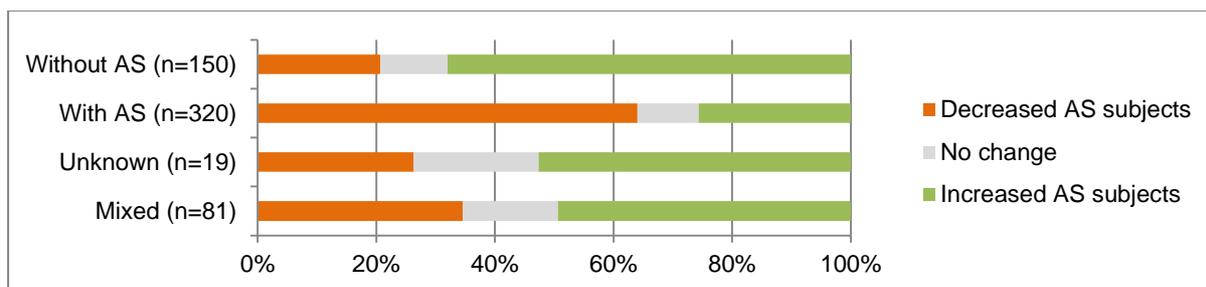


Figure 11: Changes to number of AS subjects offered, by pre-reform A level strategy (n=570)

HoD survey

In the HoD survey, several questions were asked about changes that HoDs had (or had not) made to their AS provision following the A level reforms. The survey was carried out in spring 2017, in the second year of teaching for decoupled AS and A level qualifications.

Survey question: "Has your department changed its AS provision as a result of the decoupling of AS from A levels?"

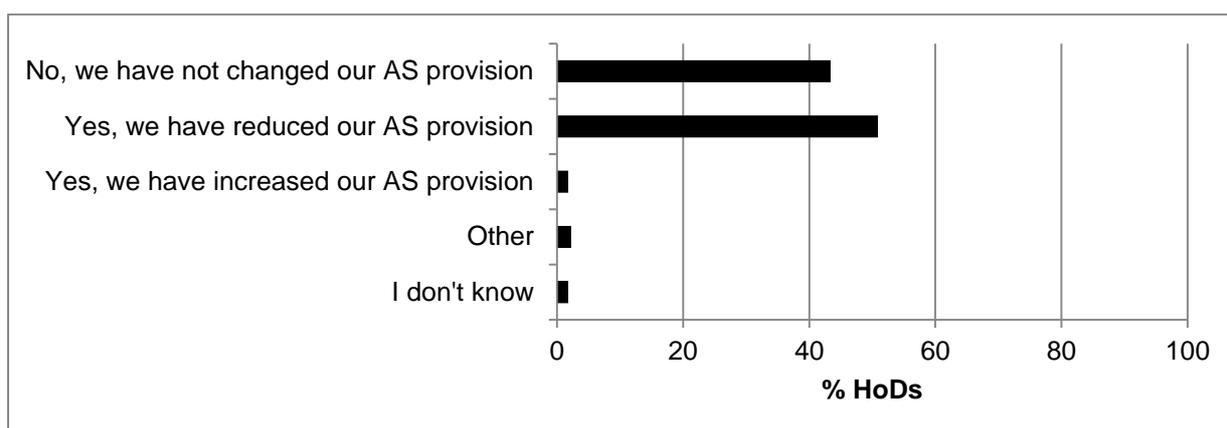


Figure 12: Change already made to AS provision as a result of AS decoupling (n = 226)

Figure 12 shows that just over half of the HoDs surveyed (51%) had reduced their AS provision as a result of the decoupling of AS, while 43% had not changed their AS provision. Only four HoDs stated they had increased their AS provision. These overall figures, however, include HoDs from departments such as Mathematics, for which the relevant AS and A levels had not yet been reformed.

199 HoDs responded that their department offered AS or A levels in at least one reformed subject (i.e., in a tranche 1 or 2 subject). Figure 13 shows that, of those HoDs, over half had already reduced their AS provision (55%), whilst 39% had not changed their AS provision.

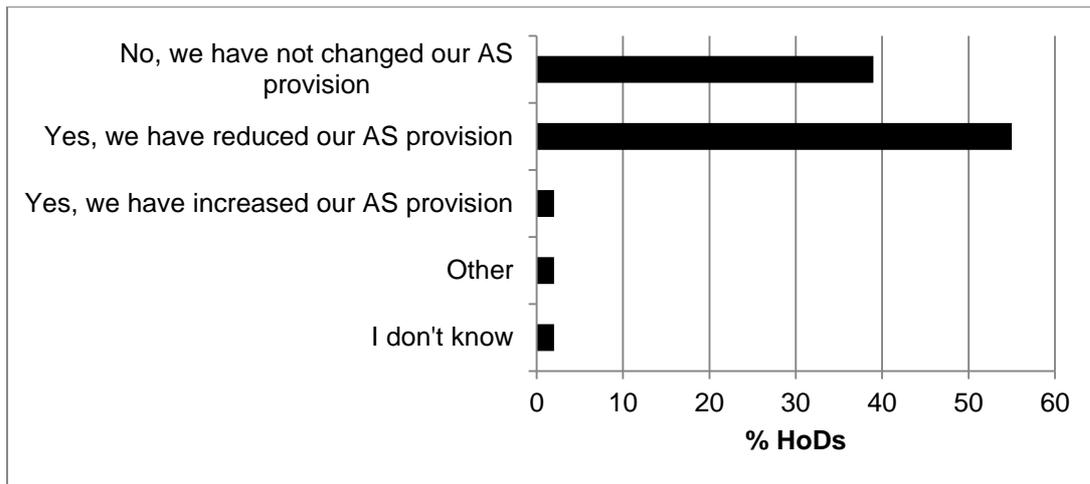


Figure 13: Changes already made to AS level provision (n=198 HoDs from departments offering a reformed subject)

Figure 14 shows that, amongst the reformed-subject HoDs that had already reduced AS level provision, the majority (74%) reported that they were offering no reformed AS at all.

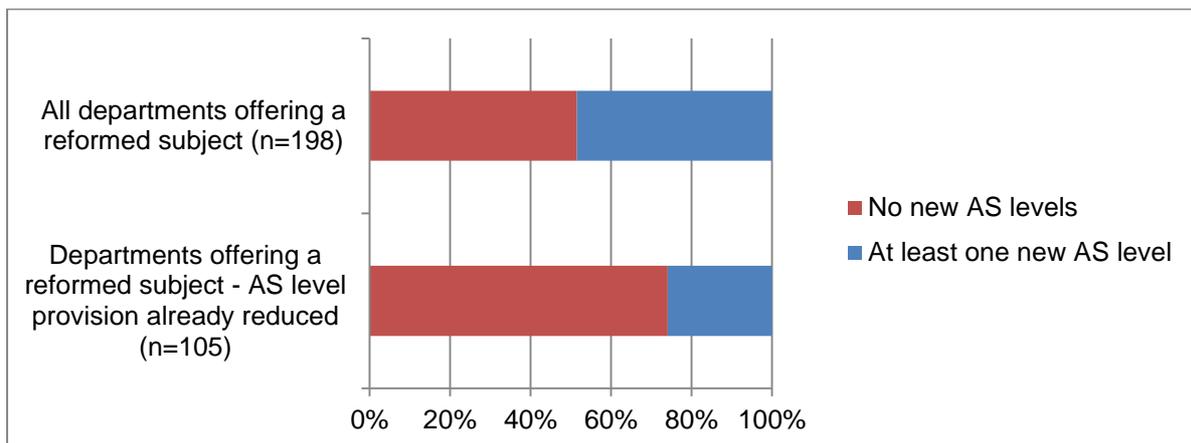


Figure 14: Provision of new AS levels among departments offering a reformed subject

Figure 15 shows that almost half (45%) of the HoDs who indicated that they had reduced provision had made that change when the reforms were enforced (i.e., as soon as teaching was compulsory). 29% had reduced provision after the first year of offering the new AS qualifications, while 21% had made changes soon after the reforms were announced by Ofqual. The centre-level analysis of AS provision carried out using NPD data could only look at the first year of teaching the new, decoupled qualifications. However, the multiple points of changes to AS provision identified in this survey data are consistent with the repeated decreases in AS level uptake evidenced by the national entry data.

Survey question: “When did your department change its AS provision?”

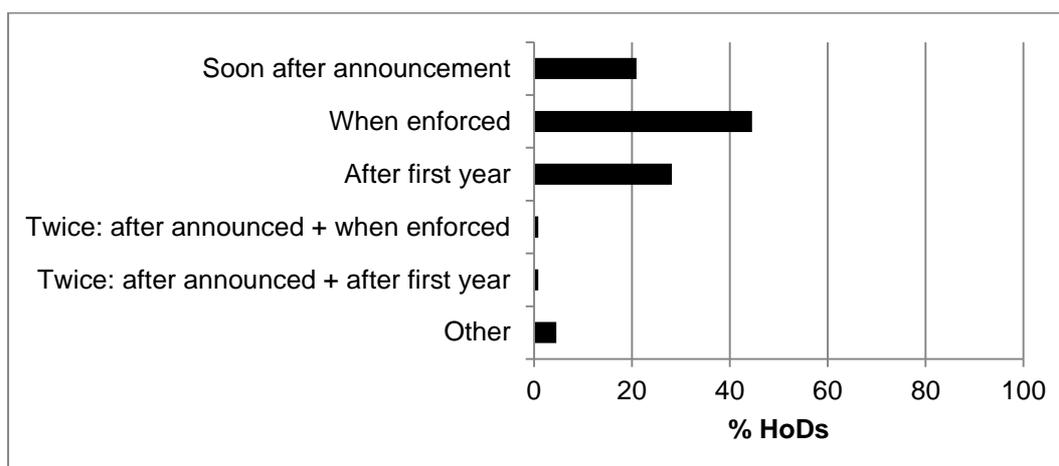


Figure 15: When changes were made to AS provision (n= 110 HoDs who stated they had reduced provision)

Research question 3: Are students taking decoupled AS levels in their A level subjects?

A difficulty with interpreting national entry data for reformed AS levels is that we do not know the overall programmes of KS5 study for students in Year 12 in 2015/16. It is therefore not clear how many reformed AS levels were sat by students who intended to continue to A level (i.e., taking both AS and A level in the same subject, as in the pre-reform system), how many were sat by students adding breadth to their A level programme (i.e., as a “+1” AS level), and how many were sat by students adding an AS level to a mixed programme of study (i.e., taking a combination AS levels and non-A level qualifications).

Ofqual’s collated entry data for June 2017 is able to tell us how many Year 13 students entered the A level in each reformed subject in June 2017. It cannot, however, tell us whether the Year 12 students who sat reformed AS levels in June 2016 and the Year 13 students who sat reformed A levels in June 2017 in the same subject were the *same* students.

To try to answer whether students were taking decoupled AS levels in their A level subjects, we used both the national data sources and surveys.

NPD analysis – numbers of AS levels per candidate

Some useful insight can be gathered by using the NPD to compare the number of AS levels taken per candidate in 2014/15 with the number per candidate in 2015/16 (Table 15). This shows very large increases in the number of Year 12 candidates taking only one (+97%) or two (+79%) AS levels, and large decreases in the number taking 4 or 5+ AS levels. The single most common number of AS levels, however, did remain 4 AS levels, as found in analysis of 2015/16 PLAMS data (Zanini & Williamson, 2016).

Table 15: Number of Year 12 candidates by number of AS levels taken (NPD data)

Number of AS levels	2016 N	% AS cohort	2015 N	% AS cohort	2015-2016 change
1	42,512	15.7	21,560	7.6	97%
2	46,599	17.2	26,012	9.2	79%
3	73,652	27.2	68,739	24.3	7%
4	96,467	35.6	143,884	50.8	- 33%
5+	11,659	4.3	23,155	8.2	- 50%
	270,889		283,350		

Table 16 gives a breakdown of each number of AS levels by number of AS levels in reformed subjects. The increase in the number of candidates taking just 1 or 2 AS levels and none in reformed subjects far outstripped the increase in the number whose 1 or 2 AS levels were in reformed subjects. This imbalance suggests that the additional candidates taking only 1 or 2 subjects in 2015/16 may have been A level students whose other subjects were reformed (tranche 1) subjects in which they were not taking the AS level.

Table 16: AS levels per Year 12 candidate, showing number taken in tranche 1 subjects (NPD data)

Number of AS levels	Number in T1 subjects	2016 N	2015 N	2015-2016 change
1	0	30,631	11,480	167%
1	1	11,881	10,080	18%
2	0	19,945	5,538	260%
2	1	16,432	12,447	32%
2	2	10,222	8,027	27%
3	0	7,537	3,786	99%
3	1	21,967	19,765	11%
3	2	31,798	32,799	- 3%
3	3	12,350	12,389	- 0%
4	0	1,563	1,696	- 8%
4	1	11,975	17,156	- 30%
4	2	39,310	57,382	- 31%
4	3	36,553	56,364	- 35%
4	4	7,066	11,286	- 37%
5+	0	116	188	- 38%
5+	1	1,257	2,374	- 47%
5+	2	4,703	9,112	- 48%
5+	3	4,828	9,602	- 50%
5+	4	748	1,868	- 60%
5+	5	7	11	- 36%
		270,889	283,350	

Table 17 summarises the combination of AS levels taken by Year 12 candidates. Between 2014/15 and 2015/16 there was a very large increase in the proportion of Year 12 AS level candidates who took no AS levels in tranche 1 subjects. The June 2017 A level entry data (Table 3) shows that the proportion of this cohort taking an A level in tranche 1 subjects was in fact very similar to the proportion in previous years, indicating that subject uptake (as opposed to AS level uptake) was maintained among those intending to take the A level. Until student-level entry data is available for June 2017, it is difficult to interpret the increase in Year 12 candidates with no tranche 1 AS levels. It may stem from tranche 1 A level students not taking the decoupled AS, but also from students choosing to take an additional or '+1' AS level in non-tranche 1 subjects instead, or from students choosing an alternative qualification or activity to AS levels altogether.

Table 17: AS level program of Year 12 students taking at least one AS level (NPD data)

Combination of AS subjects		2016 N	% AS cohort	% Y12 cohort	2015 N	% AS cohort	% Y12 cohort	2015-2016 change
At least one T1 subject	Only tranche 1	41,525	15.3	7.6	41,791	14.7	7.5	- 1%
	Mixed	169,572	62.6	30.9	218,871	77.2	39.3	- 23%
	All	211,097	77.9	38.5	260,662	92.0	46.8	- 19%
No T1 subjects		59,792	22.1	10.9	22,688	8.0	4.1	164%
		270,889		49.4	283,350		50.9	- 4%

HoD survey

We asked HoDs whether they had a general principle for advising students to take, or not take, the decoupled AS level in their reformed A level subjects.

Survey question: "Do you have a general principle for advising students about taking both the new, decoupled A level and AS in the same subject?"

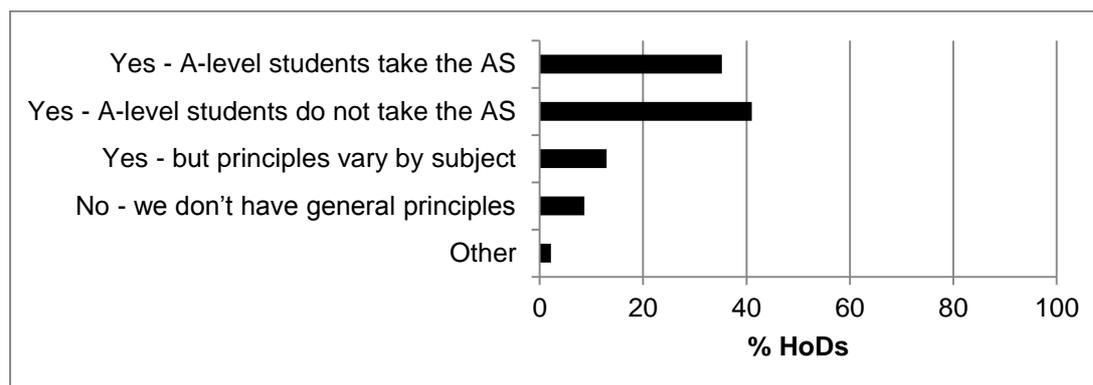


Figure 16: General principles for combining decoupled AS and A levels in the same subject (n=139 HoDs who confirmed they are offering the decoupled qualifications)

The majority of HoDs stated that they followed a general principle when advising their students about taking both the decoupled A level and AS in the same subject. The largest

number of HoDs (41%) stated they advised their A level students not to take the AS, and a slightly smaller percentage (35%) stated they did advise their students to take the AS level. A small proportion (13%) stated that they followed a general principle but it varied between subjects. A small proportion did not have general principles but gave advice on a student-by-student basis.

We also asked HoDs about what AS and A level combinations were actually being taken by students in their departments. HoDs selected all subjects in which any of their current students would leave KS5 with (1) “both the new, decoupled A level and new, decoupled AS in the same subject” and (2) “a new, decoupled A level without having taken the new, decoupled AS in the same subject”.

The two combinations were presented separately which allowed HoDs to select different subjects with different AS/A level combinations if that reflected their students’ uptake. Figure 17 shows the consistency of response across the subjects selected and which combinations were indicated. The purple bars represent the combinations that HoDs chose for all their selected subjects while blue bars represent the combinations that were selected for different subjects.

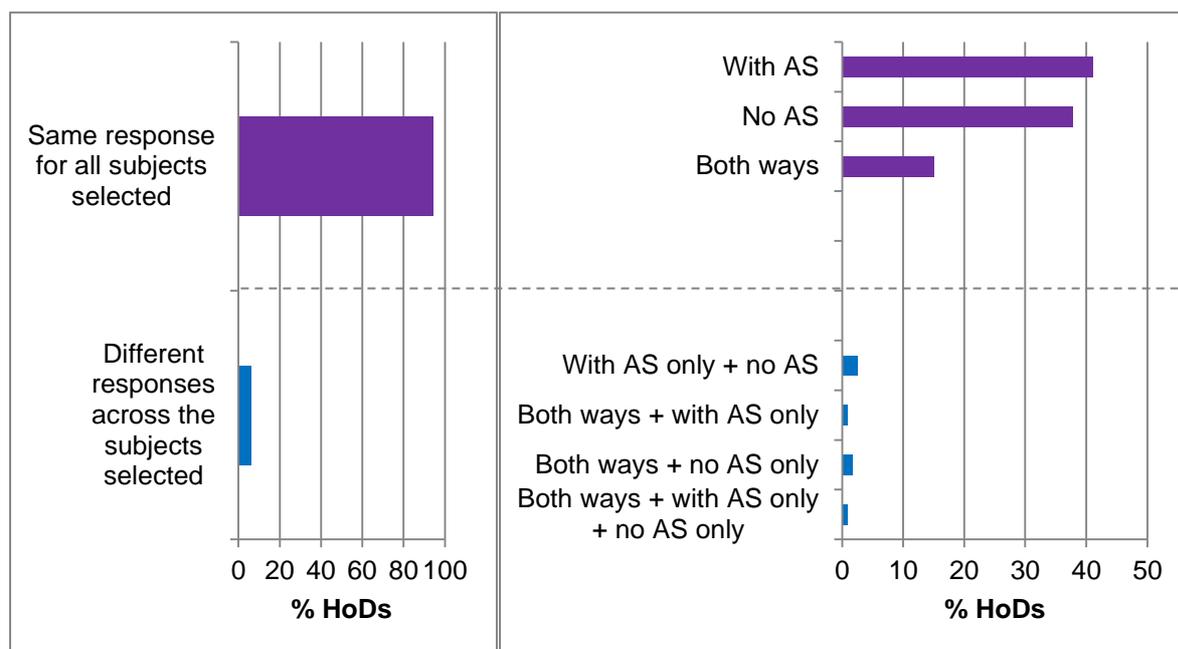


Figure 17: Left panel shows the consistency of responses across subjects selected (n=119 HoDs who confirmed they are offering the new qualifications and who gave an answer for at least one subject). Right panel shows the combination of decoupled AS and A levels taken by students in the same subject.

The left panel in Figure 17 shows that almost all the HoDs (94.1%) selected the same combinations for all of the subjects in their department. The right panel) shows that 41% of HoDs stated that, for every subject in their department, all students were taking the AS with the corresponding A level. Nearly the same percentage (38%) selected the opposite for every subject; that is, students were not taking the AS with the corresponding A level. 15%

of HoDs selected both combinations for every subject, indicating that some students (in every subject) were taking the AS and some were not.

Student survey

A similar question was asked to students in the student surveys about their AS/A level combinations. For each of the new decoupled A levels that students selected they were studying, we asked them to indicate whether they had taken (or planned to take) the AS exams in the same subject.

For Year 13 students, we analysed only those who selected new A decoupled levels in tranche 1 subjects only; that is, it excluded students who showed a level of confusion about which A levels they were studying by selecting new A levels in unreformed subjects. Figure 18 shows that 81% of Year 13 students stated that they were taking the decoupled AS in all of their decoupled A level subjects whilst 15% of students stated that they were not taking the AS in any of their decoupled A level subjects. Figure 19 shows that the pattern did not vary according to the number of decoupled A levels students were taking.

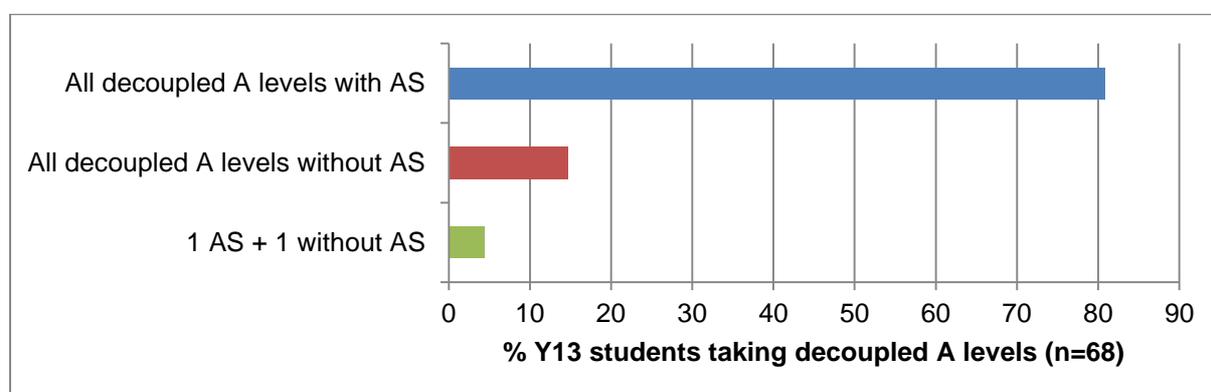


Figure 18: Percentage of Year 13 students taking the AS for all or some of their new A levels

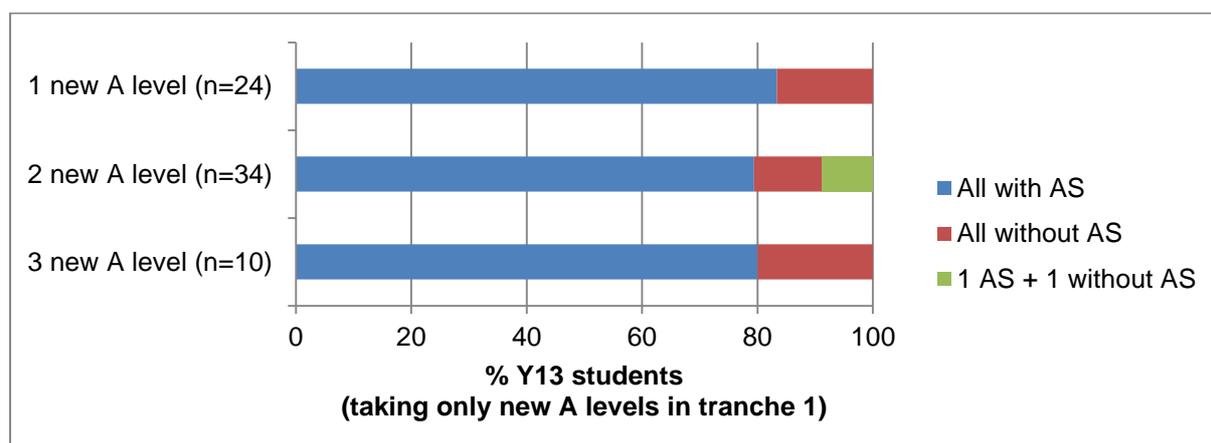


Figure 19: Percentage of Year 13 students taking the AS for all or some of their new A levels, grouped by the total number of new A levels taken

The Year 12 students were asked to indicate the likelihood that they would take the AS exams in the same subject as their new A levels (options were “definitely”, “likely”, “unlikely”,

“definitely not” or “I don’t know”). The analyses focused on the 377 Year 12 students who selected new A levels in reformed subjects (tranche 1 or tranche 2 only). Almost two-thirds of these Year 12 students were taking new A levels in tranche 1 subjects only, with another quarter taking new A levels in both reformed tranches (Table 18).

Table 18: Year 12 students who selected new A levels in Tranches 1 or 2 only

Tranches of new A level subjects	Y12	%
Tranche 1 only	248	65.8
Tranche 2 only	21	5.6
Tranche 1 and 2	108	28.6
Total	377	100

Figure 20 shows a different pattern for the Year 12 sample compared to the Year 13 sample in terms of the proportion taking A levels together with the decoupled AS level in the same subject. 56% of the Year 12 students stated that they were not taking the decoupled AS in any of their new A level subjects whilst a smaller percentage (37%) were taking the AS with all their new A levels. Figure 21 shows this overall pattern was the pattern observed for students taking two or three decoupled A levels (the most common number, in this sample) but the reverse pattern was observed for those students taking only one new A level. For students taking four new A levels, there was a more even split.

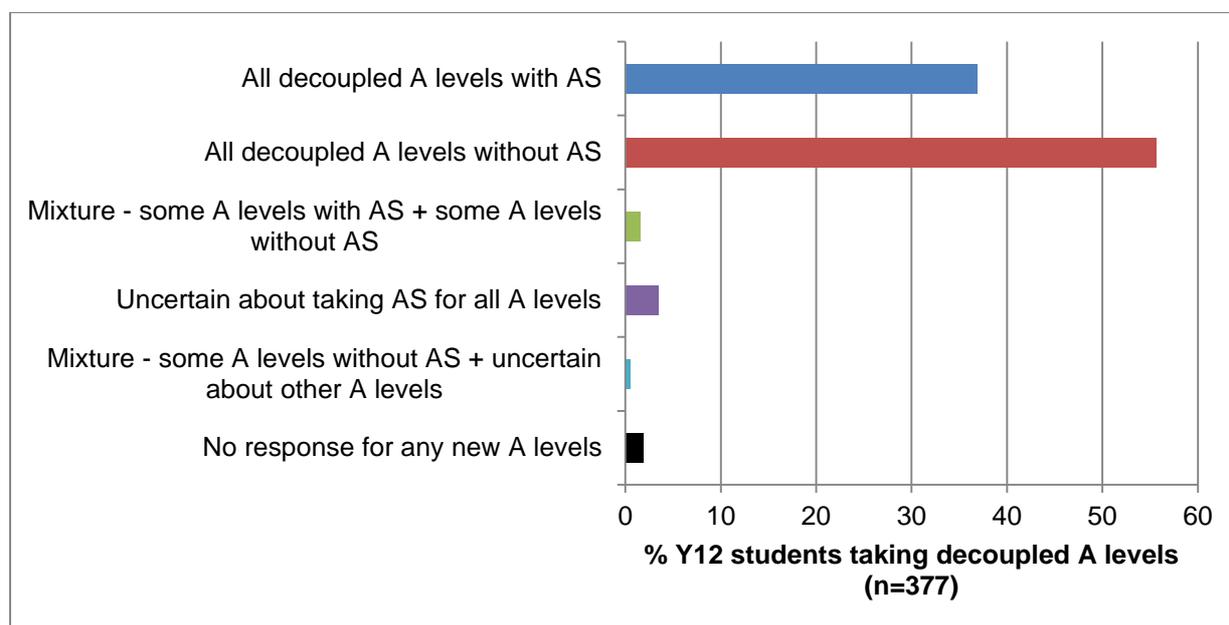


Figure 20: Percentage of Year 12 students taking the AS for all or some of their new A levels

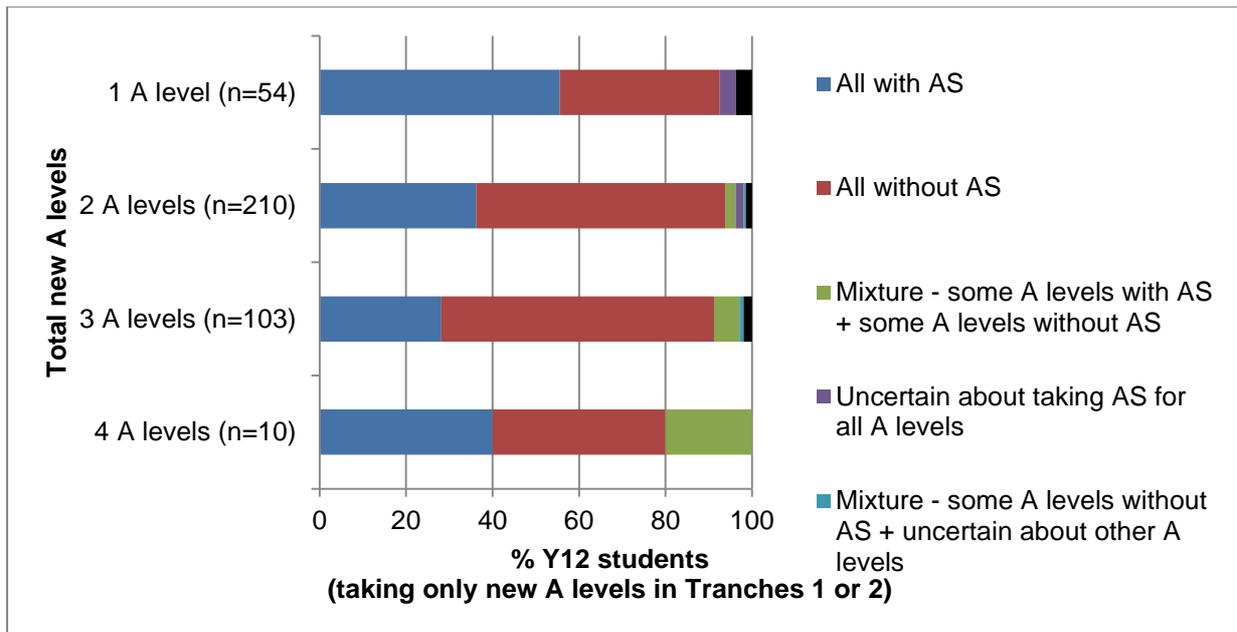


Figure 21: Likelihood of students taking the AS for all or some of their new A levels, grouped by the total number of new A levels taken

Research question 4: Are students taking decoupled AS levels on their own?

HoD survey

We asked HoDs to select all subjects in which any of their current students would leave KS5 with a decoupled AS level but without having taken the A level in the same subject. Responses are shown for 155 HoDs who stated they were offering the decoupled AS or A levels.

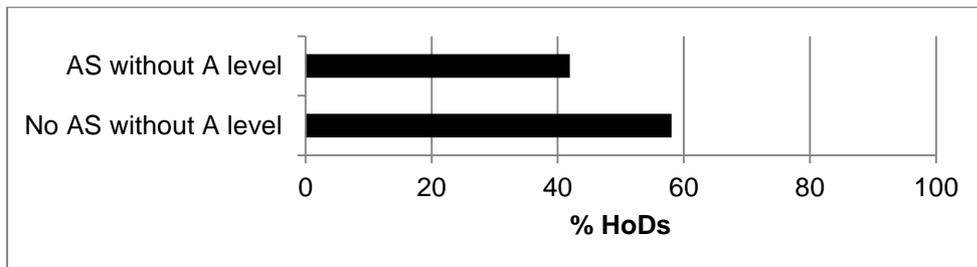


Figure 22: HoDs with students who take the AS without the A level (n=155)

Figure 22 shows that 42% of these HoDs selected that some of their current students would leave KS5 with a new, decoupled AS without the A level. The remaining 58% of HoDs did not select any subjects as being taken at AS level only. It cannot be determined whether those HoDs did not select any subjects because none of their students took AS levels in this way or whether they merely skipped the question.

Student survey

64 Year 13 students and 177 Year 12 indicated that at least one of their AS/A level subjects was not taken, or unlikely to be taken, as an A level. For most students, these subjects would have been taken at AS level, since students typically study subjects in which they plan to take exams. However, this may not have been the case for everyone. Zanini and Williamson (2016) found evidence that approximately 25% of Year 12 students in 2014/15 had a different number of AS level learning aims compared to their number of final AS level results. Students may have started studying a subject at AS/A level but then decided not to take the exams in them.

Figure 23 shows the number of subjects that were being carried onto A level by the Year 13 students, and Figure 25 shows the Year 12 results. A larger proportion of the Year 12 than Year 13 students did not intend to drop any subjects at A level. Yet in each year group, of the students dropping subjects, most were only dropping one subject. The students who most commonly dropped one subject at A level were those who had taken four or five subjects in total (Figure 24, Figure 26).

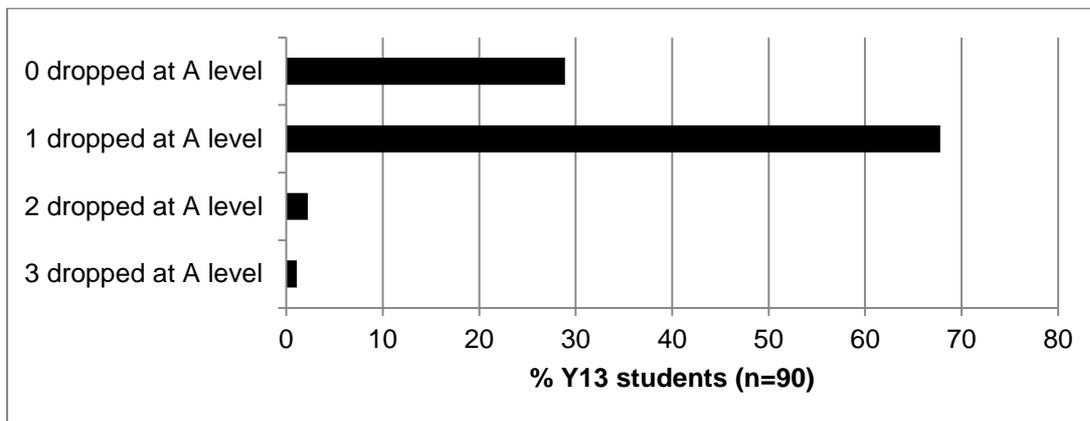


Figure 23: Number of subjects dropped by Year 13 students

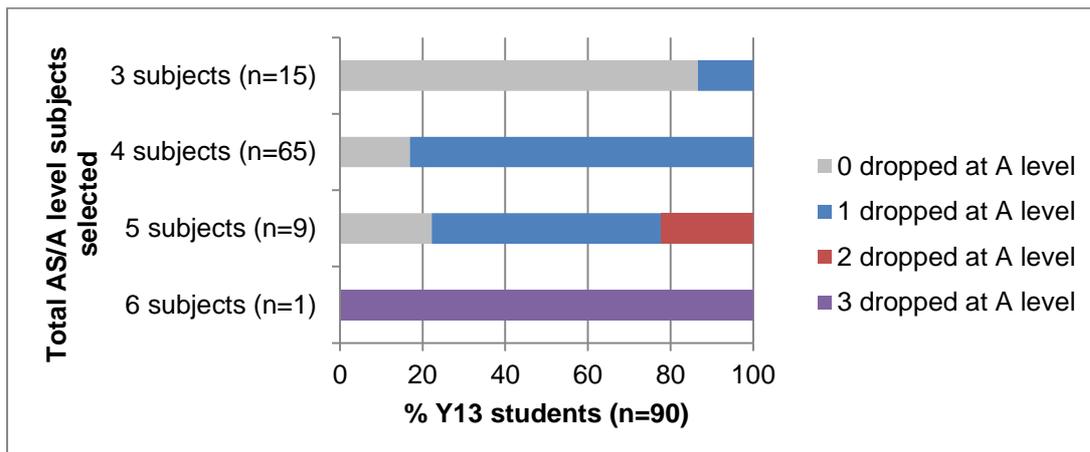


Figure 24: Number of subjects dropped by Year 13 students, grouped by total number of AS/A level subjects selected

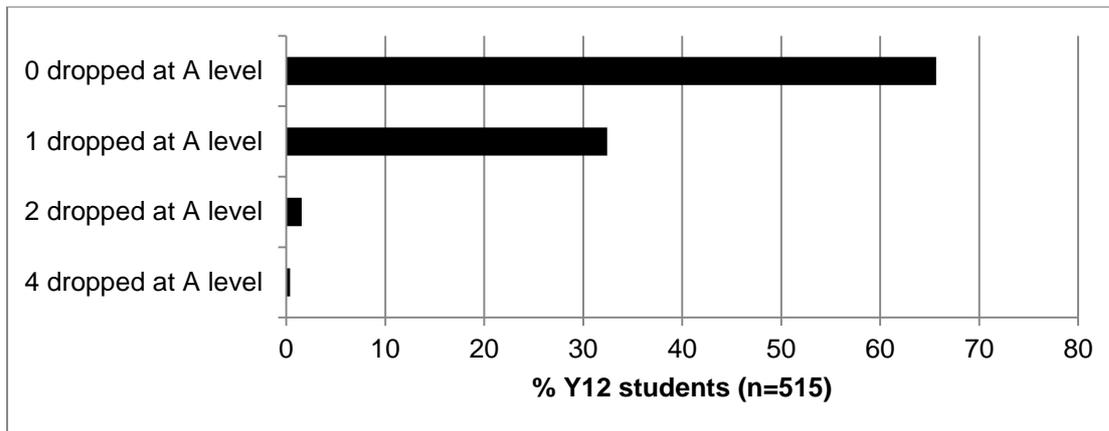


Figure 25: Number of subjects likely to be dropped by Year 12 students

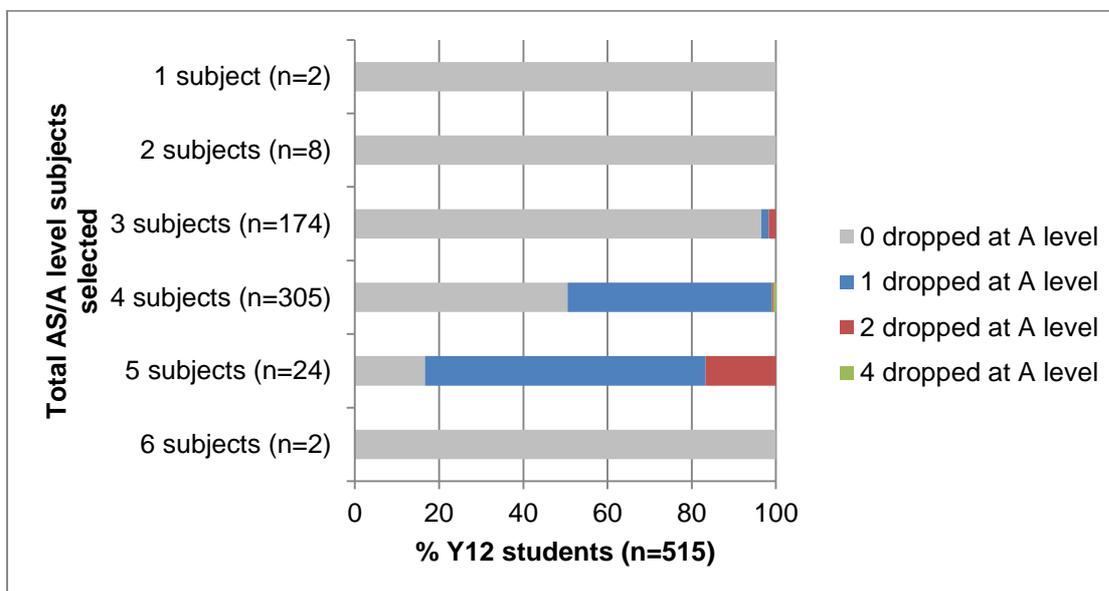


Figure 26: Number of subjects dropped by Year 12 students, grouped by total number of AS/A level subjects selected

91% of the Year 13 students dropping at least one subject at A level confirmed that they were taking the AS exam for all those subjects being dropped (Table 19). Four students stated that they were not taking the AS exam for the subjects that they were also not taking the A level for, which concerned one subject only for each student. Two students did not give any response about the subjects they were not carrying on at A level.

Table 19: Number of Year 13 students taking or not taking the AS exam for non-A level subjects

Decisions about taking AS exams for non-A level subjects	Y13 students	%
Taking AS exam for all non-A level subjects	58	90.6
Not taking the AS for all non-A level subjects	4	6.3
No response for all non-A level subjects	2	3.1
Total	64	100

83% of the Year 12 students dropping at least one subject at A level confirmed that they were taking the AS exam for all those subjects being dropped (Table 20). Unexpectedly, 13% of students stated that they were not taking the AS for the subjects which they had also indicated they were not taking the A level in. Another six students were uncertain about whether they would take the AS for the subject not being carried onto A level (i.e., they selected “I don’t know”), while two students did not give any response about these subjects.

Table 20: Number of Year 12 students taking or not taking the AS exam for non-A level subjects

Decisions about taking AS exams for non-A level subjects	Y12 students	%
Taking AS exam for all non-A level subjects	146	82.5
Not taking the AS for all non-A level subjects	23	13.0
Uncertain about the AS for all non-A level subjects	4	2.4
Uncertain about only one non-A level subject and taking AS for the rest	2	1.1
No response for all non-A level subjects	2	1.1
Total	177	100

Research question 5: What are the reasons for students taking, or not taking, decoupled AS levels?

We investigated this research question using both the student and HoD surveys.

Reasons for taking a decoupled AS level and A level in the same subject

In total, 58 Year 13 students stated they had taken (or would be taking) the AS level for at least one of their new A levels, and gave a reason why. The majority (86%) selected that they were taking the AS because “It’s school policy to take both the AS and A level in this subject”. Figure 27 shows that almost all of those students selected that reason for all their A levels.

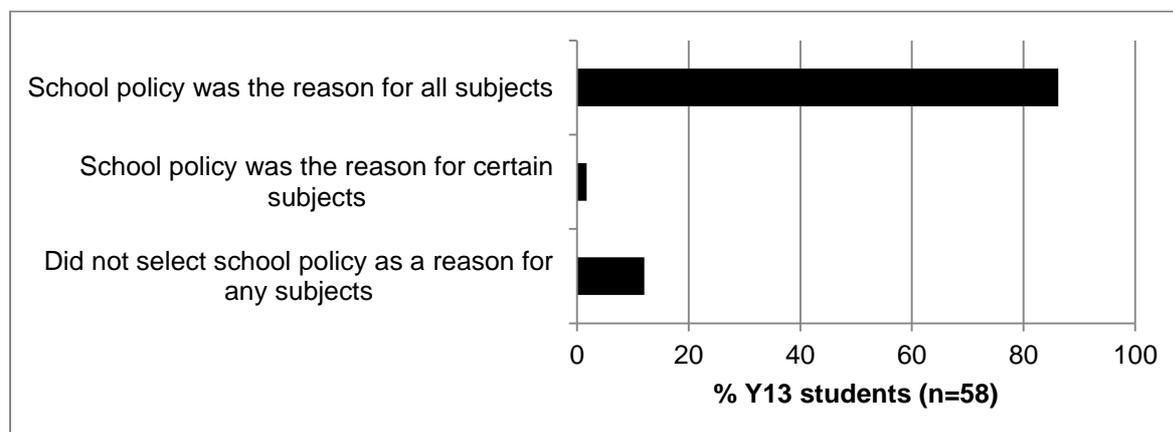


Figure 27: Year 13 students who selected that school policy was the reason for taking the decoupled AS in the same subject as the A level

Students were given a range of other reasons to choose from. To some extent, the significance of the other reasons in influencing whether or not students take the AS is limited if it was school policy. Nevertheless, the reasons chosen by students may still give an insight

into their own, or their school's, opinions on the AS more generally. Figure 28 shows the percentage of students who selected reasons not related to school policy, grouped by whether they had selected school policy for all their subjects or not. Some caution must be taken when interpreting and comparing the results for these two groups of students due to the small number of students who did not select school policy for all their subjects (n=8).

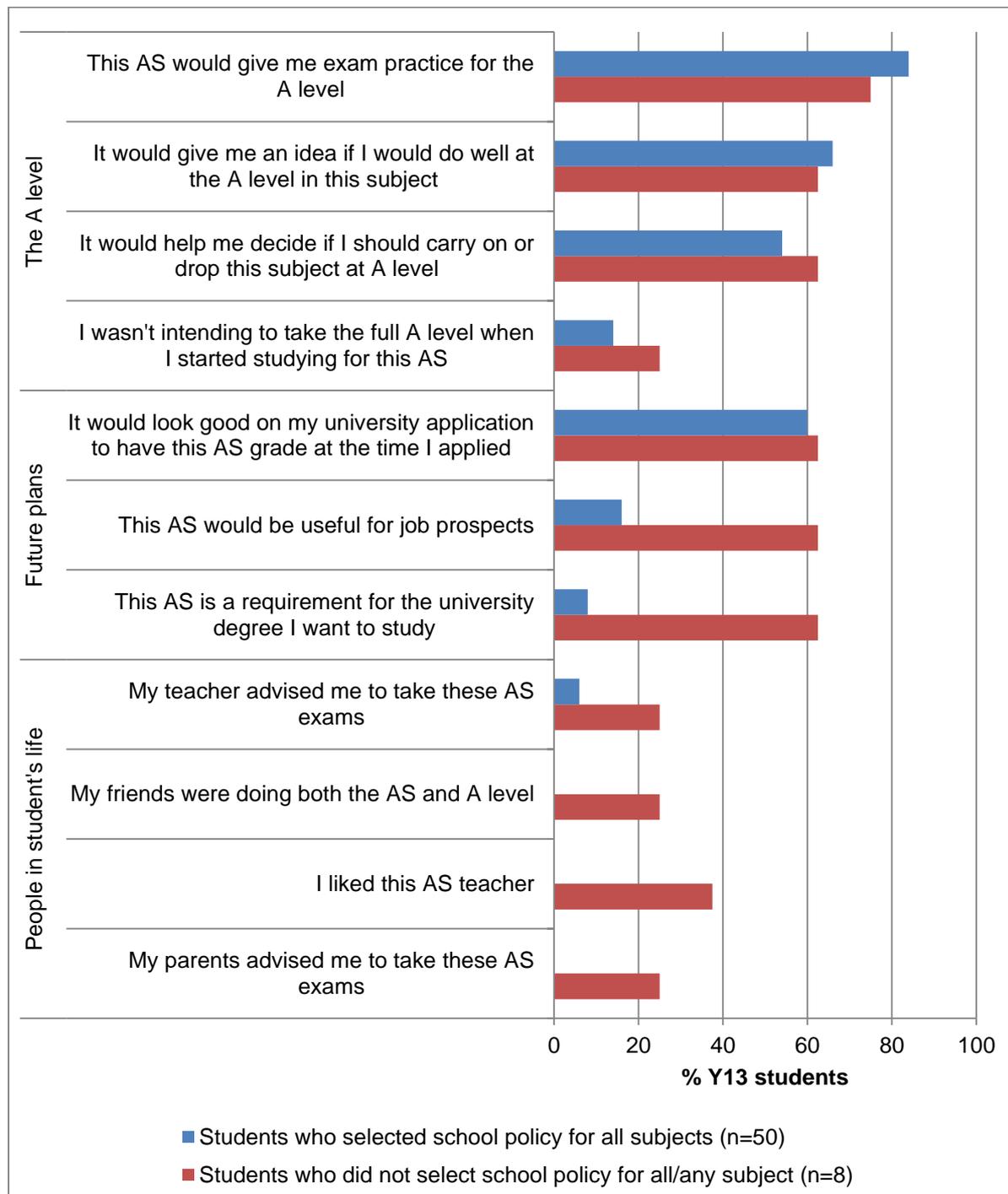


Figure 28: Reasons selected by students grouped by selection of the school policy reason

The students who selected that it was school policy to take the AS selected a range of other reasons for taking the AS. The majority of those students selected that it would give them exam practice for the A level and would be useful for their A level decisions. A larger percentage also selected that the AS would look good on university applications. None of these students selected that they took the AS because of friends or parents. Amongst the students who did not select school policy for all/any of their subjects, most said that taking the AS was useful for exam practice, making A level decisions and for university applications. A larger percentage of these students selected that it would be useful for job prospects and that they were taking the AS because of people in their lives (friends, parents and teachers).

Among the Year 12 survey respondents, 152 students were taking the AS level for at least one of their new A levels. As for the Year 13 students, the majority of these students (91%) stated that school policy was the reason for taking the AS level and, again, almost all of them selected that reason for all their new A levels (Figure 29).

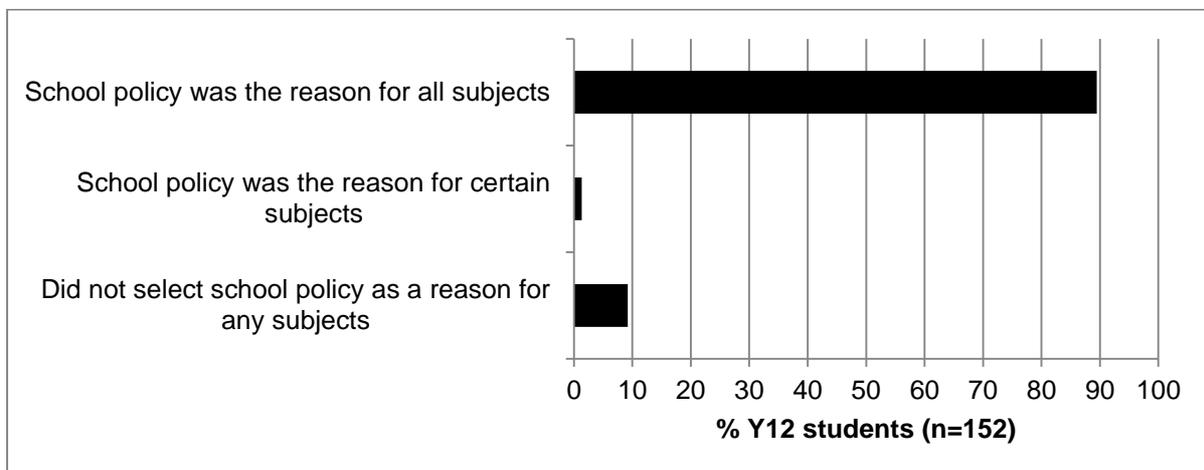


Figure 29: Year 12 students who selected that school policy was the reason for taking the decoupled AS in the same subject as the A level

Figure 30 shows that the pattern of other reasons that were chosen by the Year 12 students was similar to that for the Year 13 students. It is worth highlighting a few differences. A larger percentage of Year 12 than Year 13 students selected that they were taking the AS because they were not intending to take the full A level when they started studying the subject. None of the students selected that they were doing the AS because of their friends. Almost a third of the students who did not select that it was school policy to take the AS still showed an influence of the school since they selected that their teacher advised them take the AS exams in that subject.

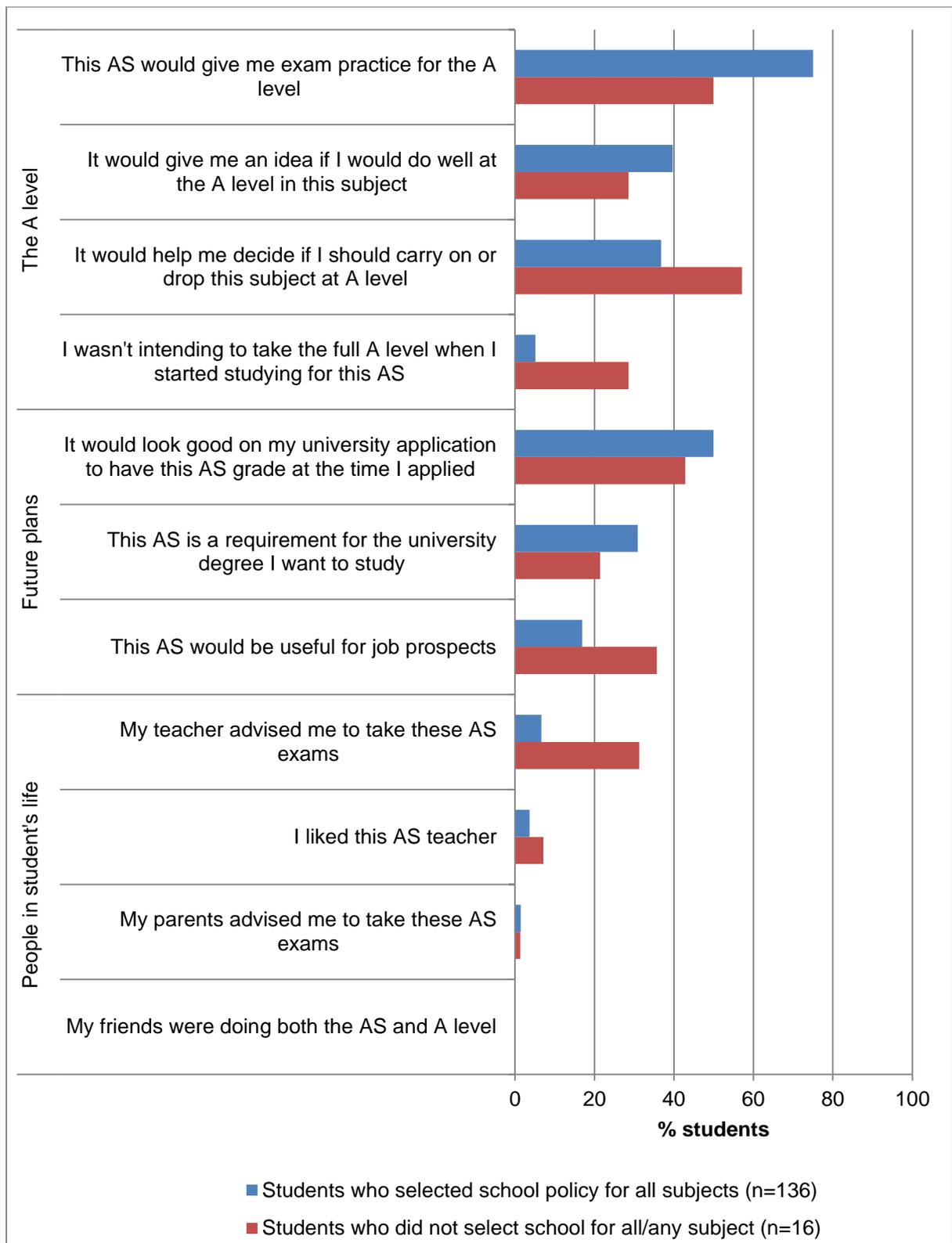


Figure 30: Reasons selected by Y12 students grouped by selection of the school policy reason

As previously discussed, 74 HoDs indicated that some of their students were taking the decoupled AS in the same subject as the A level. HoDs were asked to select statements about why their students were taking both the AS and A level in a subject.

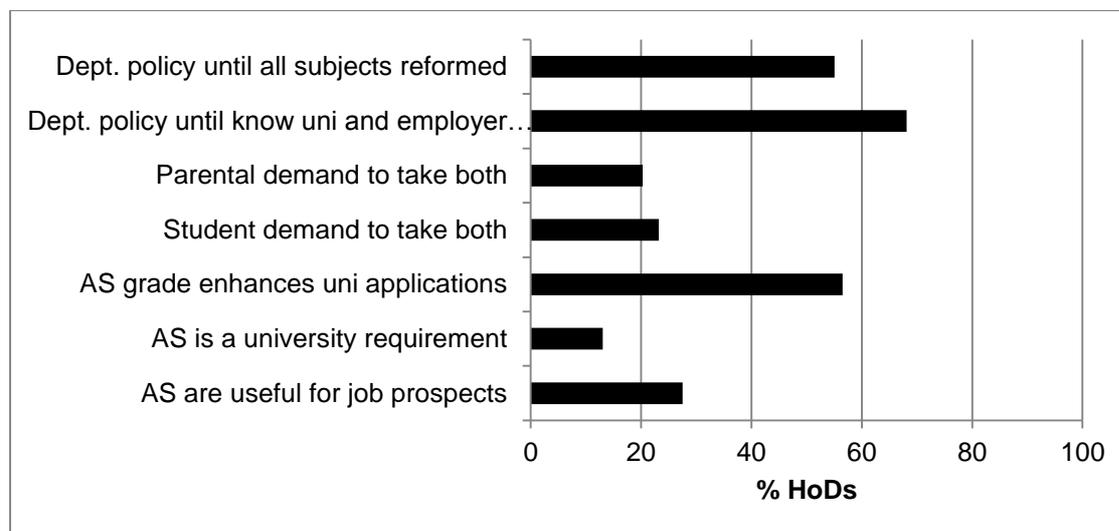


Figure 31: Reasons related to department policy and stakeholder demand (n=69)

Figure 31 shows the percentage of HoDs who selected reasons related to departmental policy and stakeholder demand. The majority of these HoDs selected department policy as a reason for why students took the AS alongside the A level; 55% selected that it was department policy “until all subjects are reformed”, while a larger percentage (68%) indicated it was policy “until it becomes clear what universities and employers will expect”. A majority of HoDs (57%) also indicated AS are taken because an AS grade will help students’ university applications. Parent/student demand, university requirement and job prospects were selected less often as reasons for AS uptake.

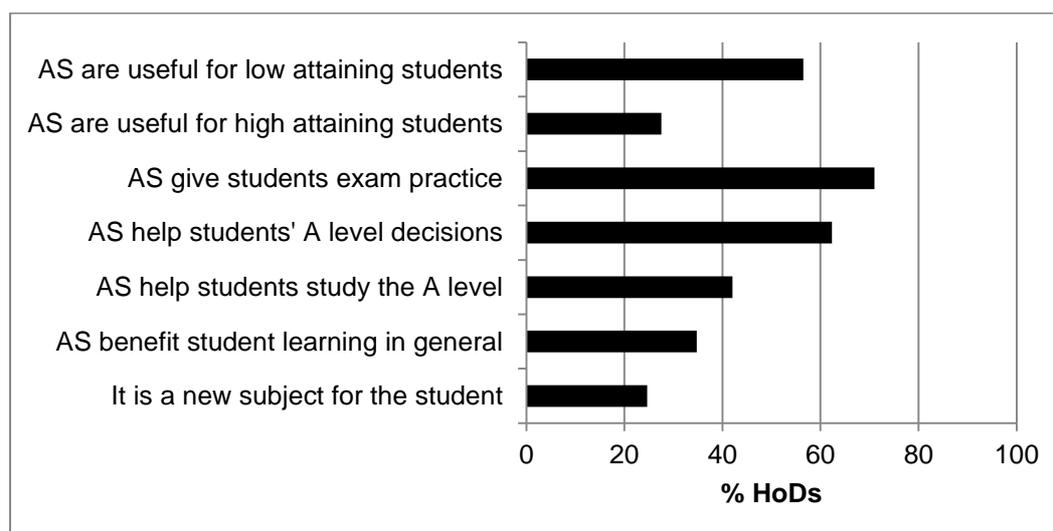


Figure 32: Reasons related to AS benefits for students (n=69)

Figure 32 shows the percentage of HoDs who selected reasons related to educational benefits of the taking the AS. Most HoDs indicated that students took the AS because it gave them exam practice (71%) or helped students make A level decisions (62%), whilst a large minority indicated that it helped students study for the A level (42%). The percentage of HoDs who selected that students took the AS because it was useful for low-attaining students (57%) was double the percentage who selected that it was useful for their high-attaining students (28%).

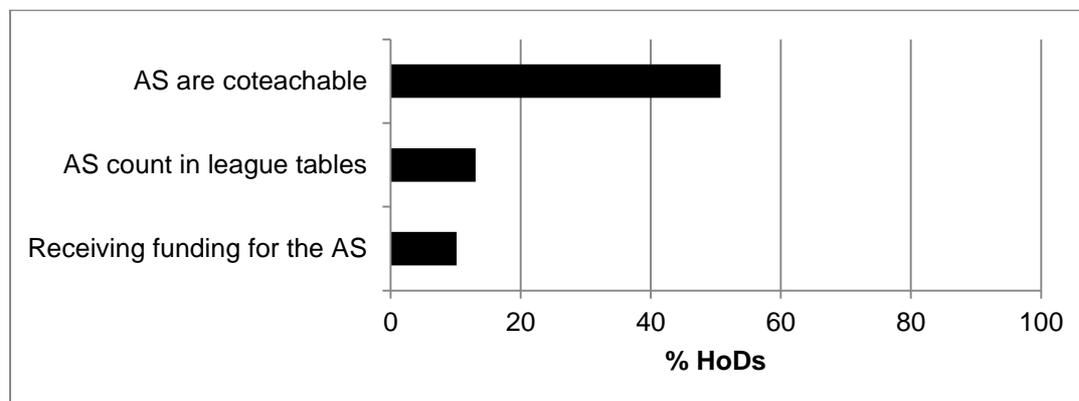


Figure 33: Reasons related to practicalities of delivering the AS (n=69)

Figure 33 shows the percentage of HoDs who selected reasons related to practicalities of delivering the AS. Few HoDs selected that league table or funding were part of the reason for taking the AS (13% and 10%, respectively).

Approximately half the HoDs (51%) selected that students took the AS because it is co-teachable with the new A levels. Although no formal definition of ‘co-teachable’ was given in the survey, it is likely that HoDs interpreted it in the way used by Ofqual (2013) to mean “students [following AS courses] can be taught in the same classes as students in their first year of study for the A level in the subject... because content “can be coherently assessed at the end of the first year” of the A level course (p. 53).

Reasons for taking a decoupled A level without the AS level

In total, only 13 Year 13 students stated that they were not taking the decoupled AS for at least one of their new A levels. Figure 34 shows that all of those students, except one, selected school-level reasons; they were not taking the AS because of school policy (“It’s school policy not to take the AS if we’re doing the A level”) and/or school provision (“My school did not offer this AS qualification”). All these students selected at least one of those two reasons for every one of their new A levels.

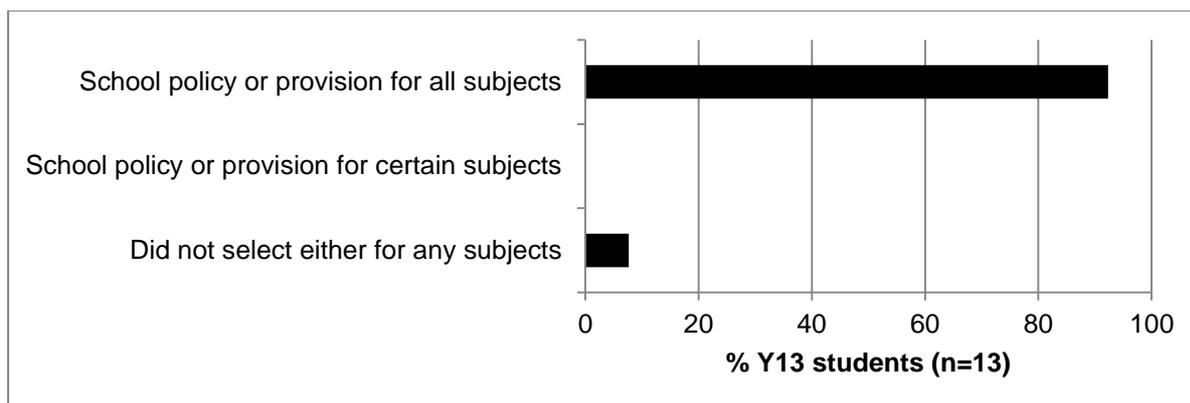


Figure 34: Percentage of Y13 students who selected school reasons for not taking the AS

The one student who did not select school reason at all selected four other reasons for not taking the AS level in their new A level subjects. They selected: “My parents advised me against taking the AS”; “I wanted to prepare for university applications/admissions tests instead of taking the AS”; “I was certain that I would take the A level in this subject” and “This AS would have increased my workload”.

Figure 35 shows the other reasons that were chosen by the students who selected school reasons for not taking the AS. The majority of reasons selected related to the AS or the A level. The most common reason was that the AS marks would not have contributed to their A level marks, selected by 42% of students. A third of students selected that they were certain that they would take the A level in the subject. Smaller percentages of students selected reasons to do with future plans and no student selected reasons related to other people in their lives.

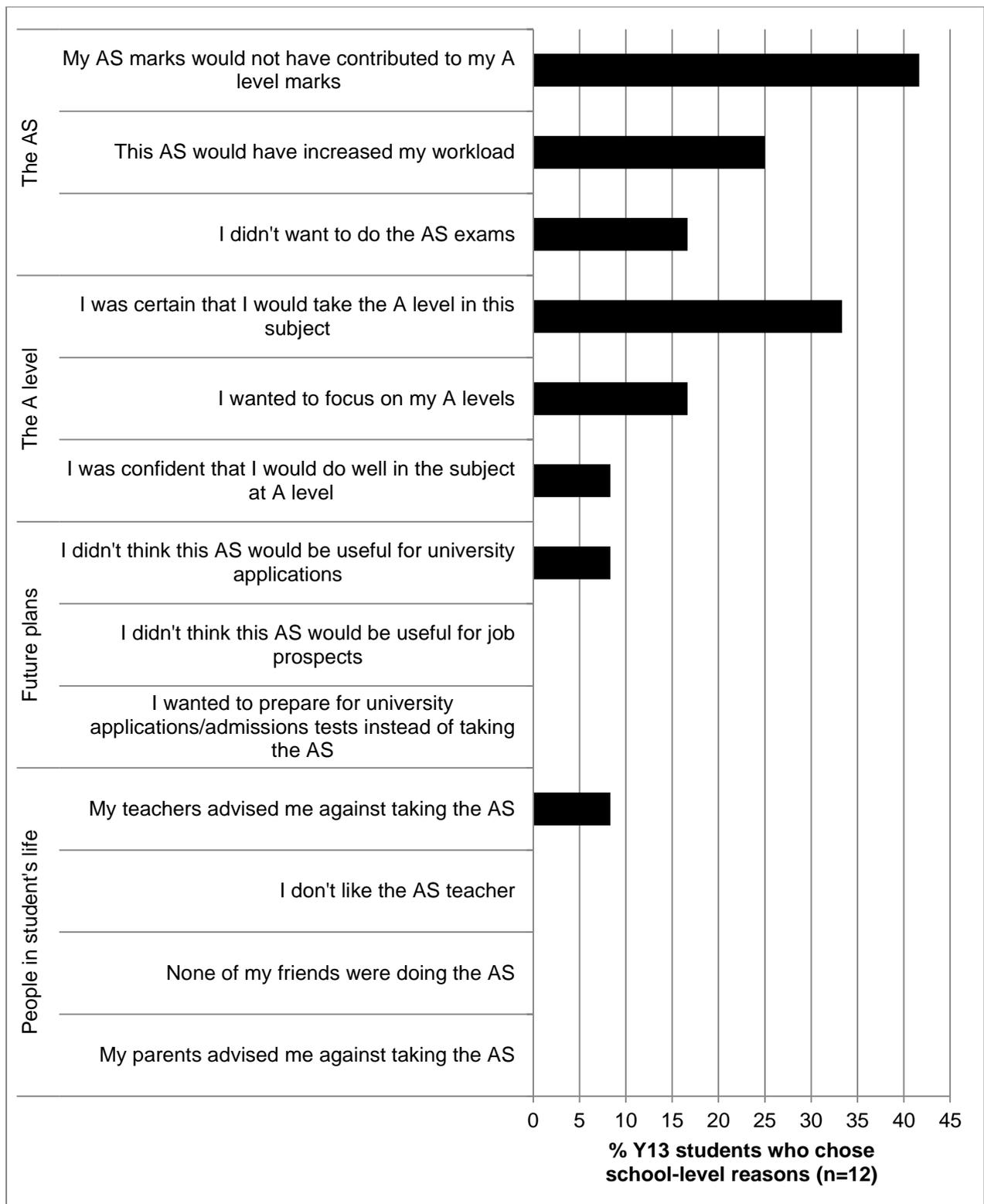


Figure 35: Reasons selected by Year 13 students who selected school policy or provision for not taking the decoupled AS in all their new A level subjects

A larger number of Year 12 students (225) indicated that they were not taking the AS for at least one of their new A levels. 219 students selected at least one reason for not taking the

decoupled AS. As for the Year 13 students, Figure 36 shows that almost all the Year 12 students selected that school policy or school provision were reasons for not taking the AS, with 87% selecting it for all their new A levels.

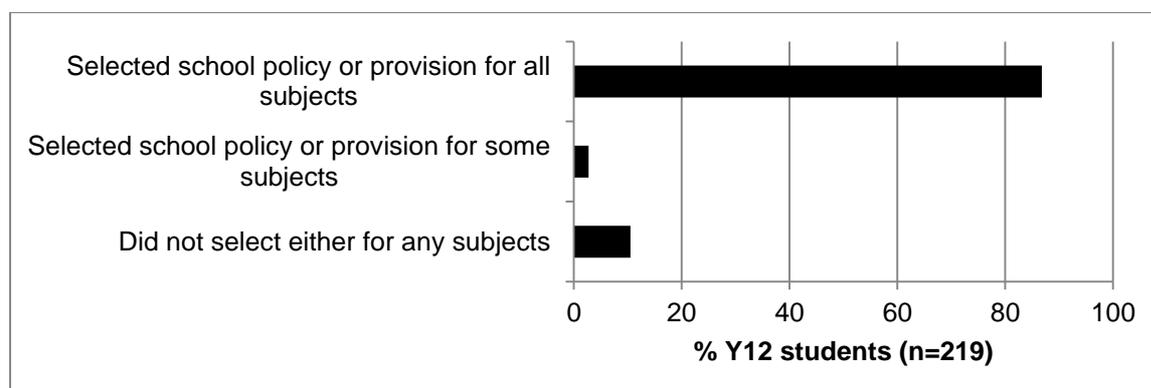


Figure 36: Percentage of Y12 students who selected school reasons for not taking the AS

Figure 37 shows that the pattern of other reasons chosen by the Year 12 students was broadly similar to that for the Year 13 students, although reasons were chosen by larger percentages of students. It is worth highlighting a few notable similarities and differences. As in the Year 13 results, of the Year 12 students who selected a school reason for not taking the AS (for all their A levels), the majority also selected non-school reasons, especially that they did not take the AS because the marks would not have contributed to their A levels or that they were certain they would take the A level.

There was a different pattern of reasons chosen by the Year 12 students who did not select school reasons for all/any of their A level subjects. In particular, the most common reasons related to students' perception of the A level; 90% were not taking the AS because they were certain to take the A level in the subject (90%) or that they would do well in the subject at A level (67%). In addition, 80% stated that the AS would have increased their workload. A much larger percentage of the Year 12 students (45%) than the Year 13 students said they did not take the AS because they did not want to take the exams. Over 50% of Year 12 students who did not select that it was school policy to take the AS still showed an influence of the school since they selected that their teacher advised them against taking the AS exams in that subject.

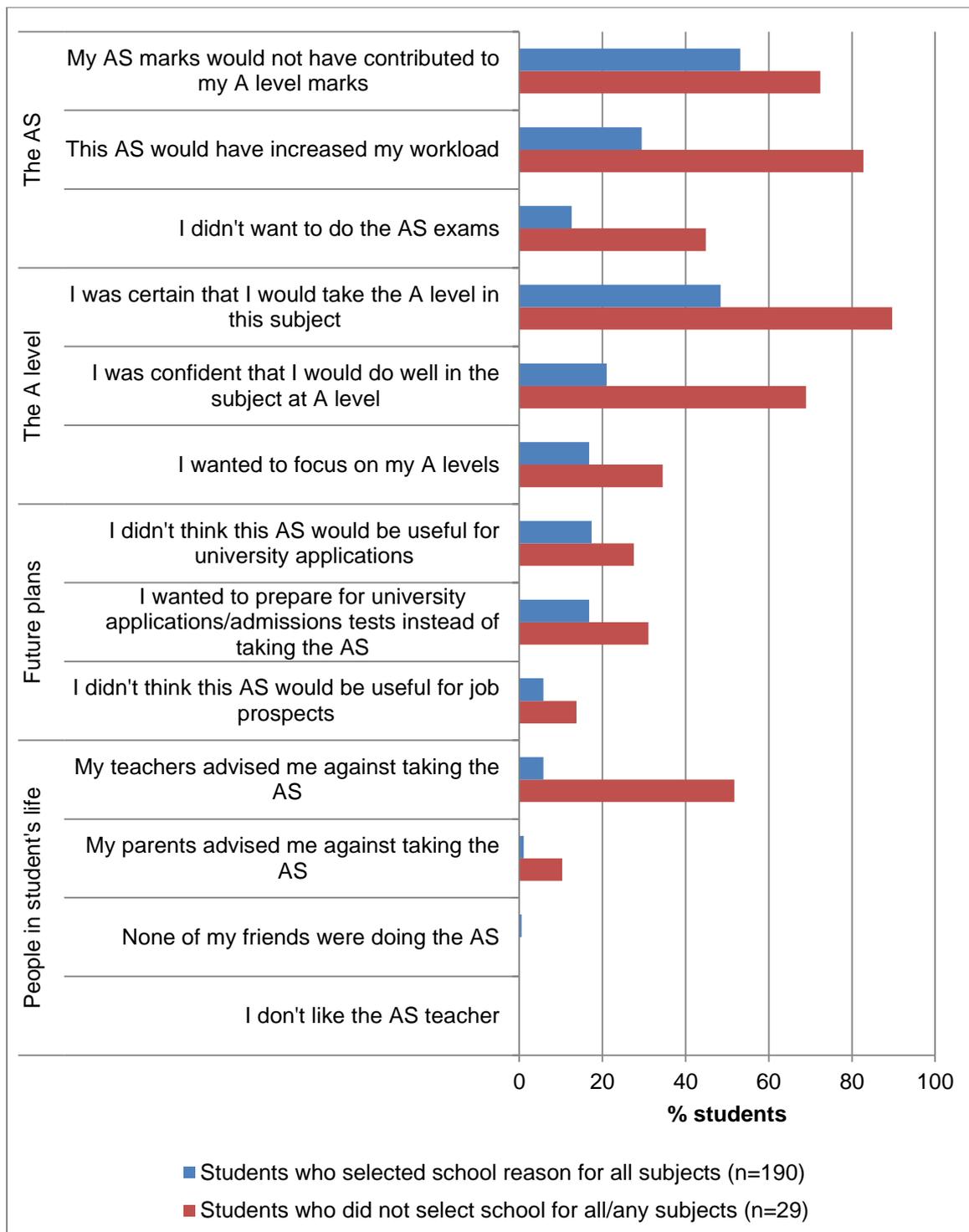


Figure 37: Reasons selected by Year 12 students grouped by selection of any school reason.

From the HoD survey respondents, 70 HoDs indicated that some of their students would take the A level without the decoupled AS in the same subject, and 65 of these selected reasons why.

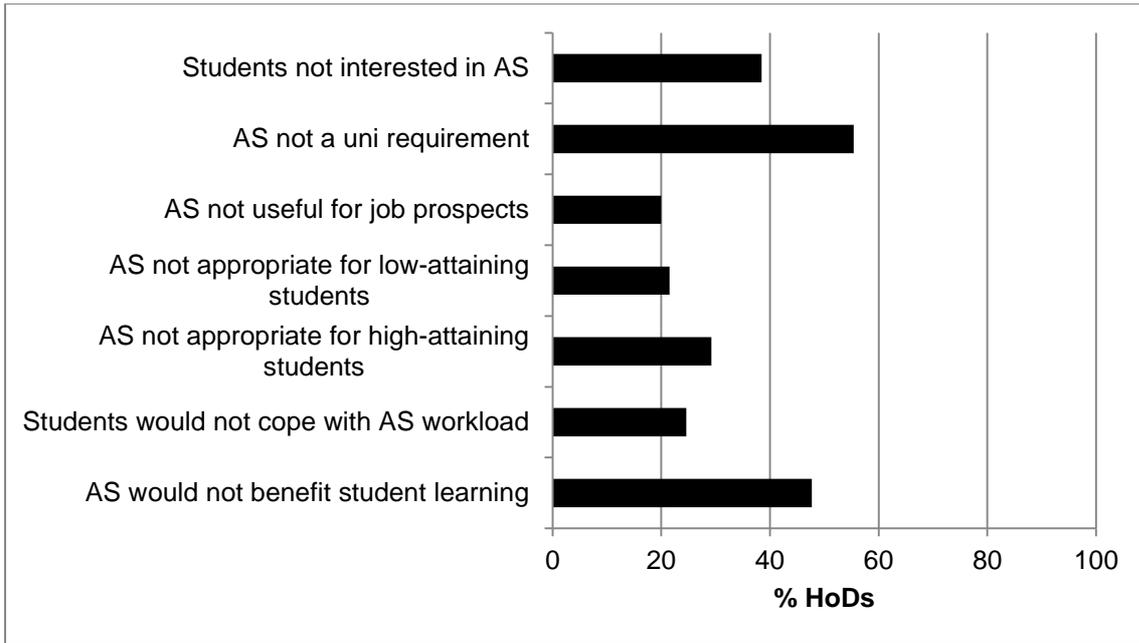


Figure 38: Reasons related to academic or psychological impacts on the students (n=65)

Figure 38 shows the percentage of HoDs who selected reasons related to academic or psychological effects of the decoupled AS on students. Over half of the HoDs (55%) indicated that students did not take the AS because it was not a university requirement. Just under half of HoDs indicated that it was not taken because it would not benefit student learning (48%), while 39% thought students were not interested in the AS. The attainment level of their students was a factor for a substantial minority, 22% selected it was not appropriate for their low-attaining students while 29% indicated it was not appropriate for their high-attaining students.

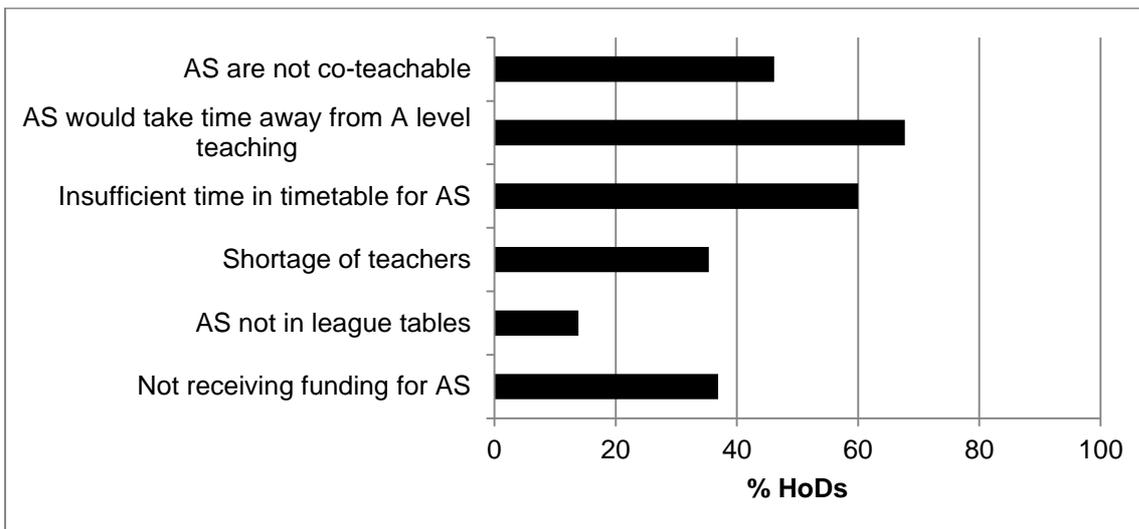


Figure 39: Reasons related to practicalities of delivering the AS (n=65)

Figure 39 shows the percentage of HoDs who selected reasons related to practicalities of delivering the AS. 68% of HoDs stated that students did not take the AS because it would take time away from teaching the A level, with a slightly smaller percentage (60%) selecting that there was insufficient time in the timetable for the AS. Approximately 40% thought the reason was that the AS was not co-teachable (46%) or because their centre was not receiving funding for the AS.

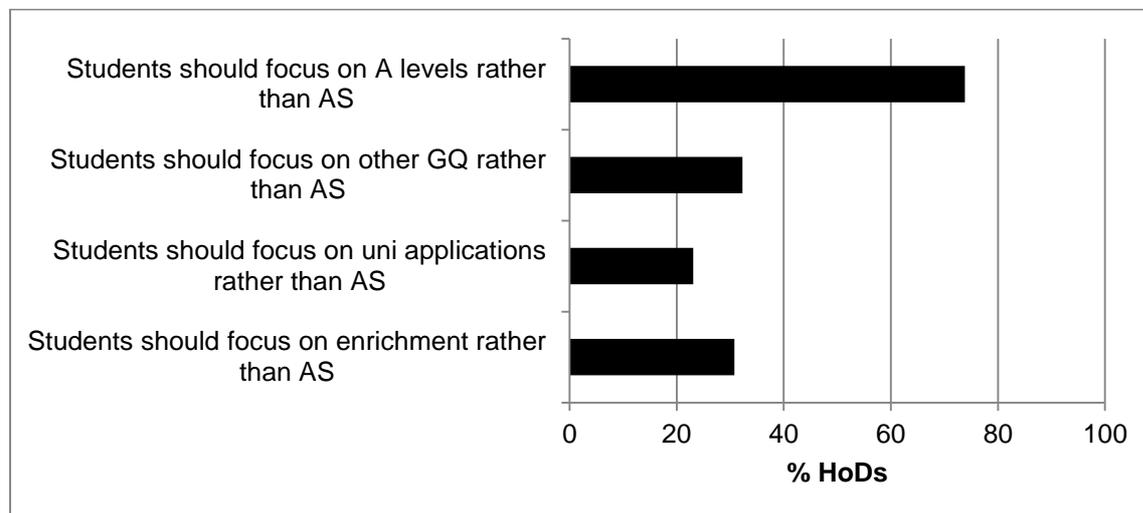


Figure 40: Reasons related to importance of other educational activities (n=65)

Figure 40 shows the percentage of HoDs who selected reasons related to the importance of other qualifications or educational activities. Across all the reasons, the most common reason for why students did not take the AS was that they should focus on A levels rather than the decoupled AS, having been selected by 74% of HoDs.

Reasons for taking a decoupled AS level without the A level

Students who stated that they had taken or were going to take the AS exam in non-A level subjects were asked why they decided (1) to take the AS only and (2) not to take the A level.

Figure 41 shows a very similar pattern of reasons chosen by the Year 13 and Year 12 students with regard to why they decided to take the AS in the first place. In both year groups, the most common reason was that it gave students the opportunity to study the subject without having to take it as an A level, which was chosen by 59% of the Year 13 students and a larger proportion of Year 12 students (68%). This reason fits with other common reasons selected amongst each year group, including the AS adding breadth to the students' choices (48% of Year 13 and 57% of Year 12s). In each year group, approximately 50% of students indicated that they were taking the AS for university reasons. Less than half each year group indicated that it was school policy to take an AS level.

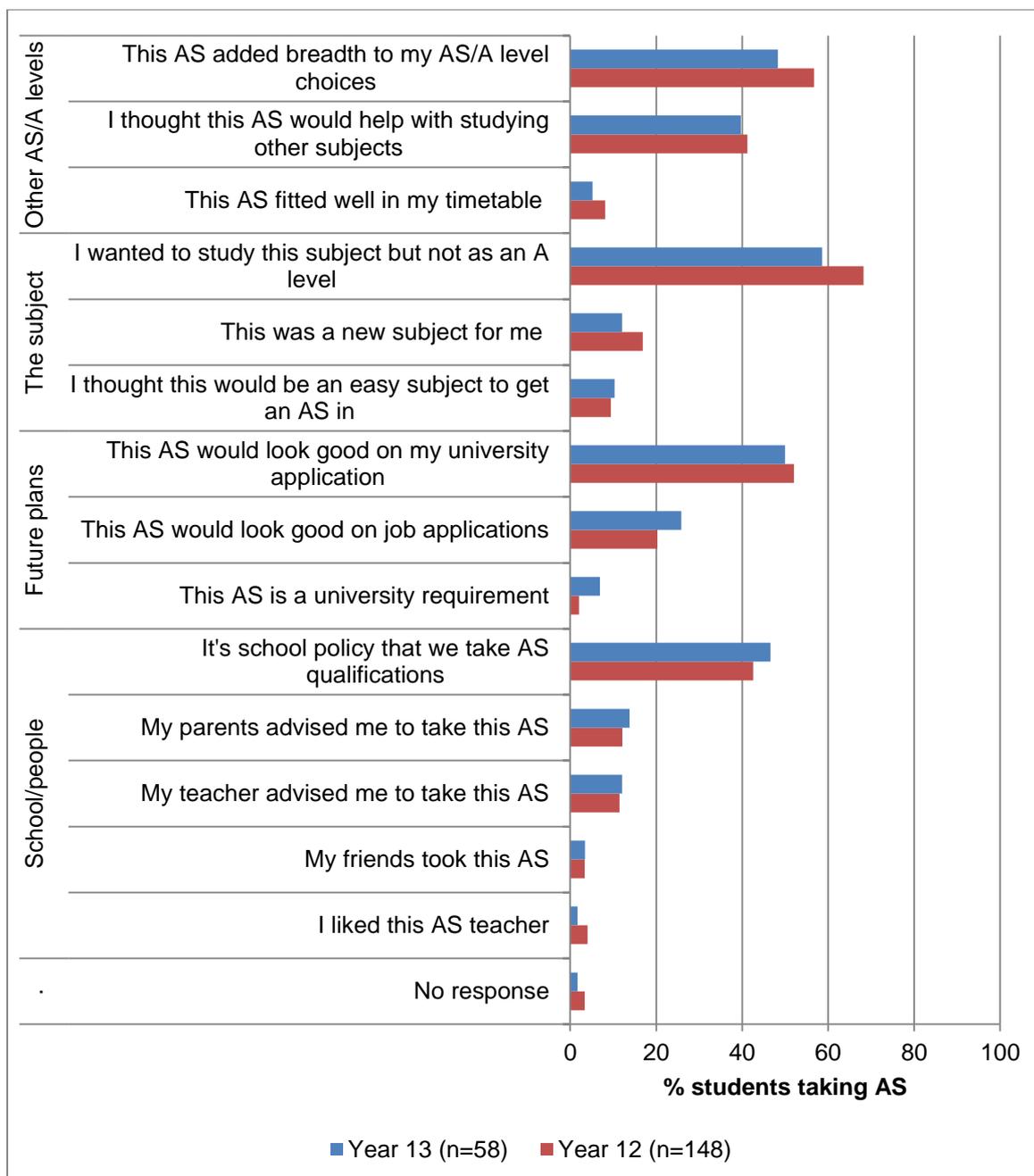


Figure 41: Reasons for taking the AS only, grouped by theme

Figure 42 shows the reasons chosen for not taking the subject as an A level. Again, this pattern was broadly similar between the Year 13 and Year 12 students, although there were a few more notable differences. In both year groups, the most common reason was that they wanted to focus on their other subjects for A levels, which was chosen by 79% of Year 13 students and 84% of Year 12 students. Reasons related to university and job applications were chosen by over half of the students in each year group. Larger percentages of students in Year 12 than in Year 13 selected enjoyment of the subject and reasons to do with wanting to study other academic qualifications or take extra-curricular activities.

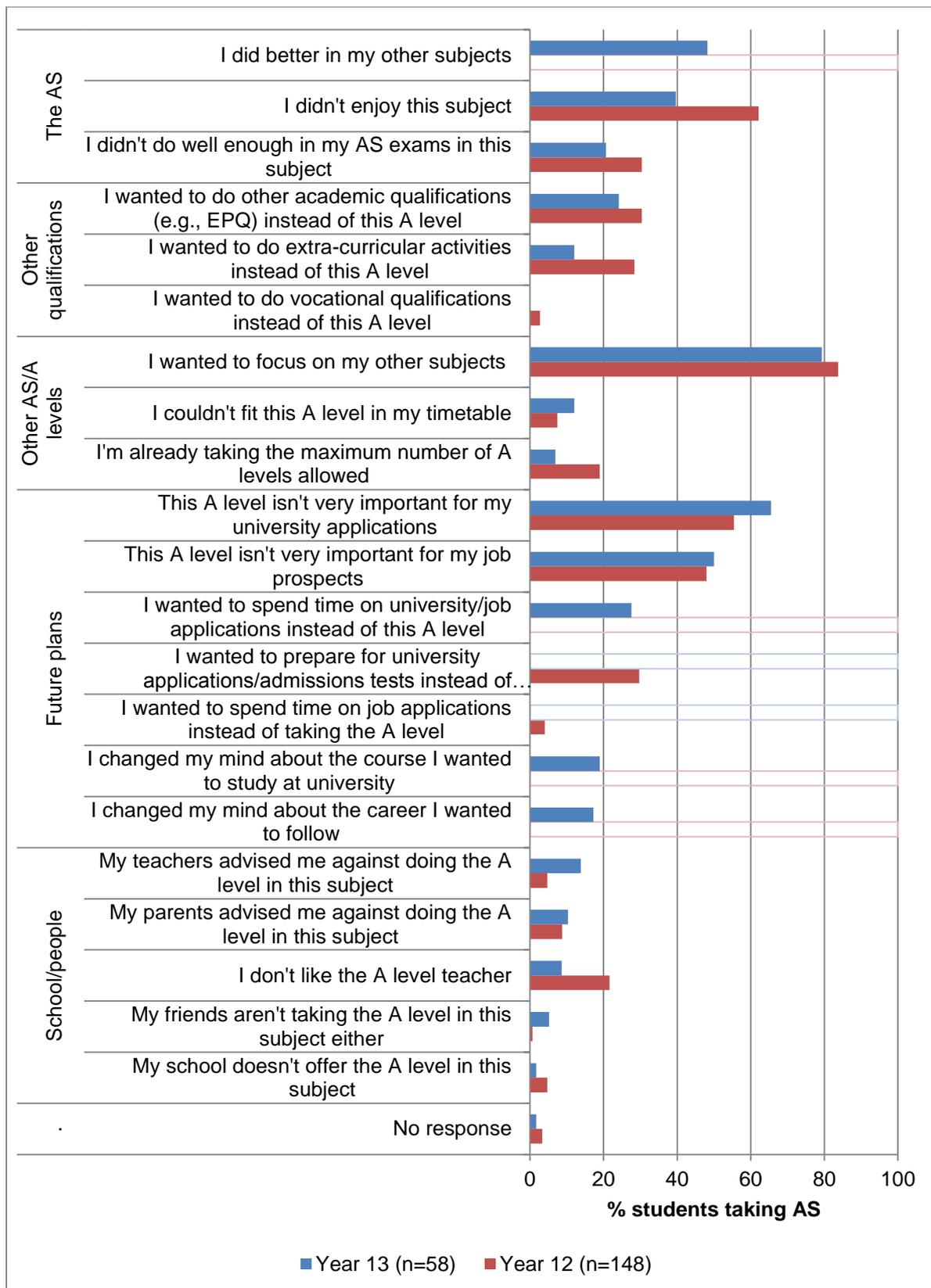


Figure 42: Reasons for not taking the A level, grouped by theme. Outlined bars show options that were not given to the corresponding year group.

HoDs were also asked why their students would take a decoupled AS level on its own, without progressing to the A level. 63 HoDs chose at least one reason. Figure 43 shows the percentage of HoDs who selected reasons relating to purposes and values of taking the AS on its own. The largest majority of HoDs (89%) indicated that their current students will end up leaving KS5 with only the AS because of starting to study it for the A level but dropping it at A level. 67% of HoDs stated it was so that students could have an extra AS like they had in the pre-reform system, with another 62% choosing the more specific reason of subject breadth.

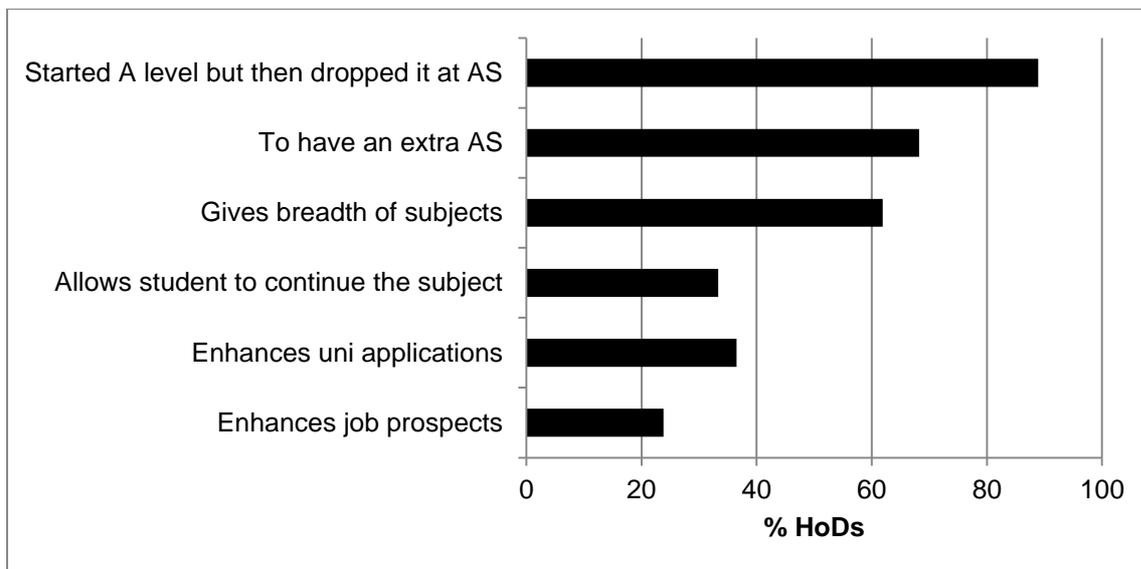


Figure 43: Reasons related to the purpose/value of taking the AS (n=63)

To gain a clearer understanding of why HoDs may have selected “to have an extra AS”, we inspected which other reasons were also selected by them. Figure 44 shows that the majority of HoDs who selected “to have an extra AS” also selected that it was because students dropped the AS and also that it gives breadth to the students’ programme.

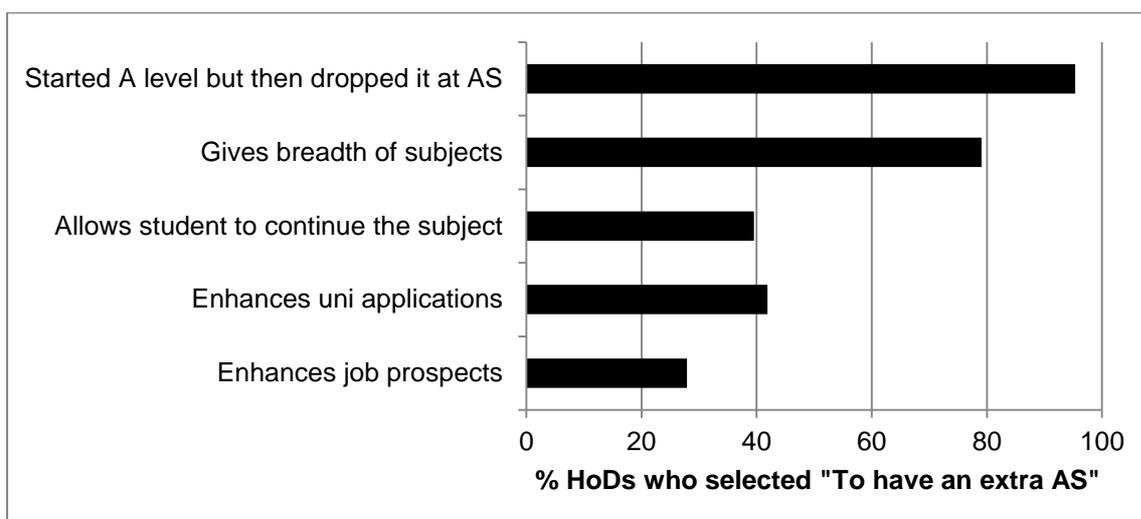


Figure 44: Reasons selected by HoDs who selected “To have an extra AS” (n = 43)

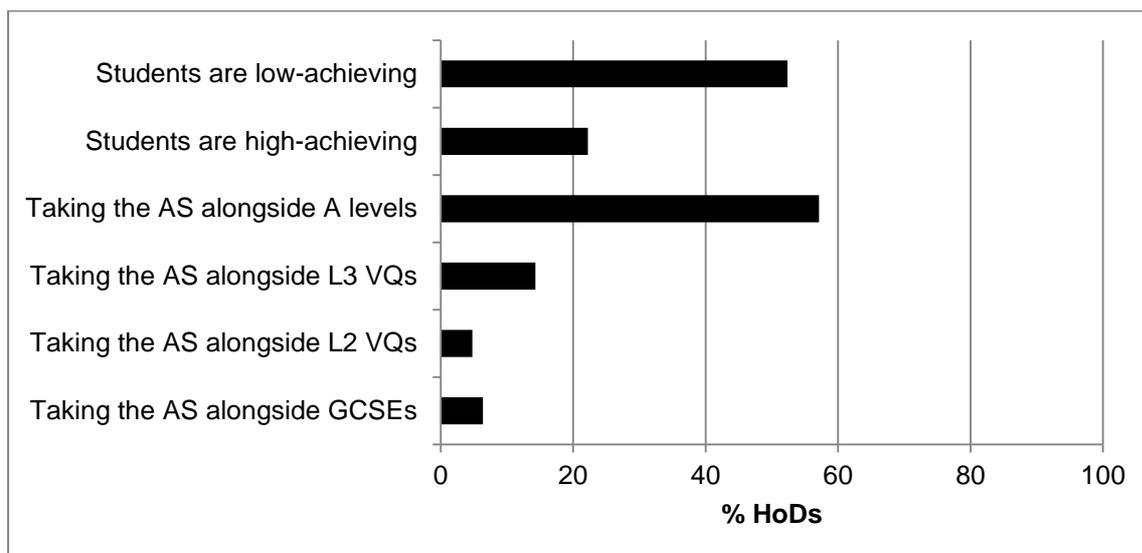


Figure 45: Reasons related to student attainment and programme of study (n=63)

Figure 45 shows the percentage of HoDs who selected reasons relating to student attainment and a student’s whole programme of study. Just over half of the HoDs (52%) indicated that students took the AS without progressing to the A level because they are low-achieving which contrasts with the smaller minority (22%) who stated that students chose the AS because they are high-achieving. A majority of HoDs (57%) also selected that the AS was chosen because it was being taken alongside A levels in other subjects, with small percentages indicating they were taking them alongside vocational qualifications or GCSEs.

Research question 6: How do Heads of Department view decoupled AS levels?

HoDs were given a list of statements about decoupled AS qualifications and asked to indicate their level of agreement with each statement on a scale of 1-4, where 1 = not true at all and 4 = entirely true.

Between 189 and 192 HoDs responded to the statements. For illustration, in the figures that follow, red represents disagreement (values 1 or 2) while blue indicates agreement (values 3 or 4). For ease of comparison and interpretation, the level of disagreement was calculated by aggregating the percentages of 1s and 2s (red) while the level of agreement was calculated by aggregating the percentages of 3s and 4s. However, it must be remembered that the values represent a continuum of agreement.

Value/purpose of decoupled AS

Figure 46 shows HoDs’ opinions on eight statements about the potential values/purposes of the decoupled AS qualifications. The majority of HoDs (between 53% and 63%) expressed disagreement with the top six statements in Figure 46. The highest rates of disagreement were for the statements that there is student/parent demand for the decoupled AS qualifications and that they are useful for university or job prospects. Between 26% and 36% of HoDs strongly disagreed with the six statements, selecting that they were “not true at all”.

However, a substantial minority (between 26% and 41%) expressed agreement with these statements, with between 6% and 16% agreeing entirely.

The majority of HoDs expressed agreement with the bottom two statements in Figure 46, which are that the decoupled AS gives students exam practice (68%) and that it helps students decide if they want to do the A level (56%), and approximately half of those agreeing expressed strong agreement. Disagreement was expressed by 30% and 42%, respectively.

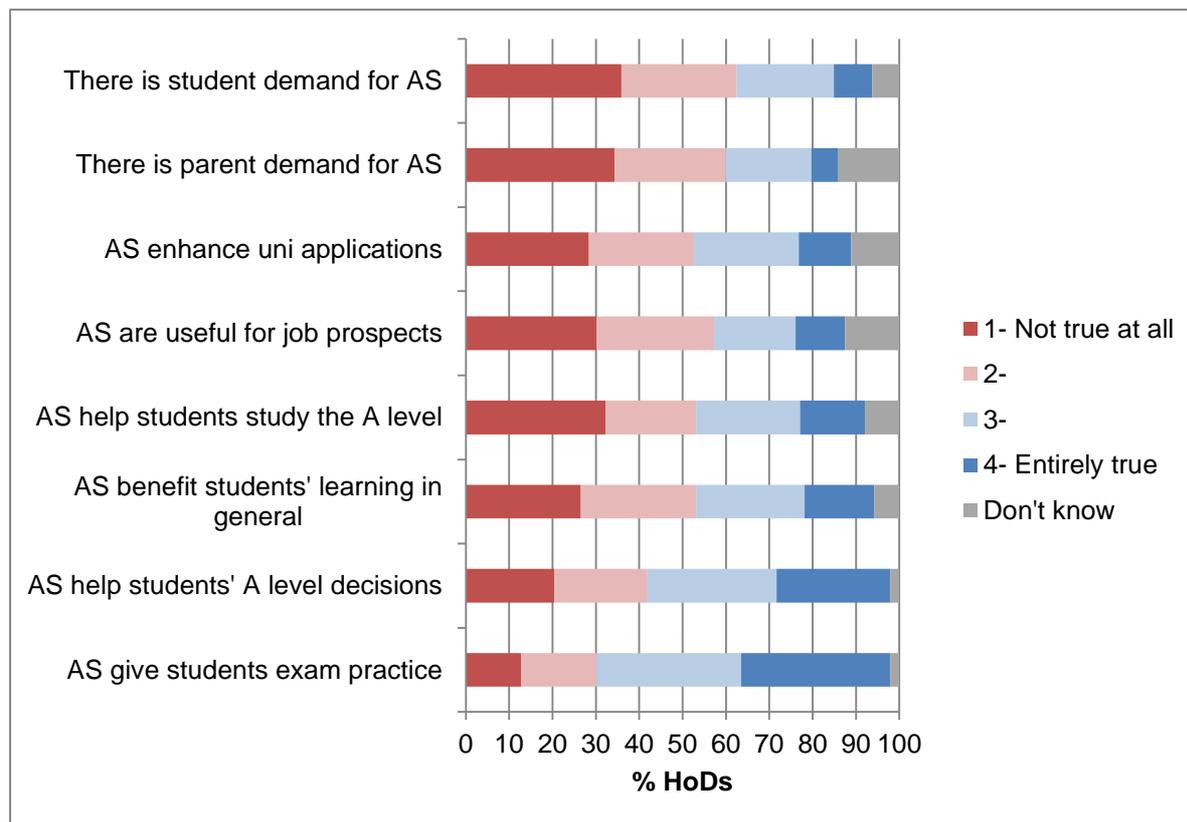


Figure 46: Agreement with statements related to potential values of the decoupled AS

Importance of other qualifications

Figure 47 shows opinions on the importance of other qualifications relative to the decoupled AS. The majority of HoDs agreed that preparing for university applications and taking extra-curriculars (52% and 55%, respectively) were more important than taking decoupled AS qualifications. However, a large minority disagreed with those two statements (40% and 38%, respectively).

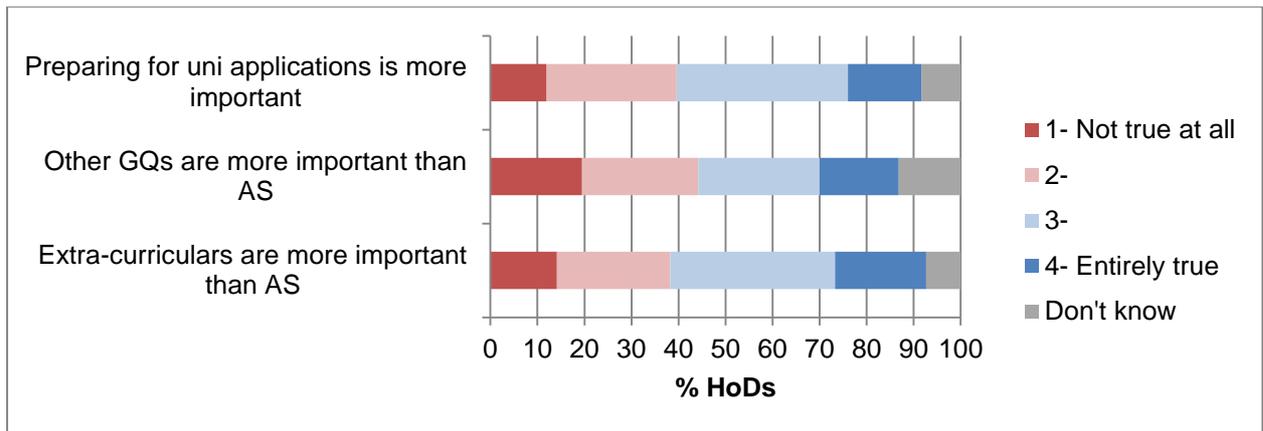


Figure 47: Agreement with statements related to the importance of non-AS qualifications

Delivering the AS alongside other qualifications

Figure 48 shows opinions on practical aspects of delivering the decoupled AS alongside other qualifications. The first statement in Figure 48 concerns the co-teachability of AS and A levels. There was no clear majority opinion on co-teachability, with approximately half of the HoDs expressing disagreement and half expressing agreement.

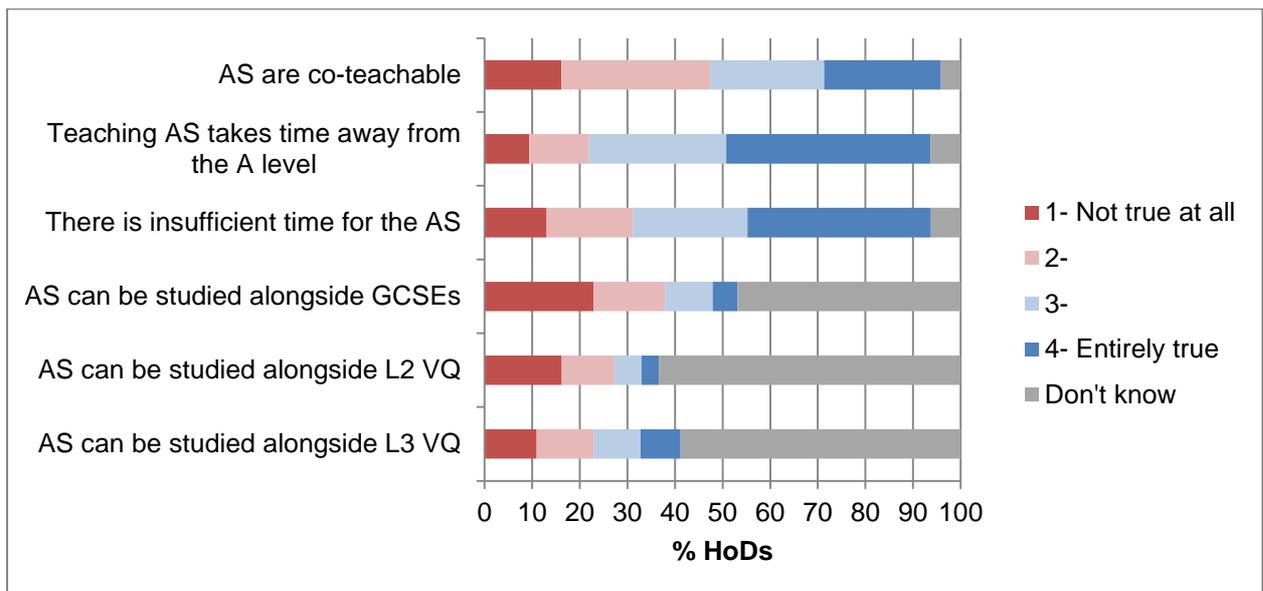


Figure 48: Agreement with statements related to practicalities of delivering the AS alongside other qualifications

Despite the lack of consensus about co-teachability, a large majority agreed that teaching the AS takes time away from the A levels (72%) and that there is insufficient time in school/student timetables to teach decoupled AS subjects (63%). Disagreement was expressed by 22% and 31% of HoDs, respectively.

Most HoDs were uncertain about the practicality of delivering the AS alongside other (non-A level) general qualifications.

Other practicalities

Figure 49 shows opinions on other practical aspects of offering the decoupled AS. The majority of HoDs agreed that teachers have enough expertise to teach the decoupled AS (63%), and a smaller majority agreed that there are enough teachers to teach them (51%).

Most HoDs were uncertain about whether the decoupled AS counts in league tables and whether their institution receives funding to offer them.

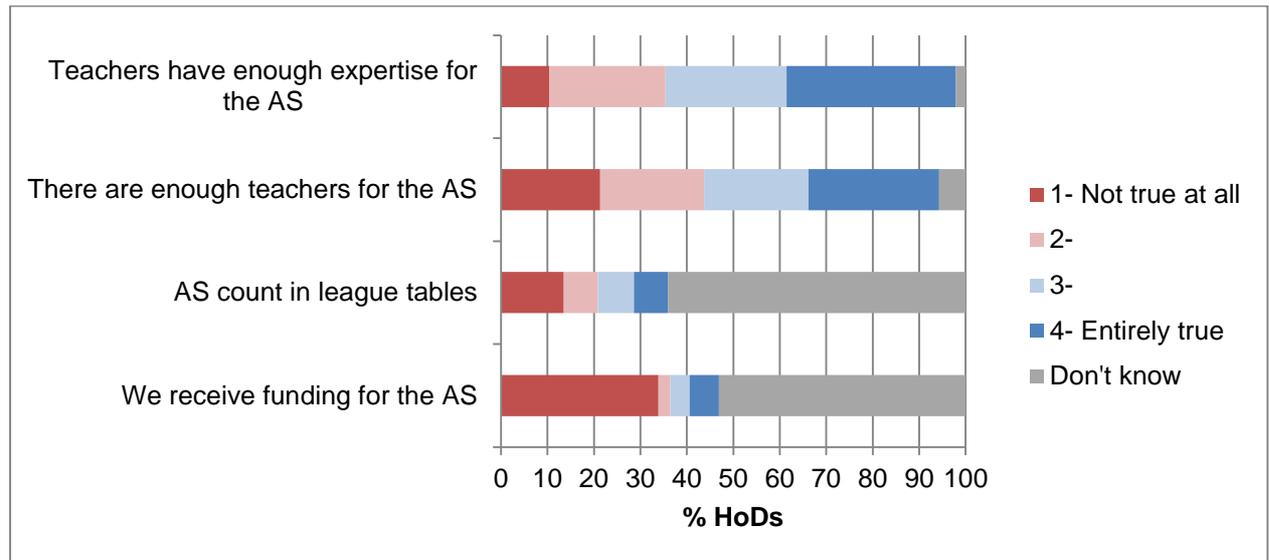


Figure 49: Agreement with statements related to other practicalities of delivering the AS

Discussion

Uptake

Steep decreases in AS level uptake occurred between 2014/15 and 2015/16, and between 2015/16 and 2016/17. Analysis of the national data shows that students taking AS levels in reformed subjects in 2015/16 made up a much smaller proportion of the Year 12 cohort than those taking AS levels in the same subjects in 2014/15. Year 12 AS level candidates in 2015/16 were far more likely than AS candidates in 2014/15 to be taking only 1 or 2 AS levels, and to be taking AS levels only in non-reformed subjects. Given that A level entries in reformed subjects were maintained in 2017, we conjecture that many of the Year 12 candidates in 2015/16 with low numbers of AS levels, in which non-reformed subjects are heavily overrepresented, were A level students who did not take the decoupled AS level in their reformed subjects.

This hypothesis will be straightforwardly proven or disproven once the 2017 NPD becomes available for analysis. Meanwhile, it is supported to a certain extent by our survey findings. These showed that a substantial minority of Year 13 students (who were in Year 12 in 2015/16) took decoupled AS levels in none of their reformed A level subjects – that is, took AS levels only in their non-reformed A level subjects, or in reformed subjects that they did *not* intend to take at A level. In line with the further steep decrease in AS entries seen between 2015/16 and 2016/17, results from the Year 12 survey showed that students in Year 12 in 2016/17, the second year of teaching decoupled qualifications, were even less likely to be taking the AS level in their reformed A level subjects: over half stated that they would take the decoupled AS level in none of their reformed A level subjects. The HoD survey findings confirmed that in many centres, students were taking A levels without AS levels.

Many students in both year groups were taking one subject at AS level only; that is they were not carrying it on to A level. However, the proportion of students taking an AS-only subject was much smaller in the Year 12 sample than in the Year 13 sample. There was little difference with regard to why they were taking the AS-only subjects. In both year groups, students selected a range of reasons, including ones related to their AS/A level choices, future plans and people in their lives, but most commonly students said they took the AS to broaden their curriculum, help them with their other subjects or enhance university applications. Less than half the students said that it was school policy to take AS qualifications. These reasons for taking AS levels resonate with those found by the NUS/OCR (2014) survey that was conducted before subjects had been reformed as well as how AS levels were used before the reforms (Sutch et al., 2015). This similarity suggests that the decoupling of the AS has not taken away the perceived value of the AS level for many students. It therefore raises concerns for students who may be denied the chance to take the AS levels if centres move to an A level only model of provision.

After the first year of teaching decoupled qualifications, the Joint Council for Qualifications (JCQ, 2016) proposed that decreases in AS entries in particular subjects could be related to whether students had studied the subject at GCSE. Specifically, that AS level uptake would be higher in subjects that students infrequently studied at GCSE level (e.g., Sociology and Business Studies), and lower in subjects with high uptake at GCSE level (e.g., English and

Art & Design). On this basis, we would have expected the large decreases in entries seen for tranche 2 subjects, since they were subjects available and frequently studied at GCSE level. However, the decreases in entries for tranche 1 subjects also taken at GCSE level – in the case of English, by almost all students - were far smaller in their first year of teaching. Hence, in the light of two years' worth of entry data, the appeal to GCSE availability and uptake does not look like a particularly helpful explanation for observed changes in entries.

The steep decrease in entries for tranche 2 subjects could reflect specific characteristics of the subjects beyond availability at GCSE level. Certainly, many of the tranche 2 subjects were already showing longer term decline in entries, and the majority of the most popular AS subjects were deliberately included in tranche 1. Our surveys of students and Heads of Department, however, found very little clear evidence for the influence of subject-specific factors on AS level decisions. Instead, results suggested that centre level policy was a more important factor. Less than 5% of students surveyed, in either year group, said that they were taking the decoupled AS level in some of their reformed A level subjects but not others; the vast majority were taking decoupled AS levels either in all of their reformed A level subjects or in none of them. Furthermore, when students were asked why they were taking the decoupled AS level in each of their reformed A level subjects, over 85% stated school policy or provision was the reason, for all their subjects; few stated that it was policy for some subjects only, or that other factors were the reason. Similarly, when asked why they were *not* taking the decoupled AS level in their A level subjects, over 85% of students stated that school policy or provision was the reason. The Head of Department survey also pointed towards the importance of centre-level decisions: both HoDs' advice to students, and the patterns of uptake they observed in their departments, were overwhelmingly the same across subjects.

AS levels entries decreased after the introduction of decoupled qualifications in non-reformed subjects as well as already-reformed subjects, and the decrease was substantial. Ofqual has stated that the fall in AS entries across all subjects, rather than just reformed subjects, is due to changes to funding and centre-level policy about students' programmes of study (e.g., beginning three instead of four subjects in Year 12), as well as the AS/A level reforms directly (Ofqual, 2017, p. 6). The shift from four subjects in Year 12 to three is consistent with survey findings, but once again, information about students' full KS5 programmes of study, from the 2017 NPD, will be required to verify this claim. It may be that there have also been centre policy changes around taking an AS level as an additional qualification alongside vocational and applied qualifications, and analysis from next year onwards should look to examine this carefully. Entry figures for A levels in summer 2017 are able to show us the total uptake by Year 13 students by subject. This data suggests no substantial changes to subject uptake at KS5.

Provision

The quantitative centre-level analysis and Head of Department survey responses both identified two kinds of centre response to the AS level reforms. A substantial minority of centres offered no decoupled AS levels at all in 2015/16. Many other centres, however, maintained the same (or similar) levels of provision and entries in 2015/16. Reducing AS level provision partially, on the other hand, appeared to be a less common response.

Centre-level analysis of provision showed few centres with such 'in-between' responses, and the HoD survey confirmed that among reformed-subject departments that had reduced AS level provision, three-quarters were offering no decoupled AS levels at all.

UCAS (2017) found lower AS provision in 2016/17 than had been expected based on responses to previous surveys, and a lower proportion of centres still stating that they intended to revisit their decisions on AS provision. In addition, the aggregate entries data for June 2017 showed both further steep declines in AS entries for tranche 1 subjects, and decreases in AS entries in tranche 2 subjects in their first year of teaching that in many cases exceeded the decreases over two years seen for tranche 1 subjects. Considered together, this evidence suggests that by 2016/17 many centres had already moved on from a 'wait and see' approach, to a standard offering that did not include AS levels. Analysis of the 2017 NPD, once available, will be required in order to confirm this.

The findings discussed above suggest that decreases in AS level entries in individual subjects may have been more closely related to the overall progress of the AS/A level reforms than to the number of years of teaching of the decoupled qualification in that particular subject. There are a number of reasons why such a pattern might have occurred. One suggestion is that centres became more confident about their decisions on reformed AS levels in general, after initial caution in the first year that decoupled qualifications were taught. Another suggestion would be that the introduction of decoupled qualifications in a majority of subjects led to a 'tipping point' in centre-wide policies, for example for timetabling reasons. It could also be that by the second year of decoupled qualifications, greater clarity was emerging from universities and employers about whether they expected students to have taken reformed AS levels. By the second year of decoupled qualifications, centres would also have been able to tell - from professional networks and from published statistics - what changes to provision other centres had made, and to make alterations to their own provision with this knowledge in mind. The findings of our Head of Department survey provide some support for the idea that the overall progress of reforms was an important factor for AS entries. In particular, 30% of Heads of Department who had reduced their AS provision only did so after the first year of teaching decoupled qualifications (Figure 15). Furthermore, there was a high level of agreement (almost 70%) with the statement that current AS policy was in place until there was better knowledge of universities' and employers' views.

As mentioned, results from the HoD survey offered further evidence that AS provision may be decided at centre rather than at departmental level. In particular, there was a widespread expectation - across departments from different subject areas - that students would take no AS levels alongside their three or four A levels, which suggests a common decision not to teach AS was made across different departments. More directly, several HoDs explicitly stated that decisions about AS provision were centre policy, with some HoDs expressing obvious frustration that it was not their choice. However, their discontent was not targeted at one type of AS provision; some HoDs were frustrated at not being allowed to offer the AS in their subjects whilst other HoDs were unhappy about being forced to teach decoupled AS alongside A levels in the same subject.

Views towards decoupled AS levels

At the time of the HoD survey, many HoDs had had the opportunity to offer decoupled AS levels for two years, and view AS exam results for tranche 1 subjects (June 2016). The current findings suggest that these experiences did not result in a more positive prognosis for the decoupled AS than previous research had suggested. Instead it appears that these AS levels were indeed viewed by many HoDs as a removable element of A level students' programmes of study. Amongst the HoDs whose students were not taking decoupled AS with the A level, many indicated that this was because of negative impacts on the A level, either in terms of student focus or teaching time. University-related factors were also a common reason for not offering the AS, especially the belief that it was not a requirement for university admission. The impact on job prospects had less of an influence on AS decisions. This suggests that universities still have a greater role in affecting the types of qualifications offered to A level students than employers.

The move away from AS levels was not a unanimous decision. Many HoDs who completed this survey were still expecting to offer AS levels. Furthermore, although the decoupled AS levels do not have formal relationships to A levels, some of the reasons that HoDs gave for offering them resonated with pre-reform uses of AS levels. In particular, decoupled AS levels were considered useful for university applications, giving students exam practice as well as helping them decide if they want to carry on with the A level. The AS level was also used by many HoDs as a way for students to 'drop' a subject after starting it as an A level. The latter corresponds to Sutch et al. (2015)'s description of the legacy AS as 'safety nets'. In contrast, for some HoDs the AS still had intellectual value, being used as a tool to broaden students' curriculum.

Conclusions

Previous research and published entry data had already established that AS level uptake declined steeply after the introduction of reformed AS and A levels. The findings in this report support the message from previous research that fewer students are taking AS levels, particularly in their A level subjects.

Analysis of changes to AS level provision, via both national data and surveys, confirmed that centres responded in different ways to the introduction of decoupled qualifications. The findings identified a split between two main centre responses in the first year of teaching of decoupled qualifications (2015/16): (1) maintaining AS provision and (2) substantially reducing/removing AS provision. The evidence so far available for the second year of teaching (2016/17) points towards no-AS as one of two dominant models: students in the second cohort to be taught decoupled qualifications were much less likely than those in the first cohort to be taking AS levels in their reformed A level subjects, and both students and Heads of Department indicated that centre policy was the main reason for this. The proportion of students taking an AS level in a subject other than their A level subjects decreased in the second year of teaching.

Ongoing research is looking in more depth at how the changes examined in this report vary across different types of centre, and different subgroups of students.

The availability of student-level results data from the 2017 NPD will enable a richer analysis of the effects of AS and A level reform on KS5 programmes of study. Only with that data will we be able to tell *which* students across England took A levels, and what combinations of A levels students took.

References

- DfE. (2010). *The Importance of Teaching. The Schools White Paper 2010*. Norwich, United Kingdom: TSO (The Stationery Office).
- DfE. (2017). *Participation in Education, Training and Employment by 16-18 year olds in England: Technical Document*. (SFR 29/2017). London: Department for Education.
- Gove, M. (2013, January 22). Reform of GCE A Levels. Letter to Glenys Stacey, Ofqual. Retrieved from <http://webarchive.nationalarchives.gov.uk/20141031163546/http://ofqual.gov.uk/documents/letter-from-secretary-of-state-on-a-level-reform-january-2013/>
- JCQ. (2016). *Policy Changes Impact AS Entry Patterns as A-level Entries and Outcomes Remain Stable*. Media Release. UK: Joint Council for Qualifications.
- NUS/OCR. (2014). *Informing the Reforms*. UK: National Union of Students.
- Ofqual. (2013). *Consultation on New A Level Regulatory Requirements*. UK: Office of Qualifications and Examinations Regulation.
- Ofqual. (2016). *Summer Exam Entries: GCSEs, Level 1/2 Certificates, AS and A Levels in England: Provisional Figures April 2016*. Statistical Release. Coventry: Ofqual.
- Ofqual. (2017). *Provisional Summer 2017 Exam Entries: GCSEs, AS and A levels*. Coventry: Ofqual.
- Sutch, T., Zanini, N., & Benton, T. (2015). *A Level Reform: Implications for Subject Uptake*. Cambridge Assessment Research Report. Cambridge, UK: Cambridge Assessment.
- Thomson, D. (2016). How many small school sixth forms fail to meet new guidelines on viability? Retrieved from <https://educationdatalab.org.uk/2016/04/how-many-small-school-sixth-forms-fail-to-meet-new-guidelines-on-viability/>
- UCAS. (2015). *Unpacking Qualification Reform: Results of the UCAS Survey on A Level Reform*. Cheltenham: Universities and Colleges Admissions Service.
- UCAS. (2016). *Unpacking Qualification Reform: UCAS A Level Survey - January Update*. Cheltenham: Universities and Colleges Admissions Service.
- UCAS. (2017). *UCAS Qualification Provision Survey 2017*.
- Zanini, N., & Williamson, J. (2016). *Learning Aims: A Preliminary Exploration to Monitor the A/AS Reform*. Cambridge Assessment Research Report. Cambridge: Cambridge Assessment.

Appendix A

Head of Department survey – additional details

Survey design

The majority of the survey contained closed-response questions because previous research and colleagues had highlighted specific effects of the reforms to investigate. For the closed-questions, respondents either had to select answers from a list of options or had to rate statements in terms of their level of agreement on a 4-point. There was only one entirely open-ended question, placed at the end of the survey, which gave respondents an opportunity to make any other comments on effects of the reforms.

The survey questions addressed the following topics:

- Role of respondent and characteristics of their centre
- Types of AS/A levels offered in their department
- Opinions on the new AS qualifications
- Changes to AS level provision
- Taking the decoupled AS level on its own, or with the A level in the same subject
- Students' overall programmes of study
- Final thoughts

Centre characteristics of respondents

Table A1 shows that almost all HoDs came from sixth forms attached to a secondary school, whilst a small percentage (13%) came from standalone sixth forms or Further Education (FE) colleges.

Table A1: Centre types in HoD survey sample

Centre type	No. HoDs	%
School Sixth form	210	84.0
Sixth form college (standalone)	20	8.0
Further education college	13	5.2
Specialist college	1	0.4
Other	3	1.2
No answer	3	1.2
Total	250	100

Table A2 shows that these proportions are broadly representative of the distribution of centre types in in England.

Table A2: National distribution of centre types

Type of centre	Student age range	Number of centres	%
Sixth forms attached to schools	Pre-16 and post-16	2877	88.6
Sixth form colleges (post-16 only)	Post-16 only	90	2.8
General FE colleges (post-16 only)	Post-16 only	206	6.3
Specialist college (post-16)	Post-16 only	1	0.03
Other post-16 centres	Post-16 only	54	1.7
Other	Unknown	18	0.6

Note. Based on 2015/16 KS5 performance tables data⁸

Table A3 shows that almost half of the centres were funded as academies/free schools, but a substantial number were independent centres. Table A4 shows that these proportions are broadly representative of the distribution of funding types in England.

Table A3: Centre funding in the HoD survey sample

Funding	No. HoDs	%
Local authority maintained	47	18.8
Academy or free school	117	46.8
Independent	68	27.2
Other	9	3.6
Do not know	7	2.8
No answer	2	0.8
Total	250	100

Table A4: National distribution of academy and independent schools

Funding	Number of centres	%
Academy	1451	51.6
Independent	569	20.2
Not academy or independent	794	28.2

Note. Based on NPD 2015/16 data

Table A5 shows that the majority of HoDs came from small or medium centres, with 100-200 or 201-500 students. To put these sizes in context, according to the Education Datalab, the average size of state-funded mainstream school sixth forms in 2016 was 211 students (Thomson, 2016). However, centres with fewer than 200 are considered to be small by the DfE who published guidance recommending that new school sixth forms should have at least 200 students.

⁸ The data was downloaded from <https://www.gov.uk/school-performance-tables>. Technical guidance from the DfE on this data is available from <https://www.gov.uk/government/collections/school-performance-tables-about-the-data#2016-data:-ages-16-to-18>.

Table A5: Centre size (number of students) in HoD survey sample

Centre size (no. students)	No. HoDs	%
less than 100	32	12.8
100-200	78	31.2
201-500	102	40.8
501-1000	13	5.2
1001-1500	7	2.8
1501-2000	7	2.8
more than 2000	10	4.0
No answer	1	0.4
Total	250	100

Particularly because one centre type (school sixth form) was dominant among responding HoDs, it is worth examining the overlap between key centre characteristics. Looked at from the funding point of view (Figure A1), all three of the main funding categories of academy/free school, local authority maintained and independent school were dominated by school sixth forms in our data, whilst the HoDs for whom funding was unclear (i.e., “Other” and “Don’t know”) mostly came from FE colleges and sixth form colleges.

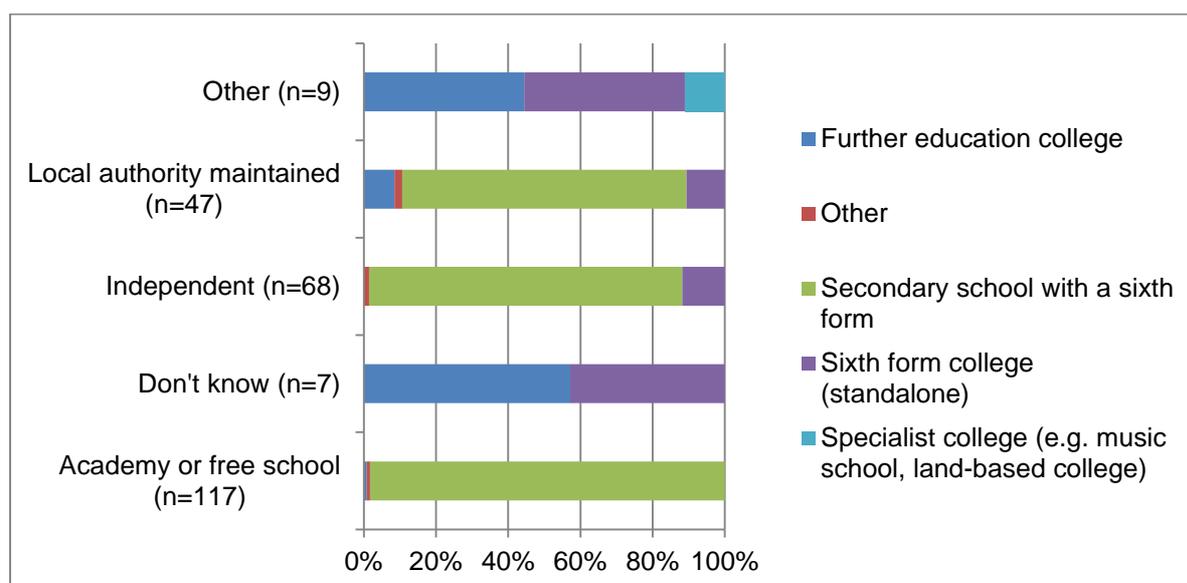


Figure A1: Centre type by centre funding

Considering the centre size categories (small=0 – 200 students, medium = 201 – 500, and large = over 500), Figure A2 shows that “Small” and “Medium” sized centres were predominantly school sixth forms, whilst “Large” centres included a fairly balanced mix of FE colleges, school sixth forms and sixth form colleges. It is particularly important to note that for the results of this survey, “Large” centres include a substantial number of school sixth forms as well as colleges, and that “Small” centres do not represent school sixth forms to any greater extent than “Medium” sized centres.

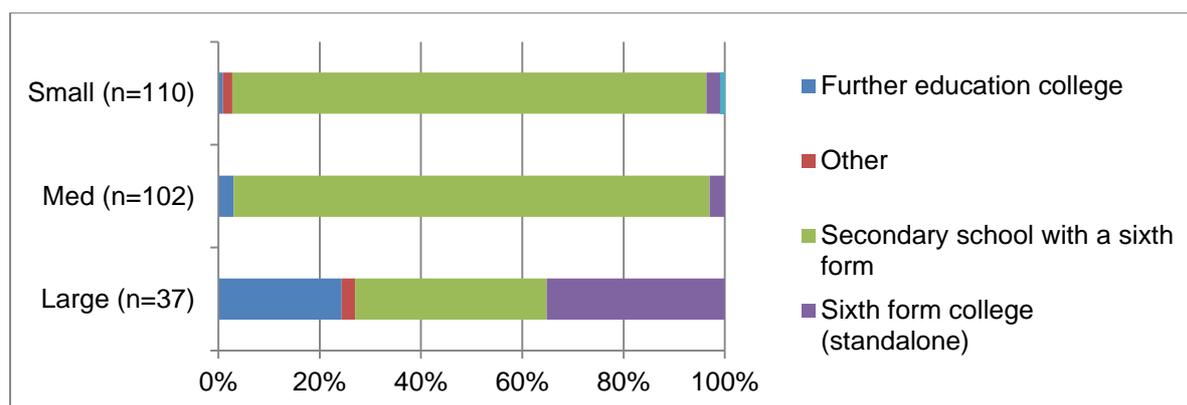


Figure A2: Centre type by centre size

Table A6 shows that just over half of the HoDs stated that their students had a wide range of attainment, with a substantial proportion stating that their students were mostly high attaining. Table A7 shows that over half the centres had a comprehensive intake, while another third were academically selective.

Table A6: Student attainment, HoD survey respondents

Student attainment	No. HoDs	%
Most are high attaining (A or B expected)	72	28.8
Most are lower attaining (C or lower expected)	23	9.2
Wide range of attainment	137	54.8
Other	5	2.0
No answer	13	5.2
Total	250	100

Table A7: Student selection process, HoD survey respondents

Intake selection	No. HoDs	%
Comprehensive	148	59.2
Academically selective	83	33.2
Other selective	5	2.0
Other	7	2.8
Do not know	3	1.2
No answer	4	1.6
Total	250	100

Subject/department coverage

As an estimate of department coverage and to look for differences between subject areas, each respondent's department was derived from the combination of subjects that he/she selected in the survey. This must be taken with some caution as some respondents had selected multiple, diverse subjects, which suggests that they may have selected all the subjects offered at their centre rather than only those in their own department.

Table A8 shows that the largest number of HoDs (24%) indicated that they delivered subjects typical of a Geography department, offering Geography with/without Geology or Environmental Science. Smaller, but still sizeable, numbers of HoDs came from computing, science and social science departments, each represented by just under 10% of HoDs.

Table A8: Department coverage derived from subjects selected by the HoD

Department	All (old or new AS/A levels)		Offering AS/A levels in reformed subjects	
	No. HoDs	%	No. HoDs	%
Art/Design	9	3.6	6	3.0
Classics	1	0.4	1	0.5
Computing	20	8.0	20	10.1
English	11	4.4	11	5.5
Geography	60	24.0	57	28.6
Humanities	5	2.0	5	2.5
MFL	12	4.8	11	5.5
Maths	16	6.4	0	0.0
Performing Arts	1	0.4	1	0.5
Science	23	9.2	23	11.6
Social Science	22	8.8	22	11.1
Unknown (diverse subjects selected)	70	28.0	42	21.1
Total	250	100	199	100

Note. Grey highlights the most represented departments

Table A9 shows the subject combinations associated with each of these department types. A department could not be derived for a large number of respondents (28%) because they had selected a diverse set of subjects; in these cases, the department was coded as “unknown”.

Table A9: Classification of departments by subject combination (most popular only)

Department	Subject combinations
Geography	Geography Geography + Geology Geography + Geology + Environmental Science
Computing	Computer Science Computer Science + Business Studies
Science	Any combination of Biology, Chemistry and Physics Biology + Chemistry + Geology Biology + Chemistry + Physics + Maths Biology + Chemistry + Physics + Maths + Computer Science + Psychology
Social Science	Any combination of History, Psychology, Sociology, Law, Religious Studies, Government & Politics

Student survey – additional details

Survey design

Like the Head of Department survey, the majority of the student survey contained closed-response questions because previous research and colleagues had highlighted specific effects of the reforms to investigate. One entirely open-ended question, at the end of the survey, gave respondents an opportunity to make any other comments.

The topics covered by the survey questions were the following:

- Respondent characteristics
- AS and A level subjects being studied
- Knowledge and uptake of the decoupled AS and A levels
- Combining decoupled A levels with the AS in the same subject and reasons
- Taking an AS on its own, without the A level and reasons
- Students' whole programmes of study and reasons
- Final thoughts

Respondent characteristics

The majority of students who responded were female, although the gender balance was more even amongst the Year 13 students (see Table A10). The ages of responding students were typical of the year groups. Almost all the Year 13 students were either 17 or 18 years old, while every Year 12 student, except one, was 16 or 17 years old (see Table A11).

Table A10: Gender distribution

Gender	Y13	%	Y12	%
Female	50	55.6	434	82.0
Male	38	42.2	82	15.5
Other	1	1.1	4	0.8
I prefer not to say	1	1.1	6	1.1
No response	0	0.0	3	0.6

Table A11: Age distribution

Age	Y13	%	Y12	%
16	1	1.1	148	28.0
17	48	53.3	380	71.8
18	39	43.3	1	0.2
19	1	1.1	0	0.0
No response	1	1.1	0	0.0

Most of the Year 13 and Year 12 students had high prior attainment, having achieved an A* or A in GCSE Mathematics (89% vs. 81%, respectively) (see Table A12). None of the Y13 students had achieved lower than a B whereas 5% of the Year 12 students had achieved a C. A similar pattern of performance was found for GCSE English in that the majority of both Year 13 and Year 12 students had achieved an A* or A (77% vs. 81%). A small but similar

percentage of students in each of the years had achieved a C grade or lower in English (Table A13).

Table A12: Grades in GCSE Mathematics qualifications

Best grade in GCSE Maths	Y13	%	Y12	%
A*	60	66.7	296	56.0
A	20	22.2	133	25.1
B	10	11.1	70	13.2
C	0	0.0	27	5.1
Not applicable	0	0.0	2	0.4
No response	0	0.0	1	0.2

Table A13: Grades in GCSE English qualifications

Best grade in GCSE English	Y13	%	Y12	%
A*	30	33.3	244	46.1
A	39	43.3	184	34.8
B	17	18.9	75	14.2
C	4	4.4	22	4.2
D	0	0.0	1	0.2
Not applicable	0	0.0	2	0.4
No response	0	0.0	1	0.2

A small percentage of students stated that they had started their AS/A levels early (before Year 12). The proportion was similar amongst the Year 13 and Y12 students (Table A14).

Table A14: Students who started AS/A levels early

Started any AS/A levels before Y12	Y13	%	Y12	%
No	83	92.2	493	93.2
Yes	7	7.8	36	6.8

Centre characteristics

Table A15 shows the distribution of types of centres attended by students, which was broadly similar for both year groups. The majority of students came from school sixth forms, although the percentage was larger amongst the Y12 students (72% compared to 56% for Year 13). Amongst the school sixth form students most had remained at their GCSE school. In each year group, a similar percentage came from sixth form colleges (approximately 17% in each) and a similar, smaller percentage came from FE colleges (2% in each). The largest difference between the year groups concerned specialist colleges; the proportion attending this type of centre was much larger amongst the Year 13 than Year 12 students.

Table A15: Types of centres attended by students

Centre type	Y13	%	Y12	%
Sixth form in same school as GCSEs	39	43.3	287	54.3
Sixth form in different school to GCSEs	11	12.2	92	17.4
Sixth form college	16	17.8	92	17.4
Further Education college	2	2.2	11	2.1
Specialist college (e.g., maths college)	22	24.4	38	7.2
Other	0	0	8	1.5
No response	0	0	1	0.2

Table A16 shows the type of funding of the students reported for their centre. Students were simply asked whether their school/college was state-funded or not. The majority of students in both year groups reported that their centres were state-funded. A larger proportion of the Year 12 students came from independent school/colleges than amongst the Year 13 students.

Table A16: Funding of centres attended by students

Centre funding	Y13	%	Y12	%
State	76	84.4	364	68.8
Independent	6	6.7	111	21.0
Other	1	1.1	3	0.6
I don't know	7	7.8	50	9.5
No response	0	0.0	1	0.2

Table A17 shows the distribution of centre funding types for each centre type. For both year groups, almost all the independent centres were school sixth forms.

Table A17: Breakdown of centre types by funding

Centre type	Funding	Y13	Y12
Sixth form in same school as GCSEs	State	30	185
	Independent	4	79
	Don't know	5	23
Sixth form in different school to GCSEs	State	9	60
	Independent	1	27
	Other	1	0
	Don't know	0	5
Sixth form college	State	15	75
	Independent	0	3
	Other	0	1
	Don't know	1	13
Further Education college	State	1	9
	Independent	1	0
	Don't know	0	2

Specialist college (e.g., maths college)	State	21	33
	Independent	0	1
	Other	0	2
	Don't know	1	2
Other	State	0	2
	Independent	0	1
	Don't know	0	5
No response		0	1

Awareness of AS/A level decoupling

Before being asked about their own AS and A level choices, students were asked about their knowledge of the decoupling of AS levels from A levels. Almost all said they knew that AS levels were being decoupled from A levels (Figure A3 and Figure A4).

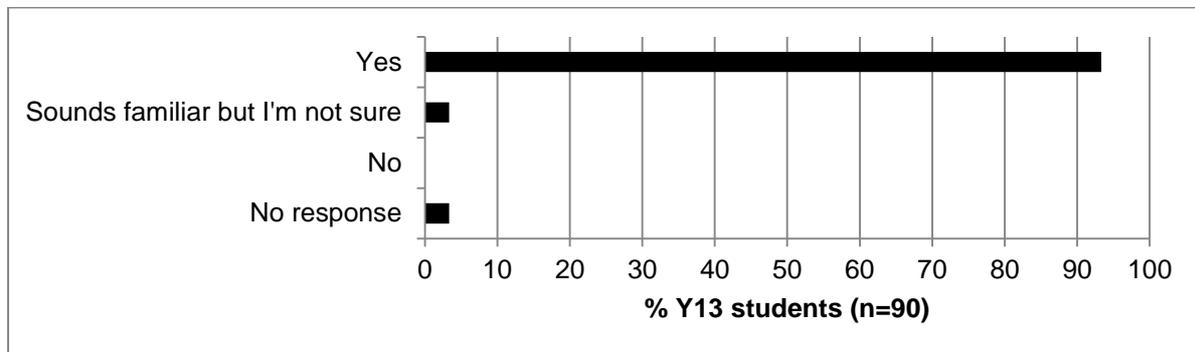


Figure A3: Year 13 students' answers to "Did you already know that AS levels are being decoupled from A levels?"

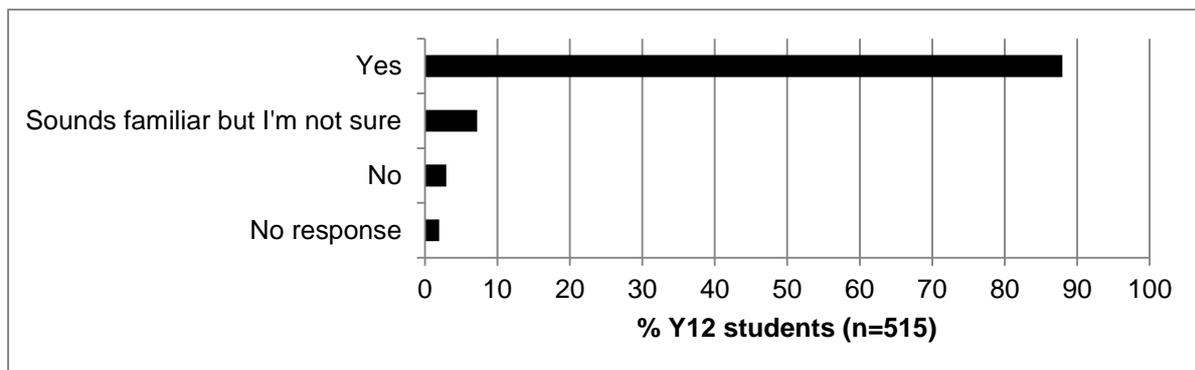


Figure A4: Year 12 students' answers to "Did you already know that AS levels are being decoupled from A levels?"

A large majority of students in each group confirmed that they were taking at least one new decoupled AS or A level. The proportion among the Year 13 students (79%, Figure A5) was similar to the proportion among the Year 12 students (82%, Figure A6).

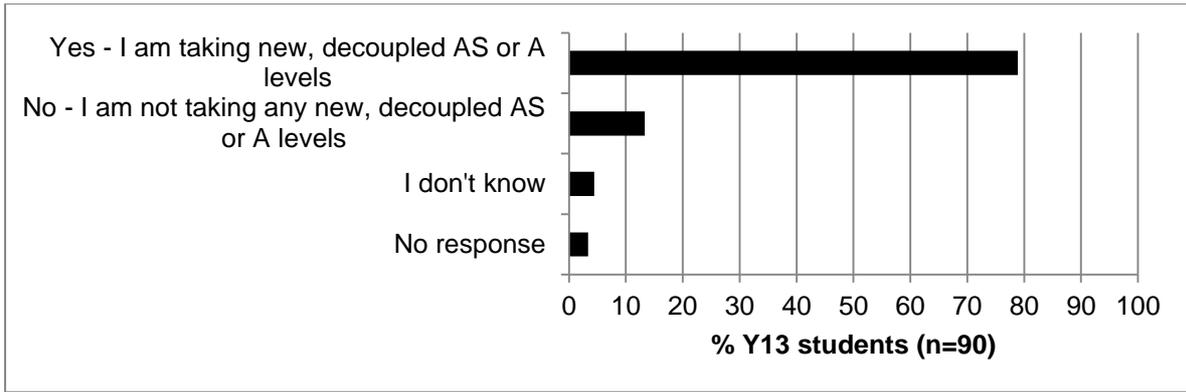


Figure A5: Year 13 students' answers to "Are you taking any of the new, decoupled AS or A levels?"

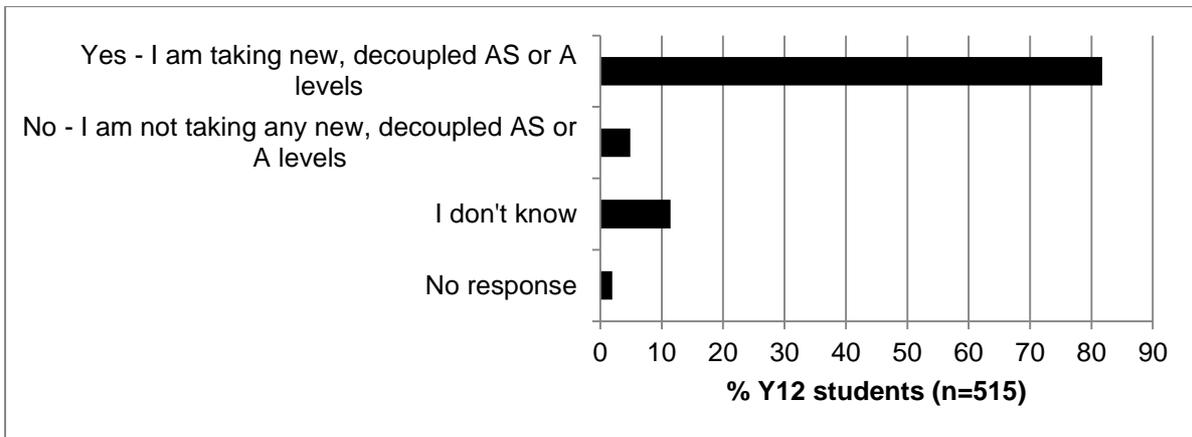


Figure A6: Year 12 students' answers to "Are you taking any of the new, decoupled AS or A levels?"

Appendix B

Table B1 shows the number of Year 12 AS level entries per subject, for 2014/15, 2015/16 and 2016/17. This is the data underlying Figure 4 of the main report.

Table B1: Year 12 AS level entries by subject and year (Ofqual entries data), tranche 1 and 2 subjects

Subject group	Number of entries			Percentage changes in entries			
	2017	2016	2015	2016-2017	2015-2016	2015-2017	
Tranche 1	Art & Design subjects	15,750	31,860	49,300	-51%	-35%	-68%
	Biology	27,780	57,030	70,850	-51%	-20%	-61%
	Business Studies	15,350	30,440	36,260	-50%	-16%	-58%
	Chemistry	24,310	48,000	59,840	-49%	-20%	-59%
	Computing	5,390	9,150	10,210	-41%	-10%	-47%
	Economics	13,400	26,630	33,000	-50%	-19%	-59%
	English	32,540	69,880	95,290	-53%	-27%	-66%
	History	20,900	42,030	59,030	-50%	-29%	-65%
	Physics	18,790	36,390	45,120	-48%	-19%	-58%
	Psychology	30,760	61,960	79,520	-50%	-22%	-61%
Sociology	18,560	35,960	42,840	-48%	-16%	-57%	
Tranche 2	Drama	3,450	12,160	13,460	-72%	-10%	-74%
	French	3,580	10,080	11,390	-64%	-12%	-69%
	Geography	14,290	39,630	39,990	-64%	-1%	-64%
	German	1,530	4,140	4,690	-63%	-12%	-67%
	Music	3,130	6,970	8,030	-55%	-13%	-61%
	Physical Education	4,200	13,270	15,220	-68%	-13%	-72%
	Religious Studies	8,760	25,850	27,210	-66%	-5%	-68%
	Spanish	3,240	8,720	9,540	-63%	-9%	-66%

Shaded cells indicate entries in a reformed (decoupled) AS level.