Rewarding Learning

Annual Qualifications Insight 2016

Contents

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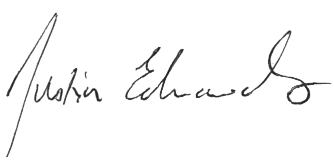
Chief Executive Preface

CCEA plays a key role to support teachers and learners throughout the years of compulsory education and beyond. We provide advice to government on what's taught and assessed in local schools, develop and administer a wide range of qualifications, including GCSE and A level courses, and we act as regulator for all general and vocational qualifications offered in Northern Ireland. Our mission is to enable the full potential of all learners here to be achieved and recognised.

Each year the CCEA Awarding Organisation generates a significant amount of data, charting participation and performance in Northern Ireland GCSE and GCE examinations. Our Insight publication provides an in depth look at trends and patterns, in both GCSE and A Level data, in more detail than we would normally be able to cover during the results period in August.

The report contains analysis and a broad forecast, based on historic trends and patterns for GCSE and GCE qualifications. It aims to promote discussion and engagement on educational matters, supporting policy makers, education professionals and industry to work together to improve education in Northern Ireland.

As with all public sector organisations, opening up our data is the right thing to do in terms of transparency, accountability and efficiency. Our approach with the Insights report has the potential to encourage new commercial opportunities and drive economic growth and innovation across the education sector. This year, for the first time, we will also be making the report available via the Open Data Portal. In doing so we are demonstrating CCEA's support for the Digital NI 2020 initiative.



Justin Edwards
Chief Executive
Council for the Curriculum, Examinations and Assessment (CCEA)

1 Executive Summary

1.1 GCSE

- Improved GCSE results - an increase in A*–C grades
- Performance in English continues to rise
- There has been a slight decline in Mathematics performance; however, performance is still higher than it was five years ago
- Males continue to outperform females in Mathematics
- In spite of notable improvements in English performance, females still outperform males in this subject
- Increases in participation across the STEM subjects

Figures released in August 2016 show students making steady improvement in GCSE examinations with increases in entries gaining grades A* to C.

The proportion of entries awarded A*–C grades has risen by 0.4 percentage points this year to 79.1%. Entries achieving A*–A have improved 0.5 percentage points to 29.1%, and the number of entries achieving the top A* grade now sits at 9.3%, an increase of 0.3 percentage points on 2015.

This year performance in Mathematics declined slightly with 64.9% of entries awarded A*–C, down 1.7 percentage points on 2015. Performance in English however, continued to improve with A*–C grades now representing 77.8% of entries in the subject, a considerable rise of 2 percentage points.

Females have made a notable contribution to this year's rise in total performance with the percentage of female entries achieving A*–C rising by 0.7 percentage points in 2015 to 82.9%. Male performance has also increased by 0.2 percentage points at A*–C (75.3%). Females are still well ahead in GCSE performance; the performance gap sits at 7.6% at A*–C; an increase of 0.5 percentage points on the previous year.

The total number of entries in GCSE examinations in N. Ireland has fallen by 5.5% to 161,975.

In 2016, the proportion of entries in STEM subjects (Science, Technology, Engineering and Mathematics) has grown by 2.5%. Regarding performance, on average 83.7% of candidates achieve at least a Grade C in STEM subjects. Proportionally, the split between male and female STEM students has remained consistent over time; with roughly a 55/45 split in favour of male students.

Overall, entries for languages fell in numerical terms in 2016. However, the overall share of the candidature for languages has increased by 0.1%. French as a subject choice is becoming less popular, whilst Spanish is becoming more popular. This trend has been observed since 2012. Language performance still continues to be high with 89.7% of all candidates achieving at least a Grade C.

The Arts & Humanities are becoming less popular subject choices at GCSE Level; particularly amongst male students. Almost 3,000 fewer male students study these subjects at GCSE Level. This has contributed to the overall decline in the popularity of these subjects. On average 81.1% of students achieve at least a Grade C in Arts and Humanities subjects.

Three Country GCSE results (England, N. Ireland and Wales) have declined. This is opposite to the trend observed in N. Ireland. Statistics show that:

- Grade A* declined marginally by 0.1 percentage points to 6.5%;
- Grades A*–A have declined by 0.7 percentage points to 20.5%; and
- Grades A*–C increased 2.1 percentage points to 66.9%.

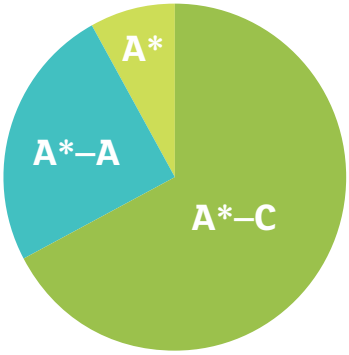
The total number of GCSEs undertaken by students across the three countries was 5,240,796; this is a reduction of 0.7% on the previous year.

GCSE

Entries

A*
Increased to
9.3%

A*–A
Increased to
29.1%



A*–C
Increased to
79.1%

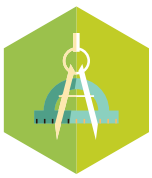
Gender Differences in Entries achieving A*–C

Performance in English and Mathematics

English

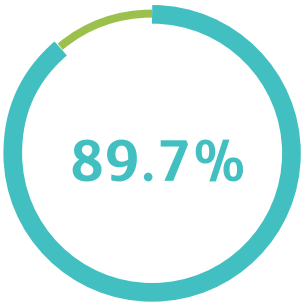
2% Increase
77.8%
awarded
A*–C

Mathematics

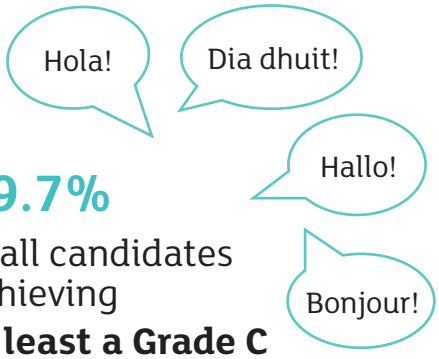


1.7% decrease
64.9%
awarded
A*–C

Languages



89.7%
of all candidates achieving
at least a Grade C



STEM Subjects

On average
83.7%
of all candidates achieving
at least a Grade C

1.2 GCE A Level

- Mathematics is now the most popular A Level in N. Ireland.
- Female entries are responsible for the increases in STEM subjects, with the gender gap in entry continuing to decline.
- High performance has been maintained, N. Ireland continues to be the top performing region in the Three Country comparison at Grades A*–A and A*–E.

GCE A Level results issued to students in N. Ireland in August 2016 show a decrease in A Level entries in N. Ireland this year. Overall A Level entries declined by 1.7%; from 32,390 in 2015 to 31,828 this year.

Students continue to perform strongly at A Level, with the overall A*–E pass rate remaining at 98.2%. There was a small increase in those awarded the top grade, with 7.7% of entries receiving an A*, up 0.1 percentage points on last year. The percentage of entries achieving A*–A also increased to 29.5%, up by 0.2 percentage points. While females still account for the majority of A*s awarded (7.8%), this year the percentage of males achieving the highest grade rose by 0.1 percentage points to 7.5%.

Participation in the STEM subjects (Science, Technology, Engineering and Mathematics) remains strong. In 2016, STEM candidature increased by 0.6%, largely driven by an increase in the Mathematics and Computing candidature. Furthermore, since 2012, the overall share of STEM has increased by 1.3% to 39.8%.

Similar to the trends noted at GCSE Level, the Arts & Humanities are becoming less popular at A level. This has been driven by year-on-year reductions in subjects such as Art & Design, English and Music. Proportional entry for the Arts & Humanities has declined by 3% since 2012.

Over the last five years subjects such as Art & Design, English and Music have been in consistent decline (please note that this was also observed for these subjects at AS-Level). This has largely driven a gradual reduction in the number of candidates studying Arts & Humanities at this level.

Proportional entry has also been in decline since 2012 (-3%). It can be stated that the Arts & Humanities are becoming less popular at this level of study; again this mirrors the trends identified at AS-Level.

The Three Country results (England, N. Ireland and Wales) show there is relative stability across the grades at A Level with performances for both male and female students. Grades A*, A*–A, and A*–E varied between 0.1 and 0.2 percentage points on the previous year.

The number of A Levels taken in the Three Countries has also declined by 1.7% compared with 2015, from 850,749 to 836,705.

GCE

STEM

2016 STEM candidature increased by **0.6%**

largely driven by an increase in the Mathematics and Computing candidature

Three Countries

N.I. is **Top Performing Region** across the Three Countries at Grades A*–A and A*–E

Overall A*–E pass rate remaining at **98.2%**

Overall A Level Entries

Overall A Level entries declined by **1.7%**

32,390 in 2015 to **31,828** in **2016**

Arts & Humanities

Proportional entry for the Arts & Humanities has **declined by 3%** since 2012

Art & Design, English and Music

2 Introduction

2.1 Background/Rationale

This document contains a comparative analysis aimed at identifying trends in 16–18 year old students' uptake of selected GCSE, AS and A2 subjects across five and ten year periods. The aim of this analysis is to provide stakeholders with a summary of the trends in order to enhance transparency and improve public use of data assets.

2.2 Analysis

This analysis focuses on changes in entry and performance across Sciences, Technology, Engineering and Mathematics (STEM), Languages, and Arts & Humanities subjects at GCSE, AS and A2-Level.

The STEM subjects included in the analysis at GCSE Level are: Biology, Chemistry, Physics, Mathematics (including Further), ICT, Computing, Engineering and Design & Technology. At AS and A2, the STEM subjects examined are identical except for the removal of Engineering.

The languages reviewed in this document are: French, German, Irish and Spanish at all three levels: GCSE, AS and A2.

The Arts & Humanities subjects considered are: Art & Design, Classical Subjects, English (both Language and Literature), History, Music, Religious Studies, Drama (including Performing/Expressive Arts) and Social Sciences; these are also reviewed at all three levels. In addition to this, at AS and A2-Level Political Studies and Law are also considered under this category alongside the removal of English Language.

Other subjects are also considered in a separate section. These are Business Studies, Geography and Media/Film Studies.

It should be noted that the trends in performance and entry figures for the subjects detailed above are examined for all N. Ireland students irrespective of awarding organisation.

Furthermore, the report takes putative information and forecasts subject entries for the next five years. This analysis was conducted by using prior entry data, population and economic projections.

2.3 Revisions to CCEA Analysis

In the previous CCEA Annual Insight Report (2015), uptake at GCSE, AS and A2-Level assessed the total number of subject specific student entries and how this varies from year to year. As part of an internal review prior to the commencement of this research, it was concluded that, although this method of analysis successfully detailed numerical changes in student entry, it did not consider proportional entry.

Student populations tend to fluctuate year-on-year; as such, this likely has a knock on effect regarding the pool of entry for certain subjects. With this in mind, though numbers within a certain subject may decline, it may not be symptomatic of the subject becoming less popular amongst students, and could be caused by overall decline in the student population for that year. In order to take into account changes in population, this document takes into consideration proportional entry (i.e. the total number of students as a proportion of population) alongside numerical entry for GCSE, AS and A2-Level.

2.4 Report Structure

The first section of this document provides the summary analysis for GCSE subjects and grade outcomes for the period 2012–16. Similarities and differences between the entry figures for each year for males and females for all N. Ireland students are outlined. Notable entry patterns are highlighted. This is followed by an equivalent summary analysis for AS and A2-Level.

The second half of this document also takes a more in depth look at gender differences in subject choice, examination outcomes and performance probability, focusing on GCSEs taken in N. Ireland; focusing on changes over the last ten years.

To conclude, the document also looks ahead at subject entries for the next five years using prior entry data, population and economic projections.

As such, the remainder of this document is structured as follows:

- Section 3: GCSE Level;
- Section 4: AS-Level;
- Section 5: A2-Level;
- Section 6: Other Subjects (GCSE, AS and A2-Level);
- Section 7: Gender Differences (GCSE Choice & Outcomes);
- Section 8: Projected Entries; and
- Section 9: Conclusions.

3 GCSE Level

The General Certificate of Secondary Education (GCSE) is an internationally recognised qualification awarded in a range of specified subjects, generally taken by pupils in post–primary education in N. Ireland.

The qualifications '*brand*' of GCSE is shared across N. Ireland, England and Wales (Three Countries).

Although the principles of the brand remain constant, devolution across the three '*owning*' jurisdictions is increasingly diversifying the format of the qualifications in each region.

The GCSE Mathematics, English and ICT qualifications are equivalent to a Level 1 (Grade G–D) or Level 2 (Grade C–A*) Essential Skills Numeracy, Literacy and ICT qualifications in N. Ireland. Some pupils may decide to take one or more GCSEs before or after they sit the others, and people may apply to take GCSEs at any point either internally through an institution or externally.

3.1 GCSE Entries/Performance (Overall)

Across N. Ireland, the 2016 entries for GCSE have seen a considerable decline on 2015, falling by 5.5% from 171,325 to 161,975. This decline is in line with the falling age population.

The total number of GCSEs undertaken by students across the three nations was 5,240,796 making N. Ireland students 3.1% of the overall entries. The age profile of GCSE candidates in N. Ireland remains stable and in line with 2015.

Table 1: Percentage of 15–17 year olds at GCSE 2015–2016

Age	2015	2016
15 year olds	5,345	4,688
16 year olds	129,951	123,029
17 year olds	36,029	34,258
Total	**171,325**	**161,975**

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

Overall in 2016, there was a 0.3% point increase at A* from 9.0% to 9.3%. Grades A*–A also show a 0.5% increase to 29.1%. Grades A*–C increased by 0.4% to 79.1%. Grades A*–G showed no change from last year.

In N. Ireland females continue to outperform males at A* by 4.2%, at A*–A by 9.9%, at A*–C by 7.6% (an increase of 0.5 percentage points on the previous year), and at A*–G by 0.5%. This gender trend is the same across the three regions.

Table 2: Three Country, & N. Ireland Performance (Gender)

2016 provisional	Overall		Males		Females	
	NI (n, %)	Three Country (n, %)	NI (n, %)	Three Country (n, %)	NI (n, %)	Three Country (n, %)
%A*	9.3 (9.0)	6.5 (6.6)	7.2 (6.7)	5.0 (5.2)	11.4 (11.4)	7.9 (8.0)
%A*–A	29.1 (28.6)	20.5 (21.2)	24.1 (23.4)	16.8 (17.5)	34.0 (33.6)	24.1 (24.7)
%A*–C	79.1 (78.7)	66.9 (69.0)	75.3 (75.1)	62.4 (64.7)	82.9 (82.2)	71.3 (73.1)
%A*–G	99.0 (99.2)	98.4 (98.6)	98.8 (99.0)	98.0 (98.3)	99.3 (99.4)	98.8 (98.9)

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

The five most popular subjects at GCSE in 2016 are detailed in the table below:

Table 3: Most Popular GCSE Subjects

	Overall	Male	Females
1	Mathematics (15.3%)	Mathematics (15.3%)	Mathematics (15.4%)
2	English (13.6%)	English (14.0)	English (13.3)
3	Religious Studies (7.4%)	Religious Studies (6.8%)	Religious Studies (7.9%)
4	English Literature (6.4%)	ICT (5.8%)	English Literature (7.0%)
5	ICT (4.9%)	English Literature (5.7%)	Home Economics (4.5%)

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

Additional analysis will be based on various subject categories.

3.2 GCSE Mathematics & English (Entries & Performance)

Language and Literacy as well as Mathematics and Numeracy make up two of the nine statutory areas of learning at GCSE Level in N. Ireland[1]. Both subjects are therefore considered separately in addition to being assessed in their respective subject categories.

The following section details information on GCSE students' performance in Mathematics and English over the last five academic years (2012–16).

Table 4: Mathematics & English Performance (Overall) (2012–16)

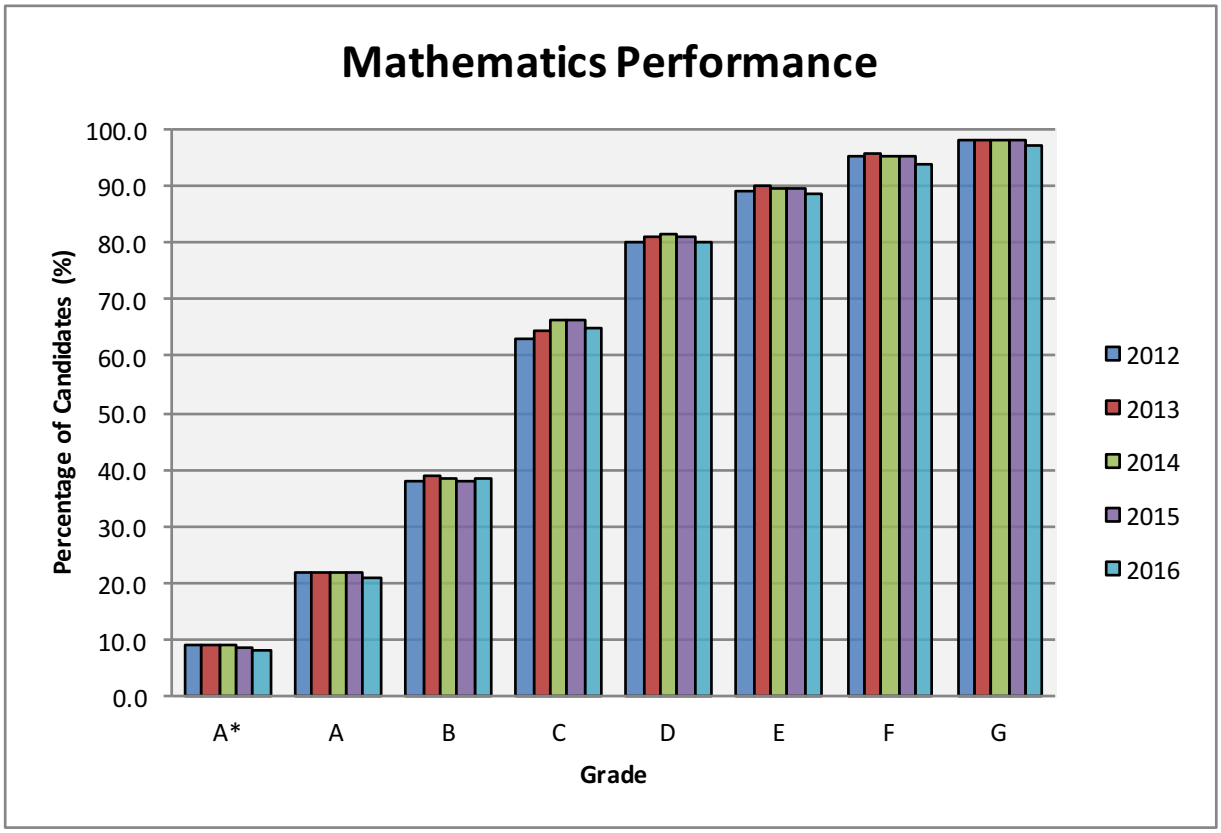
			Cumulative Percentages by Grade							
Subject	**Year**	**Number Sat (NI)**	**NI**				**Three Country**			
			A*	A	B	C	A*	A	B	C
Mathematics	2012	24,498	8.9	21.8	38.0	62.9	5.5	15.4	30.1	58.4
	2013	25,578	8.9	21.9	39.0	64.6	4.9	14.3	30.5	57.6
	2014	25,954	9.1	22.0	38.3	66.2	5.4	15.2	32.0	62.4
	2015	26,808	8.8	21.7	37.9	66.6	6.1	16.5	33.4	63.3
	2016	24,827	8.3	21.1	38.3	64.9	5.7	15.9	32.6	61.0
English	2012	22,207	4.2	19.7	44.2	68.2	3.4	15.0	35.5	63.9
	2013	24,079	4.1	18.5	42.2	68.8	3.2	14.1	34.4	63.5
	2014	23,510	4.1	20.3	45.7	73.0	3.6	14.3	34.4	61.7
	2015	23,471	4.3	21.1	47.7	75.8	3.1	14.6	37.0	65.4
	2016	22,102	4.5	22.0	49.5	77.8	3.3	13.7	33.6	60.2

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- Table 4 presents information on GCSE students' performance in Mathematics and English over the last five academic years (i.e. 2012–16).
- As illustrated, between 62.9% and 66.6% of NI students achieved Grades A*–C in Mathematics over this five–year period, whereas between 68.2% and 77.8% achieved Grades A*–C in English over the same period.
- From the table it is noted that the overall proportion of students who achieved A*–C grades for Mathematics in 2016 is considerably smaller than the proportion of students achieving these grades for English.
- Mathematics performance improved slightly between 2012 and 2015. However, at these Grades A*–C, the improvements in English performance over this timeframe have been much greater; thus widening the gap in attainment between the two subjects.
- Over the past year, the proportion of students achieving A*–C grades in Mathematics has declined by 1.7%, whilst the percentage of students achieving A*–C grades in English has increased by 2%. The attainment gap at A*–C between these two subjects is currently 12.9%; this is an increase on the gap observed in 2015 (9.2%).
- The performance of students for English and Mathematics has maintained a relative level of consistency across these five years with Grades A*–A.
- When compared to the Three Countries, students in N. Ireland continue to show superior performance in English and Mathematics across all grades over this five–year period.

[1] http://ccea.org.uk/curriculum/key_stage_4/areas_learning

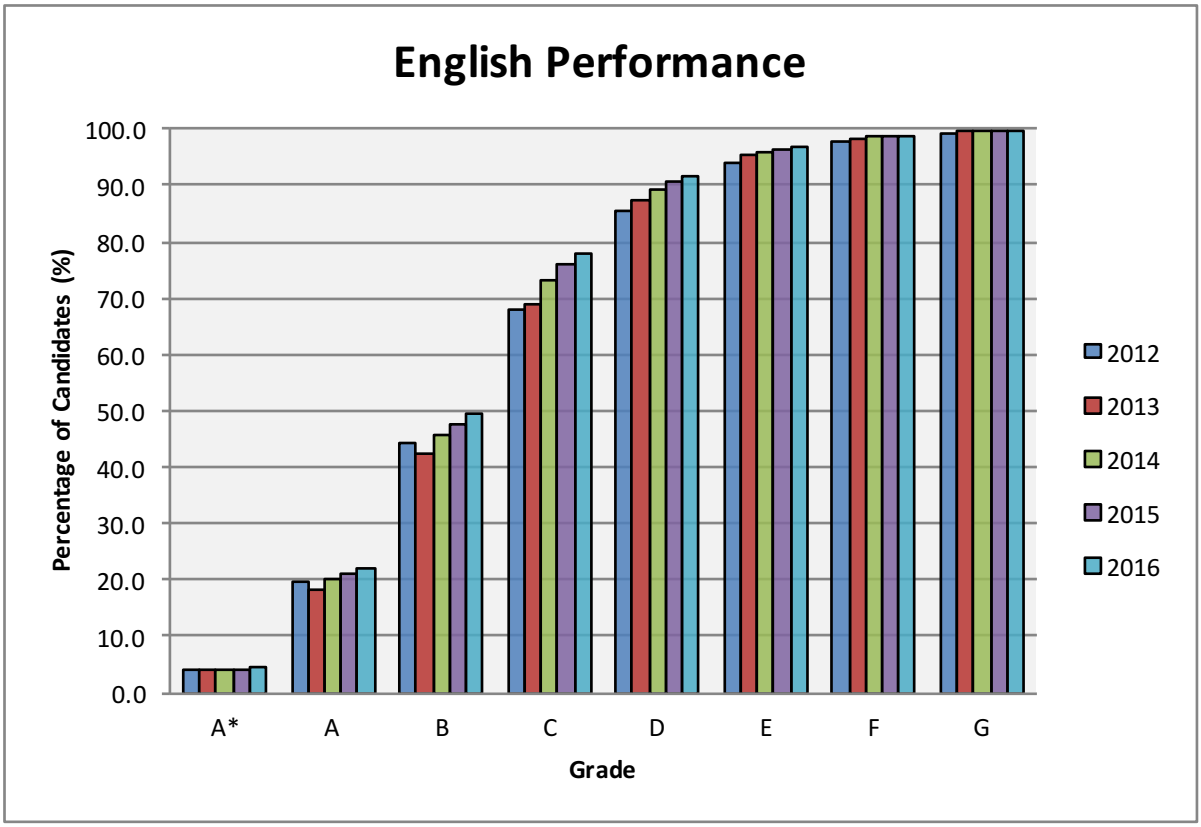
Figure 1: Mathematics Performance (NI) (2012–16)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- Over the last five years, overall performance in GCSE Mathematics has maintained a level of consistency.
- The individual bar graphs for the last five years indicate that performance largely follows the same pattern.
- The proportion of students achieving A* Grade has ranged from 8.3%–8.9% over these years.
- Over the last year, performance in GCSE Mathematics at Grades A*–C has declined by 1.7%; whereas prior to this, there were slight improvements in performance between 2012 and 2015.

Figure 2: English Performance (NI) (2012–16)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- Over the last five years, performance in GCSE English has maintained a level of consistency at A*.
- The individual bar graphs for the last five years indicate that performance closely follows the same pattern at this level.
- The proportion of students achieving A* Grade has ranged from 3.8%–4.5% during this period.
- When Grades A*–C are considered, it can be seen that the proportion of students achieving these grades has increased steadily year-on-year since 2012 from 68.2% to 77.8%.
- Similarly the proportion of students achieving Grades A*–A, and A*–B has increased year-on-year since 2013, from 18.5% to 22%, and from 42.2% to 49.5% respectively.

The subsequent tables and figures in this sub-section consider whether or not there are any trends to be noted when gender is considered.

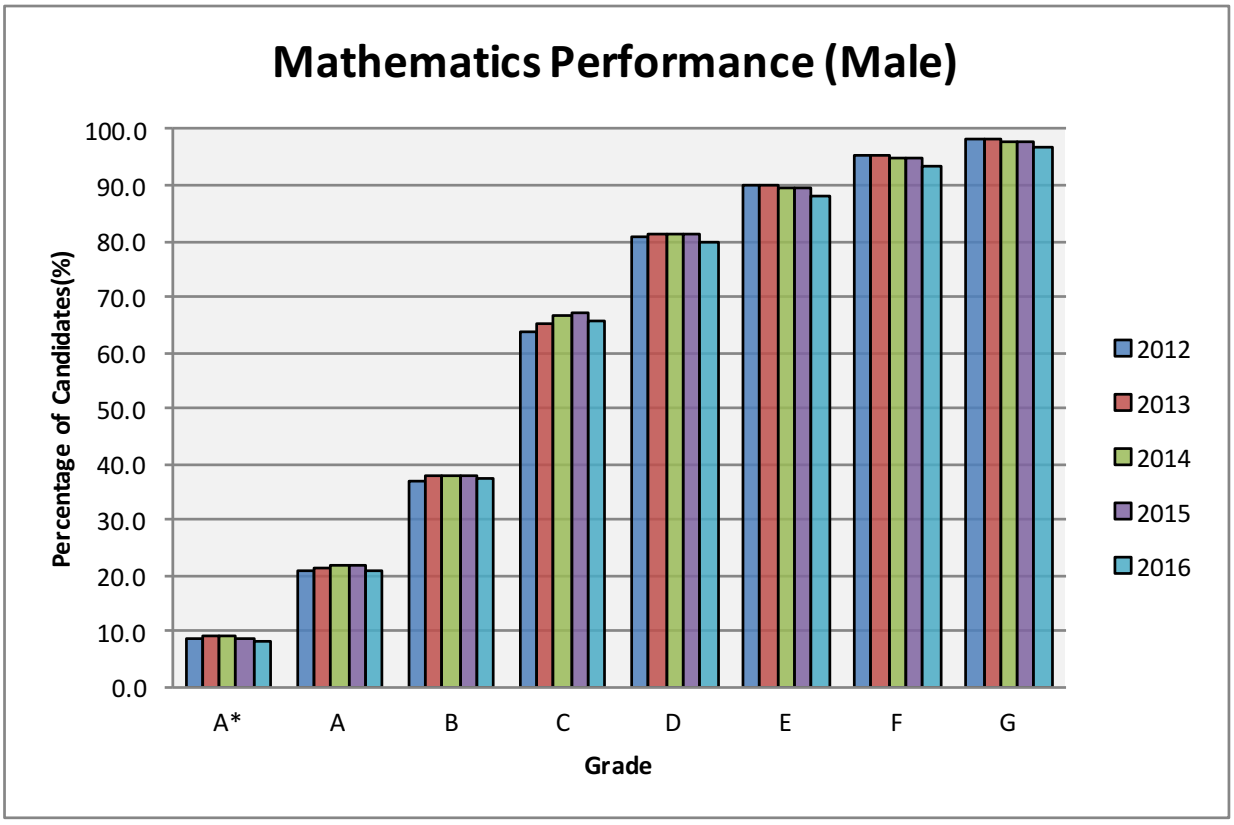
Table 5: Mathematics & English Performance (Male) (2012–16)

			Cumulative Percentages by Grade							
Subject	**Year**	**Number Sat (NI)**	**NI**				**Three Country**			
			A*	A	B	C	A*	A	B	C
Mathematics	2012	11,988	8.8	21.0	37.1	63.7	5.7	15.6	30.4	58.8
	2013	12,458	9.0	21.4	38.1	65.0	5.2	14.6	30.9	58.0
	2014	12,696	9.2	21.8	38.1	66.7	5.9	15.7	32.6	62.5
	2015	13,270	8.7	21.7	37.9	67.3	6.7	17.3	34.3	63.9
	2016	12,252	8.4	20.7	37.6	65.4	6.1	16.3	32.9	61.3
English	2012	11,296	2.6	13.9	36.4	61.6	2.1	10.6	28.0	56.7
	2013	12,049	2.5	13.0	34.5	61.8	1.9	9.5	26.4	56.2
	2014	11,743	2.6	14.0	37.8	66.4	2.2	9.6	26.4	53.8
	2015	11,842	2.5	14.4	39.5	69.8	1.8	9.6	28.7	57.7
	2016	11,255	2.9	15.6	40.6	71.9	2.0	9.0	25.5	52.3

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- Table 5 above presents information on male GCSE students' performance in Mathematics and English over the last five academic years (i.e. 2012–16).
- Between 63.7% and 67.3% of male NI students achieved Grades A*–C in Mathematics over the five–year period, whereas between 61.6% and 71.9% achieved Grades A*–C in English over the same period.
- Similar to overall performance, the proportion of male students achieving Grades A*–C in Mathematics improved slightly between 2012 and 2015 and then declined in 2016. Whereas in regards to GCSE English, there has been a continual improvement in performance over the five–year period.
- In five years the proportion of male students achieving Grades A*–C in English has increased by 10.3%. Furthermore, over the past two academic years, male students have performed better in English when compared to Mathematics, whereas prior to this the trend was reversed.
- The performance of male students for English and Mathematics has maintained a level of consistency across these five years with Grades A*–A.

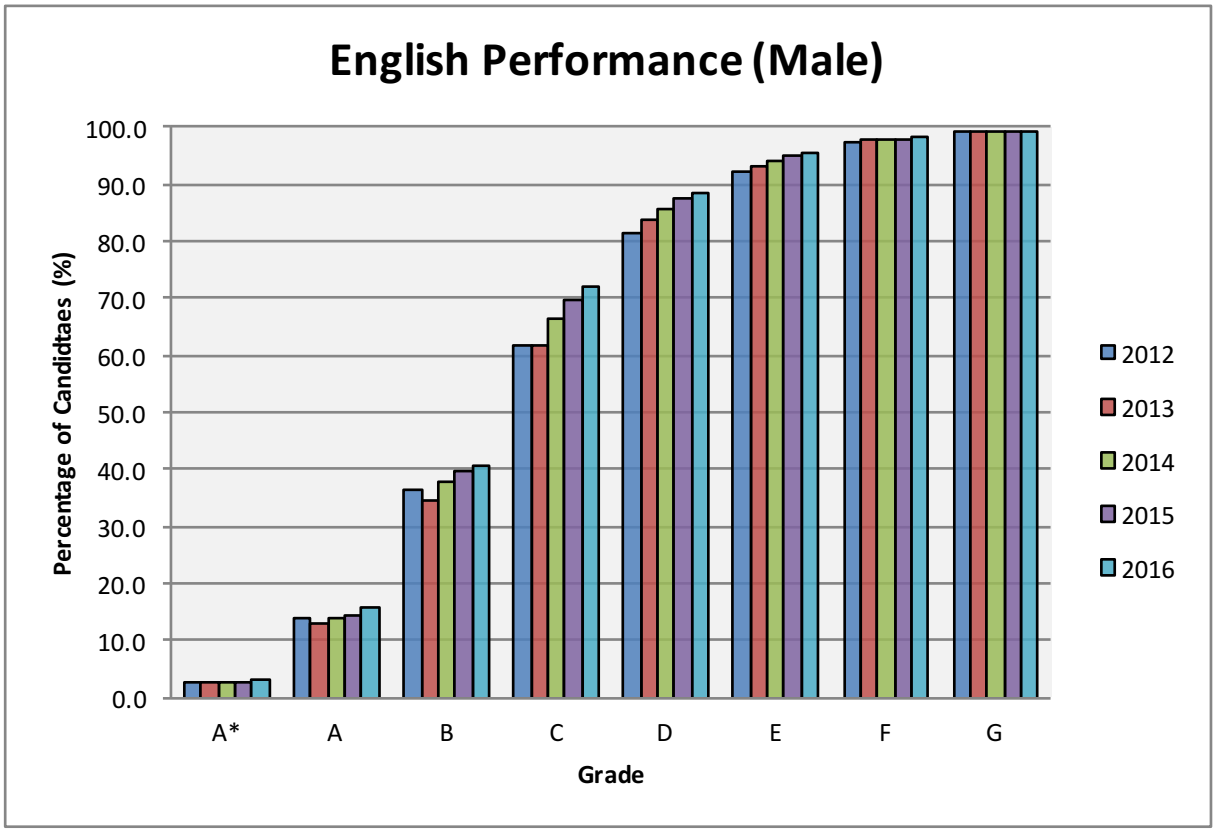
Figure 3: Male Mathematics Performance (NI) (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- Over the last five years, male performance in GCSE Mathematics has maintained a level of consistency.
- The individual bar graphs for the last five years indicate that performance largely follows the same pattern.
- The proportion of students achieving an A* Grade has ranged from 8.4%–9.2% over these years.
- Over the last year, male performance in GCSE Mathematics at Grades A*–C has declined by 1.9%; whereas prior to this, there were slight improvements in performance between 2012 and 2015.

Figure 4: Male English Performance (NI) (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- Over the last five years, male performance in GCSE English has maintained a level of consistency at A*.
- The individual bar graphs for the last five years indicate that performance closely follows the same pattern at this level.
- The proportion of students achieving an A* Grade has ranged from 2.5%–2.9% over these years.
- When Grades A*–C are considered, it can be seen that the proportion of students achieving these grades has increased steadily year-on-year since 2012 from 61.6% to 71.9%.
- Similarly the proportion of students achieving Grades A*–A, and A*–B has increased year-on-year since 2013, from 13% to 15.6%, and from 34.5% to 40.6% respectively.

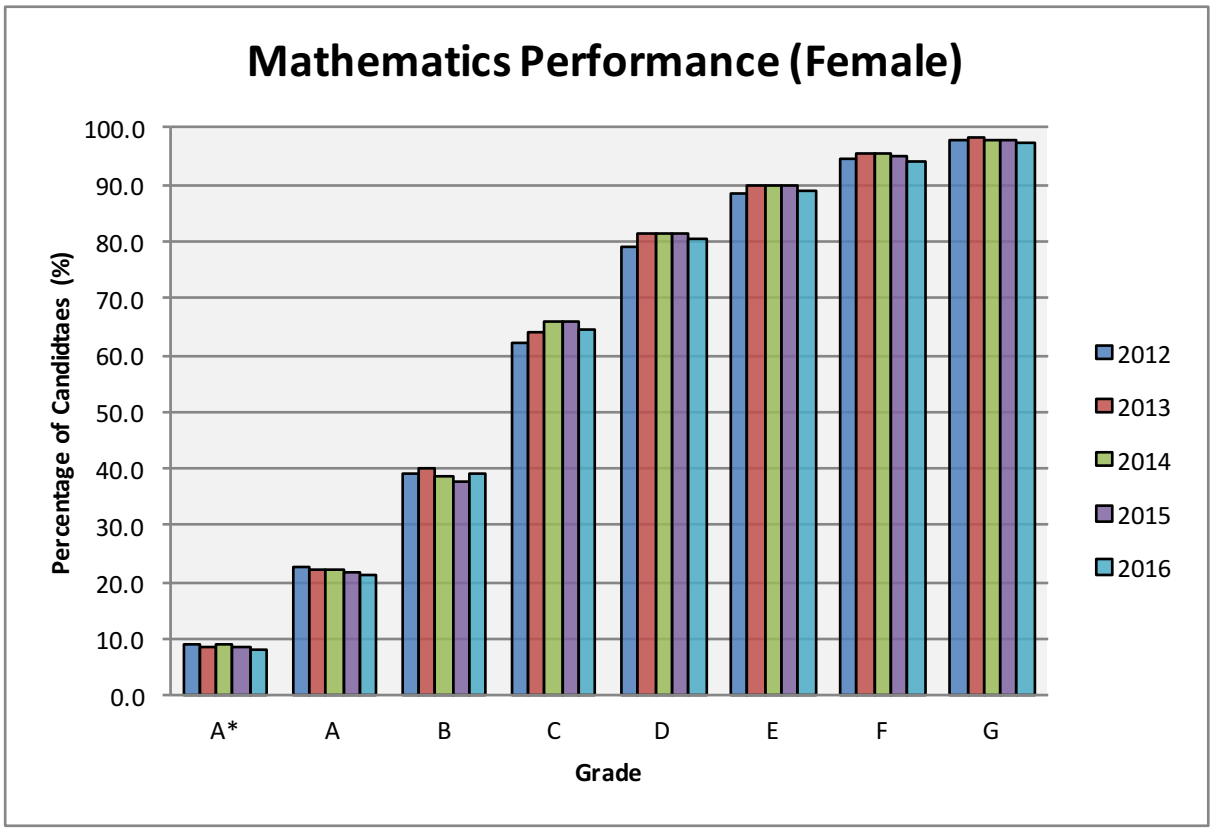
Table 6: Mathematics & English Performance (Female) (2012–16)

			Cumulative Percentages by Grade							
Subject	**Year**	**Number Sat (NI)**	**NI**				**Three Country**			
			A*	A	B	C	A*	A	B	C
Mathematics	2012	12,510	9.1	22.6	38.9	62.2	5.3	15.3	29.9	57.9
	2013	13,120	8.7	22.4	40.0	64.1	4.7	14.0	30.0	57.3
	2014	13,258	9.1	22.2	38.5	65.8	5.0	14.6	31.3	62.3
	2015	13,538	8.8	21.7	37.9	66.0	5.6	15.6	32.5	62.6
	2016	12,575	8.2	21.4	39.0	64.5	5.4	15.6	32.2	60.8
English	2012	10,911	5.8	25.6	52.4	75.0	4.6	19.5	43.1	71.3
	2013	12,030	5.6	24.0	49.9	75.8	4.5	18.9	42.7	71.1
	2014	11,767	5.7	26.5	53.7	79.6	5.0	19.2	42.6	69.7
	2015	11,629	6.2	27.9	55.9	81.9	4.4	19.4	45.1	72.8
	2016	10,847	6.2	28.7	58.8	84.0	4.7	18.5	41.7	68.2

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- Table 6 presents information on female GCSE students' performance in Mathematics and English over the last five academic years (i.e. 2012–16).
- As illustrated in the table above between 62.2% and 66.0% of female NI students achieved Grades A*–C in Mathematics 2015–15.
- Between 75% and 84% achieved Grades A*–C in English 2012–16.
- When compared to the equivalent table for male students (i.e. Table 2.5), it can be seen that male students tend to slightly outperform their female counterparts in GCSE Mathematics at Grades A*–C. However, regarding English, female students considerably outperform males at these grades.
- As before, Mathematics performance improved slightly at Grades A*–C between 2012 and 2015, then declined in 2016.
- Over the period, performance in GCSE English for female students has increased continually year-on-year. In total, 9% more female students achieved at least a Grade C now when compared to the GCSE cohort five years ago.

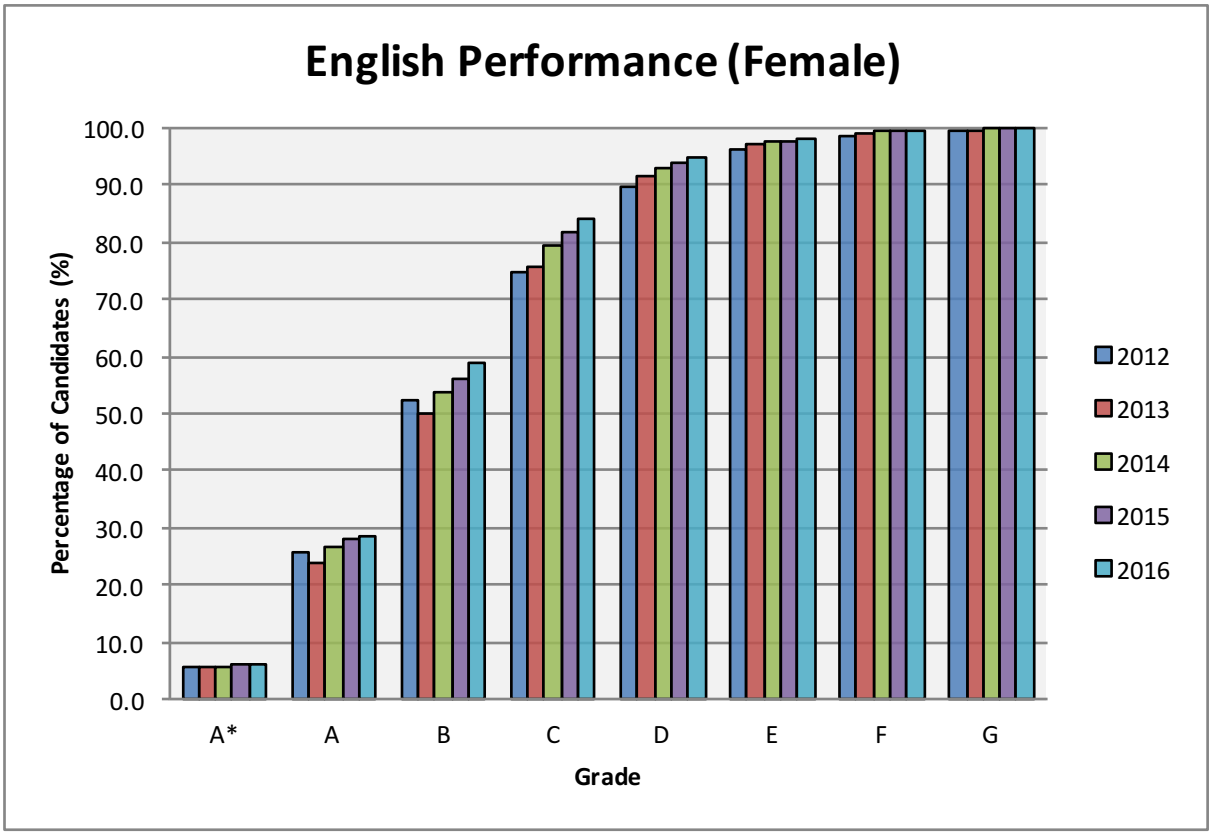
Figure 5: Female Mathematics Performance (NI) (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- Over the last five years, female performance in GCSE Mathematics has maintained a level of consistency.
- The individual bar graphs for the last five years indicate that performance largely follows the same pattern.
- The proportion of female students achieving an A* Grade has ranged from 8.2%–9.1% over these years.
- Over the last year, female performance in GCSE Mathematics at Grades A*–C has declined by 1.5%; whereas prior to this, there were slight improvements in performance between 2012 and 2015. This mirrors the trend noted in male students.

Figure 6: Female English Performance (NI) (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- Over the last five years, female performance in GCSE English has maintained a level of consistency at A*.
- The individual bar graphs for the last five years indicate that performance closely follows the same pattern at this level.
- The proportion of students achieving an A* Grade has ranged from 5.6%–6.2% over these years.
- When Grades A*–C are considered, it can be seen that the proportion of female students achieving these grades has increased steadily year-on-year since 2012 from 75% to 84%.
- Similarly the proportion of students achieving Grades A*–A, and A*–B has increased year-on-year since 2013, from 24% to 28.7%, and from 52.4% to 58.8% respectively.

Table 7: Age & Gender Breakdown Mathematics & English Candidates (Number) (2014–16)

Subject	Gender	Year	Age					
			≤15		16		≥17	
Mathematics	Male	2014	1,375	10.8%	8,166	64.3%	3,155	24.9%
		2015	1,600	12.1%	8,580	64.7%	3,090	23.3%
		2016	1,484	12.1%	7,902	64.5%	2,866	23.4%
	Female	2014	1,097	8.3%	8,376	63.2%	3,785	28.5%
		2015	1,298	9.6%	8,445	62.4%	3,795	28.0%
		2016	1,408	11.2%	7,686	61.1%	3,481	27.7%
English	Male	2014	34	0.3%	8,618	73.4%	3,091	26.3%
		2015	81	0.7%	8,866	74.9%	2,895	24.4%
		2016	80	0.7%	8,389	74.5%	2,786	24.8%
	Female	2014	39	0.3%	8,953	76.1%	2,775	23.6%
		2015	73	0.6%	8,785	75.5%	2,771	23.8%
		2016	78	0.7%	8,213	75.7%	2,556	23.6%

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2014–2016

- As expected, the largest proportion of NI male and female students studying GCSE Mathematics and English are 16 years old.
- On average 64.5% of male students and 62.2% of female students at age 16 study Mathematics at GCSE level, whilst a larger proportion of students study English at age 16, (74.3% male and 75.8% female).

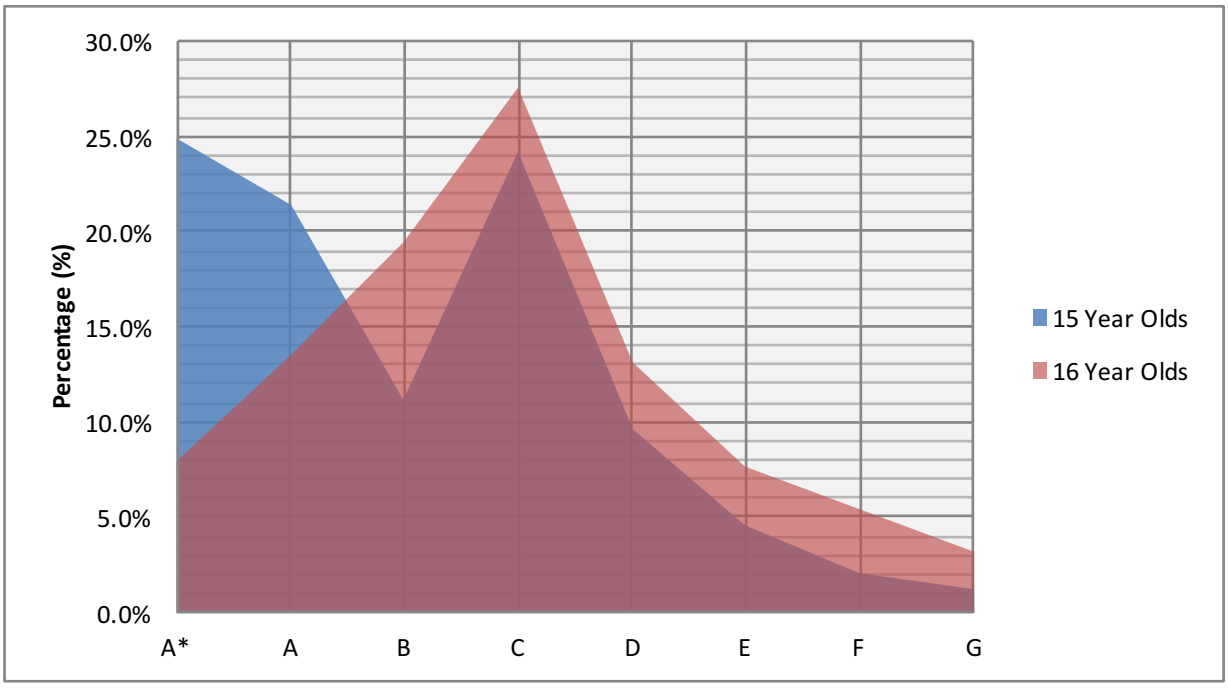
- On average, 11.7% of all male Mathematics candidates (over the last three years) have been aged 15 or under. A slightly smaller proportion of female students study GCSE Mathematics at this age (9.7%).
- A much smaller proportion of students study GCSE English at age 15 (<1%). On average 0.6% of male students and 0.5% of female students study English at this age.

- Around one–quarter of all GCSE Mathematics candidates are aged 17 or over.
- On average 23.9% of male students who study GCSE Mathematics are aged 17 years or older, whilst a slightly larger proportion of female students (28.1%) are in this age range
- A similar proportion of students aged 17 or over study GCSE English. Over the last three years an average of 25.2% of male students and 23.7% of female students have been 17 years of age or older when studying GCSE English.

- It is also interesting to observe that the percentage of 15 year old male and female students who sit for GCSE Mathematics has been gradually increasing over the past three years. Whilst the proportion of 15 year old students sitting GCSE English has remained stable.
- It was initially considered that this trend could explain why Mathematics performance has stalled. It was thought that, as there are increasing numbers of 15 year olds sitting GCSE Mathematics, it could be considered that teachers are encouraging greater numbers to take these examinations without adequate preparation.

- However, upon viewing the performance statistics over the last three years (2014–16), it was noted that on average, 81.6% of 15 year old students achieved at least a Grade C in GCSE Mathematics, whereas, 68.4% of 16 year olds reached the same level of attainment.
- The figure below indicates that the 15 year old cohort considerably outperforms the 16 year old cohort at the highest levels of attainment.

Figure 7: Grade Comparison: 15/16 Year Olds (GCSE Mathematics)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2014–2016

- As such, other factors may have an influence. However, as this is not the focus of this report, further research will need to be conducted elsewhere if these trends are to be investigated.

3.3 GCSE STEM (Entries & Performance)

STEM incorporates a range of Science, Technology, Engineering and Mathematics subjects. As stated in Section 2 of this document, this includes the following subjects: Biology, Chemistry, Computing, Design & Technology, Engineering, ICT, Mathematics (including Further) and Physics.

Entries and performance are analysed under separate headings.

3.3.1 Entries

One of the most notable upwards trends in GCSE entries in the past five years is the rise of STEM subjects. The following section highlights the subject increases and decreases over the five-year period.

Table 8: GCSE STEM Subject Trends (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Biology	4,241	4,489	4,080	4,112	4,252
Chemistry	3,000	3,195	3,151	3,161	3,214
Computing	[2]	45	109	252	519
Design & Technology	4,696	4,886	4,703	4,591	4,238
Engineering	295	318	348	344	397
Mathematics	24,498	25,533	25,954	26,808	24,827
Further Mathematics	3,212	3,323	3,495	3,518	3,469
ICT	7,471	7,565	7,750	8,239	7,862
Physics	2,884	3,092	3,007	3,052	2,960
Total STEM	**50,297**	**52,446**	**52,597**	**54,077**	**51,738**
Total Entry	**171,354**	**176,301**	**172,692**	**171,325**	**161,975**
STEM as a % of Total Entry	**29.4%**	**29.7%**	**30.5%**	**31.6%**	**31.9%**

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

Table 8 shows that prior to 2016, the total number of students studying STEM had increased by 3,780. However, over the last year the total number of STEM entries had declined by 2,399; this is a decrease of approximately 4.3%. This reduction in STEM entry has largely been driven by decreases in the following subjects:

- Design & Technology (-353);
- Mathematics (-1,981);
- Further Mathematics (-49);
- ICT (-377); and
- Physics (-92).

Although there has been a decline in the overall number of STEM candidates, it is important to consider whether there has been a reduction in uptake in real terms; i.e. the GCSE STEM share of the total cohort.

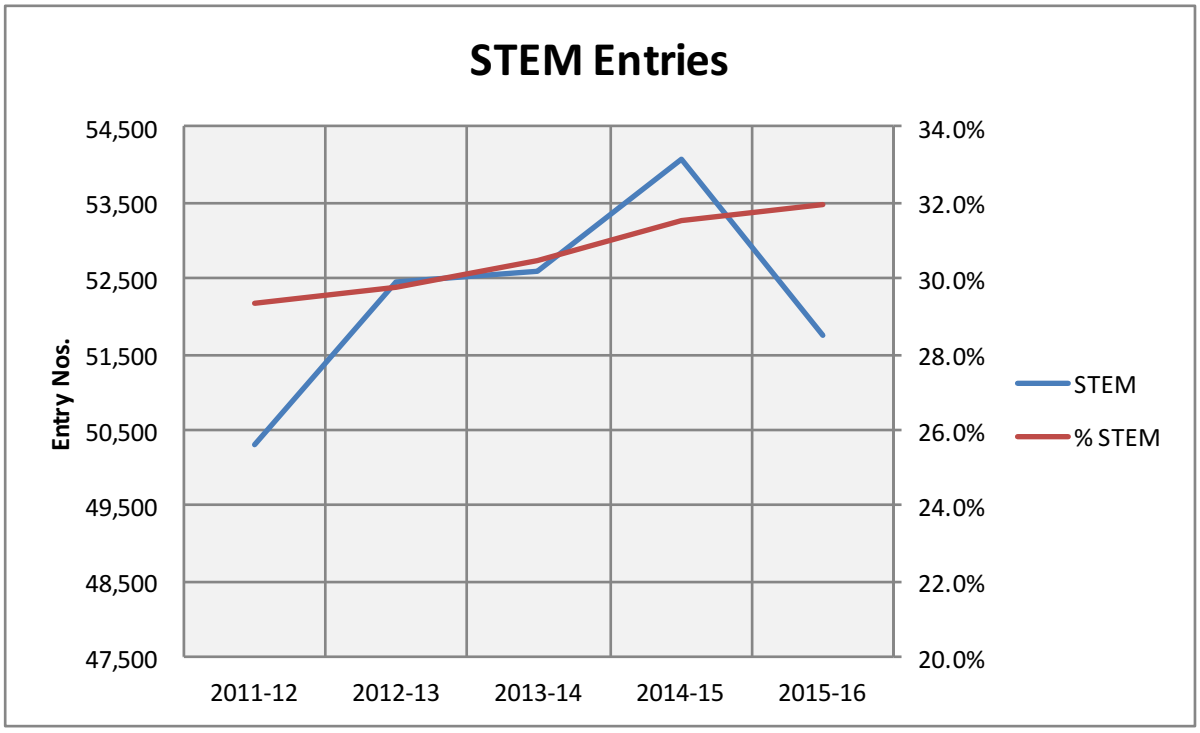
From the table above it can be seen that there has been a considerable decrease in the total GCSE candidature for 2016 (-9,350). The decline witnessed in STEM (-2,399) has not been proportional to the change in total candidature, therefore, there has actually been a real terms increase (0.3%) in the proportion of students studying STEM qualifications at GCSE Level.

Additionally, over the last five years, the proportional entry for STEM has increased steadily from 29.4% to 31.9%; indicating that STEM is becoming more popular at this level.

[2] Please Note: Computing was introduced as a subject in 2011-12 and first awarded in 2012-13. As such, entry figures are not available prior to the 2012-13 academic year.

This is detailed in Figure 8 below.

Figure 8: GCSE STEM Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

Table 9 below, considers entry trends for both male and female students.

Table 9: GCSE STEM Subject Trends by Gender (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Male					
STEM Entry	27,442	28,184	28,183	29,318	27,961
Total Entry	85,585	85,921	84,302	84,668	80,218
STEM as a % of Total Entry	32.1%	32.8%	33.4%	34.6%	34.9%
Female					
STEM Entry	22,855	24,262	24,414	24,759	23,777
Total Entry	85,769	90,380	88,390	86,657	81,757
STEM as a % of Total Entry	26.6%	26.8%	27.6%	28.6%	29.1%

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

As expected, (due to the changes in total STEM candidature identified earlier), it can be seen that year-on-year; the total number of male STEM students at GCSE Level increased between 2012 and 2015 (+1,876) and decreased in 2016 (-1,357).

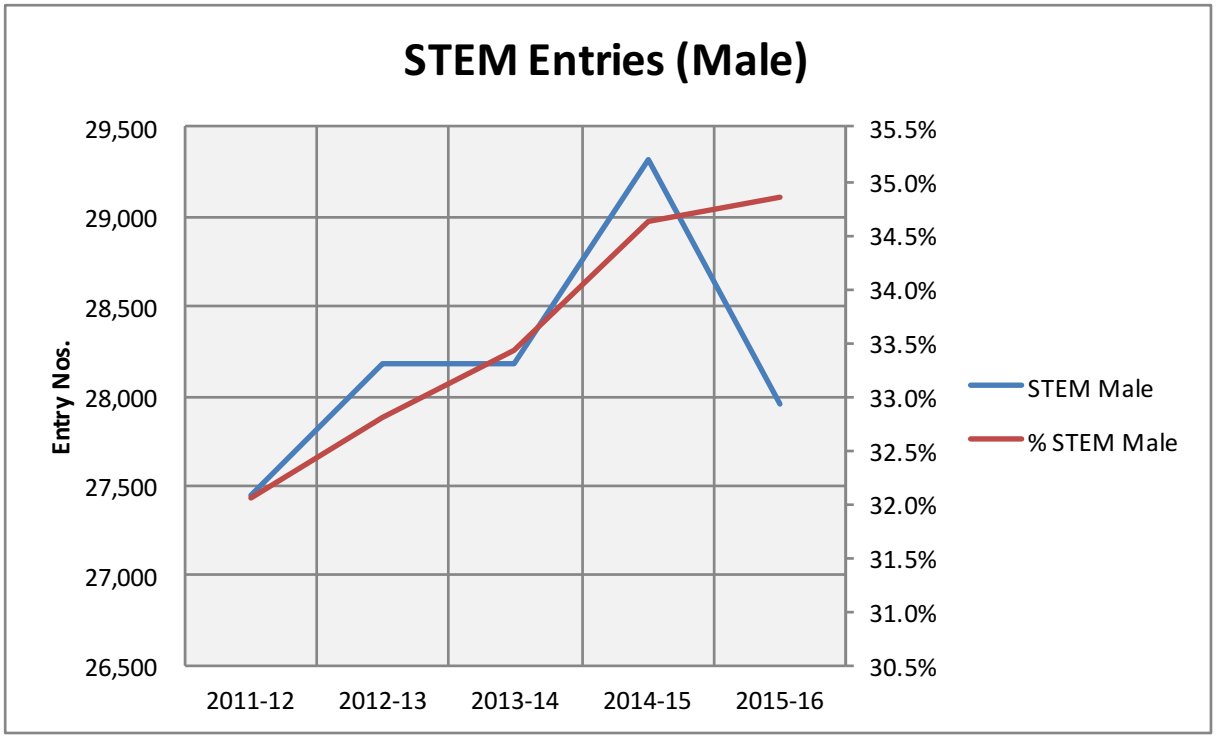
However, it can be seen that the overall share of GCSE male candidature for STEM subjects has consistently improved year-on-year over the last five academic years. The total share of male students has increased by 2.8% over this time-period. As such, it can be stated that GCSE STEM subjects are becoming more popular in real-terms for male students.

Similarly for female students, the same trends in regards to STEM can be identified; i.e. an increase in candidature between 2012 and 2015 and a subsequent decline in candidature in 2016.

Nevertheless, the proportion of female students has increased year-on-year since 2012. The proportion of female candidates studying STEM subjects at GCSE Level has increased by 2.5% over the last five years; this has resulted in just under one-third of all female students (29.1%) studying STEM at this level.

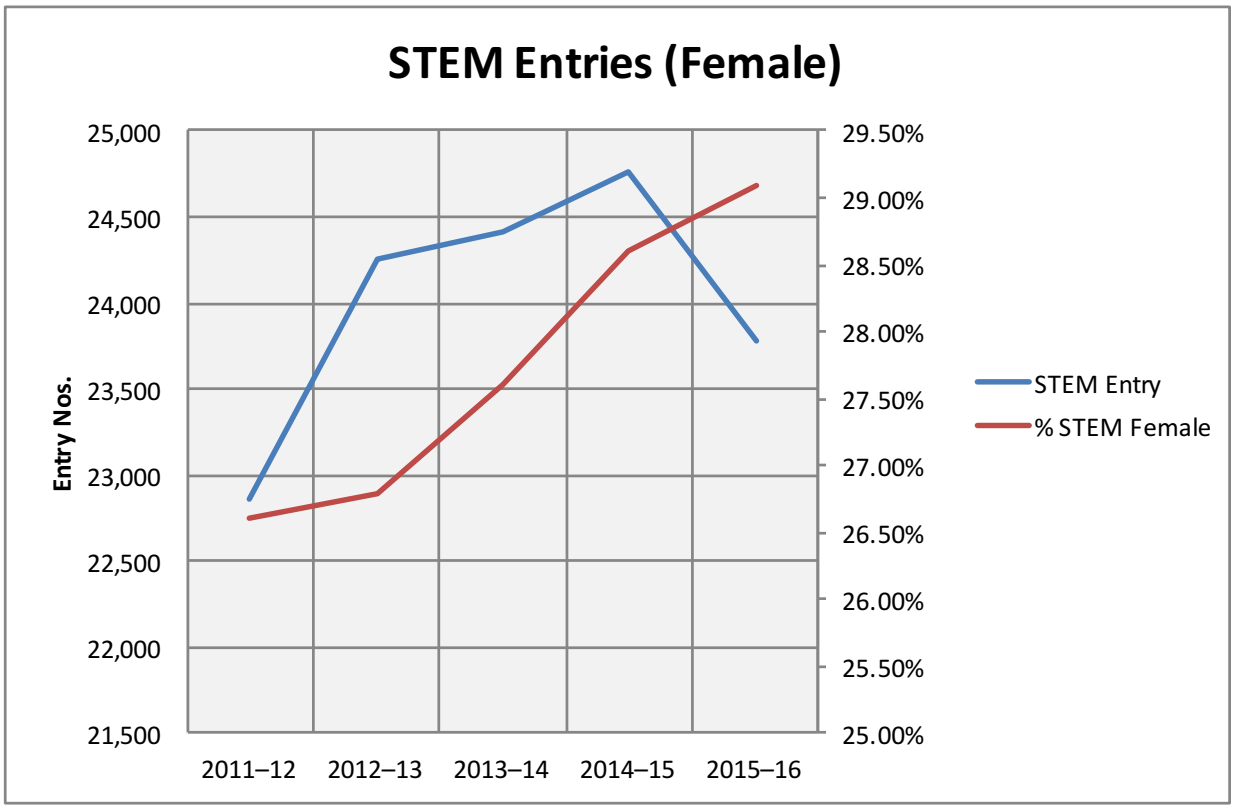
Proportionally, the split between male and female STEM students has remained consistent over time. This is unsurprising given that both genders are experiencing the same trends with regards to entry. Figure 8 below indicates roughly a 55/45 split in favour of male students.

Figure 9: GCSE Male STEM Entry (2012–2016)



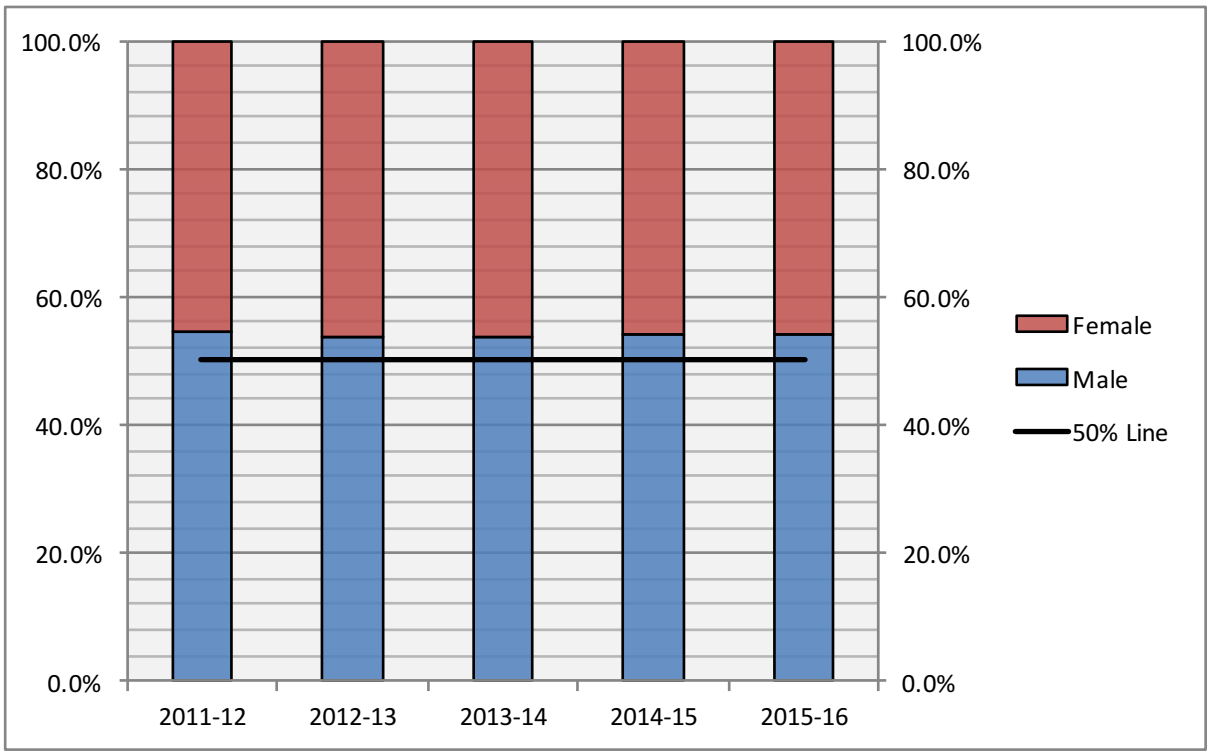
Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

Figure 10: GCSE Female STEM Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

Figure 11: GCSE STEM Entry Breakdown (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

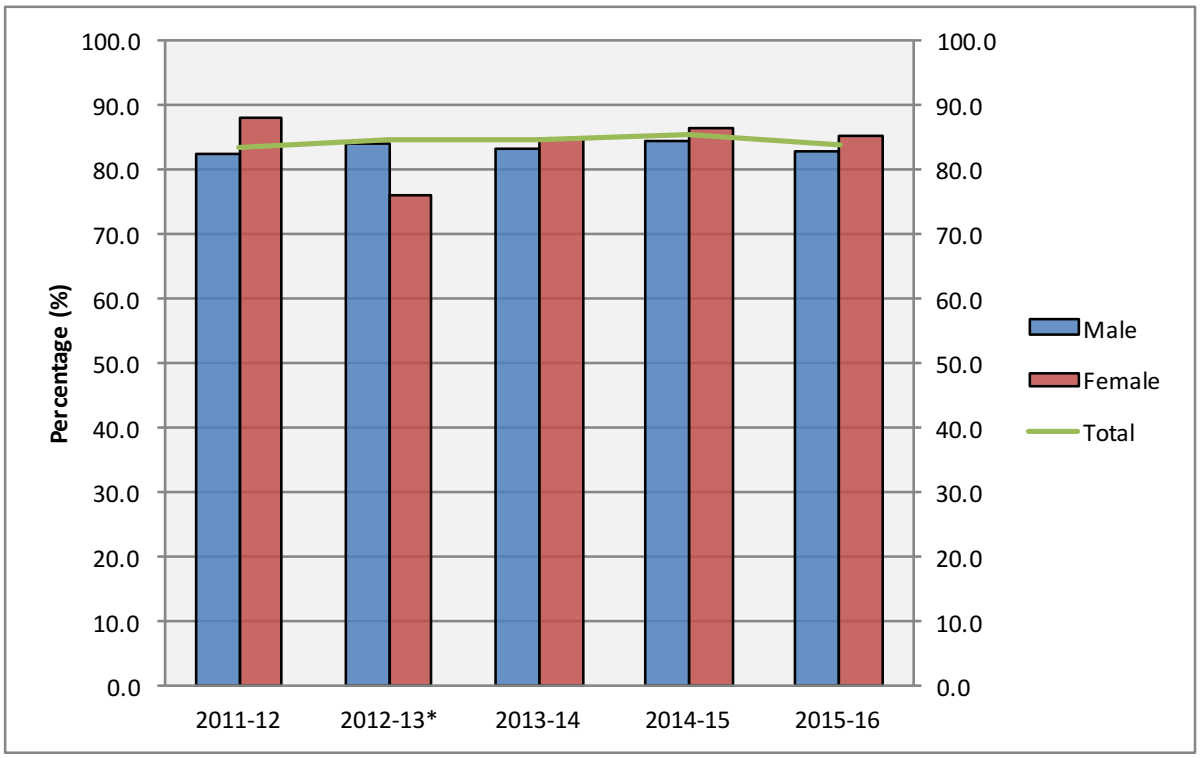
3.3.2 Performance

Table 10: Cumulative A*–C Grades for GCSE STEM (2012–2016)

		Year				
		2011–12	2012–13[3]	2013–14	2014–15	2015–16
Male	Total	657.3	754.6	749.9	759.5	745.8
	Average	82.2	83.8	83.3	84.4	82.9
Female	Total	703.6	684.8	764.1	777.2	764.6
	Average	88.0	76.1	84.9	86.4	85.0
Male & Female	Total	665.5	762.7	759.4	767.0	753.4
	Average	83.2	84.7	84.4	85.2	83.7

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

Figure 12: Cumulative A*–C Grades for GCSE STEM (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- Table 10 presents information on GCSE students' performance at Grades A*–C in STEM subjects over the last five academic years (i.e. 2012–16).
- As is highlighted, female students, (except for 2013), tend to outperform their male counterparts at STEM.
- It is encouraging to note that performance in these subjects has not declined over the last five years. As illustrated in Figure 12, performance has maintained a level of consistency over this timeframe.

[3] Please Note: Due to its introduction in 2012-13, figures subsequent to 2011-12 include Computing.

3.4 GCSE Languages (Entries & Performance)

Within this report, languages include: French, German, Spanish and Irish. As before, entries and performance are analysed under separate headings below.

3.4.1 Entries

Table 11: GCSE Language Subject Trends (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
French	6,402	6,250	5,852	5,533	5,179
German	1,138	1,017	1,158	1,044	1,162
Irish	1,737	1,937	1,888	1,980	1,901
Spanish	3,280	3,568	3,490	3,734	3,593
Total	**12,557**	**12,772**	**12,388**	**12,291**	**11,835**
Total Entry	**171,354**	**176,301**	**172,692**	**171,325**	**161,975**
Languages as a % of Total Entry	**7.3%**	**7.2%**	**7.2%**	**7.2%**	**7.3%**

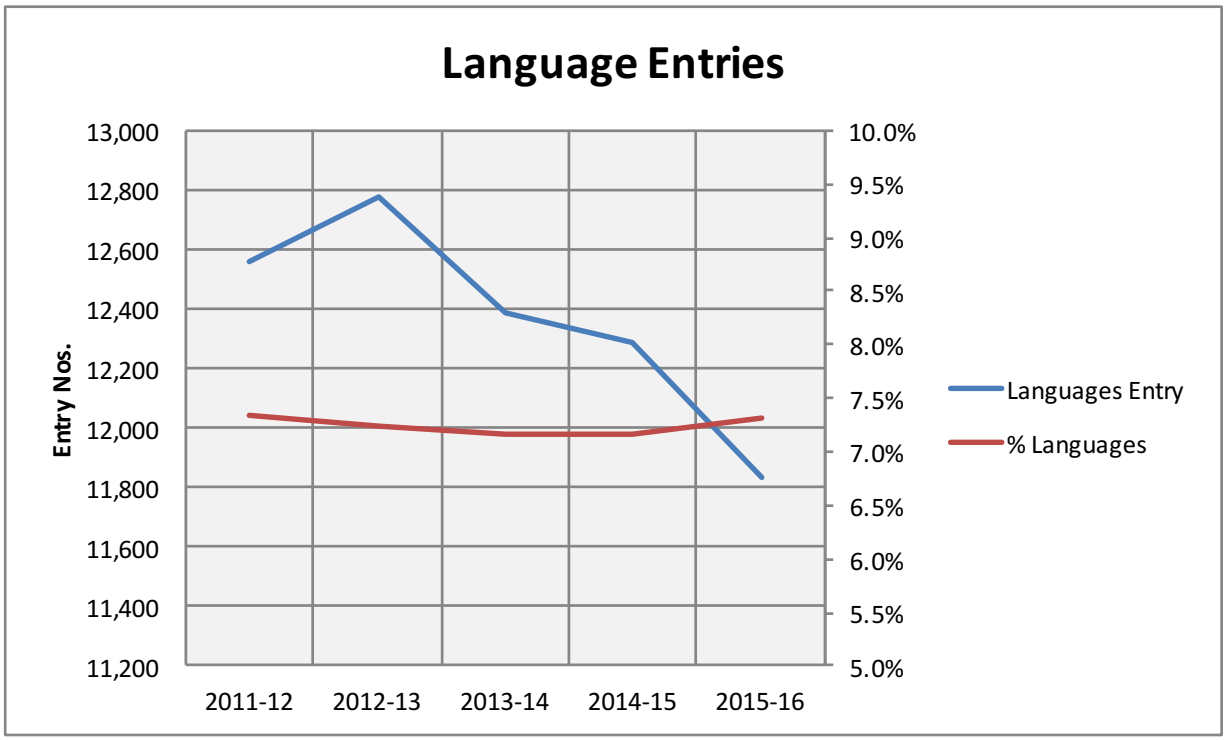
Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

Languages, with the exception of French, have typically fluctuated year-on-year.

Though it is still the most popular language studied at GCSE Level, numbers have been decreasing year-on-year since 2012 (-1,223). This has resulted in an overall decline in the total number of language students.

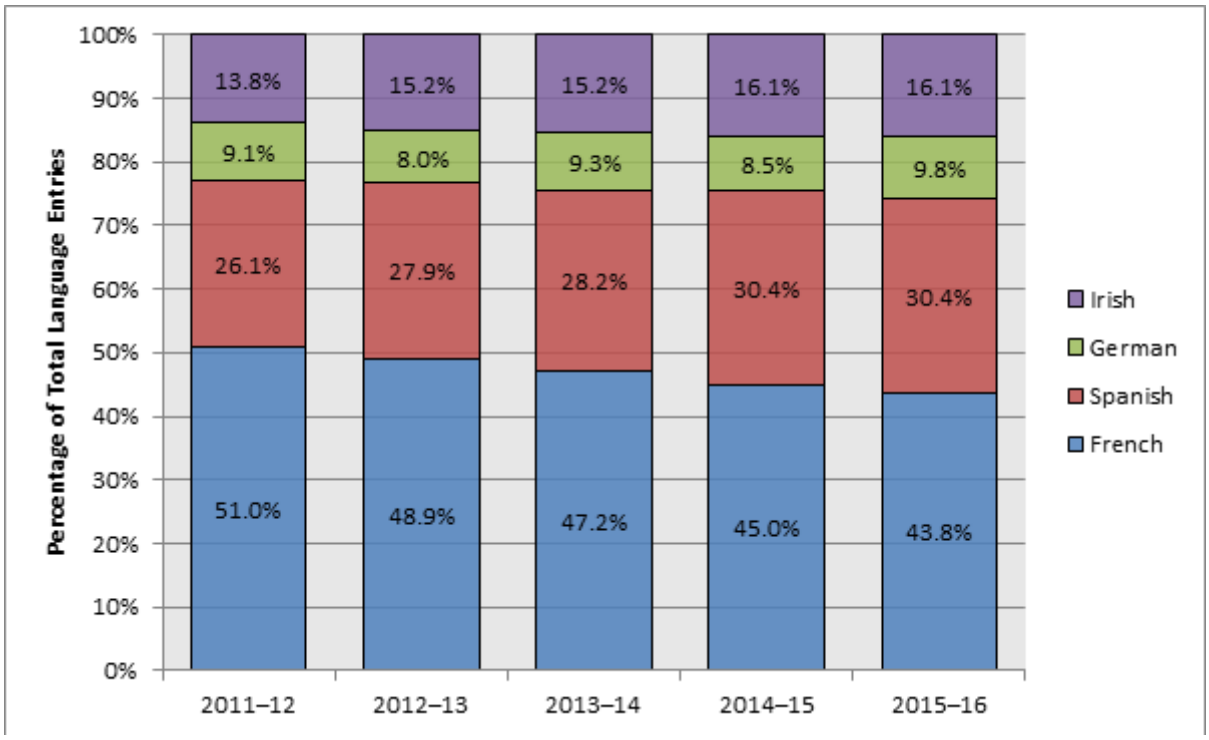
In spite of this, due to the trends noted in other languages, proportional entry has maintained a level of consistency over the last five years.

Figure 13: GCSE Language Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

Figure 14: GCSE Language Entry Breakdown (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- As illustrated above, French, is becoming less popular amongst languages, whilst Spanish and Irish are increasing in popularity.

Table 12 below, considers entry trends for both male and female students.

Table 12: GCSE Language Subject Trends by Gender (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Male					
Languages Entry	5,404	5,434	5,329	5,293	5,246
Total Entry	85,585	85,921	84,302	84,668	80,218
Languages as a % of Total Entry	6.3%	6.3%	6.3%	6.3%	6.5%
Female					
Languages Entry	7,153	7,338	7,059	6,998	6,589
Total Entry	85,769	90,380	88,390	86,657	81,757
Languages as a % of Total Entry	8.3%	8.1%	8.0%	8.1%	8.1%

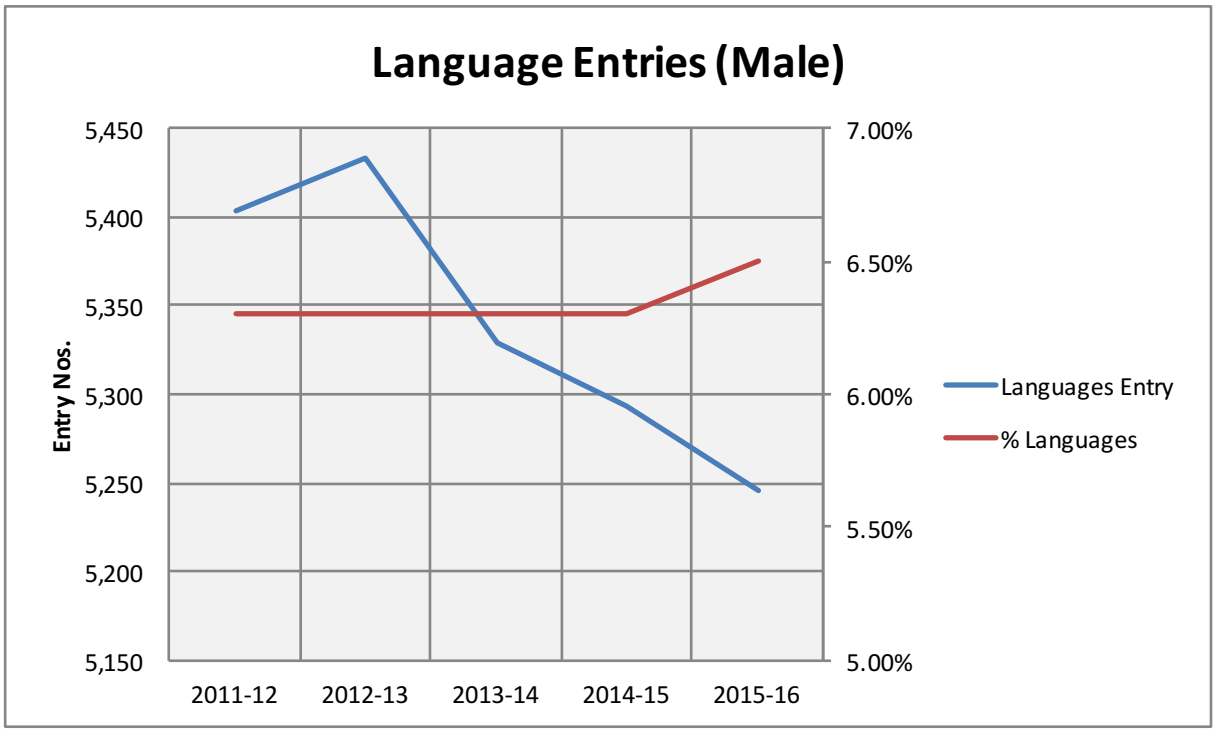
Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

It can be seen that both male and female candidature in languages has declined since 2013 (-188 and -749 respectively).

However, in real terms, the proportion of female students studying GCSE Languages has maintained a level of consistency since 2012; indicating that languages have maintained a level of popularity. Any decline experienced can be considered due to a reduction in the total candidature of that particular year.

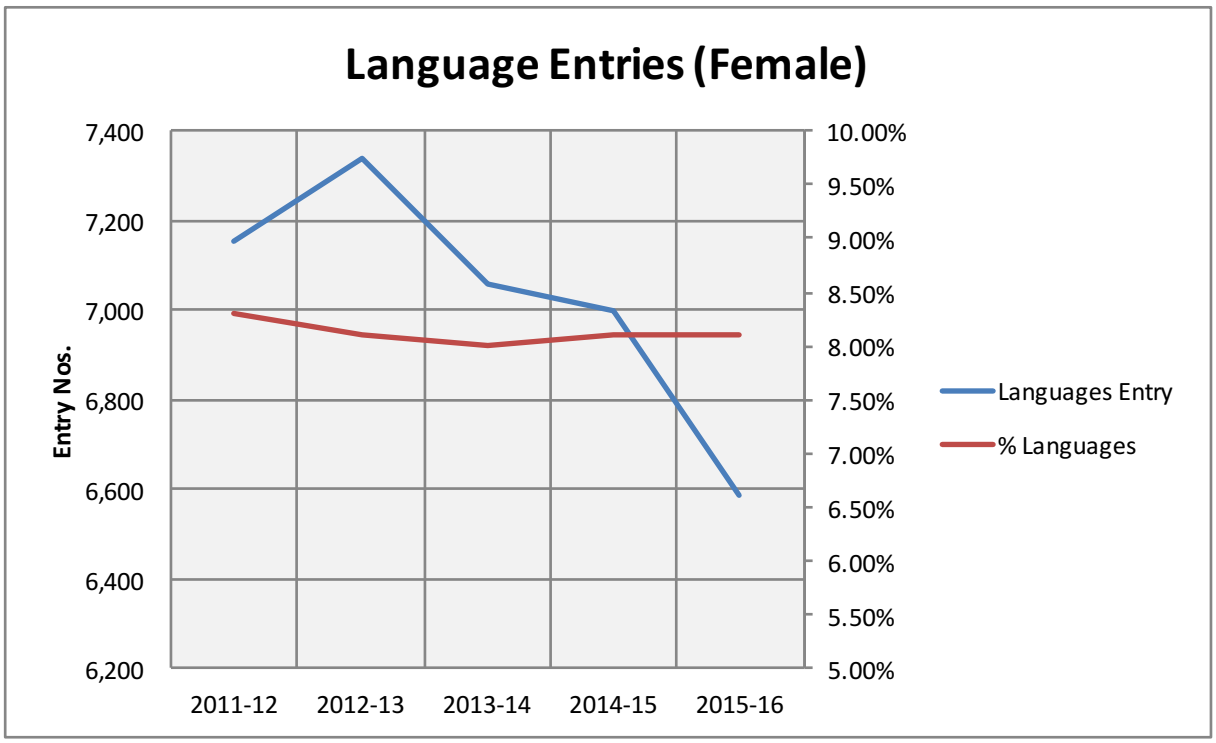
In regards to the number of male students, in spite of the decline in number, the overall proportion of male students studying at least one language at GCSE has increased by 0.2% over the last academic year to 6.5%. Prior to this, proportional entry had been consistent. Again, due to this, it can be stated that any decline experienced is most likely due to a decrease in total candidature.

Figure 15: GCSE Male Language Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

Figure 16: GCSE Female Language Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

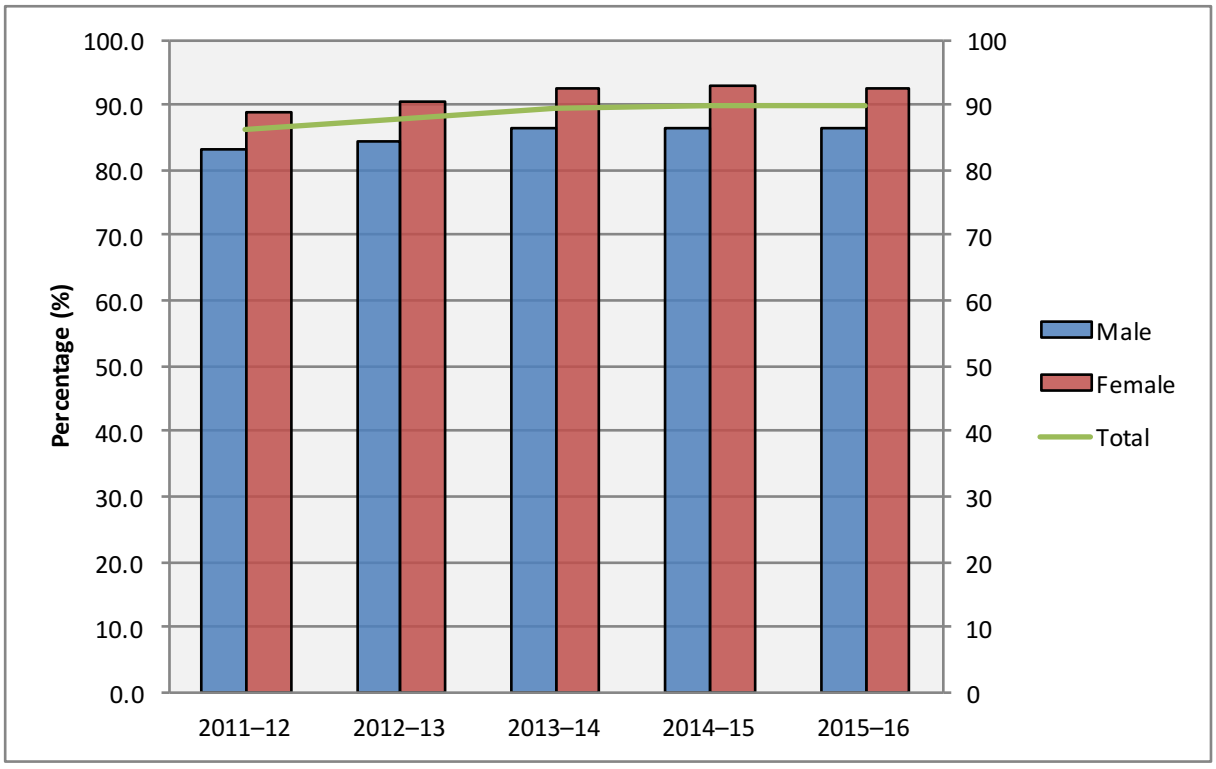
3.4.2 Performance

Table 13: Cumulative A*–C Grades for GCSE Languages (2012–2016)

		Year				
		2011–12	2012–13	2013–14	2014–15	2015–16
Male	Total	332.9	337.2	345.2	345.3	346.5
	Average	83.2	84.3	86.3	86.3	86.6
Female	Total	356.0	362.2	369.4	371.8	369.3
	Average	89.0	90.6	92.4	93.0	92.3
Male & Female	Total	345.6	351.0	358.5	359.5	358.7
	Average	86.4	87.8	89.6	89.9	89.7

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

Figure 17: Cumulative A*–C Grades for GCSE Languages (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- The table and graph on the previous page presents information on GCSE students' performance at Grades A*–C in languages over the last five academic years (i.e. 2012–16).
- As illustrated female students consistently outperform their male counterparts.
- It is encouraging to note that language performance has not declined over the last five years. As can be seen from Figure 17, performance has improved considerably for both groups since 2012.
- This also means however, that the performance gap between the two genders has persisted over time.

3.5 GCSE Arts & Humanities (Entries & Performance)

The Arts & Humanities encapsulate a wide range of subjects. The following sections analyse and detail entries and performance statistics for the following subjects: Art & Design, Classical Subjects, English (both Language and Literature), History, Music, Religious Studies, Drama (including Performing & Expressive Arts) and Social Sciences

3.5.1 Entries

Table 14: GCSE Arts & Humanities Subject Trends (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Art & Design	5,173	5,228	4,777	4,409	4,225
Classical Subjects	173	196	165	197	137
Drama	1,827	1,828	1,676	1,605	1,491
English	22,207	24,079	23,510	23,471	22,102
English Literature	10,909	11,016	10,724	10,807	10,301
History	7,767	7,857	7,573	7,706	6,751
Music	1,839	1,841	1,662	1,701	1,582
Performing/Expressive Arts	381	419	617	549	430
Religious Studies	12,341	12,925	12,605	11,974	11,953
Social Science Subjects	161	191	187	271	232
Total	**62,778**	**65,580**	**63,496**	**62,690**	**59,204**
Total Entry	**171,354**	**176,301**	**172,692**	**171,325**	**161,975**
Arts & Humanities as a % of Total Entry	**36.6%**	**37.2%**	**36.8%**	**36.6%**	**36.6%**

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

All Arts & Humanities subjects have declined in N. Ireland over the last year. The largest reductions were witnessed in the following subjects:

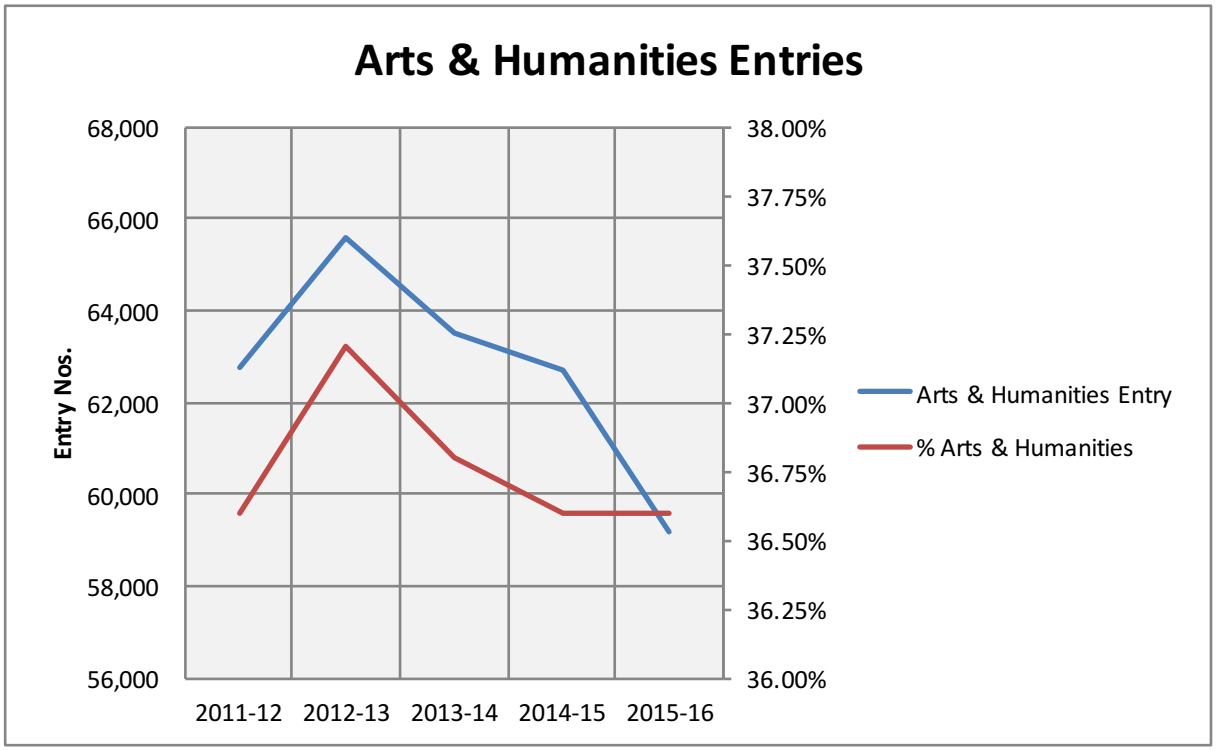
- English (-1,369);
- History (-955); and
- English Literature (-506).

Prior to this, the total number of GCSE Arts & Humanities candidates increased between 2012 and 2013, and subsequently declined in the succeeding years.

Unlike the other two subject categories, proportional entry also follows the same pattern as the total Arts & Humanities candidature. Since 2013, the overall proportion of Arts & Humanities students has declined from 37.2% to 36.6% (-0.6%).

This is reflected in Figure 18 below.

Figure 18: GCSE Arts & Humanities Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

Table 15 below, considers entry trends for both male and female students.

Table 15: GCSE Arts & Humanities Subject Trends by Gender (2012–2016)

	Year				
	2011–12	2012–13	2013–14	2014–15	2015–16
Male					
Arts & Humanities Entry	30,336	30,052	29,013	28,913	27,388
Total Entry	85,585	85,921	84,302	84,668	80,218
Arts & Humanities as a % of Total Entry	35.4%	35.0%	34.4%	34.1%	34.1%
Female					
Arts & Humanities Entry	32,442	35,528	34,483	33,777	31,816
Total Entry	85,769	90,380	88,390	86,657	81,757
Arts & Humanities as a % of Total Entry	37.8%	39.3%	39.0%	39.0%	38.9%

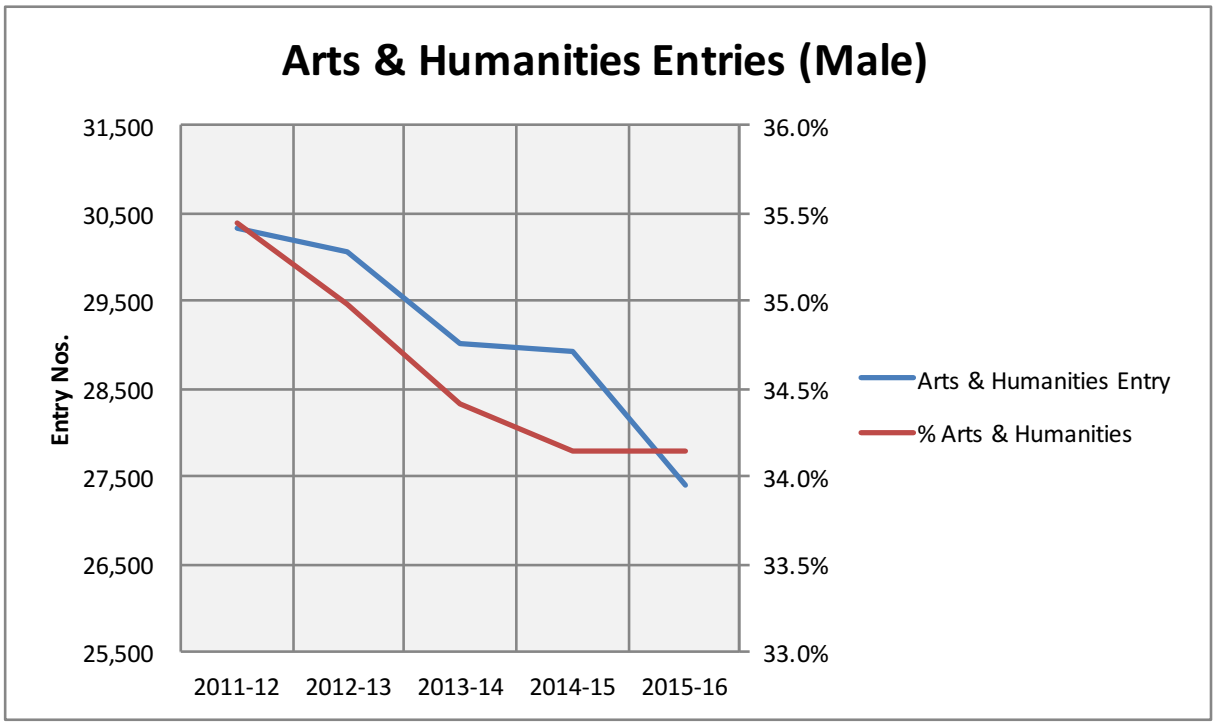
Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

From the table on the previous page, it can be seen that the total number of male Arts & Humanities students at GCSE Level has experienced a year-on-year decline since 2012. Overall almost 3,000 fewer male students (-2,948) study these types of subjects at GCSE Level.

Similarly, the overall proportion of male students studying Arts & Humanities has decreased year-on-year between 2012 and 2015 (-1.3%); whilst over the last academic year there was no change. As such, it would appear that, for male students, the Arts & Humanities are becoming less popular in real terms.

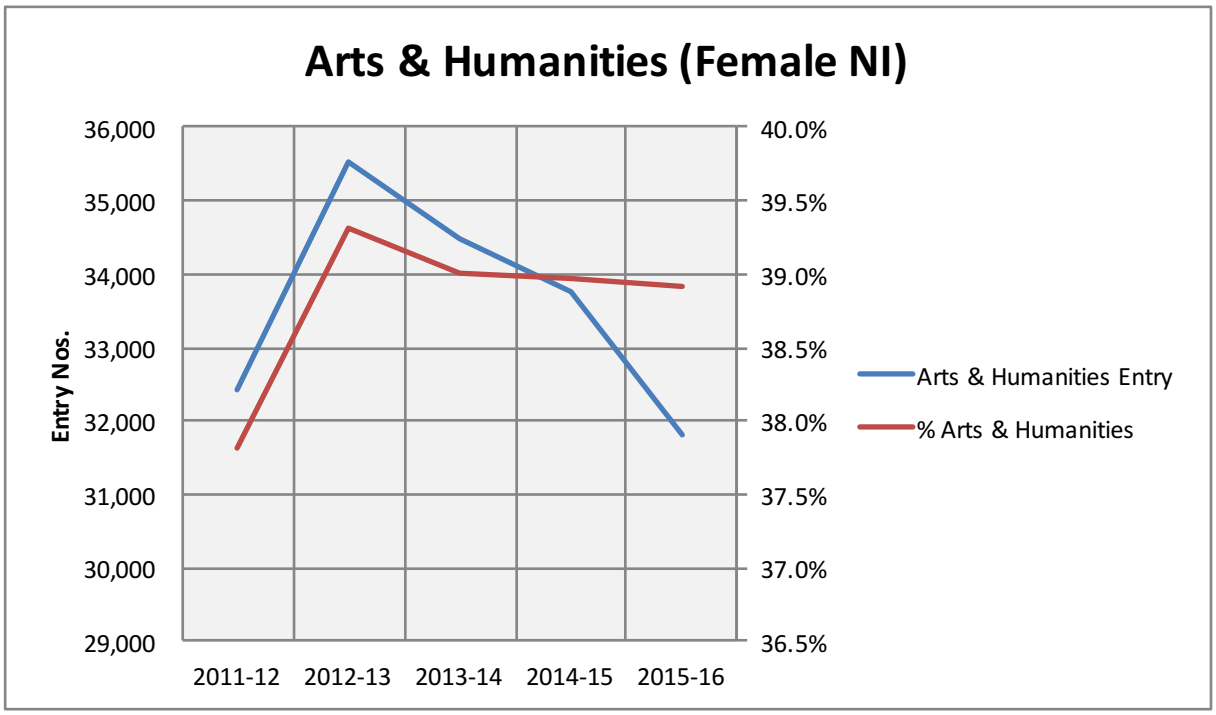
For female students, numbers have been in decline since 2013, following a spike in candidature during the previous year. However, unlike their male counterparts, female proportional entry has maintained a level of consistency since 2013. This indicates that the decline in female Arts & Humanities candidature is most likely due to a decline in the total candidature of that particular group. Unlike male students whereby there has been a more pronounced reduction which seems to be driving the overall decline.

Figure 19: GCSE Male Arts & Humanities Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

Figure 20: GCSE Female Arts & Humanities Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

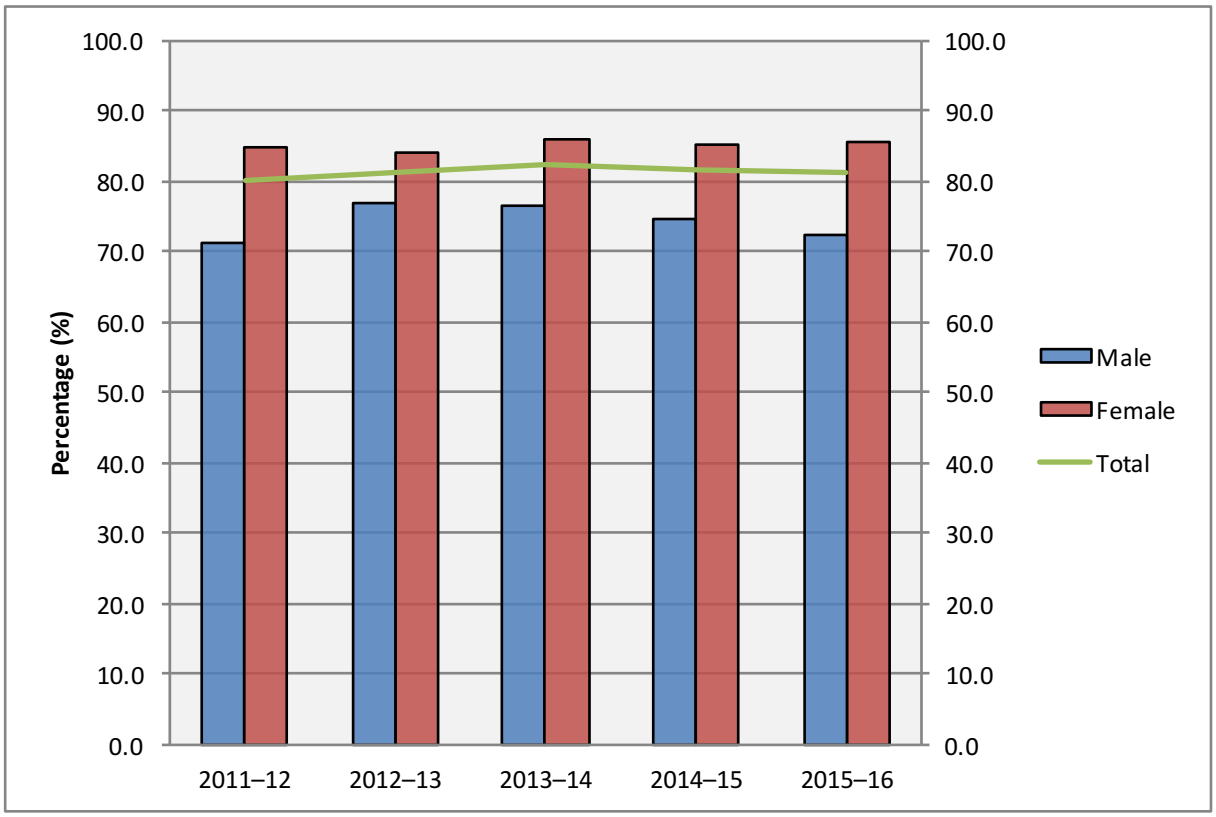
3.5.2 Performance

Table 16: Cumulative A*–C Grades for GCSE Arts & Humanities (2012–2016)

		Year				
		2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Male	Total	710.1	769.1	765.6	743.9	722.5
	Average	71.0	76.9	76.6	74.4	72.3
Female	Total	847.9	837.8	856.6	851.6	854.3
	Average	84.8	83.8	85.7	85.2	85.4
Male & Female	Total	799.4	810.3	821.9	813.6	810.7
	Average	79.9	81.0	82.2	81.4	81.1

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

Figure 21: Cumulative A*–C Grades for GCSE Arts & Humanities (2012–2016)



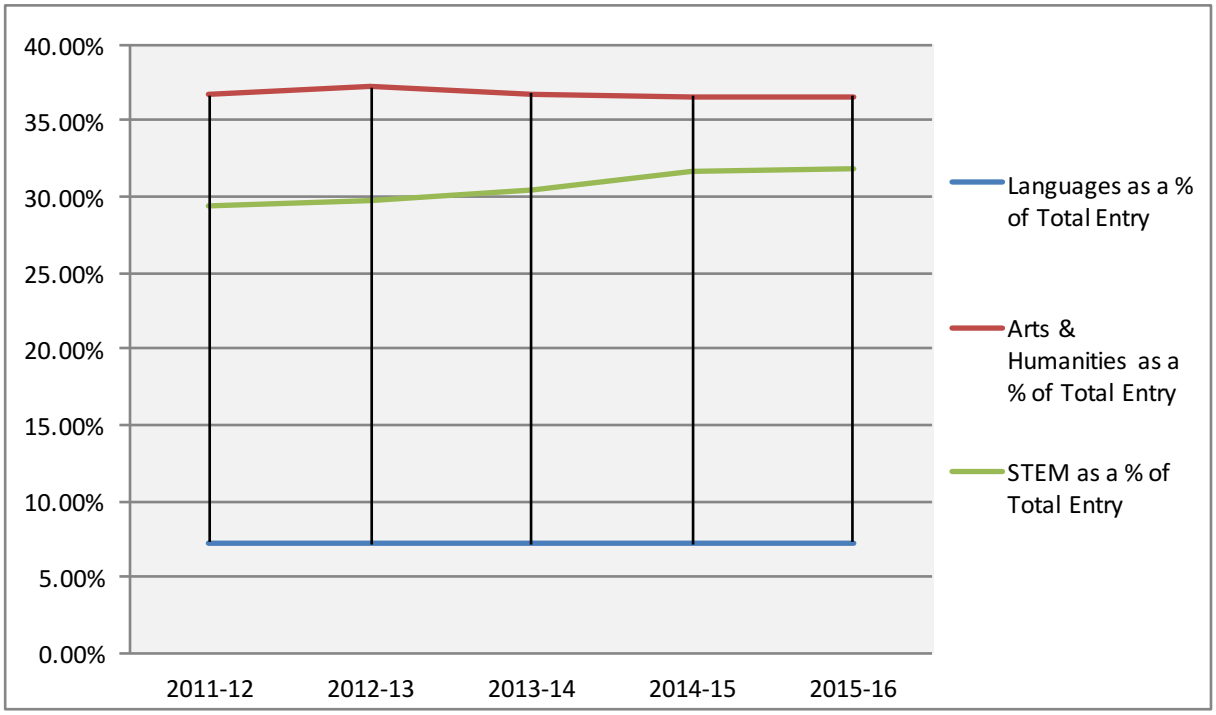
Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- Table 16 and Figure 21 presents information on GCSE students' performance at Grades A*–C in Arts & Humanities over the last five academic years (i.e. 2012–16).
- As illustrated, female students typically outperform their male counterparts.
- It is encouraging to note that performance in Arts & Humanities has not declined over the last five years. Figure 21 indicates that performance has been relatively consistent since 2012.
- However, it is also observed that there is still a wide performance gap between the two genders which has not narrowed over the last five years. On average 10.7% more female students achieve at least a Grade C compared to males.
- Reasons for the size and persistence of this performance gap could be considered an area for future research and consideration; particularly as these trends have not been noted at AS and A2-Level (detailed later).

3.6 GCSE Summary

In summary, as the cohort of learners age 16 has declined, the entries in languages have also declined proportionally with the cohort. Arts & Humanities have declined at a greater rate than that of the cohort. STEM entries, despite the population decline, has experienced a strong net growth in participation. This is detailed graphically below:

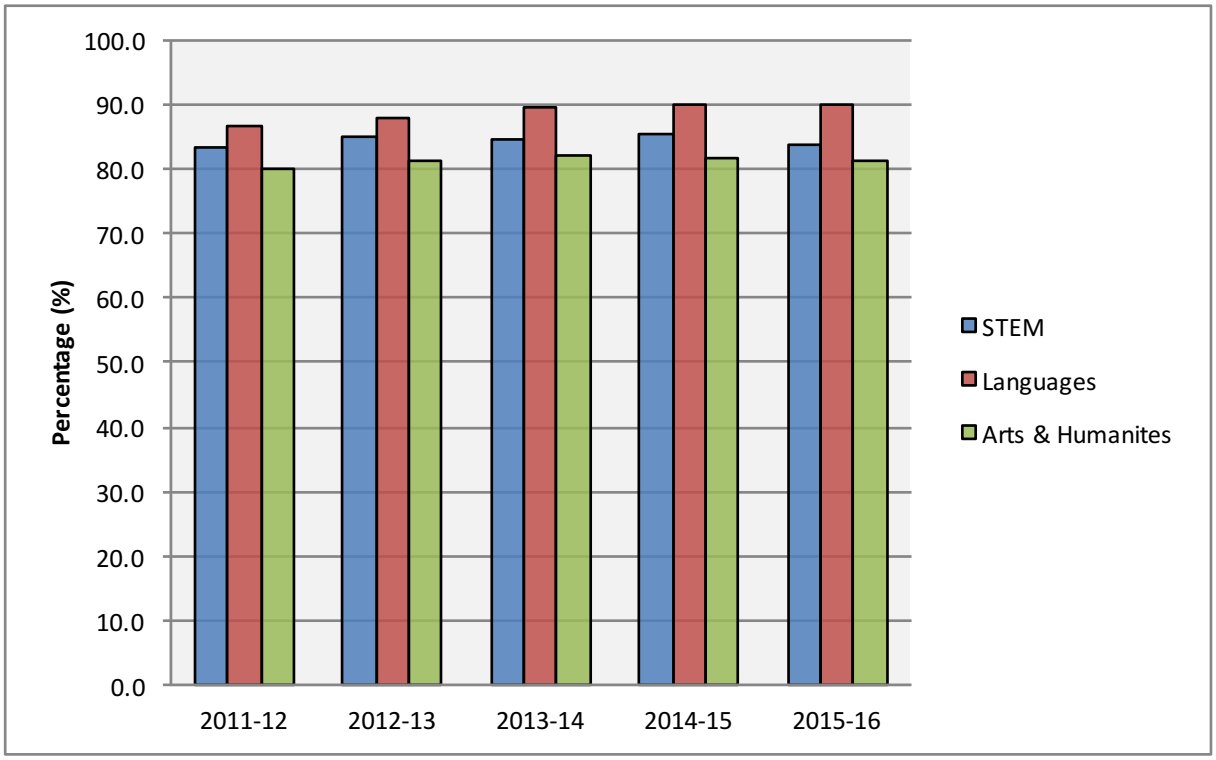
Figure 22: GCSE Entry Summary (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- As noted above, over the last five years the Arts & Humanities have been the most popular subjects based on the overall % entry.
- However, the Arts & Humanities share of the total candidature has been in decline since 2013 at GCSE Level.
- Since 2013, the overall proportion of Arts & Humanities students has declined from 37.2% to 36.6% (-0.6%).
- Conversely, for STEM subjects the proportional entry has increased steadily over the last five years from 29.4% to 31.9%.
- This indicates that STEM is becoming a more popular subject choice for students at this level, whilst the opposite is observed for the Arts & Humanities.
- GCSE Languages have maintained a level of popularity over the last five academic years. Proportional entry has been just over 7% over this time period.

Figure 23: Cumulative A*–C Grades for GCSE (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2012–2016

- With regards to performance, GCSE students, on average, tend to perform better in languages when compared to other subject categories. On average, 88.9% of all students achieved at least a Grade C at GCSE Level.
- Arts & Humanities experienced the poorest performance levels amongst students at Grades A*–C. In total, 81.1% of all students achieved at least a Grade C at GCSE.
- On average, 84.2% of all STEM students achieved at least a Grade C.

It should be noted that there is an element of prescription with regards to subject choices at GCSE Level. As such, trends identified in this section could be explained due to the existence of said prescription, therefore it is important to identify whether these trends carry on at both AS and A2-Level where students are given more autonomy when selecting subjects.

This is covered in subsequent sections of this report.

4 AS-Level

4.1 AS-Level Entries/Performance (Overall)

In 2016 N. Ireland entries in AS declined by 2.9% from 2015, this equates to 1,348 fewer AS grades being awarded. In the combined three countries AS-Level entry has decreased considerably by 13.7%, equating to 189,521 fewer grades being awarded.

Table 17: Three Country, N. Ireland & CCEA Entries/Performance

2016	Three Country	NI Only	CCEA
ENTRIES	1,196,380 (1,385,901)	45,657 (47,005)	36,488 (35,470)
%A	21.3 (20.2)	27.3 (27.2)	28.6 (29.1)
%A–E	90.1 (89.4)	94.8 (94.8)	95.2 (95.2)

Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland & UK), 2016: And, CCEA Internal AS-Level Full Course Results, 2016

- As stated, AS level, entries have declined in both N. Ireland and in the three countries. The three countries saw a decrease of 13.7% (1,196,380) whilst in N. Ireland there was a much smaller decrease of 2.9% (45,657).
- Conversely, CCEA AS-Level entries increased by 2.9%.
- With regards to performance, AS-Level results in CCEA showed a slight decrease of 0.5 percentage points at Grade A. This follows on from a decrease of 0.2 percentage points observed in the previous year.
- CCEA outcomes exceeded the Three Country results at Grade A by 7.3% and were 1.3% higher than the total N. Ireland outcomes.
- CCEA also showed a pass rate at A–E, which was greater than the national result by 5.1 percentage points. CCEA also exceeded the N. Ireland pass rate by 0.6 percentage points.

Table 18: Three Country, N. Ireland and CCEA Performance (Gender)

2016	Three Country		NI Only		CCEA	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
%A	21.5 (20.0)	21.1 (20.3)	24.6 (25.4)	29.6 (28.6)	25.9 (26.8)	30.9 (30.7)
%A–E	88.7 (87.6)	91.4 (90.9)	93.5 (94.0)	95.9 (95.5)	93.9 (94.4)	96.3 (96.1)

Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland & UK), 2016: And, CCEA Internal AS-Level Full Course Results, 2016

- In 2016, the Three Country results show the gender difference at Grade A is 0.4 percentage points, in N. Ireland the difference has increased from 3.2 to 5.0 percentage points. With regards to CCEA the difference is 5.0 percentage points; an increase from 3.9 percentage points in the previous year.
- Three Country overall pass rate (i.e. Grades A–E) gender differences are 2.7 percentage points. In N. Ireland the difference in performance at this level is 2.4 percentage points; an increase of 1.5 percentage points from the previous year. Regarding CCEA, the gender difference is 2.4 percentage points; an increase of 1.7 percentage points from the previous year.
- In N. Ireland, females are 8.5 percentage points ahead of the Three Country figure at Grade A, and 4.5 percentage points ahead at Grades A–E. Males in N. Ireland are 3.1 percentage points ahead of the Three Country figure at Grade A and 5.9 percentage points ahead at Grades A–E.
- With CCEA, female candidates are 9.8 percentage points ahead of the Three Country figure at Grade A, and 4.9 percentage points ahead at Grades A–E. Male candidates are ahead of the Three Country figure at Grade A by 4.4 percentage points, and ahead by 5.2 percentage points at Grades A–E.
- CCEA female candidates are ahead of N. Ireland at Grade A by 1.3 percentage points, and by 0.4 percentage points at Grades A–E. Male candidates are ahead by 1.3 percentage points at Grade A, and ahead by 0.4 percentage points at Grades A–E.
- Overall, though N. Ireland and CCEA students outperform the Three Countries at Grade A and Grades A–E, the gap has narrowed over the last academic year.

The five most popular subjects at AS-Level in N. Ireland are:

Table 19: Most Popular AS-Level Subjects

	Overall	Males	Females
1	Mathematics (10.7%)	Mathematics (13.1%)	Biology (11.4%)
2	Biology (10.0%)	Biology (8.3%)	Mathematics (8.7%)
3	History (7.0%)	Physics (8.2%)	English (8.2%)
4	Chemistry (6.7%)	History (7.7%)	Religious Studies (7.8%)
5	English (6.2%)	Chemistry (6.6%)	Chemistry (6.7%)

Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

As before, additional analysis will be based on various subject categories.

4.2 AS-Level STEM (Entries & Performance)

As stated in the introduction of this report, the STEM subjects assessed below are almost identical to those which were assessed at GCSE Level in the previous section. The only exception being the removal of Engineering as it is not a subject option at this level.

4.2.1 Entries

Table 20: AS-Level STEM Subject Trends (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Biology	4,879	4,627	4,634	4,833	4,565
Chemistry	3,030	2,945	3,239	3,251	3,043
Computing	96	171	262	386	430
Design & Technology	1,369	1,329	1,413	1,415	1,506
Mathematics	4,318	4,396	4,679	5,119	4,907
Further Mathematics	245	246	271	236	265
ICT	1,952	1,872	1,939	2,111	2,211
Physics	2,598	2,571	2,668	2,709	2,440
Total	**18,487**	**18,157**	**19,105**	**20,060**	**19,367**
Total Entry	**44,486**	**43,472**	**45,751**	**47,005**	**45,657**
STEM as a % of Total Entry	**41.6%**	**41.8%**	**41.8%**	**42.7%**	**42.4%**

Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

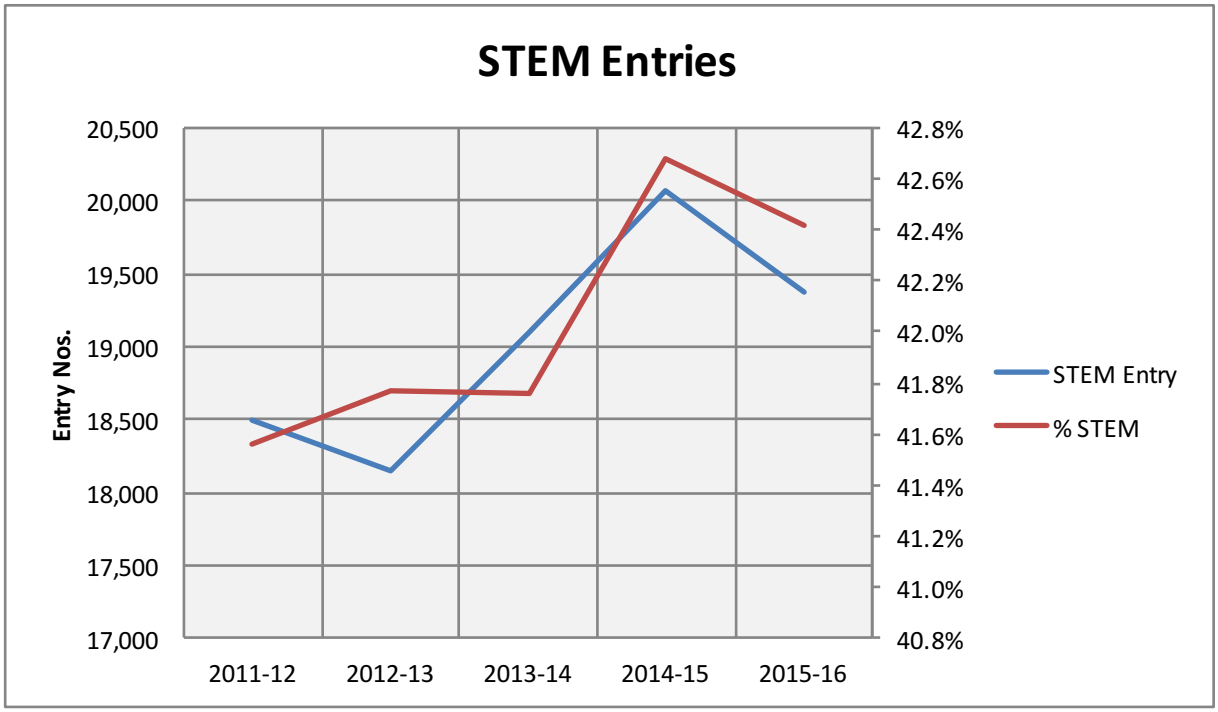
Table 20 shows that, prior to 2016, the total number of students studying AS-Level STEM subjects had increased between 2013 and 2015 from 18,157 to 20,060 (+1,903).

However, since 2015 the total STEM entries have declined by 2,399; this is a decrease of approximately 3.5% (in numerical terms). This reduction in STEM entry has been driven by decreases in the following subjects:

- Biology (-268);
- Chemistry (-208);
- Mathematics (-212); and
- Physics (-269).

Proportional entry largely reflects these trends, it can be seen that there had been an increase in STEM share from 2012 to 2015 (+1.1%). Over the last year STEM candidature declined by 0.3%. However, although there has been a decline in proportional entry over the last year, the share is still larger than it was five years ago.

Figure 24: AS-Level STEM Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

Table 21 below, considers entry trends for both male and female students.

Table 21: AS-Level STEM Subject Trends by Gender (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Male					
STEM Entry	10,107	9,914	10,327	10,716	10,471
Total Entry	20,113	19,681	20,362	20,915	20,814
STEM as a % of Total Entry	50.3%	50.4%	50.7%	51.2%	50.3%
Female					
STEM Entry	8,407	8,243	8,778	9,344	8,896
Total Entry	24,373	23,791	25,589	26,090	24,843
STEM as a % of Total Entry	34.5%	34.6%	34.3%	35.8%	35.8%

Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

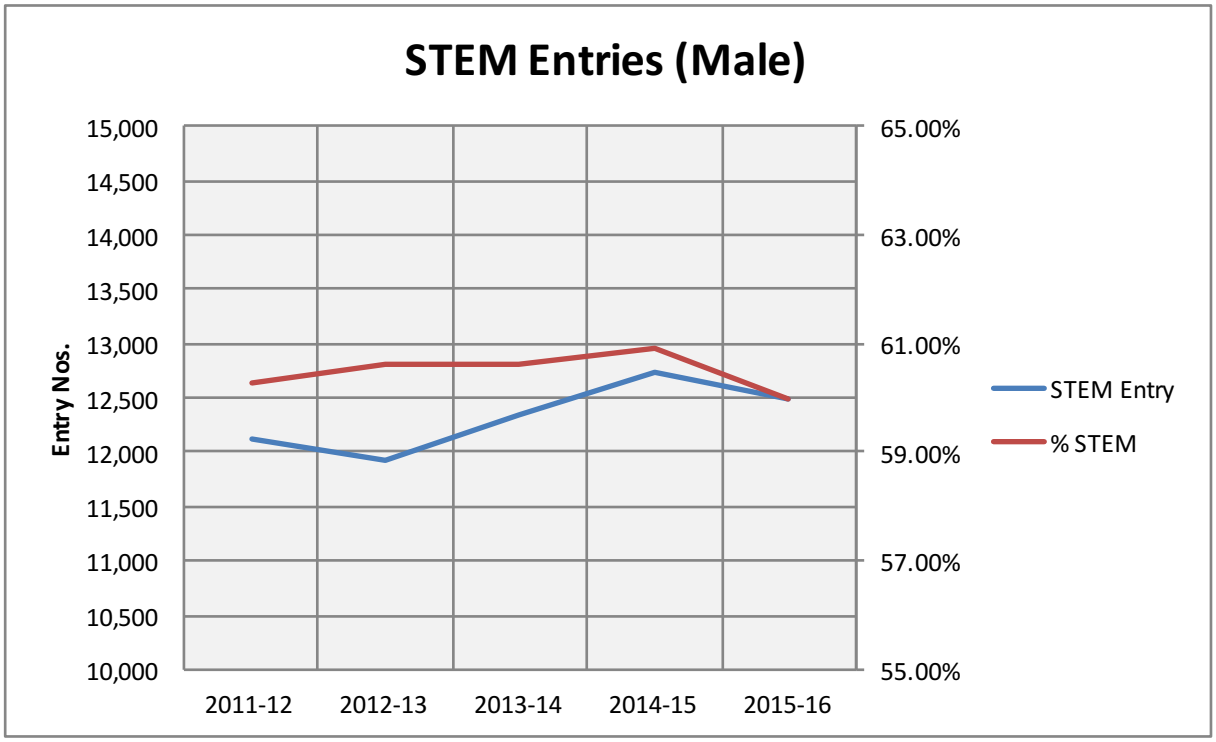
As expected, (due to the changes in total STEM candidature identified earlier), it can be seen that the total number of male STEM students had increased between 2014 and 2015 from 9,914 to 10,716 (+802) and declined in 2016 by 245.

The total share of male students had increased slightly between 2012 and 2015 (+0.9%) and declined in 2016 by 0.9%. However, the proportion of male students taking STEM subjects at AS-Level has not dropped below 50%. As such, it can be stated that the overall share of AS male candidature for STEM subjects has maintained a level of consistency over the last five academic years.

Similarly for female students, the same trends can be identified; i.e. an increase in candidature between 2014 and 2015 and a subsequent decline in candidature in 2016.
Nevertheless, the proportion of female students is at its highest level since 2012 (35.8%). Over one-third of female students now study STEM at AS-Level; this is considerably higher than the proportion observed at GCSE Level (29.1%).

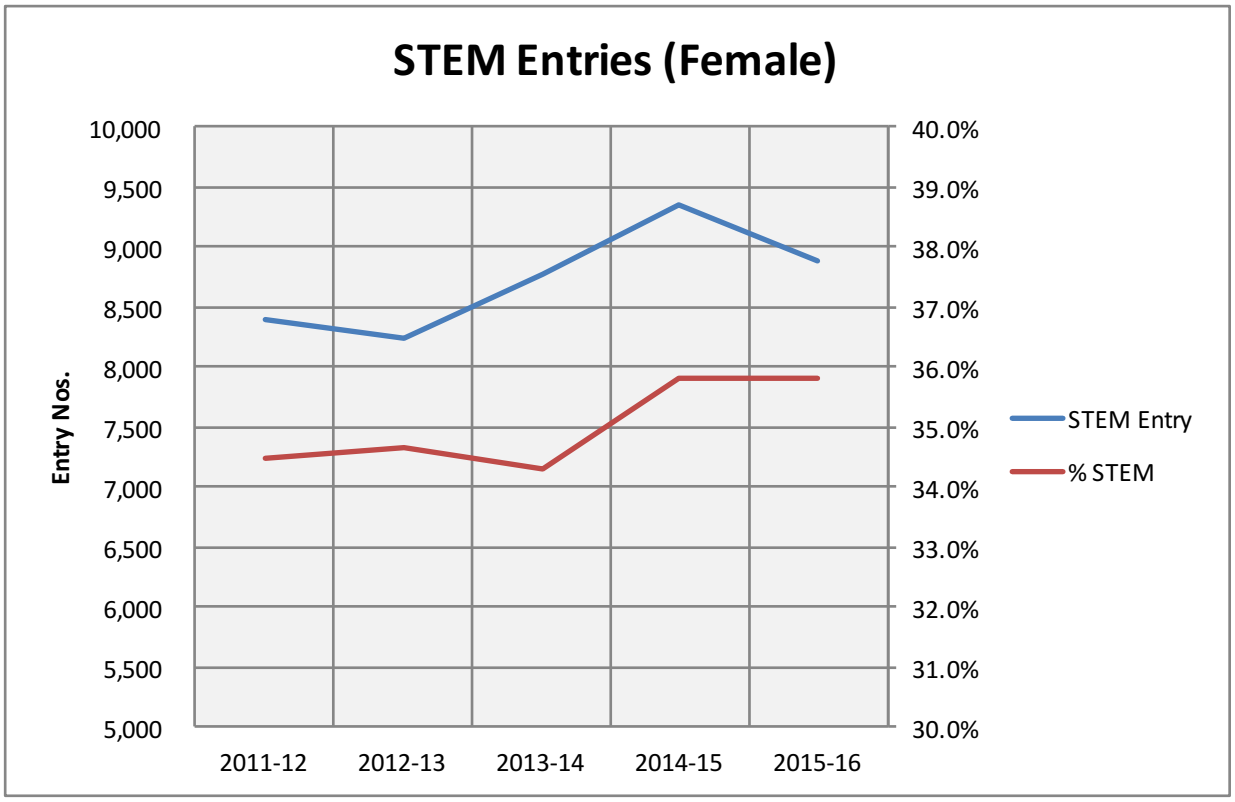
Similar to what was noted at GCSE Level, the split between male and female STEM students has remained consistent over time. This is unsurprising given that both genders are showing the same trends with regards to entry. Figure 25 below indicates roughly a 55/45 split in favour of male students.

Figure 25: AS-Level Male STEM Entry (2012–2016)



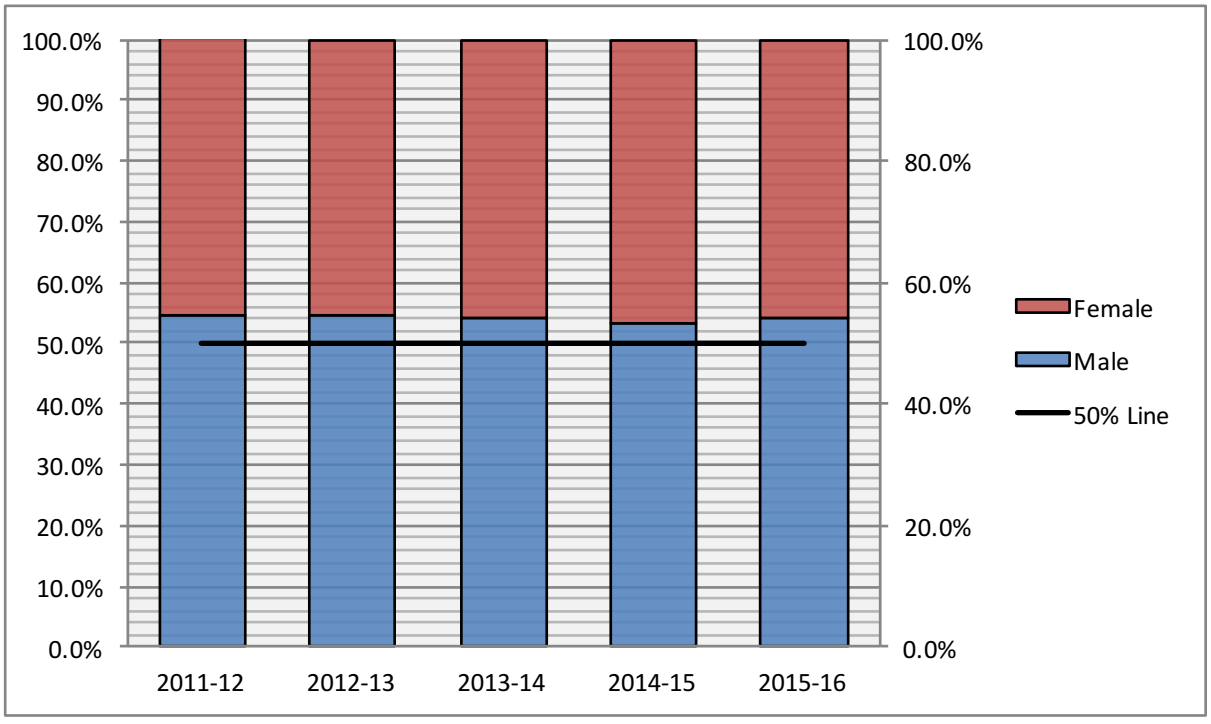
Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

Figure 26: AS-Level Female STEM Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

Figure 27: AS-Level STEM Entry Breakdown (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

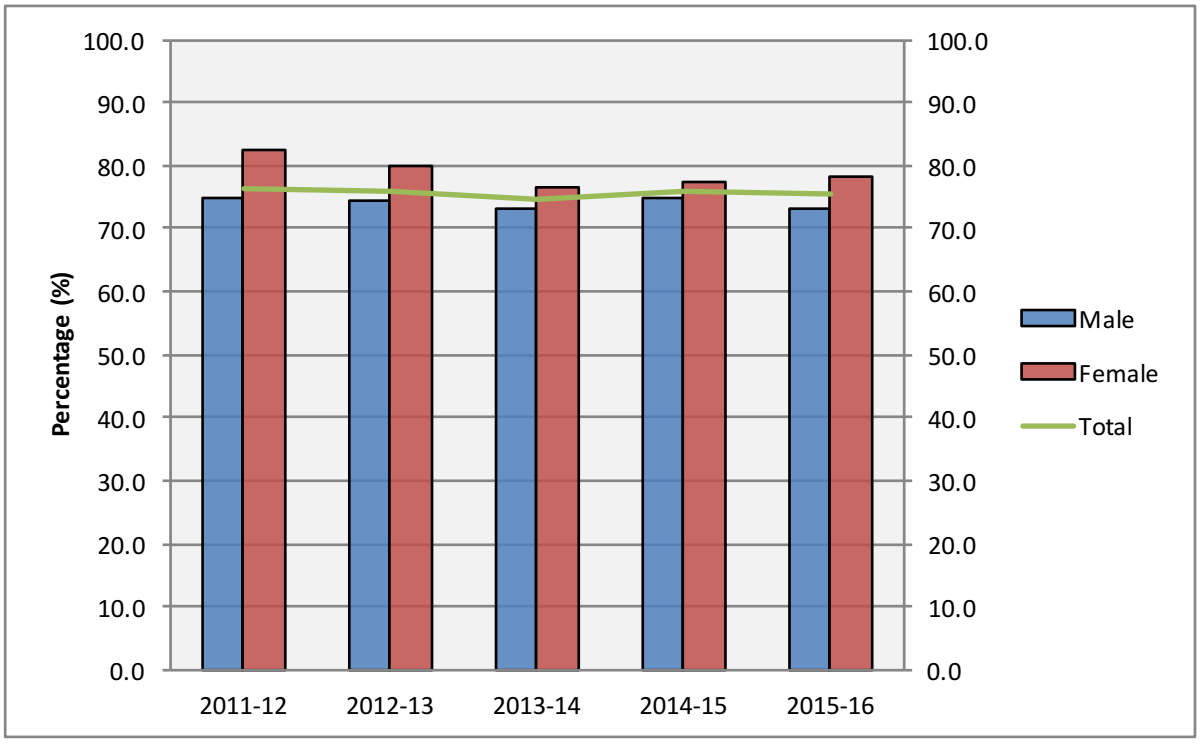
4.2.2 Performance

Table 22: Cumulative A*–C Grades for AS-Level STEM (2012–2016)

		Year				
		2011–12	2012–13	2013–14	2014–15	2015–16
Male	Total	597.8	595.0	586.3	598.6	586.4
	Average	74.7	74.4	73.3	74.8	73.3
Female	Total	658.0	639.2	612.1	617.7	625.5
	Average	82.3	79.9	76.5	77.2	78.2
Male & Female	Total	611.4	605.6	596.7	606.7	602.4
	Average	76.4	75.7	74.6	75.8	75.3

Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

Figure 28: Cumulative A*–C Grades for AS-Level STEM (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

- Table 22 presents information on AS-Level students' performance at Grades A*–C in STEM subjects over the last five academic years (i.e. 2012-16).
- As illustrated in Figure 28, female students tend to outperform their male counterparts in STEM subjects. It can be seen that the performance gap had narrowed between 2012 and 2015 (7.6% to 2.4%) and then increased again in 2016 (4.2%).

4.3 AS-Level Languages (Entries & Performance)

4.3.1 Entries

Table 23: AS-Level Language Subject Trends (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
French	948	879	917	886	815
German	184	204	186	170	178
Irish	430	374	461	454	437
Spanish	766	692	816	820	884
Total	**2,328**	**2,149**	**2,380**	**2,330**	**2,314**
Total Entry	**44,486**	**43,472**	**45,751**	**47,005**	**45,657**
Languages as a % of Total Entry	**5.2%**	**4.9%**	**5.2%**	**5.0%**	**5.1%**

Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

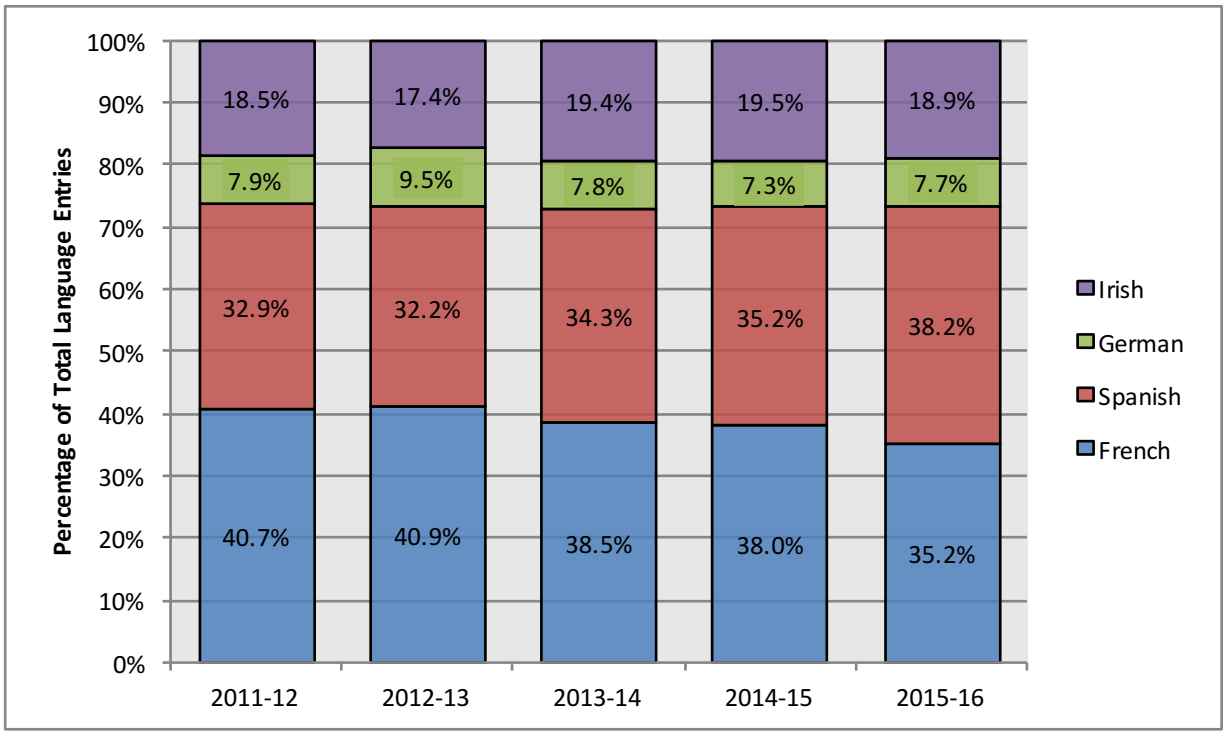
Regarding AS-Level languages both French and Irish have experienced declines in the last year (-71 and -17 respectively), German and Spanish entry on the other hand has increased (+8 and +64 respectively).

Languages, with the exception of Spanish and French, have typically fluctuated year-on-year, influenced most likely by changes in the total candidature. Spanish has experienced an increase in candidature between 2013 and 2016 (+192), whilst French has experienced a similar decline in candidature over the same period (-133).

These trends have meant that the proportional entry for languages has remained consistent over the last five years. This reflects the proportional entry experienced for languages at GCSE Level.

The table above is detailed graphically in Figures 29 and 30 overleaf.

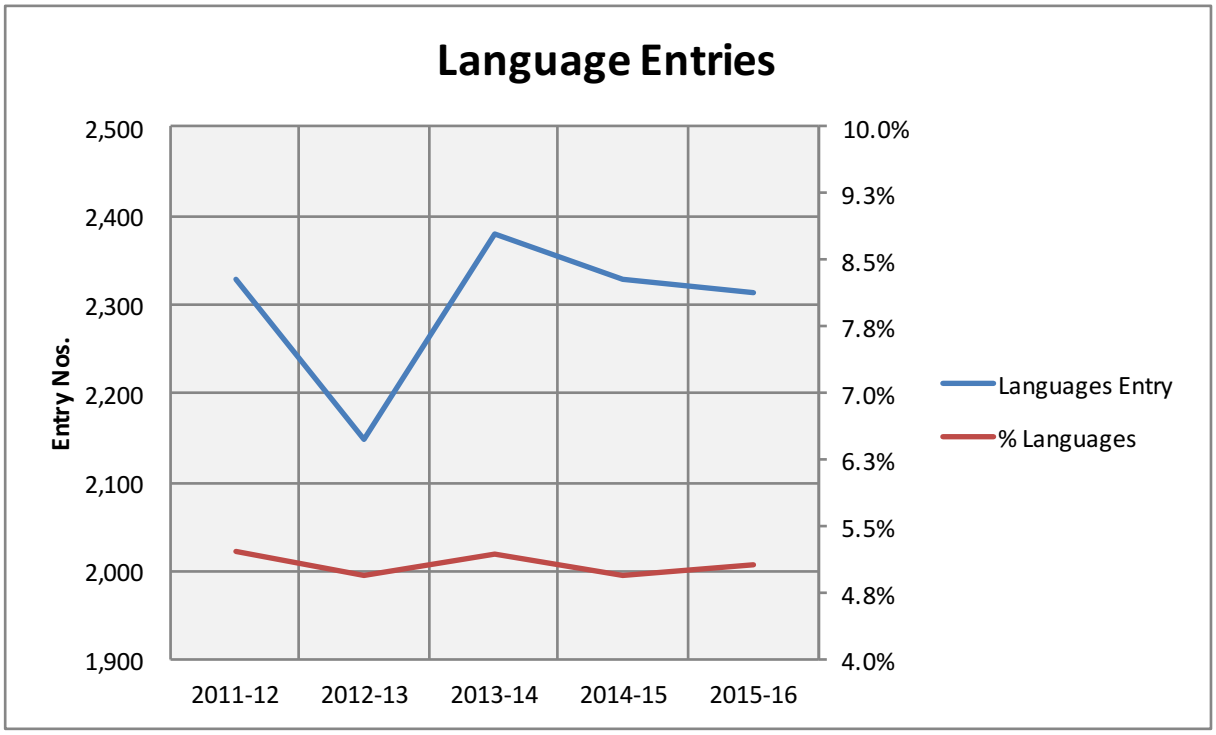
Figure 29: AS-Level Language Entry Breakdown (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

- As illustrated above, French, as a language is becoming a less popular choice. Since 2013, French, as a share of language candidature has declined from 40.9% to 35.2%.
- Conversely, Spanish entry has increased from 32.2% to 38.2% over the same time period. In 2016, Spanish is now the most popular language subject taught at AS-Level.
- German and Irish have maintained a consistent share of the language candidature over the last five years.

Figure 30: AS-Level Language Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

Table 24 below, considers entry trends for both male and female students.

Table 24: AS-Level Language Subject Trends by Gender (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Male					
Languages Entry	724	648	716	748	794
Total Entry	20,113	19,681	20,362	20,915	20,814
Languages as a % of Total Entry	3.6%	3.3%	3.5%	3.6%	3.8%
Female					
Languages Entry	1,556	1,604	1,501	1,664	1,582
Total Entry	24,373	23,791	25,589	26,090	24,843
Languages as a % of Total Entry	6.6%	6.3%	6.5%	6.1%	6.1%

Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

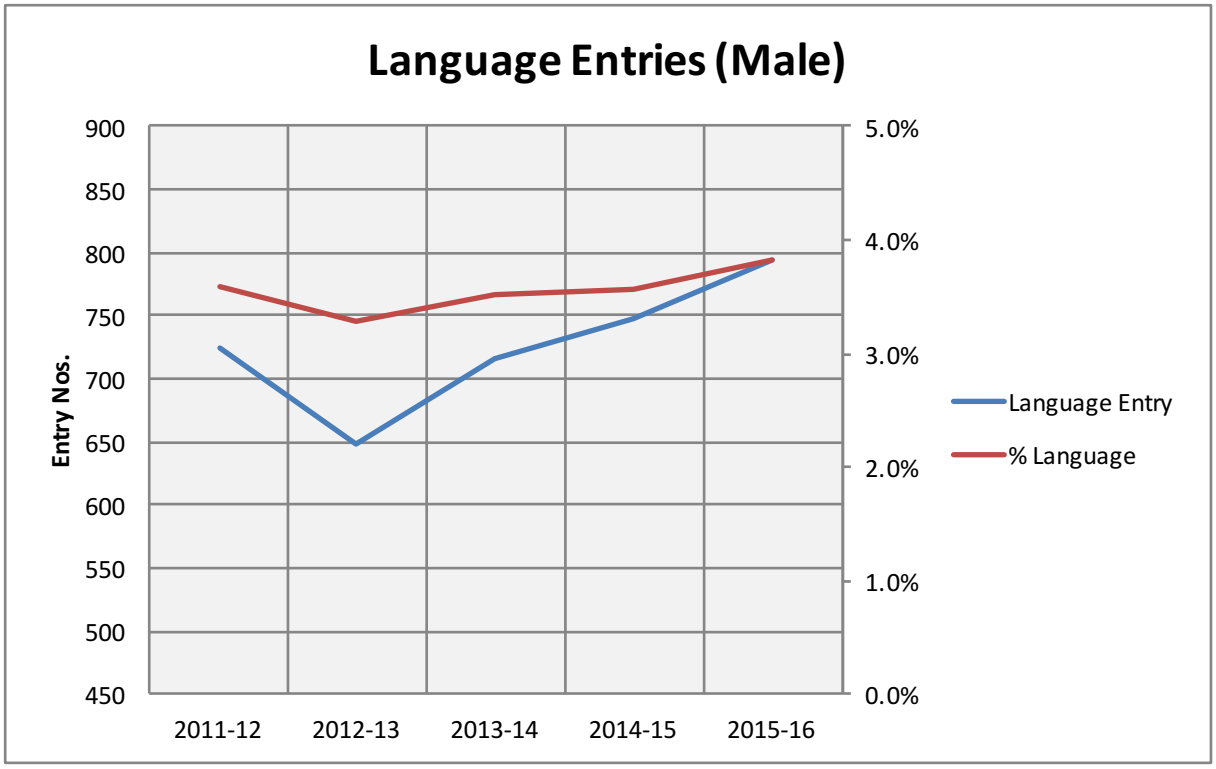
As illustrated in the table, male candidature in languages has increased over the last year (+46), whilst female candidature has declined (-82).

Total numbers of female candidates have typically fluctuated year-on-year since 2012. However, the proportion of female students (as a % of total candidature) studying AS Languages has, (excluding an increase in 2014), experienced a slight decline since 2012 (-0.5%). This indicates that languages are becoming a less popular subject option for female students at this level of study.

Regarding the number of male students, the overall proportion studying at least one language at AS-Level has increased by 0.2% over the last academic year to 3.8%.

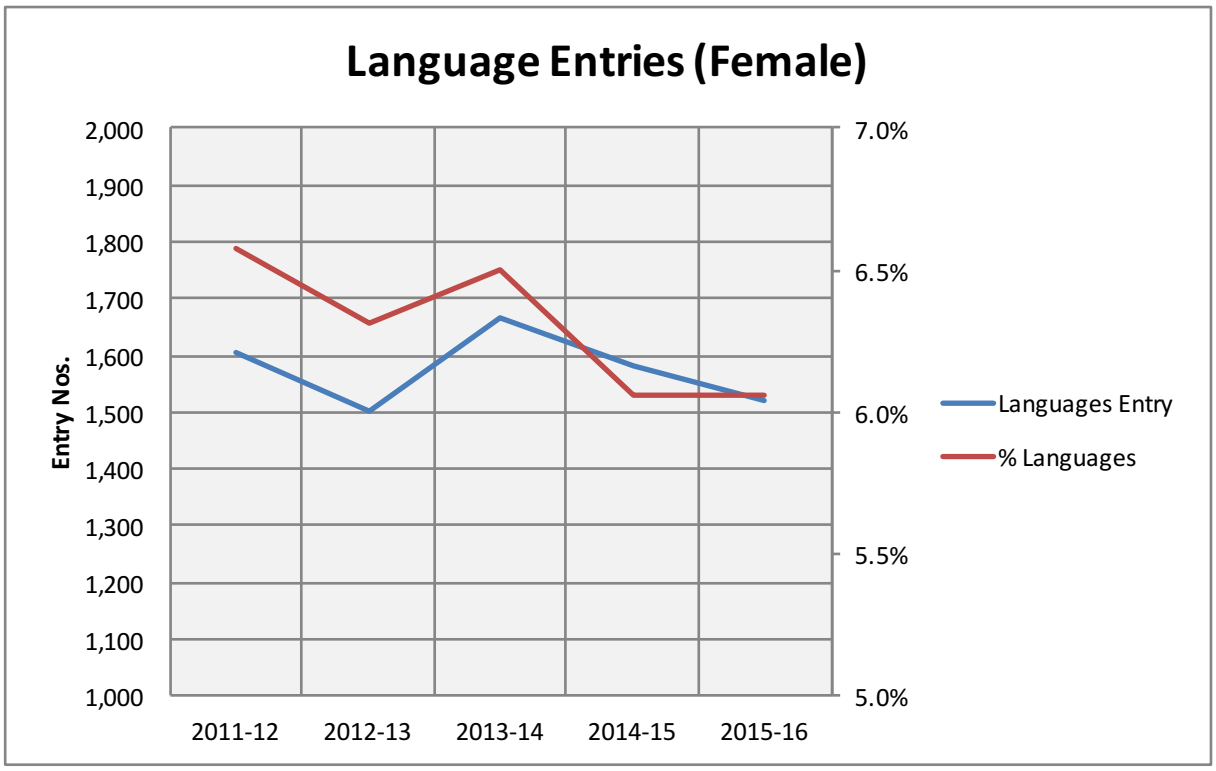
Prior to this, proportional entry had, (excluding a dip in 2013), increased year-on-year (+0.5%). Though roughly half as many male students study a language at AS-Level when compared to female students, it can be stated that there appears to be a slight increase in popularity for this particular group.

Figure 31: AS-Level Male Language Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

Figure 32: AS-Level Female Language Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

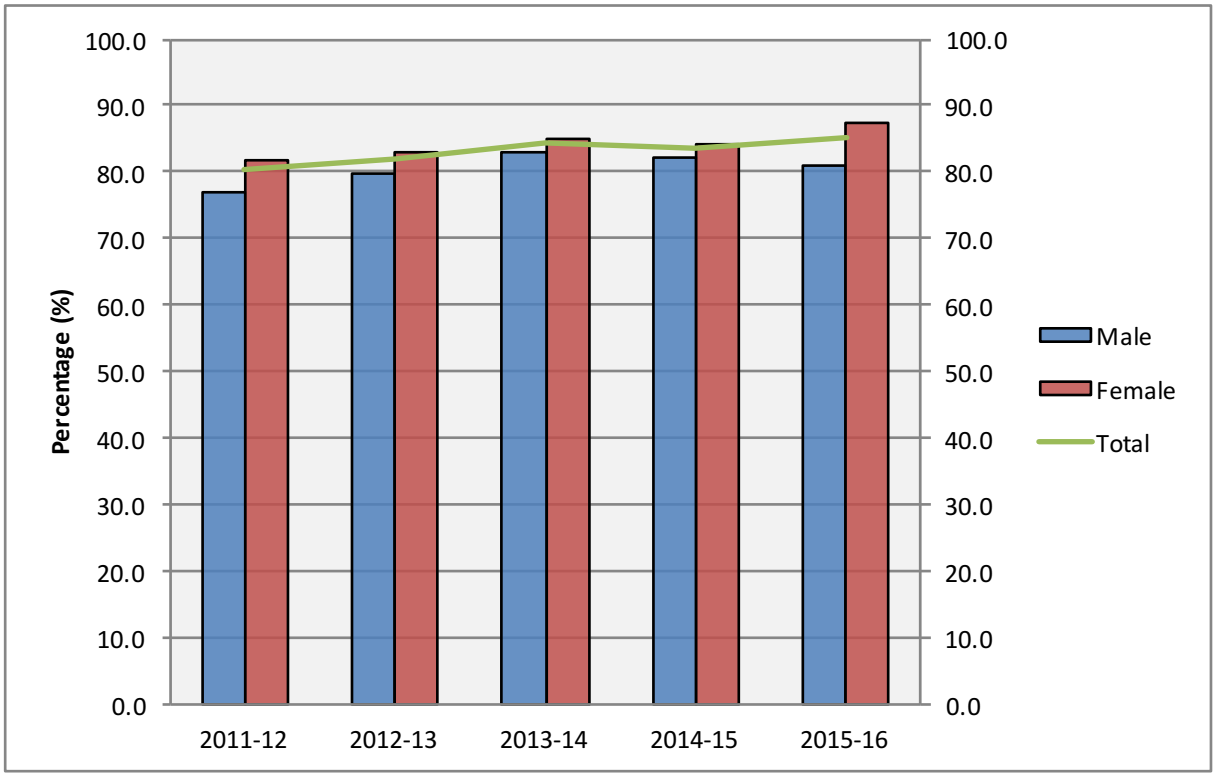
4.3.2 Performance

Table 25: Cumulative A*–C Grades for AS-Level Languages (2012–2016)

		Year				
		2011–12	2012–13	2013–14	2014–15	2015–16
Male	Total	308.5	319.8	331.3	329.4	323.6
	Average	77.1	80.0	82.8	82.4	80.9
Female	Total	327.1	332.3	339.9	336.7	349.8
	Average	81.8	83.1	85.0	84.2	87.5
Male & Female	Total	321.4	328.6	337.6	333.7	340.8
	Average	80.4	82.2	84.4	83.4	85.2

Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

Figure 33: Cumulative A*–C Grades for AS-Level Languages (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

- Table 25 presents information on AS-Level students' performance at Grades A*–C in languages over the last five academic years (i.e. 2012–16).
- As illustrated in Figure 33, overall performance has been largely improving over the years. This appears to be largely driven by improvements in female performance over this time period.
- Similar to the trends identified in STEM, it can be seen from Figure 33 that female students tend to outperform their male counterparts at languages. The performance gap had narrowed between 2012 and 2015 (from 4.7% to 2%); however, it had increased again in 2016 (6.6%).

4.4 AS-Level Arts & Humanities (Entries & Performance)

4.4.1 Entries

As stated previously, the Arts & Humanities subjects considered at AS-Level are almost exactly the same as those assessed at GCSE Level. The only difference is the inclusion of Political Studies and Law alongside the removal of English Language.

Table 26: AS-Level Arts & Humanities Subject Trends (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Art & Design	1,314	1,248	1,188	1,100	993
Classical Subjects	145	118	153	148	174
Drama	635	661	655	557	556
English	2,977	2,921	2,895	2,922	2,812
History	2,974	2,885	3,049	3,261	3,188
Law	86	53	63	62	72
Music	639	621	635	541	513
Performing/Expressive Arts	11	17	108	134	179
Political Studies	1,413	1,192	1,262	1,356	1,439
Religious Studies	2,771	2,639	2,813	2,702	2,685
Sociology	1,252	1,227	1,246	1,298	1,206
Total	**14,217**	**13,582**	**14,067**	**14,081**	**13,817**
Total Entry	**44,486**	**43,472**	**45,751**	**47,005**	**45,657**
Arts & Humanities as a % of Total Entry	**32.0%**	**31.2%**	**30.7%**	**30.0%**	**30.3%**

Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

With the exception of Classical Subjects, Performing/Expressive Arts and Political Studies, all Arts & Humanities have experienced a decline at AS-Level over the last year. This has resulted in an overall decline in Arts & Humanities of 264.

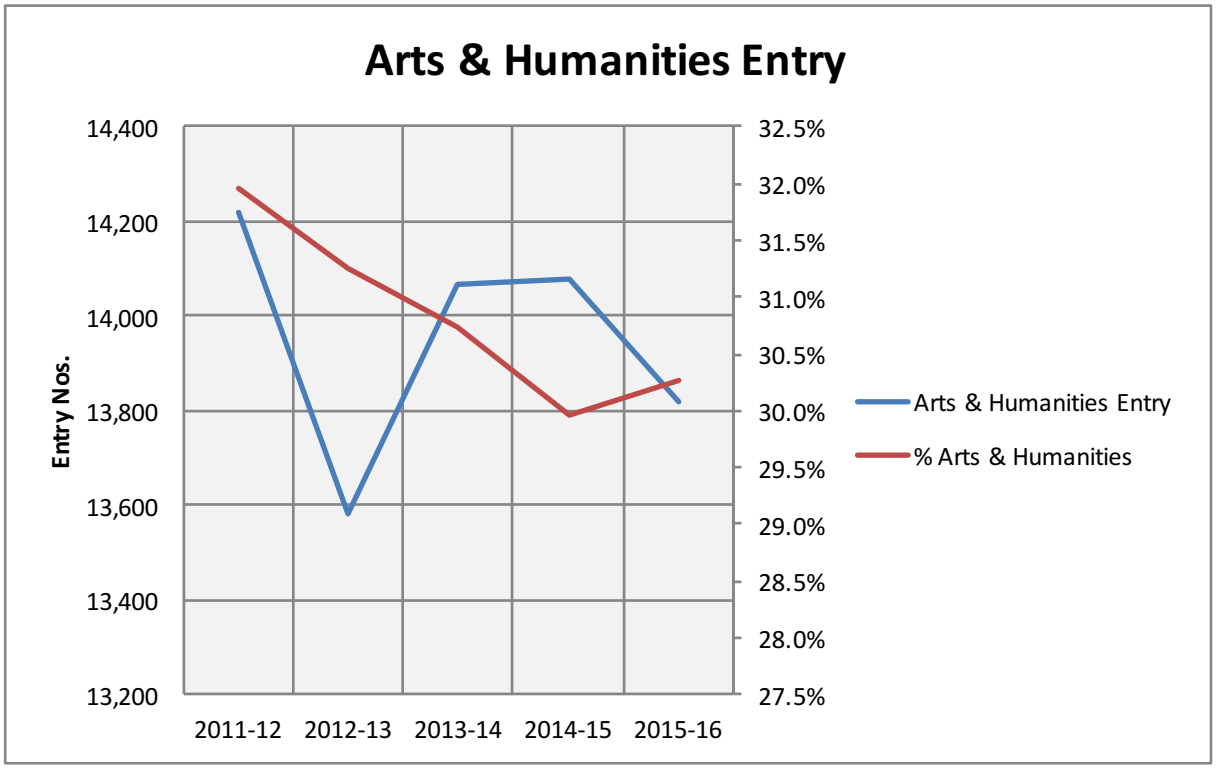
Over a five year period, most subject entries for AS-Level Arts & Humanities have been noted to fluctuate year-on-year, indicating no real trend regarding entry. However, there are individual subjects detailed in the table above where trends can be observed; these are:

- **Art & Design**: Subject entries have been in constant decline since 2012 (-321);
- **English**: Subject entries have been in decline since 2012 (excluding a small increase in 2015) and are at their lowest level in five years);
- **Music**: Subject entries have been in decline since 2012 (excluding a small increase in 2015) and are at their lowest level in five years);
- **History**: Excluding small declines in 2012 and 2016, History candidature in 2016 is considerably higher than it was five years prior; and
- **Performing/Expressive Arts**: Subject entries have consistently increased year-on-year since 2012 (+168).

Proportional entry has declined between 2012 and 2015 (-2%) and increased slightly in 2016 (+0.3%). Although there have been subjects listed in Arts & Humanities which have experienced an increase in candidature over the five year period, this has been offset by declines in entry across other subjects.

This is depicted in Figure 34 below.

Figure 34: AS-Level Arts & Humanities Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

Table 27: AS-Level Arts & Humanities Subject Trends by Gender (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Male					
Arts & Humanities Entry	4,999	4,828	4,798	4,838	4,838
Total Entry	20,113	19,681	20,362	20,915	20,814
Arts & Humanities as a % of Total Entry	24.9%	24.5%	23.6%	23.1%	23.2%
Female					
Arts & Humanities Entry	9,168	8,754	9,269	9,243	8,979
Total Entry	24,373	23,791	25,589	26,090	24,843
Arts & Humanities as a % of Total Entry	37.6%	36.8%	36.2%	35.4%	36.1%

Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

From the table above, it can be seen that the total number of male Arts & Humanities students at AS-Level has remained consistent since 2012. The overall number of male students has changed very little year-to-year.

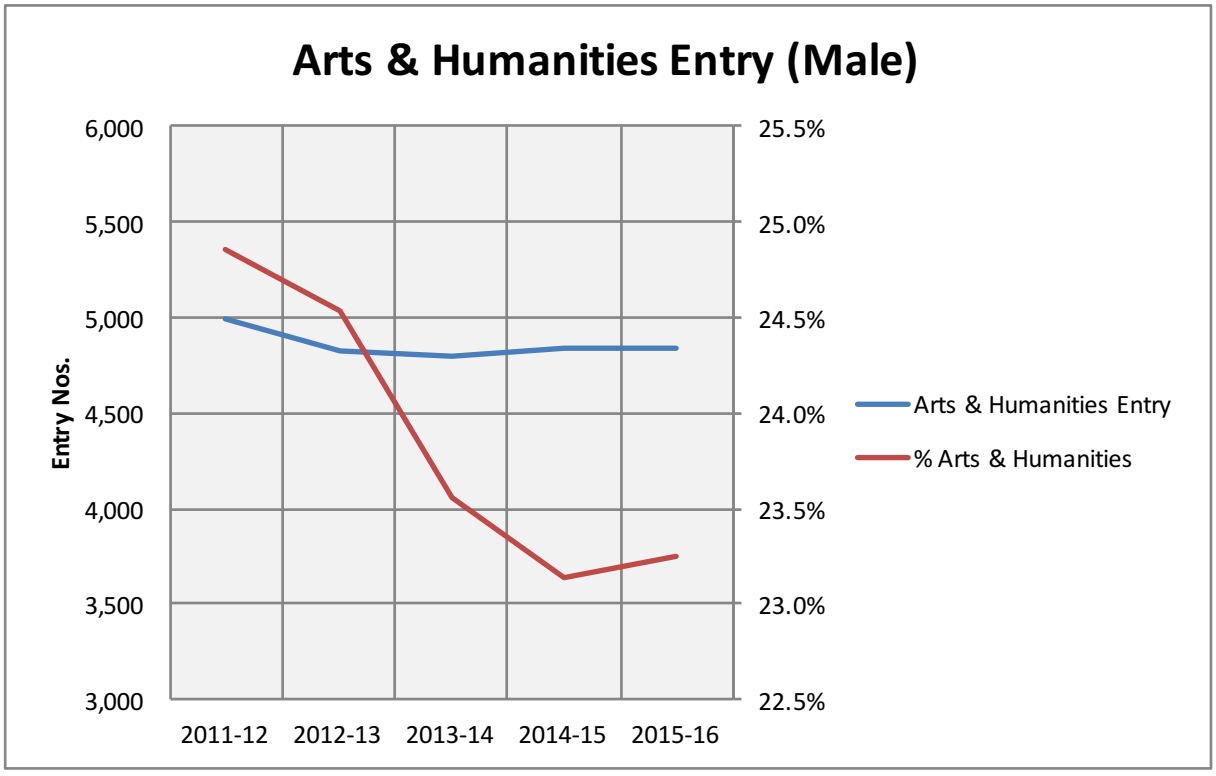
However, the overall proportion of male students studying Arts & Humanities has decreased year-on-year between 2012 and 2015 (-1.8%); whilst over the last academic year there was a slight increase in real terms (+0.1%). As such, it would appear that, for male students, Arts & Humanities are becoming less popular in real terms. This mirrors the trends at GCSE Level identified in the previous chapter.

For female students, numbers have fluctuated year-on-year since 2012. There are no identifiable trends with regards to entry numbers over this period.

Nevertheless, when proportional entry is considered, the same trends observed in the male students can be observed. Arts & Humanities as a proportion of the total female candidature declined between 2012 and 2015 from 37.6% to 35.4% (-2.2%) and increased to 36.1% in 2016 (+0.7%). However, this is still considerably lower than the figures observed five years ago.

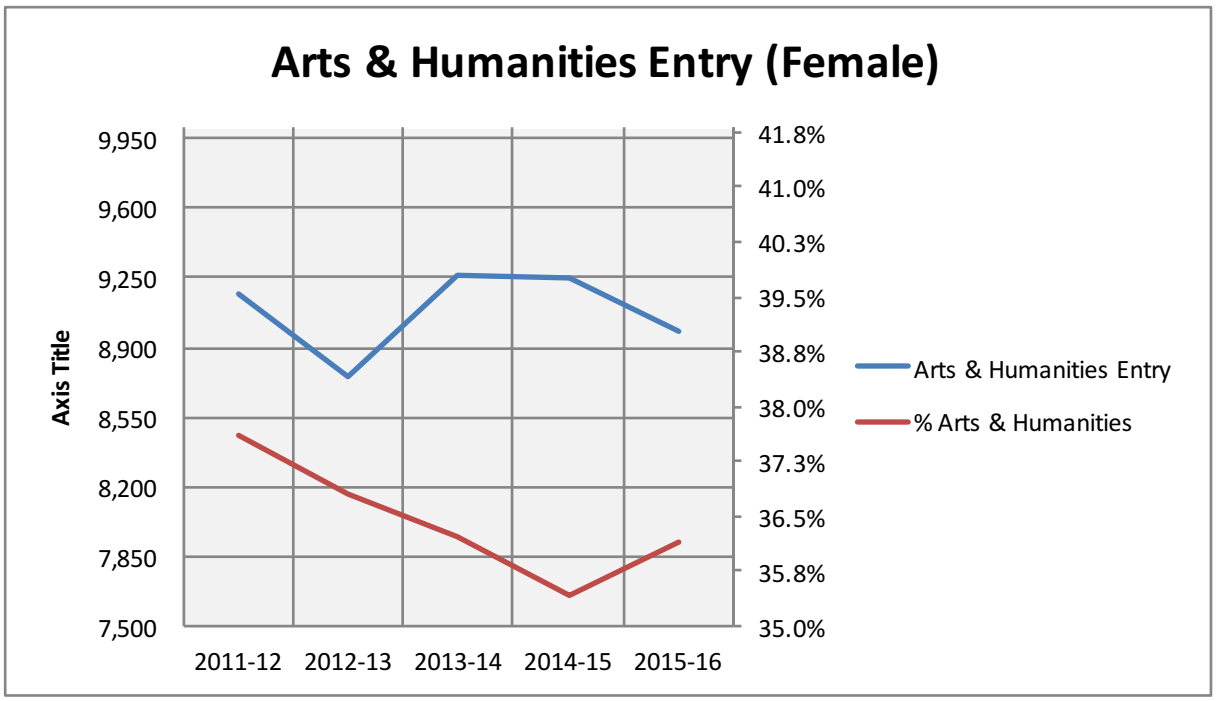
Both groups have contributed to the overall trends identified earlier. As such, the Arts & Humanities seem to be becoming less popular for both sets of students.

Figure 35: AS-Level Male Arts & Humanities Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

Figure 36: AS-Level Female Arts & Humanities Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

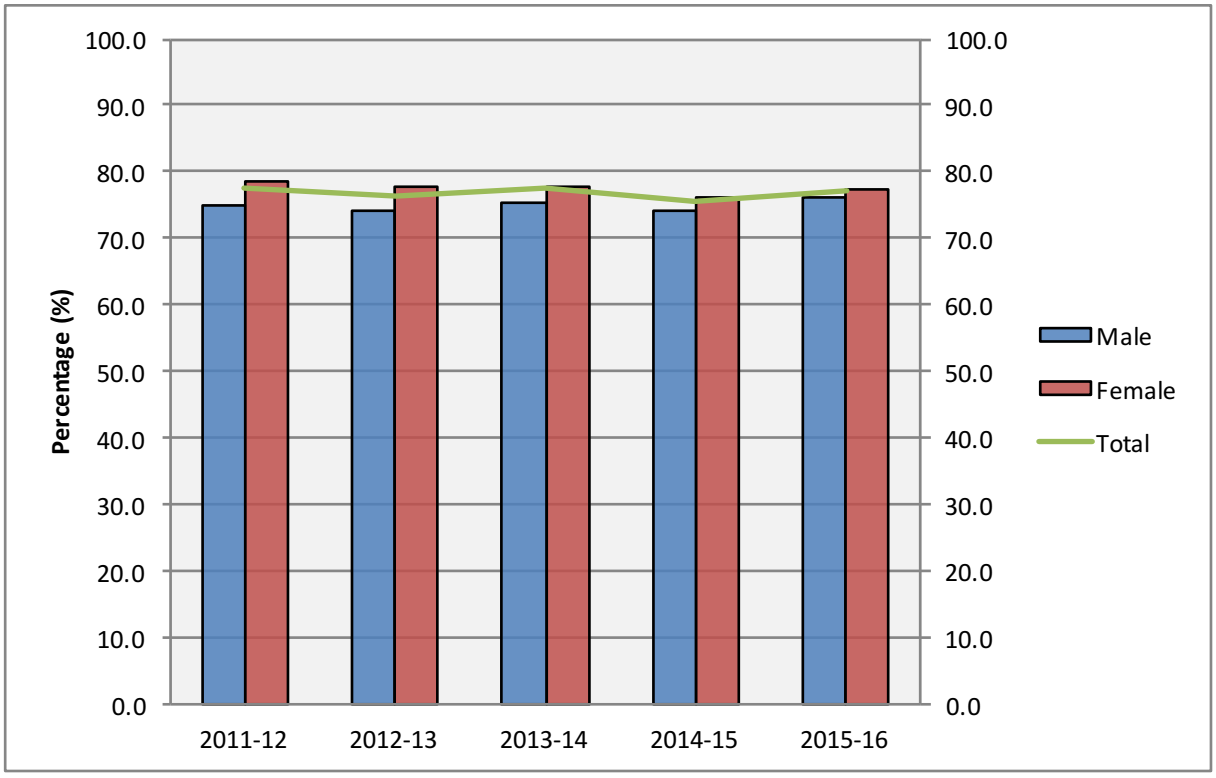
4.4.2 Performance

Table 28: Cumulative A*–C Grades for AS-Level Arts & Humanities (2012–2016)

		Year				
		2011–12	2012–13	2013–14	2014–15	2015–16
Male	Total	824.0	816.2	829.9	817.0	837.0
	Average	74.9	74.2	75.4	74.3	76.1
Female	Total	862.9	856.0	857.1	835.8	851.7
	Average	78.4	77.8	77.9	76.0	77.4
Male & Female	Total	851.4	837.7	851.5	830.8	847.0
	Average	77.4	76.2	77.4	75.5	77.0

Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

Figure 37: Cumulative A*–C Grades for AS-Level Arts & Humanities (2012–16)

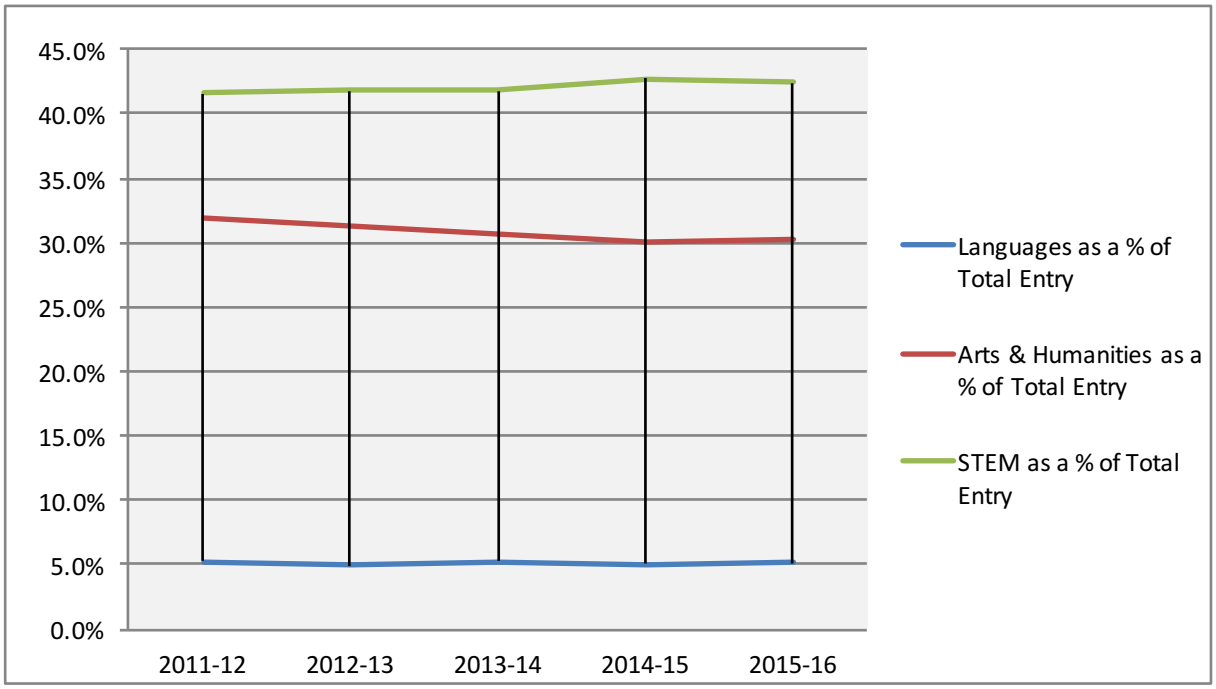


Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

- Table 28 presents information on AS-Level students' performance at Grades A*–C in Arts & Humanities over the last five academic years (i.e. 2012–16).
- As illustrated in Figure 37, female students tend to outperform their male counterparts in Arts & Humanities. It can be seen that the performance gap has been steadily narrowing since 2013, from 3.6% to 1.3%.

4.5 AS-Level Summary

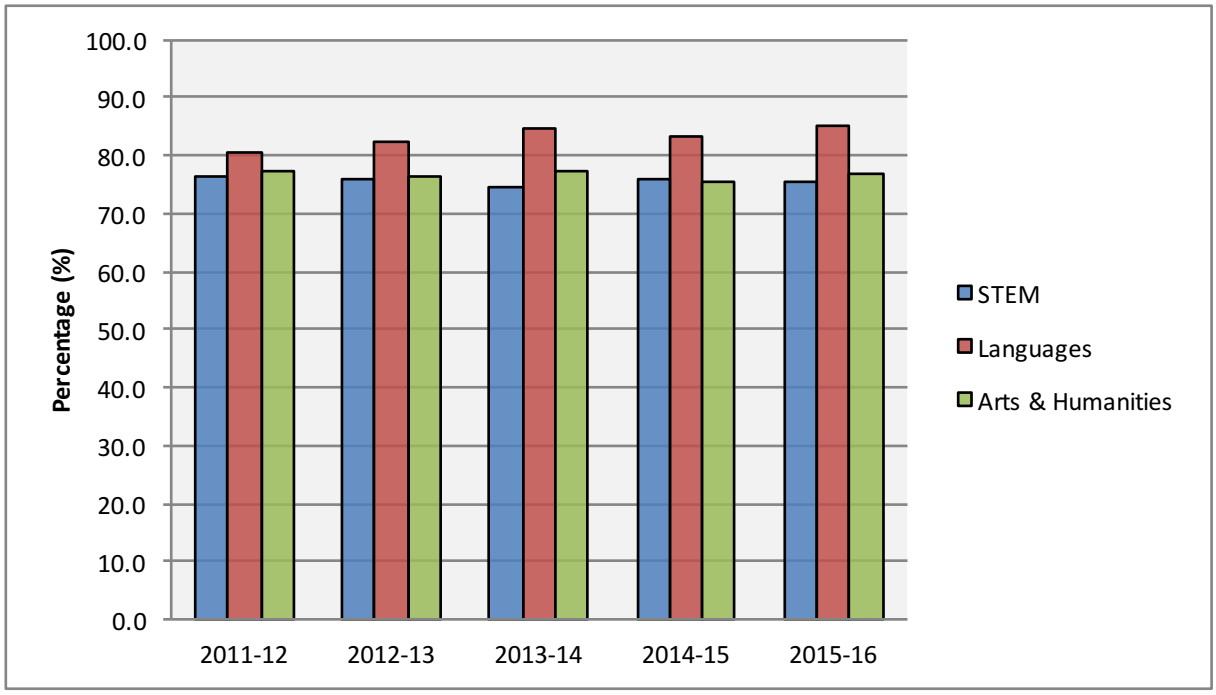
Figure 38: AS-Level Entry Summary (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

- Over the last five years, STEM subjects have been the most popular based on the overall % entry. On average, 42.1% of total entry for AS-Level subjects has been comprised of STEM subjects.
- This contradicts the trend noted at GCSE were the Arts & Humanities were the most popular subject choice. At AS-Level Arts & Humanities make up on average 30.8% of the total entry.
- This would seem to indicate that when given more autonomy, students will tend to opt for STEM in their subject choices. There are a multitude of reasons that could be behind this trend; as such, it is recommended that further research be conducted in this area.
- Similar to GCSE Level, the overall proportion of Arts & Humanities students has been slowly declining over the previous five years. Conversely, for STEM subjects the proportional entry has tended to increase over the last five years.
- Similar to what was observed at GCSE Level; this implies that STEM is becoming a more popular subject choice for students at this level, whilst the opposite is observed for the Arts & Humanities.
- AS-Level Languages have maintained a level of popularity over the last five academic years. Proportional entry has been around 5% over this time period.

Figure 39: Cumulative A*–C Grades for AS-Level (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional AS-Level Full Course Results (Northern Ireland), 2012–2016

- With regards to performance, AS-Level students, on average, tend to perform better in languages when compared to other subject categories. On average, 83.1% of all students achieved at least a Grade C at this Level.
- Unlike GCSE, were the Arts & Humanities recorded the poorest performance levels amongst students, at AS-Level, STEM subjects recorded the poorest performance at Grades A*–C. In total, 75.6% of all students achieved at least a Grade C at this level.
- However, it should be noted that Arts & Humanities performance is roughly similar to that of STEM. On average 76.7% of Arts & Humanities students achieved at least a Grade C.

5 A2-Level

5.1 A2-Level Entries/Performance (Overall)

In 2016 the overall A Level entry decreased by 1.7% in N. Ireland, this equates to 562 fewer candidates. This decrease is roughly in line with the decrease noted at AS-Level; the Three Country entry also experienced a 1.7% decrease.

This is the seventh year of the A* grade. In order to achieve an A*, candidates have to get an A overall for their A Level and score 90% or more of the total A2 marks available. It is not awarded for AS or for individual units.

Table 29: Three Country, N. Ireland & CCEA Entries/Performance

2016	Three Country	NI Only	CCEA
ENTRIES	836,705 (850,749)	31,828 (32,390)	24,157 (24,432)
%A*	8.1 (8.2)	7.7 (7.6)	8.7 (8.5)
%A*–A	25.8 (25.9)	29.5 (29.3)	32.2 (32.0)
%A–E	98.1 (98.1)	98.2 (98.2)	98.5 (98.6)

Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland & UK), 2016: And, CCEA Internal A2-Level Full Course Results, 2016

- In the Three Countries 8.1% of candidates achieved the A* Grade.
- Overall in the Three Countries there was a slight decline at Grade A* (8.1%) from last year, Grades A*–A dropped by 0.1 percentage points (25.9% to 25.8%), and there was no change at Grades A*–E (98.1%).
- In N. Ireland 7.7% of candidates achieved grade A*, an increase of 0.1 percentage points from last year.
- There was a 0.2 percentage points decrease at Grades A*–A, and similar to the Three Countries no change at Grades A*–E (98.2%).
- 8.7% of candidates with CCEA achieved a Grade A*, an increase of 0.2 percentage points, with an increase of 0.2 percentage points at Grades A*–A (32.0%). There was a slight decline of 0.1 percentage points at Grades A*–E (98.6% to 98.5%).

Table 30: Three Country, N. Ireland & CCEA Performance (Gender)

2016	Three Country		NI Only		CCEA	
	Males	Females	Males	Females	Males	Females
%A*	8.5 (8.7)	7.7 (7.8)	7.5 (7.4)	7.8 (7.8)	8.3 (8.0)	9.0 (8.8)
%A*–A	25.7 (25.7)	26.0 (26.1)	27.2 (27.2)	31.3 (31.0)	29.6 (29.4)	34.4 (34.1)
%A–E	97.6 (97.5)	98.5 (98.5)	98.0 (97.9)	98.3 (98.4)	98.3 (98.3)	98.7 (98.8)

Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland & UK), 2016: And, CCEA Internal A2-Level Full Course Results, 2016

- Three Country results show the gender difference at Grade A* is 0.8 percentage points. In N. Ireland it is 0.3 percentage points; and with CCEA it is 0.7 percentage points.
- Three Country results show the gender difference at Grades A*–A, is 0.3 percentage points. In N. Ireland it is 4.1 percentage points; and with CCEA it is 4.8 percentage points.
- The overall pass rate gender difference is 0.9 percentage points in the Three Countries. In N. Ireland it is 0.3 percentage points; and with CCEA it is 0.4 percentage points.

- In N. Ireland female outcomes are roughly comparable with the Three Country outcomes at Grade A*, 5.3 percentage points ahead at Grades A*–A, and 0.2 percentage points behind at Grades A*–E.
- N. Ireland males perform less well than the Three Country males at Grade A* by 1.0 percentage point, are 1.5 percentage points ahead at Grades A*–A, and 0.4 percentage points ahead at Grades A*–E.

- With CCEA; females are 1.3 percentage points ahead of the Three Country figure at Grade A*, 8.4 percentage points ahead at Grades A*–A, and 0.2 percentage points ahead at Grades A*–E.
- Males are 0.2 percentage points lower than the Three Country figure at Grade A*, 3.9 percentage points ahead at Grades A*–A, and 0.7 percentage points ahead at Grades A*–E.
- With CCEA, females are 1.2 percentage points ahead of N. Ireland at Grade A*, 3.1 percentage points ahead at Grades A*–A, and 0.4 percentage points ahead at Grades A*–E. Males are 0.8 percentage points ahead at Grade A*, 2.4 percentage points ahead at Grades A*–A, and 0.3 percentage points ahead at Grades A*–E.

- For N. Ireland and CCEA candidates, female students outperform their male counterparts across all grades. However, the Three Country figures indicate that, although females outperform boys at Grades A*–A (26.0% to 25.7%) and A*–E (98.5% to 97.6%), a larger proportion of males achieved a Grade A* in 2016 (8.5% to 7.7%).

The five most popular subjects at A2-Level in N. Ireland are:

Table 31: Most Popular A2-Level Subjects

	Overall	Males	Females
1	Mathematics (10.6%)	Mathematics (13.6%)	Biology (11.3%)
2	Biology (9.8%)	Biology (7.9%)	English (9.1%)
3	History (7.3%)	History (7.9%)	Mathematics (8.2%)
4	English (6.7%)	Physics (7.3%)	Religious Studies (8.2%)
5	Religious Studies (6.5%)	ICT (6.1%)	History (6.8%)

Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

As with GCSE and AS-Level, additional analysis will be based on various subject categories.

5.2 A2-Level STEM (Entries & Performance)

The STEM analysis for A2-Level will focus on the same subjects as those analysed at AS-Level.

5.2.1 Entries

Table 32: A2-Level STEM Subject Trends (2012–2016)

	Year				
	2011–12	2012–13	2013–14	2014–15	2015–16
Biology	3,470	3,359	3,158	3,111	3,107
Chemistry	1,849	1,920	1,845	1,843	1,864
Computing	52	67	106	168	245
Design & Technology	994	998	939	1,022	987
Mathematics	3,120	3,176	3,065	3,328	3,376
Further Mathematics	155	173	191	181	189
ICT	1,496	1,524	1,434	1,498	1,479
Physics	1,536	1,577	1,549	1,532	1,414
Total	**12,672**	**12,794**	**12,287**	**12,683**	**12,661**
Total Entry	**32,908**	**32,836**	**31,600**	**32,390**	**31,828**
STEM as a % of Total Entry	**38.5%**	**39.0%**	**38.9%**	**39.2%**	**39.8%**

Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

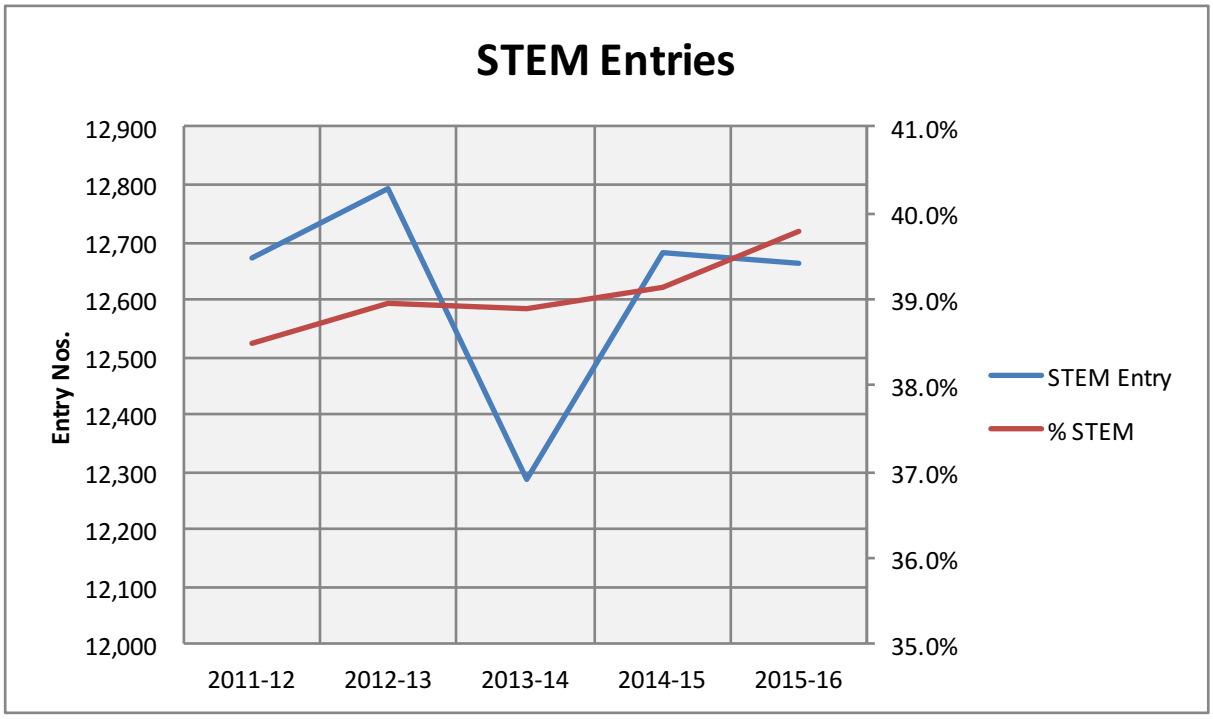
Most subject entries for A2-Level STEM have typically fluctuated year-on-year indicating no real trend regarding entry; this implies that numbers are largely affected by the size of the student cohort for that particular year. However, there are some subjects detailed in the table above where trends can be observed. These are:

- **Biology**: Subject entries have been in constant decline since 2012 (-363);
- **Chemistry**: Subject entries have been in slight decline since 2013 (-56); and
- **Physics**: Subject entries have been in decline since 2013 (-163).

Proportional entry however has typically increased year-on-year; indicating that STEM is becoming more popular over time.

In 2016 STEM candidature increased by 0.6% (largely driven by an increase in the Mathematics and Computing candidature). Furthermore, since 2012 it has increased by 1.3% to 39.8%. Although there were issues identified in the bullets above, the proportional shares have not been affected and have remained relatively stable.

Figure 40: A2-Level STEM Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

Table 33 below considers entry trends for both male and female students.

Table 33: A2-Level STEM Subject Trends by Gender (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Male					
STEM Entry	6,849	7,285	6,928	6,987	6,829
Total Entry	14,795	15,059	14,423	14,414	14,085
STEM as a % of Total Entry	46.3%	48.4%	48.0%	48.5%	48.5%
Female					
STEM Entry	6,417	6,302	6,130	6,434	6,480
Total Entry	18,113	17,777	17,177	17,976	17,743
STEM as a % of Total Entry	35.4%	35.5%	35.7%	35.8%	36.5%

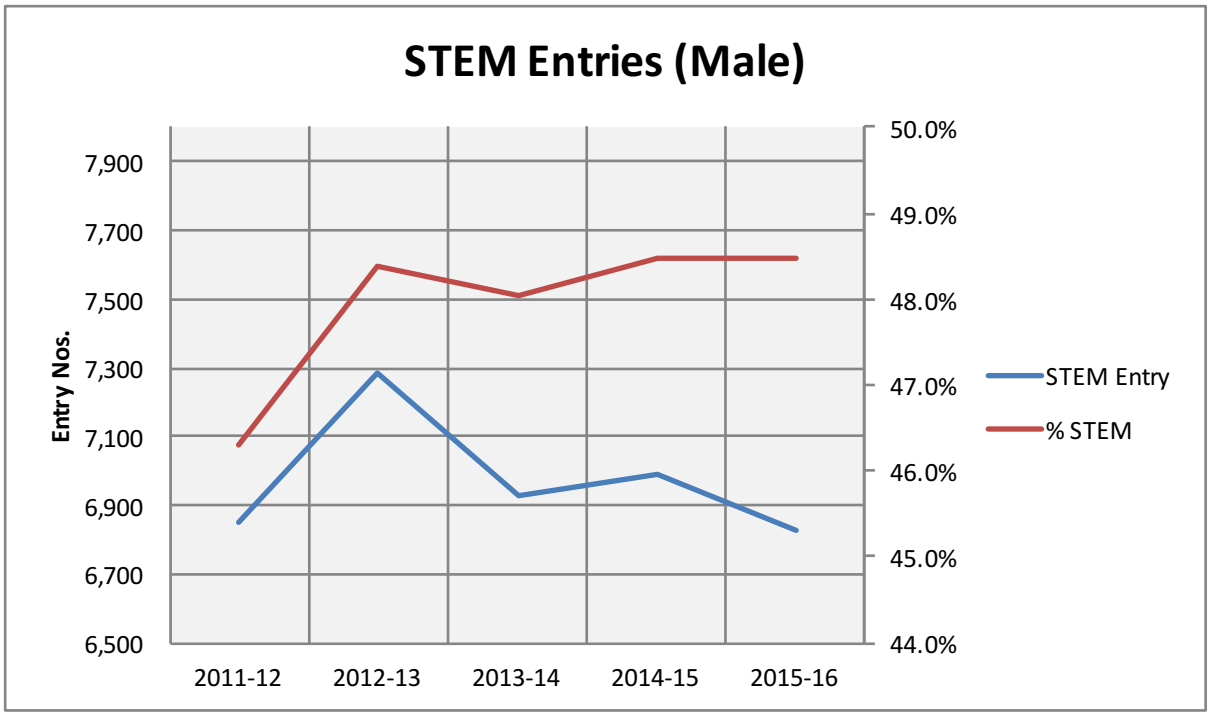
Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

As expected, due to the changes in total candidature identified earlier, it can be seen that the total number of male STEM students has fluctuated year-on-year. The total share of male students had increased by 2.2% between 2012 and 2016; indicating an increase in popularity.
For female students, there was a decrease in candidature between 2012 and 2014 and a subsequent increase between 2015 and 2016.

The proportion of female students studying STEM at A2 has however experienced a pronounced increase since 2012. Over one-third of female students (36.5%) now study STEM at A Level; female students studying STEM is now numerically and proportionally at its highest level since 2012. This has helped drive the increase in overall share, particularly over the last two years.

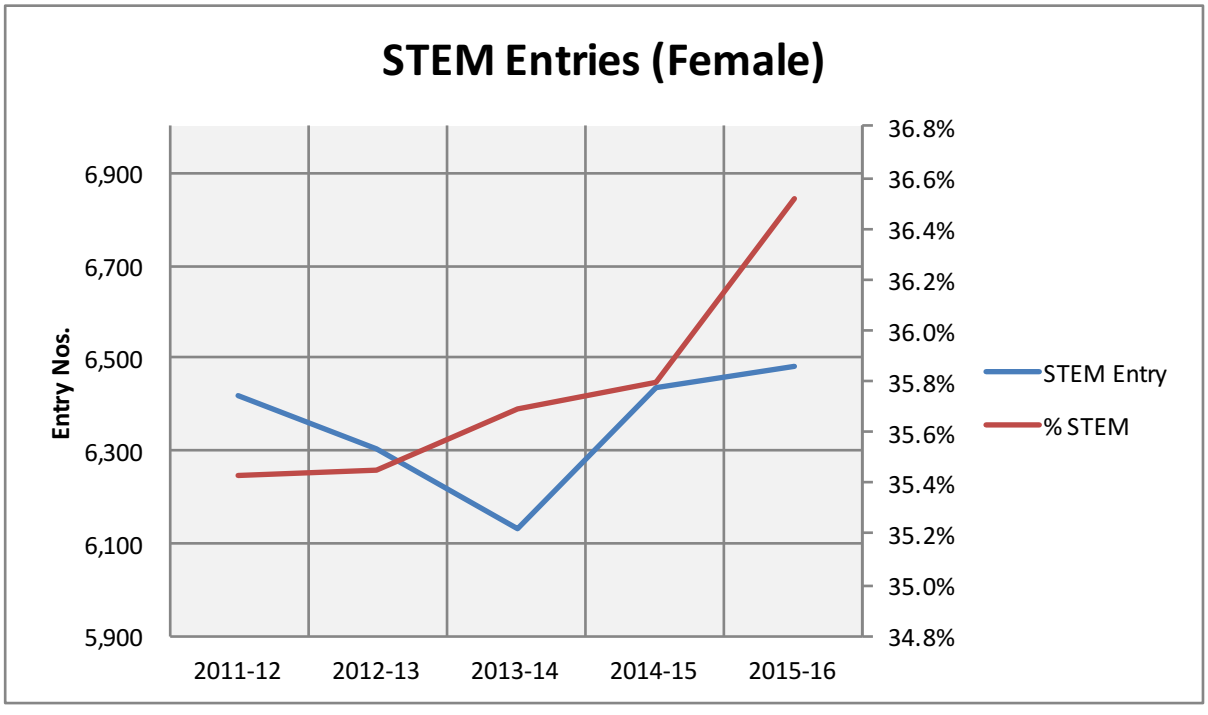
At A2-Level the split between male and female STEM students has narrowed over time.
Figure 41 below indicates that the gap has narrowed from a 54/46 split to a 51/49 split in favour of male students. This is different to what was observed at GCSE and AS-Level where the male/female split remained consistent over five years.

Figure 41: A2-Level Male STEM Entry (2012–2016)



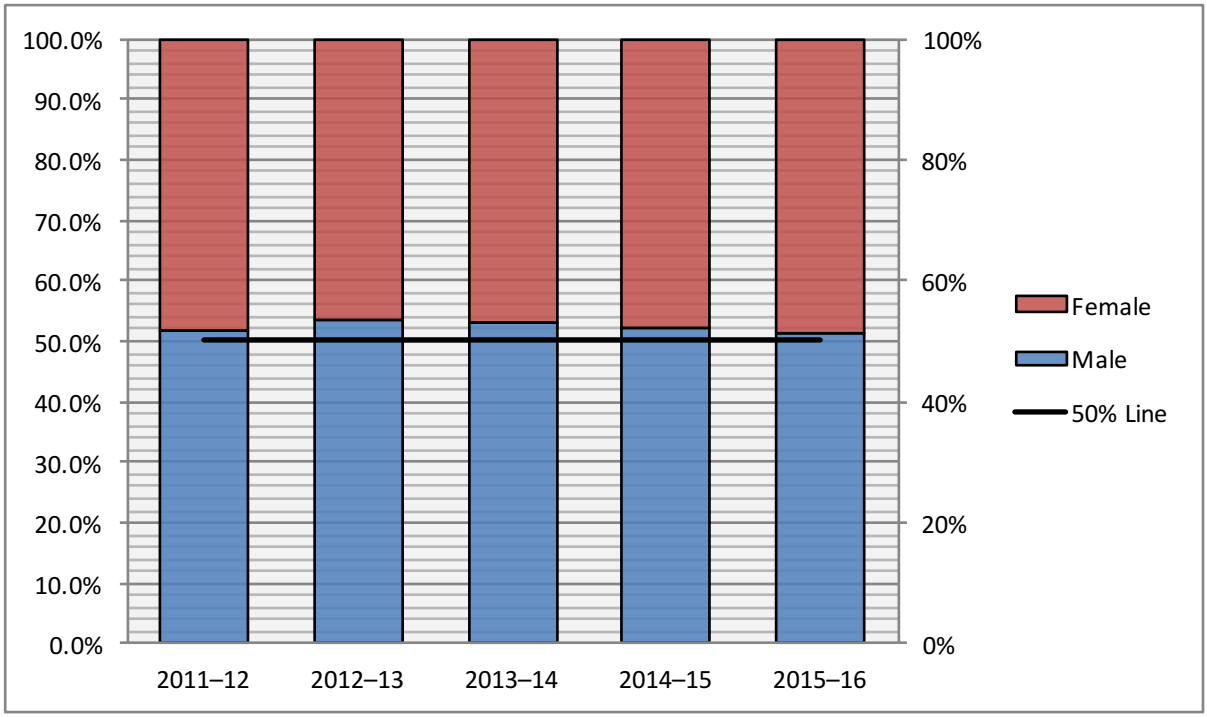
Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

Figure 42: A2-Level Female STEM Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

Figure 43: A2-Level STEM Entry Breakdown (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

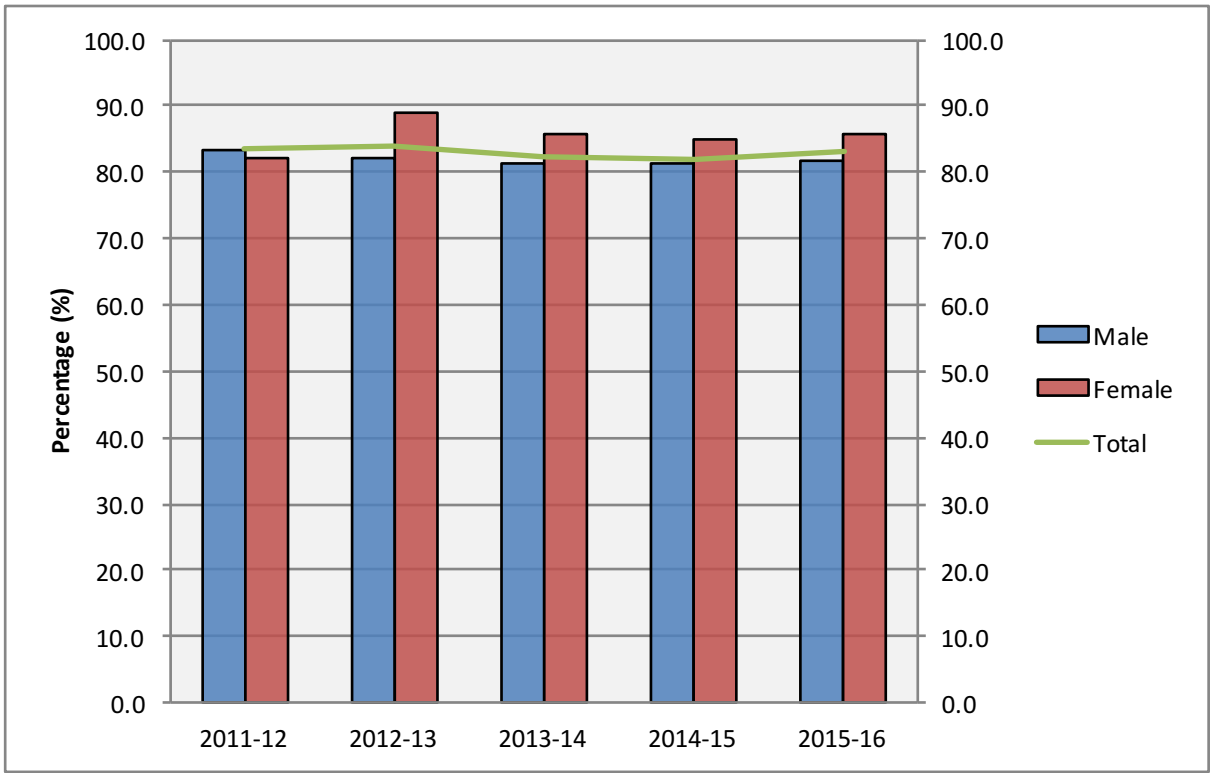
5.2.2 Performance

Table 34: Cumulative A*–C Grades for A2-Level STEM (2012–2016)

		Year				
		2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Male	Total	665.7	658.1	650.4	649.6	653.5
	Average	83.2	82.3	81.3	81.2	81.7
Female	Total	656.4	711.6	686.1	677.8	687.3
	Average	82.1	89.0	85.8	84.7	85.9
Male & Female	Total	669.6	670.0	659.4	654.7	663.7
	Average	83.7	83.8	82.4	81.8	83.0

Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

Figure 44: Cumulative A*–C Grades for A2-Level STEM (2012–16)



Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

- The table on the previous page presents information on A2-Level students' performance at Grades A*–C in STEM subjects over the last five academic years (i.e. 2012–16).
- As is highlighted female students (except for 2012) tend to outperform their male counterparts at STEM.
- A performance gap has however opened up between male and female students since 2013, which has persisted over time.

5.3 A2-Level Languages (Entries & Performance)

5.3.1 Entries

Table 35: A2-Level Language Subject Trends (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
French	601	550	543	536	503
German	125	99	120	97	102
Irish	304	309	313	330	331
Spanish	490	513	436	534	524
Total	**1,520**	**1,471**	**1,412**	**1,497**	**1,460**
Total Entry	**32,908**	**32,836**	**31,600**	**32,390**	**31,828**
Languages as a % of Total Entry	**4.6%**	**4.5%**	**4.5%**	**4.6%**	**4.6%**

Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

Regarding A2-Level languages, both French and Spanish have experienced declines in the last year (-33 and -10 respectively) German and Irish entries on the other hand have increased in 2016 (+5 and +1 respectively).

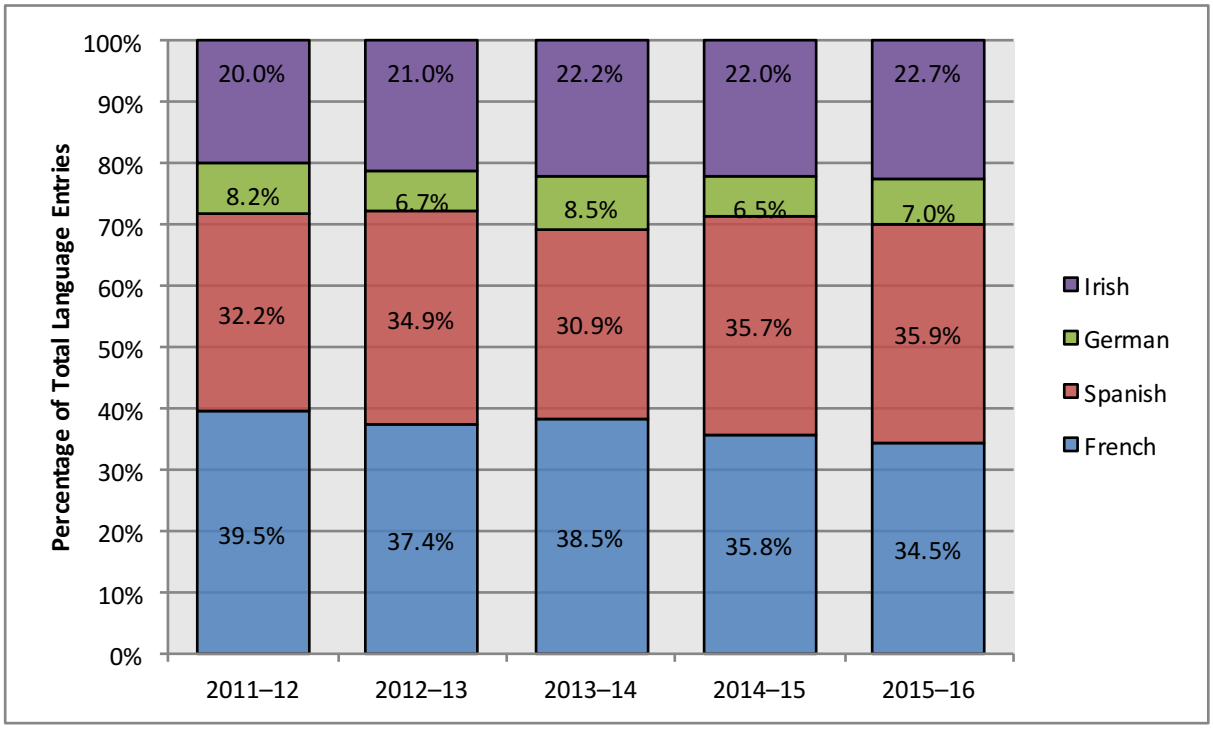
Languages, with the exception of French and Irish, have typically fluctuated year-on-year, influenced most likely by changes in the total candidature. French has experienced a 16.3% (-98) decline in candidature over the same period, whilst Irish has experienced small year-on-year increases since 2012 (+27).

Spanish, though numbers fluctuate year-on-year experienced a large increase between 2014 and 2015 in candidature (+98).

These trends have meant that the proportional entry for languages has remained consistent over the last five years. This reflects proportional entry experienced for languages at GCSE and AS-Level.

The table above is detailed graphically in Figures 45 and 46 overleaf.

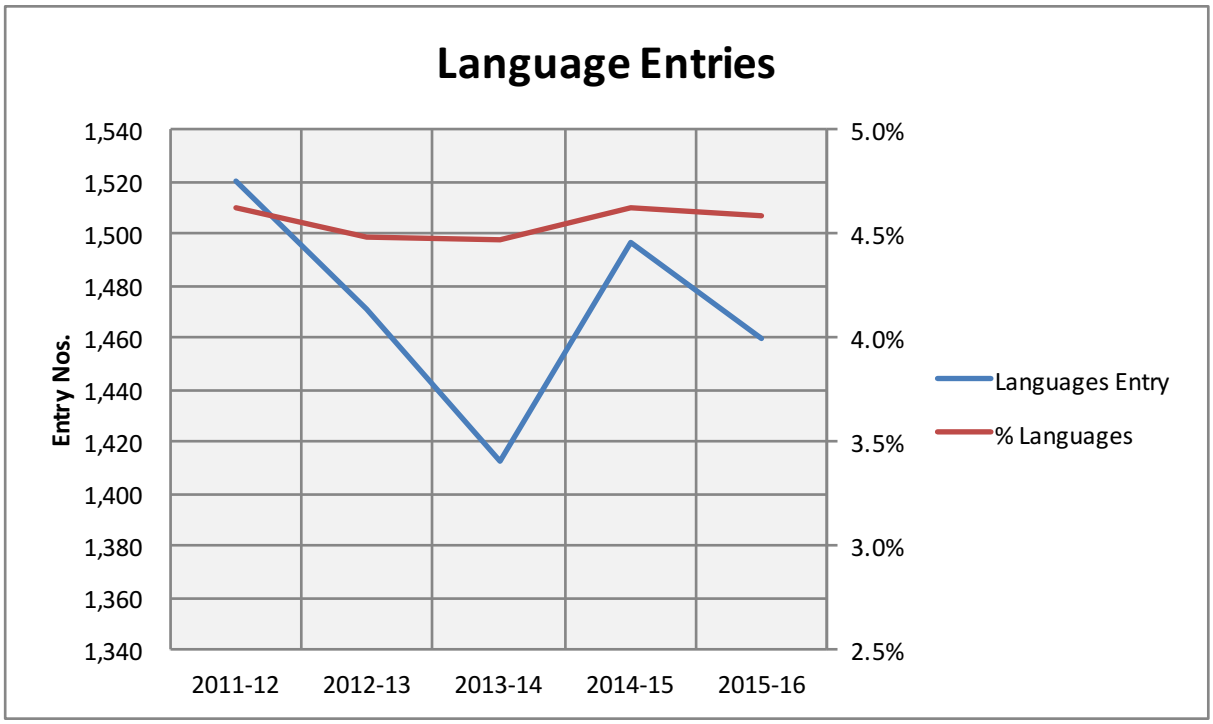
Figure 45: A2-Level Language Entry Breakdown (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

- As illustrated above, French as a language is becoming a less popular subject choice at A2-Level. Since 2012 French, as a share of all language candidature, has declined from 39.5% to 34.5%.
- This is similar to what was noted at GCSE and AS-Level; as such, this decline in popularity could be considered an area for future research.
- Conversely, Spanish entries have increased from 32.2% to 35.9% over the same time period making Spanish the most popular language now taught at A2-Level.
- German and Irish (in spite of its year-on-year increase) have maintained a consistent share of the language candidature over the last five years.
- This mirrors the trends observed at AS-Level, indicating that follow on levels for individual languages remains stable between AS and A2.

Figure 46: A2-Level Language Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

Table 36 below, considers entry trends for both male and female students.

Table 36: A2-Level Language Subject Trends by Gender (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Male					
Languages Entry	474	470	444	463	489
Total Entry	14,795	15,059	14,423	14,414	14,085
Languages as a % of Total Entry	3.2%	3.1%	3.1%	3.2%	3.5%
Female					
Languages Entry	1,046	1,001	968	1,034	971
Total Entry	18,113	17,777	17,177	17,976	17,743
Languages as a % of Total Entry	5.8%	5.6%	5.6%	5.8%	5.5%

Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

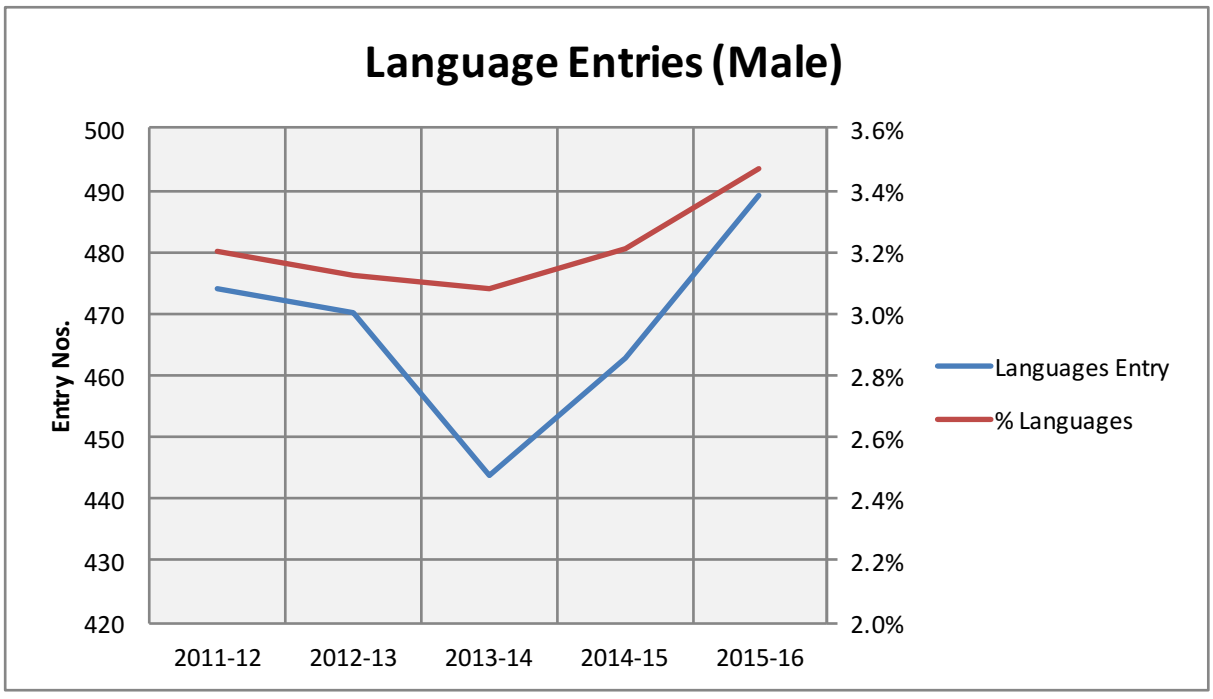
It can be seen that male candidature in languages has increased over the last year (+26), whilst female candidature has declined (-63).

Total numbers of female candidates have typically fluctuated year-on-year since 2012. However, the proportion of female students (as a % of total candidature) studying A2 Languages has, excluding an increase in 2015, experienced a slight decline since 2012 (-0.3%). This indicates that languages are becoming a less popular subject option for female students at this level of study.

Male candidature in languages has increased over the last two years (+45). The overall proportion of male students studying at least one language at A2-Level has increased by 0.3% over the last academic year to 3.5%.

Though a smaller number of male students study a language at A2-Level when compared to female students (similar to GCSE and AS-Level[4]); it can be stated that there appears to be a slight increase in popularity for this particular group, similar to that noted at AS-Level.

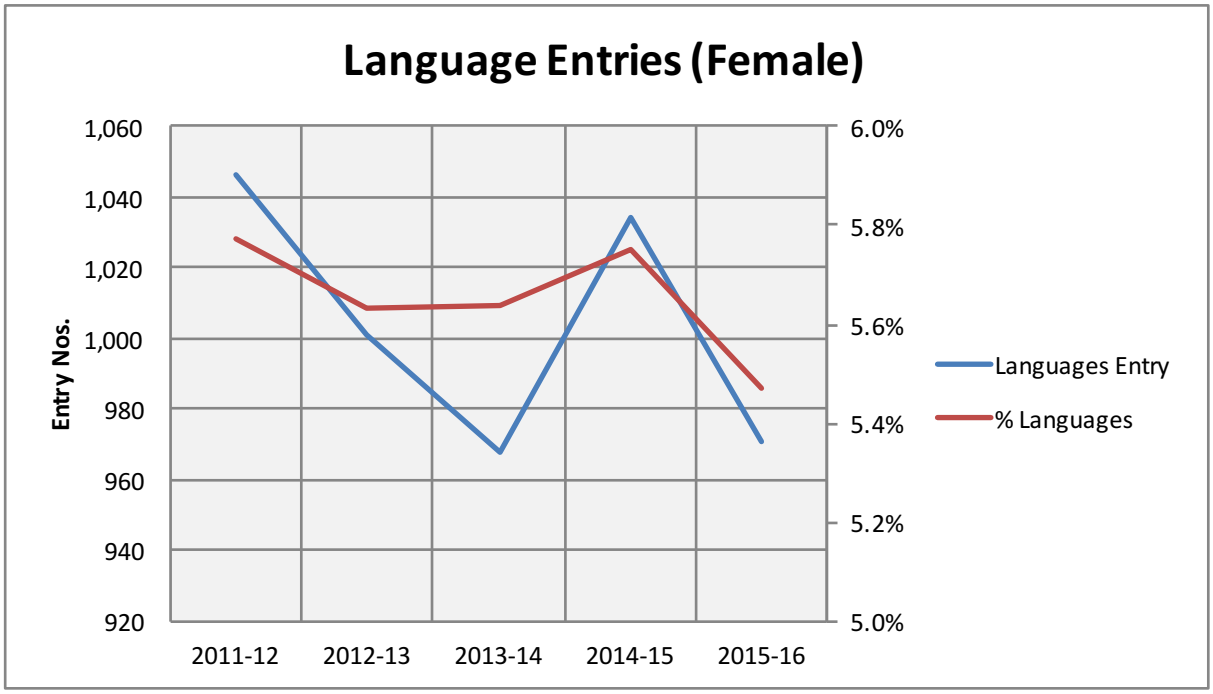
Figure 47: A2-Level Male Language Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

[4] Female entries in languages have been consistently higher than what has been observed in males across all three levels of study. Factors contributing to this could be explored through future research.

Figure 48: A2-Level Female Language Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

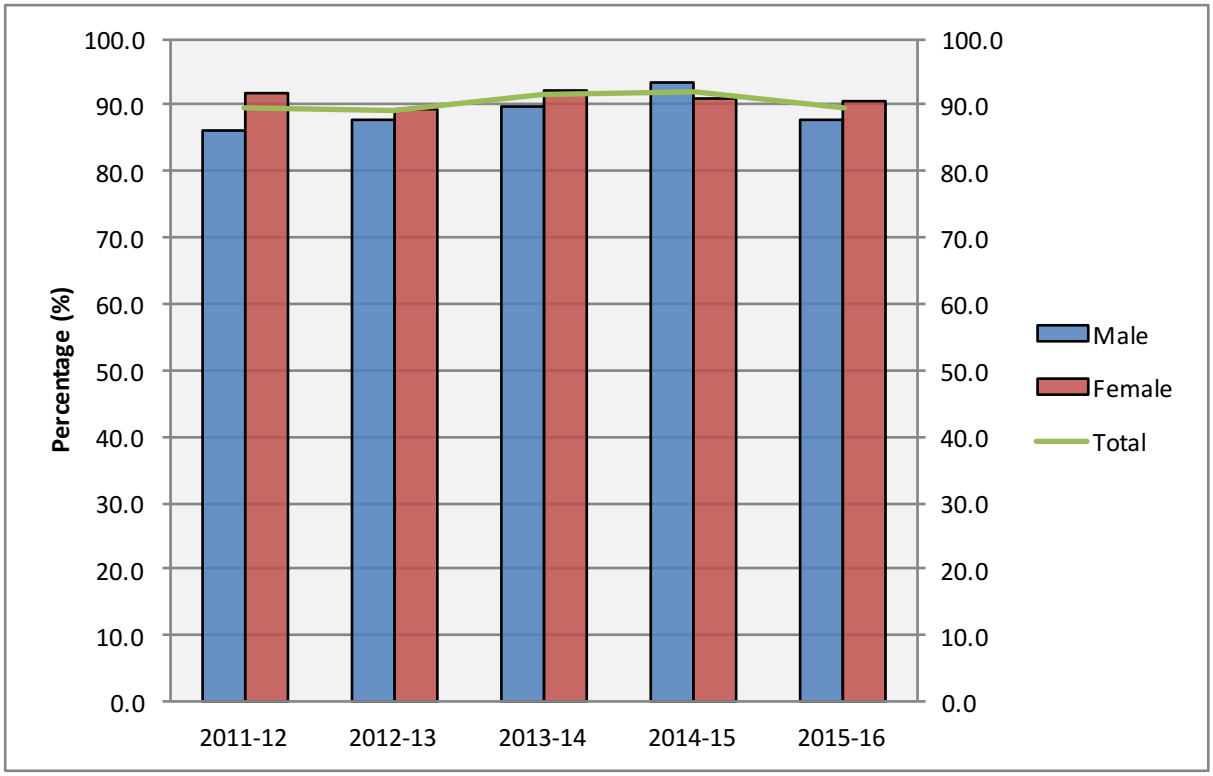
5.3.2 Performance

Table 37: Cumulative A*–C Grades for A2-Level Languages (2012–2016)

		Year				
		2011–12	2012–13	2013–14	2014–15	2015–16
Male	Total	344.1	350.8	359.1	373.2	351.5
	Average	86.0	87.7	89.8	93.3	87.9
Female	Total	367.6	357.1	369.1	364.6	361.8
	Average	91.9	89.3	92.3	91.2	90.5
Male & Female	Total	358.8	356.7	365.9	368.2	357.6
	Average	89.7	89.2	91.5	92.1	89.4

Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

Figure 49: Cumulative A*–C Grades for A2-Level Languages (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

- Table 37 presents information on A2-Level students' performance at Grades A*–C in Languages over the last five academic years (i.e. 2012–16).
- As illustrated in Figure 49, (excluding 2015) female students tend to outperform their male counterparts at languages.

5.4 A2-Level Arts & Humanities (Entries & Performance)

5.4.1 Entries

Table 38: A2-Level Arts & Humanities Subject Trends (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Art & Design	1,232	1,042	1,078	1,029	921
Classical Subjects	99	119	91	95	108
Drama	617	540	545	539	463
English	2,355	2,287	2,268	2,182	2,148
History	2,451	2,363	2,260	2,301	2,322
Law	34	39	44	37	62
Music	509	494	480	455	358
Performing/Expressive Arts	9	13	8	87	120
Political Studies	1,061	1,091	868	1,016	1,005
Religious Studies	2,402	2,503	2,275	2,401	2,066
Sociology	1,048	1,007	937	880	914
Total	**11,817**	**11,498**	**10,854**	**11,022**	**10,487**
Total Entry	**32,908**	**32,836**	**31,600**	**32,390**	**31,828**
Arts & Humanities as a % of Total Entry	**35.9%**	**35.0%**	**34.3%**	**34.0%**	**32.9%**

Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

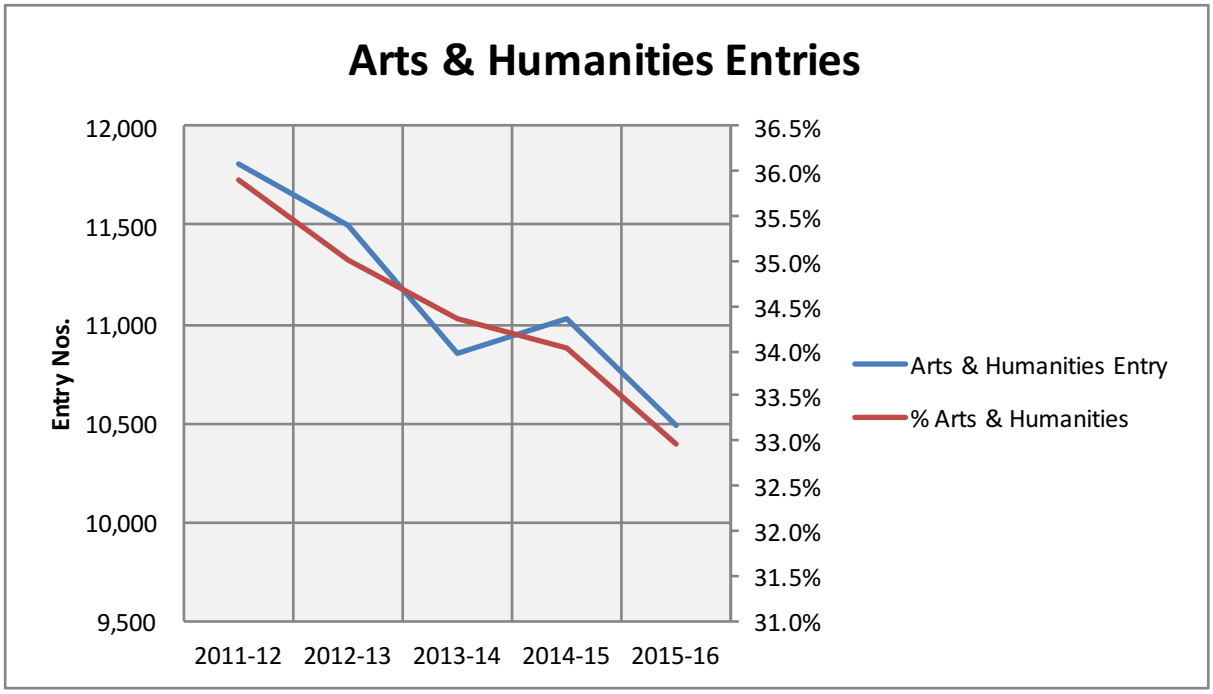
Over the last year there has been an overall decline in the number of students studying Arts & Humanities (-535). Regarding individual subjects, the largest reductions have been noted in the following subjects:

- Art & Design (-108);
- Drama (-76);
- English (-34);
- Music (-97); and
- Religious Studies (-335).

Over the last five years subjects such as Art & Design, English and Music have been in consistent decline (please note that this was also observed for these subjects at AS-Level). This has largely driven a gradual reduction in the number of candidates studying Arts & Humanities at this level. Proportional entry has also been in decline since 2012 (-3%). It can be stated that the Arts & Humanities are becoming less popular at this level of study; again this mirrors the trends identified at AS-Level.

This is depicted in Figure 50 below.

Figure 50: A2-Level Arts & Humanities Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

Table 39 below, considers entry trends for both male and female students.

Table 39: A2-Level Arts & Humanities Subject Trends by Gender (2012–2016)

	Year				
	2011–12	**2012–13**	**2013–14**	**2014–15**	**2015–16**
Male					
Arts & Humanities Entry	4,369	4,141	3,930	3,812	3,619
Total Entry	14,795	15,059	14,423	14,414	14,085
Arts & Humanities as a % of Total Entry	29.5%	27.5%	27.2%	26.4%	25.7%
Female					
Arts & Humanities Entry	7,448	7,357	6,924	7,210	6,868
Total Entry	18,113	17,777	17,177	17,976	17,743
Arts & Humanities as a % of Total Entry	41.1%	41.4%	40.3%	40.1%	38.7%

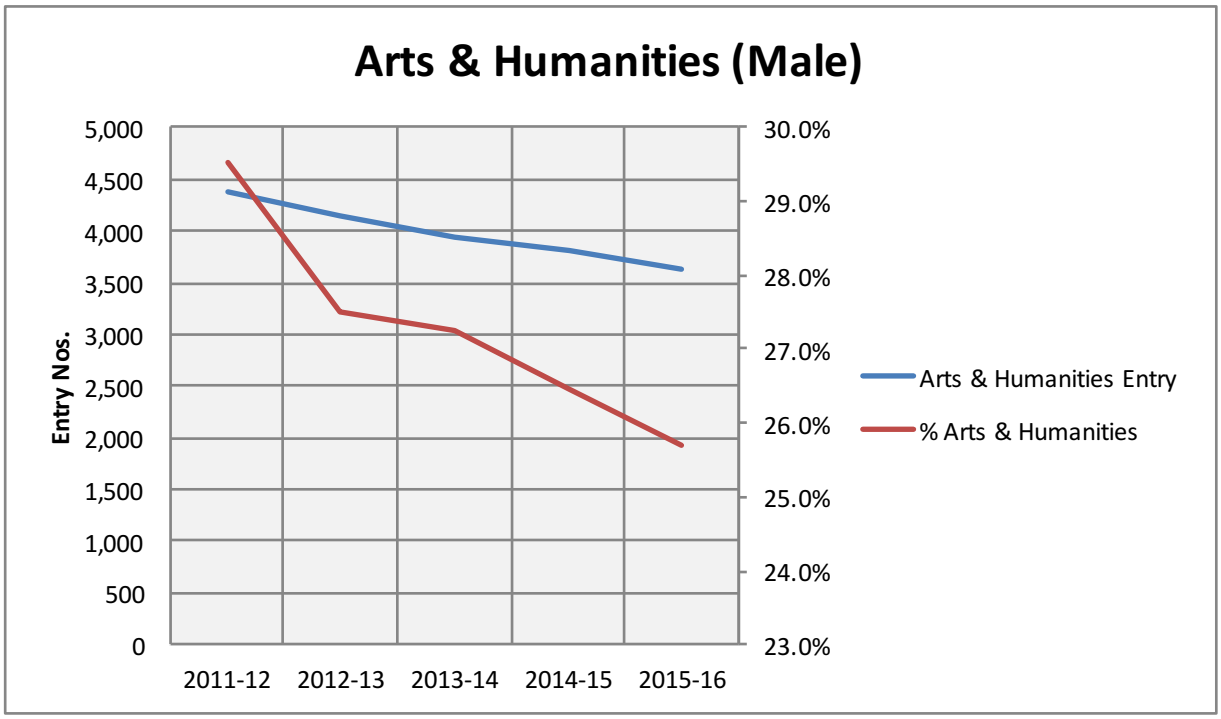
Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

The total number and overall proportion of male students studying Arts & Humanities has decreased year-on-year between 2012 and 2016 (-750; -3.8%). Therefore, it would appear that, for male students, Arts & Humanities are becoming less popular in real terms. A marked decline in male Arts & Humanities has been observed across all three levels of study and appears to be driving the overall decline. These trends could be considered an area for future research.

For female students, numbers have fluctuated year-on-year since 2012. There are no identifiable trends with regards to entry numbers over this period. Nevertheless, when proportional entry is considered, Arts & Humanities as a proportion of the total female candidature has dropped by 2.4% over the last five years.

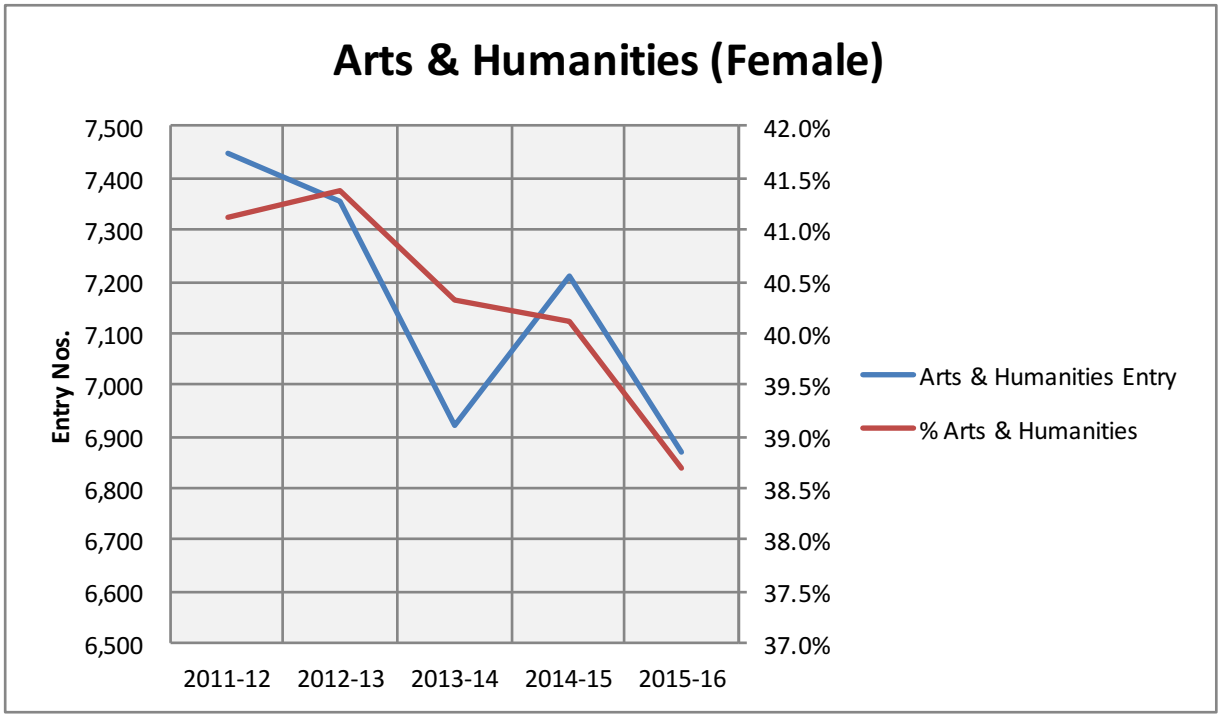
Both groups have contributed to the overall trends identified earlier. As such, the Arts & Humanities seem to be becoming less popular for both sets of students.

Figure 51: A2-Level Male Arts & Humanities Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

Figure 52: A2-Level Female Arts & Humanities Entry (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

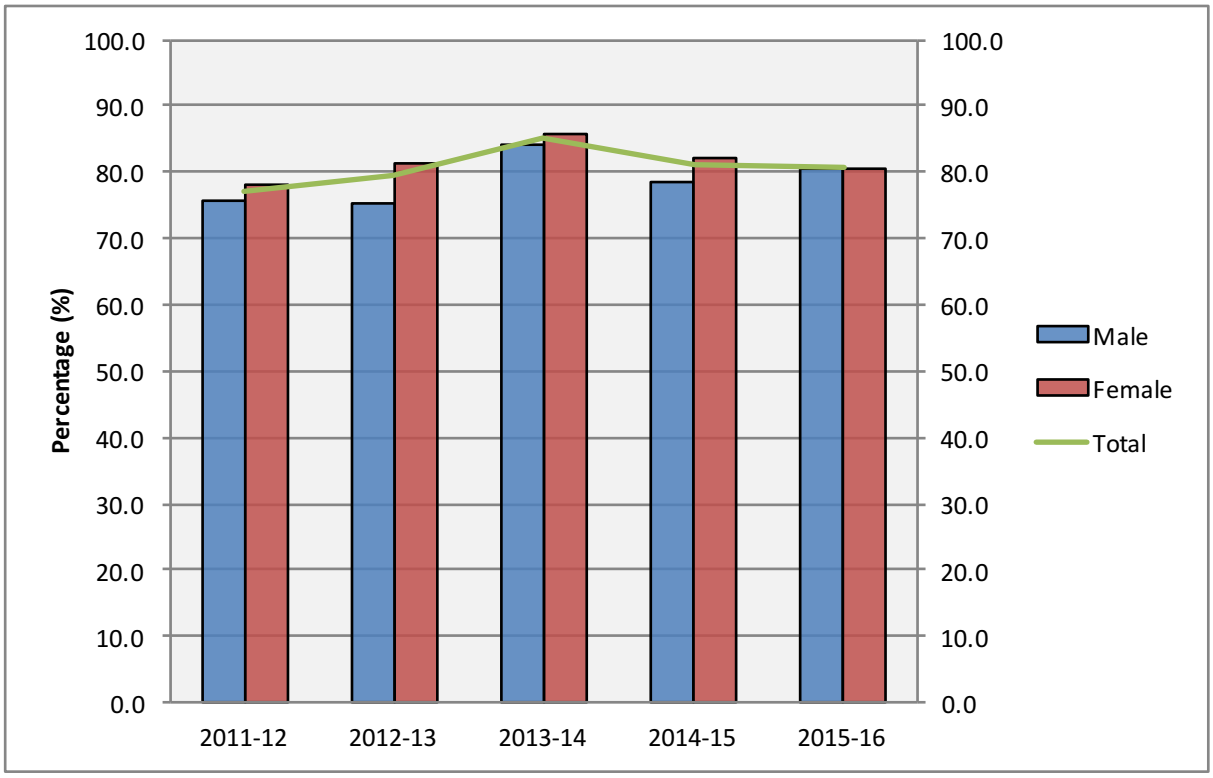
5.4.2 Performance

Table 40: Cumulative A*–C Grades for A2-Level Arts & Humanities (2012–2016)

		Year				
		2011–12	2012–13	2013–14	2014–15	2015–16
Male	Total	830.9	828.3	923.2	863.7	886.2
	Average	75.5	75.3	83.9	78.5	80.6
Female	Total	857.1	896.1	943.1	901.8	887.1
	Average	77.9	81.5	85.7	82.0	80.6
Male & Female	Total	846.8	872.6	937.3	891.3	888.4
	Average	77.0	79.3	85.2	81.0	80.8

Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

Figure 53: Cumulative A*–C Grades for A2-Level Arts & Humanities (2012–2016)

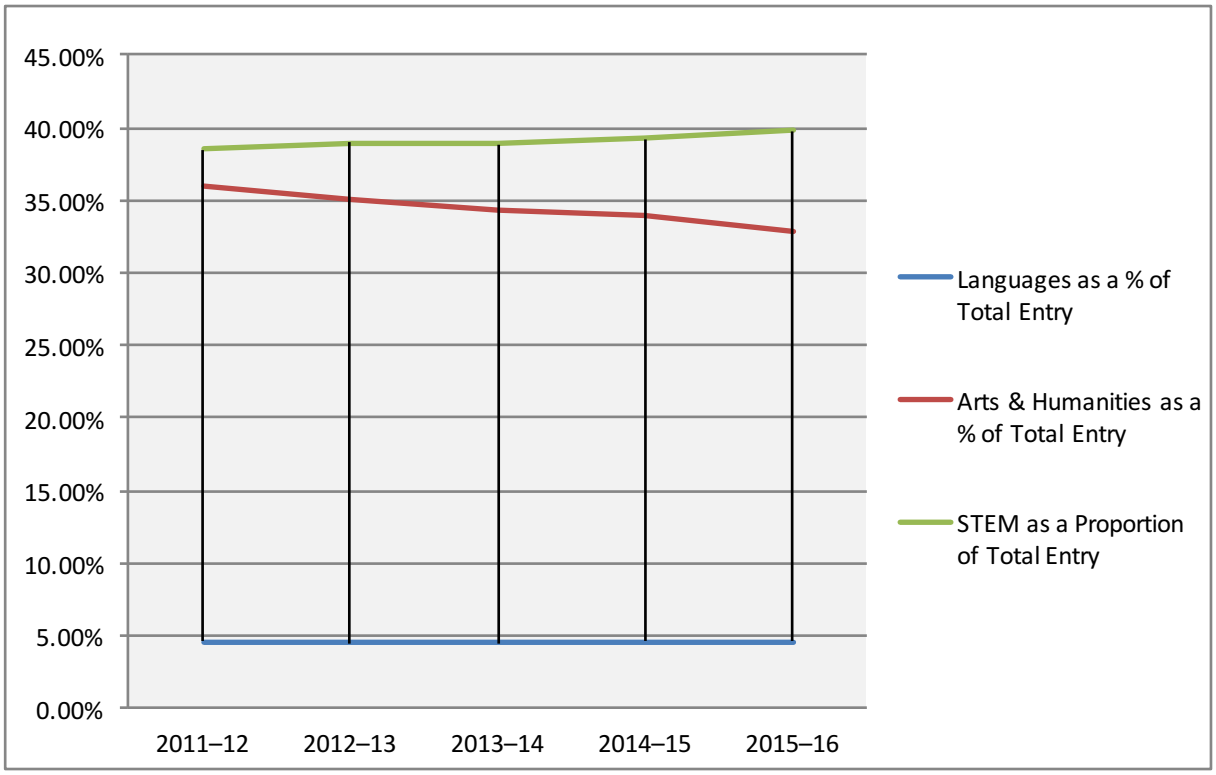


Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

- Table 40 presents information on A2-Level students' performance at Grades A*–C in Arts & Humanities over the last five academic years (i.e. 2012–16).
- As illustrated in Figure 53, female students tend to outperform their male counterparts at Arts & Humanities.
- The performance gap between male and female students seems to have narrowed over time at this level. As illustrated in the figure above, in 2016 the same proportion of male and female students achieved at least a Grade C at this level.

5.5 A2-Level Summary

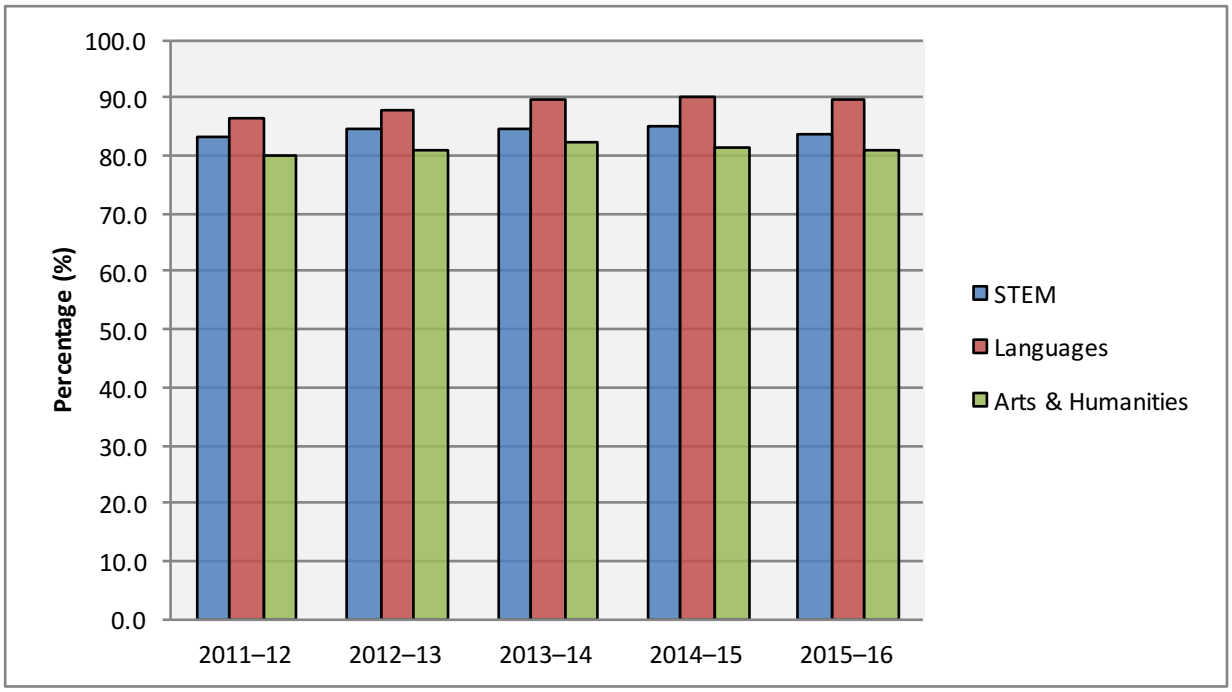
Figure 54: A2-Level Entry Summary (2012–2016)



Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

- Over the last five years, STEM subjects have been the most popular based on the overall % entry. On average, 39.1% of total entry for A2-Level subjects has been comprised of STEM subjects.
- This mirrors the trends noted at AS-Level.
- At A2-Level Arts & Humanities make up on average 34.4% of the total entries.
- Again this would appear to indicate that, when given more autonomy, students will tend to opt for STEM in their subject choices.
- As noted at all preceding levels of study, the overall proportion of Arts & Humanities students has been slowly declining over the previous five years whilst for STEM subjects the opposite has been noted.
- A2-Level Languages have maintained a level of popularity over the last five academic years. Proportional entry has been around 4.6% over this time period.

Figure 55: Cumulative A*–C Grades for AS-Level (2012–2016):



Source: Joint Council for Qualifications (JCQ) – Provisional A2-Level Full Course Results (Northern Ireland), 2012–2016

- Regarding performance, A2-Level students on average tend to perform better in languages when compared to other subject categories. On average, 88.7% of all students achieved at least a Grade C at this Level. This trend has persisted across all three levels of study.
- It is not clear at this stage what the reasons are for this persistence, whether it is a result of assessment methodologies or the types of students attracted to studying languages; however, it could be considered an area for further research.
- Similar to GCSE but not at AS-Level, the Arts & Humanities recorded the poorest performance levels amongst students. In total, 81.1% of all students achieved at least a Grade C at this level.
- On average, 84.2% students achieve between Grades A*–C at A2-Level.
- It should be noted that over 80% of all students achieved at least a Grade C across these subject categories. This suggests that there is a high level of performance for N Ireland students regardless of subject choice at this level.

6 Other subjects (GCSE, AS & A2)

The previous three sections of this report looked at the following subject categories:

- STEM;
- Languages; and
- Arts & Humanities.

Although these categories provided good coverage across the majority of qualifications, there were some important subjects that were omitted, namely: Business Studies, Geography and Media/Film Studies. Detailed in this section are the entry trends for these subjects over the last five years.

6.1 Business Studies

Table 41: Business Studies Entry Trends (GCSE, AS & A2-Level) (2012–2016)

		Year				
		2011–12	2012–13	2013–14	2014–15	2015–16
GCSE						
Business Studies Entry	M	1,804	1,859	2,012	1,841	1,833
	F	1,562	1,556	1,581	1,563	1,534
	T	3,366	3,415	3,593	3,404	3,367
Total Entry	M	85,585	85,921	84,302	84,668	80,218
	F	85,769	90,380	88,390	86,657	81,757
	T	171,354	176,301	172,692	171,325	161,975
% Total Entry	M	2.1%	2.2%	2.4%	2.2%	2.3%
	F	1.8%	1.7%	1.8%	1.8%	1.9%
	T	2.0%	1.9%	2.1%	2.0%	2.1%
AS-Level						
Business Studies Entry	M	976	1,012	1,039	1,107	1,161
	F	932	1,039	1,065	1,095	1,005
	T	1,908	2,051	2,104	2,202	2,166
Total Entry	M	20,113	19,681	20,362	20,915	20,814
	F	24,373	23,791	25,389	26,090	24,843
	T	44,486	43,472	45,751	47,005	45,657
% Total Entry	M	4.9%	5.1%	5.1%	5.3%	5.6%
	F	3.8%	4.4%	4.2%	4.2%	4.0%
	T	4.3%	4.7%	4.6%	4.7%	4.7%

Table 41 Continued

		Year				
		2011–12	2012–13	2013–14	2014–15	2015–16
A2-Level						
Business Studies Entry	M	666	718	697	691	744
	F	599	721	755	699	717
	T	1,265	1,439	1,452	1,390	1,461
Total Entry	M	14,795	15,059	14,423	14,414	14,085
	F	18,113	17,777	17,177	17,976	17,743
	T	32,908	32,836	31,600	32,390	31,828
% Total Entry	M	4.5%	4.8%	4.8%	4.8%	5.3%
	F	3.3%	4.1%	4.4%	3.9%	4.0%
	T	3.8%	4.4%	4.6%	4.3%	4.6%

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE, AS & A2-Level Full Course Results (Northern Ireland), 2012–2016

- At GCSE Level, Business Studies entry numbers and their proportional share of total entry has remained relatively consistent over the last five years for the male, female and total cohorts.
- At AS-Level, Business Studies entry numbers and their proportional share of total entry have increased over the last five years for the male cohort. Proportional share has increased from 4.9% to 5.6% over this period.
- Female proportional entry at AS-Level has ranged from between 3.8% and 4.4%. There has been no apparent trend observed with regards to this group.
- Similar to AS, entry numbers and their proportional share of total entry have increased between 2012 and 2016 for male students at A2-Level. Proportional share has increased from 4.5% to 5.3% over this period.
- Proportional entry for female students at A2-Level has ranged from between 3.3% and 4.4%. Again, there has been no apparent trend observed with regards to this group.
- Overall increases in Business Studies proportional candidature at AS and A2-Level appear to be largely male driven.

6.2 Geography

Table 42: Geography Entry Trends (GCSE, AS & A2-Level) (2012–2016)

		Year				
		2011–12	2012–13	2013–14	2014–15	2015–16
GCSE						
Geography Entry	M	3,853	3,852	3,753	3,624	3,191
	F	3,002	3,278	3,054	2,964	2,857
	T	6,855	7,130	6,807	6,588	6,048
Total Entry	M	85,585	85,921	84,302	84,668	80,218
	F	85,769	90,380	88,390	86,657	81,757
	T	171,354	176,301	172,692	171,325	161,975
% Total Entry	M	4.5%	4.5%	4.5%	4.3%	4.0%
	F	3.5%	3.6%	3.5%	3.4%	3.5%
	T	4.0%	4.0%	3.9%	3.8%	3.7%
AS-Level						
Geography Entry	M	1,171	1,200	1,223	1,268	1,290
	F	1,312	1,268	1,431	1,481	1,243
	T	2,483	2,468	2,654	2,749	2,533
Total Entry	M	20,113	19,681	20,362	20,915	20,814
	F	24,373	23,791	25,389	26,090	24,843
	T	44,486	43,472	45,751	47,005	45,657
% Total Entry	M	5.8%	6.1%	6.0%	6.1%	6.2%
	F	5.4%	5.3%	5.6%	5.7%	5.0%
	T	5.6%	5.7%	5.8%	5.8%	5.5%
A2-Level						
Geography Entry	M	848	946	917	895	871
	F	1,020	1,055	979	1,079	993
	T	1,868	2,001	1,896	1,974	1,864
Total Entry	M	14,795	15,059	14,423	14,414	14,085
	F	18,113	17,777	17,177	17,976	17,743
	T	32,908	32,836	31,600	32,390	31,828
% Total Entry	M	5.7%	6.3%	6.4%	6.2%	6.2%
	F	5.6%	5.9%	5.7%	6.0%	5.6%
	T	5.7%	6.1%	6.0%	6.1%	5.9%

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE, AS & A2-Level Full Course Results (Northern Ireland), 2012–2016

- At GCSE Level, Geography entry numbers have been in decline since 2012 for male students. Proportional entry has declined by 0.5% in the last two years. Female entry and proportional share on the other hand has remained consistent since 2012. This has helped offset any declines observed within the male cohort.
- At AS and A2-Levels, Geography entry numbers and their proportional share of total entry has fluctuated year-on-year since 2012 for the male, female and total cohorts.
- There are no apparent trends noted at either these levels of study.

6.3 Media/Film Studies

Table 43: Media/Film Studies Entry Trends (GCSE, AS & A2-Level) (2012–2016)

		Year				
		2011–12	2012–13	2013–14	2014–15	2015–16
GCSE						
Media/Film Studies Entry	M	590	662	695	806	941
	F	734	788	749	800	830
	T	1,324	1,450	1,444	1,606	1,771
Total Entry	M	85,585	85,921	84,302	84,668	80,218
	F	85,769	90,380	88,390	86,657	81,757
	T	171,354	176,301	172,692	171,325	161,975
% Total Entry	M	0.7%	0.8%	0.8%	1.0%	1.2%
	F	0.9%	0.9%	0.8%	0.9%	1.0%
	T	0.8%	0.8%	0.8%	0.9%	1.1%
AS-Level						
Media/Film Studies Entry	M	622	639	714	747	764
	F	758	795	822	871	846
	T	1,380	1,434	1,536	1,618	1,610
Total Entry	M	20,113	19,681	20,362	20,915	20,814
	F	24,373	23,791	25,389	26,090	24,843
	T	44,486	43,472	45,751	47,005	45,657
% Total Entry	M	3.1%	3.2%	3.5%	3.6%	3.7%
	F	3.1%	3.3%	3.2%	3.3%	3.4%
	T	3.1%	3.3%	3.4%	3.4%	3.5%
A2-Level						
Media/Film Studies Entry	M	493	487	498	562	571
	F	648	586	636	645	679
	T	1,141	1,073	1,134	1,207	1,250
Total Entry	M	14,795	15,059	14,423	14,414	14,085
	F	18,113	17,777	17,177	17,976	17,743
	T	32,908	32,836	31,600	32,390	31,828
% Total Entry	M	3.3%	3.2%	3.5%	3.9%	4.1%
	F	3.6%	3.3%	3.7%	3.6%	3.8%
	T	3.5%	3.3%	3.6%	3.7%	3.9%

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE, AS & A2-Level Full Course Results (Northern Ireland), 2012–2016

- At GCSE Level, Media/Film Studies entry numbers and their proportional share of total entry has remained relatively consistent over the last five years for the female cohort.
- There have been increases in male students' total and proportional entry at this level. Entry has increased by 0.5% over the last five years (+351).
- At AS-Level, Media/Film Studies entry numbers and their proportional share of total entry have increased over the last five years for the male cohort. Proportional share has increased from 3.1% to 3.7% over this period.

- Female proportional entry at AS-Level has ranged from between 3.1% and 3.4%. There has been no apparent trend observed with regards to this group.
- Similar to AS, entry numbers and their proportional share of total entry have (excluding a dip in 2013) increased for male students at A2-Level. Proportional share has increased from 3.3% to 4.1% over this period.
- Proportional entry for female students at A2-Level has ranged from between 3.3% and 3.8%. Again, there has been no apparent trend observed with regards to this group.
- Overall increases in Media/Film Studies proportional candidature at all levels appear to be largely male driven.

7

Gender Differences
(GCSE Choice & Outcomes)

7.1 Introduction

This section of the report presents analysis of gender/sex differences in subject choice and examination outcomes, focusing on GCSEs taken in Northern Ireland. The report expands on the analysis carried out previously in this report and compliments the work conducted by Bramley et al. (2015)[5], who examined gender/sex differences in GCSE outcomes in England. Dot plots are used throughout to simplify the data presented.

As summarised by Bramley and colleagues, this topic is of perennial interest as it is related to a number of issues, including:

- Gender equality in the workplace (opportunities and remuneration);
- The proportion of women in STEM related jobs;
- Gender choices and outcomes in subjects studied at HE level;
- Gender stereotypes;
- Whether there are gender/sex differences in cognitive ability, and the role of genes and the environment in creating and maintaining them;
- Whether certain types of school structure (e.g. single-sex schools), curriculum, teaching style or assessment style are better suited to one or other gender; and
- Whether there are 'gender gaps' in exam performance and whether such gaps are closing or widening.

This section is comprised of three sub-sections:

- Subject choice at GCSE in Northern Ireland (2006 and 2016);
- Subject outcomes (grades) at GCSE in Northern Ireland (2006 and 2016); and
- The probability of girls outperforming boys at GCSE in 2016 (CCEA Specifications only).

7.2 Subject choice at GCSE in N. Ireland

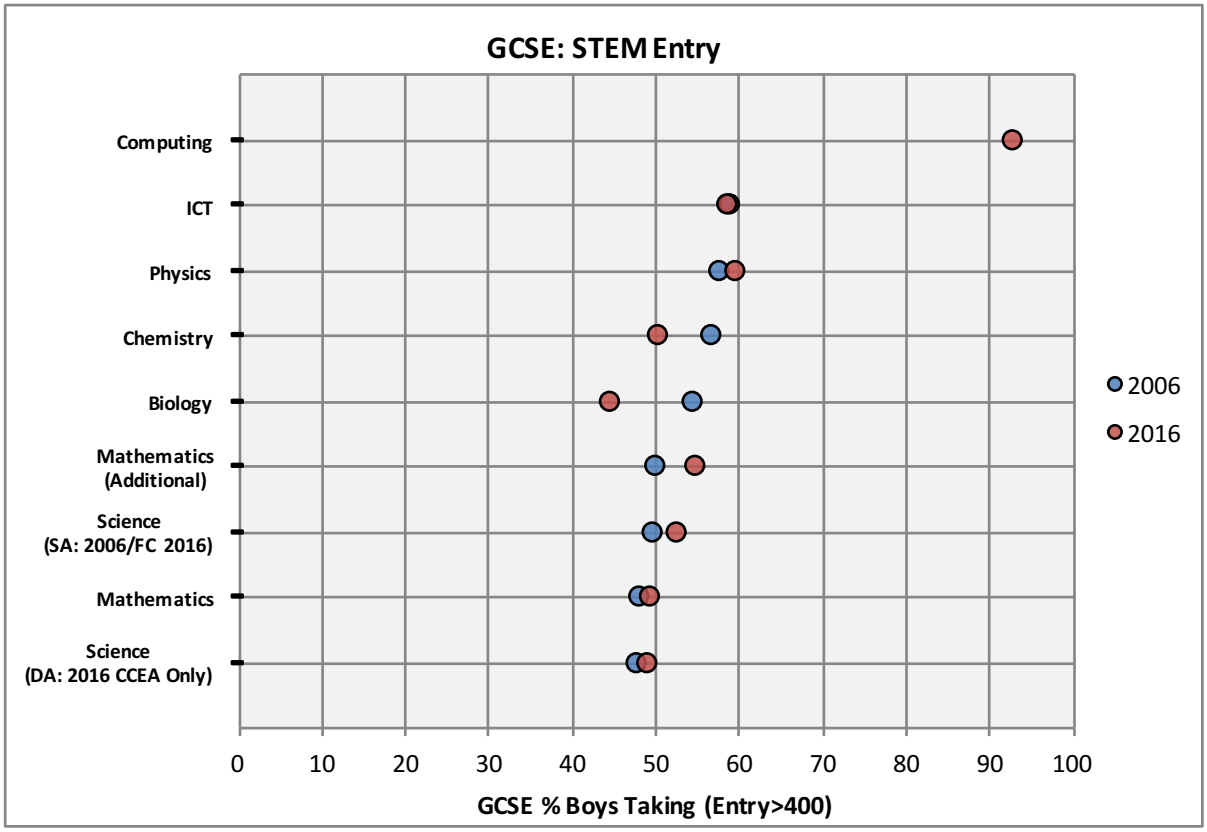
The first area explored was the proportion of boys and girls taking GCSEs across different subject categories. The data source was the Joint Council for Qualifications (JCQ).

Data was examined from two time points, 2006 and 2016, extracting subjects for inclusion in the analysis with entries exceeding 400. Subjects were categorised using the method employed by Bramley et al. (2015)[6]. Note that some of the syllabuses available in 2016 were not available in 2006. The vertical reference line of note is that at 50% - subjects to the right of this line had a greater proportion of the entry from boys; those to the left had a greater proportion of the entry from girls.

[5]Bramley, T., Vidal Rodeiro, C.L., & Vitello, S. (2015). Gender differences in GCSE. Cambridge Assessment Research Report. Cambridge, UK: Cambridge Assessment.

[6]Please Note: There are some minor differences between the categories used by Bramley et al. and the previous sections of this report.

Figure 56: Percentage of Exam Entry that were Boys (STEM) in 2006 and 2016

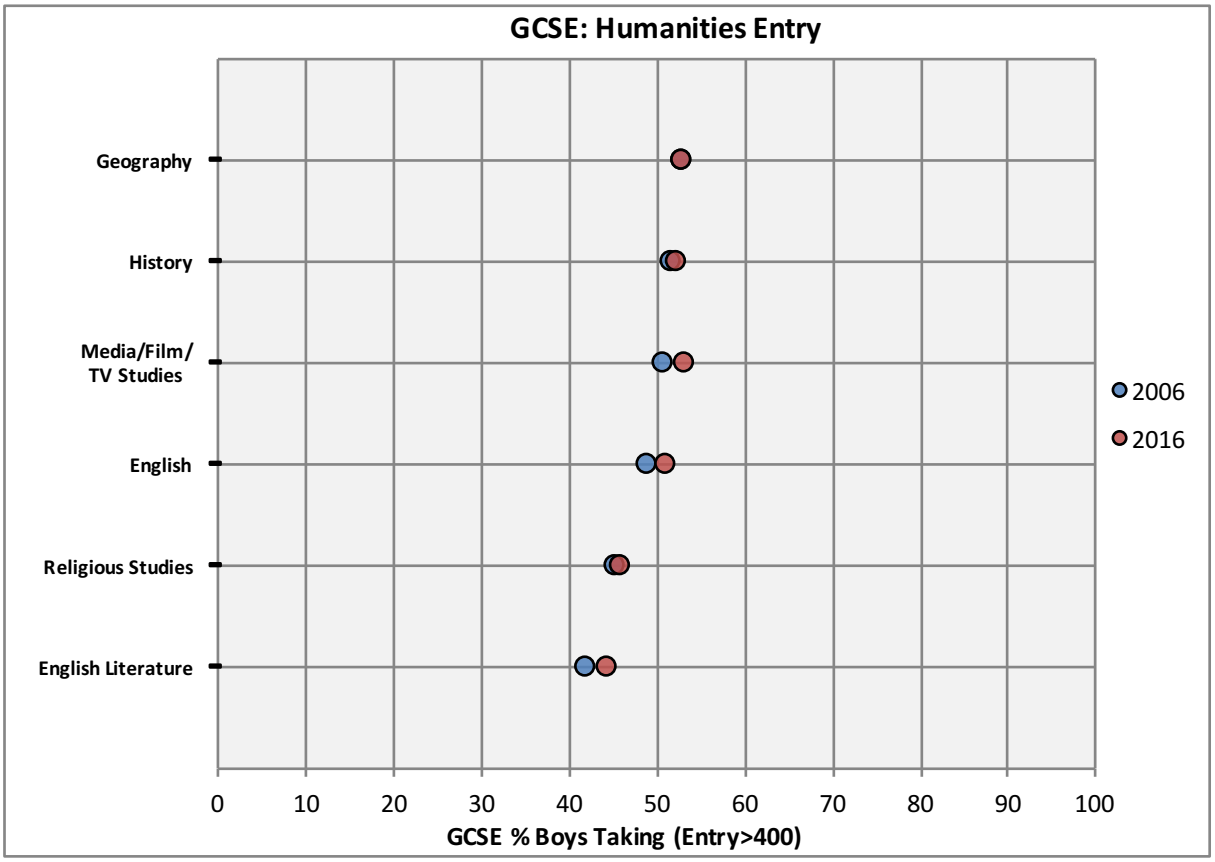


Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2006 & 2016

Figure 56 shows that the proportion of boys and girls taking two of the three single sciences (Biology, Chemistry, and Physics) has changed in the last ten years. Entries from boys had outnumbered girls in all three single sciences in 2006 but in 2016, girls outnumbered boys in Biology and the proportion of entries in Chemistry were roughly the same for boys and girls. The proportion of boys taking Physics has remained consistently greater than the proportion of girls entered for this subject.

The proportion of entries for Maths and Science (Single Award and Double Award) were roughly equivalent for boys and girls at both time points. The proportion of boys taking Additional Mathematics has grown; entries for boys outnumbered entries from girls in 2016. Computing in 2016 had the largest proportion of the entry from boys (this subject was not available in 2006) and entries from boys in ICT also remained strong.

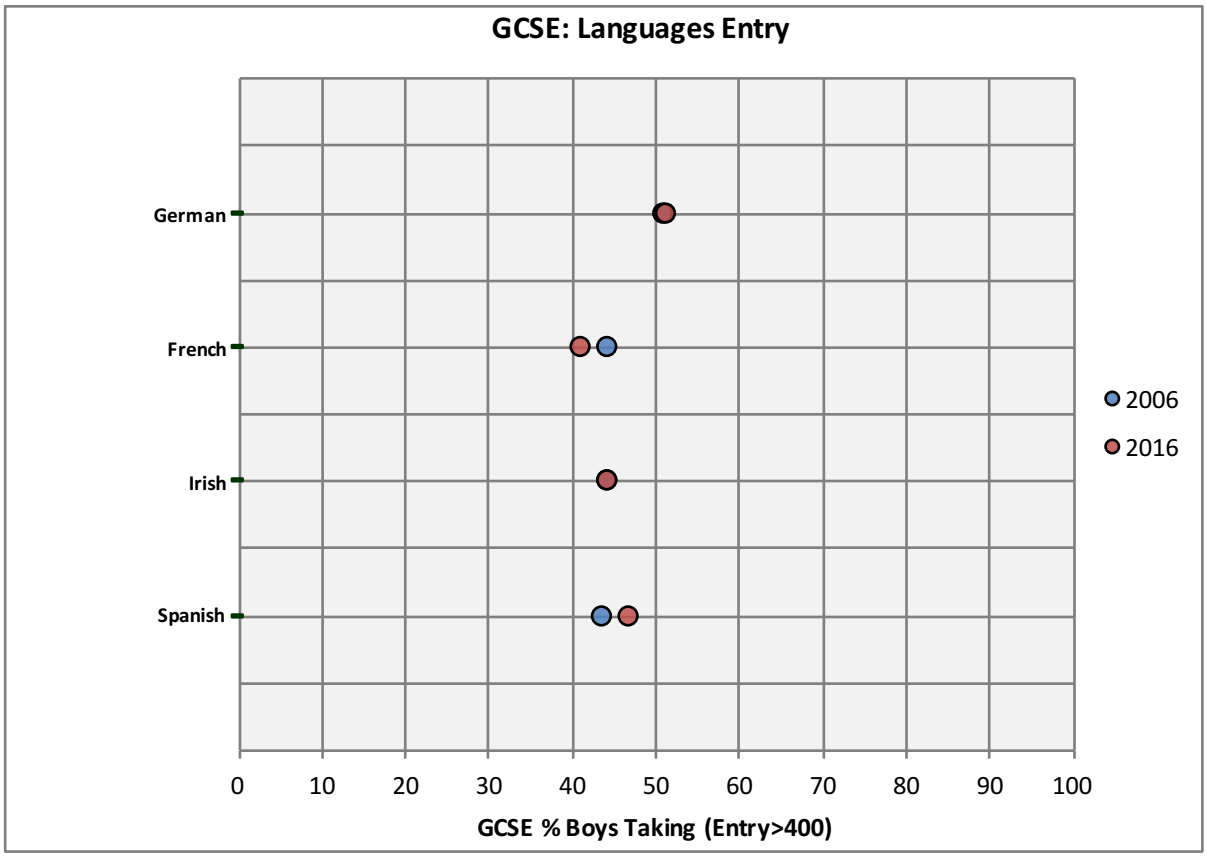
Figure 57: Percentage of Exam Entry that were Boys (Humanities) in 2006 and 2016



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2006 & 2016

Figure 57 shows that Geography, History, Media, Film and TV Studies and English have attracted roughly equivalent proportions of entries from boys and girls in 2006 and 2016. Entries from girls have outnumbered those from boys to a small extent in English Literature and Religious Studies in both years.

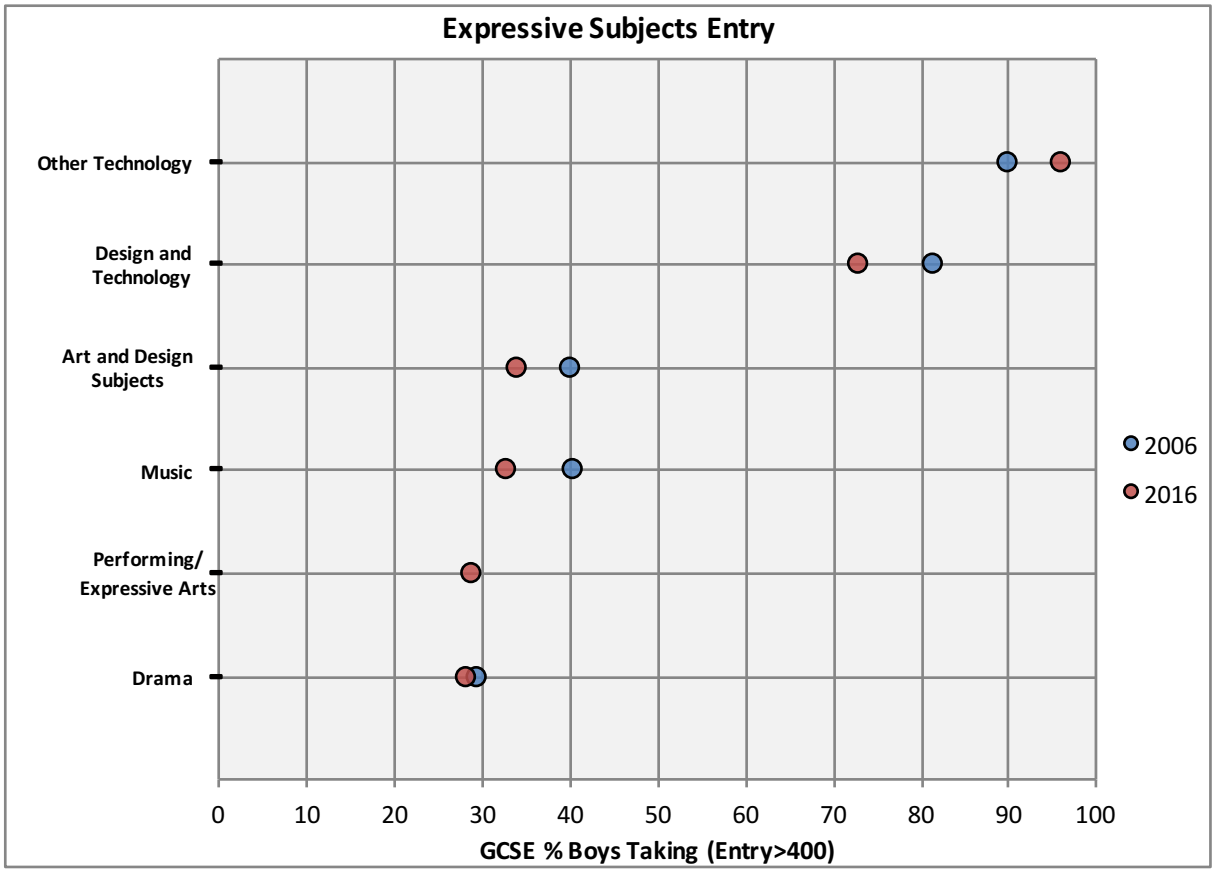
Figure 58: Percentage of Exam Entry that were Boys (Languages) in 2006 and 2016



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2006 & 2016

Figure 58 shows that the proportion of entries for boys in Spanish, Irish and French were lower than that of girls in both 2006 and 2016. The proportion of entries for German was roughly equivalent to that of girls at both time points.

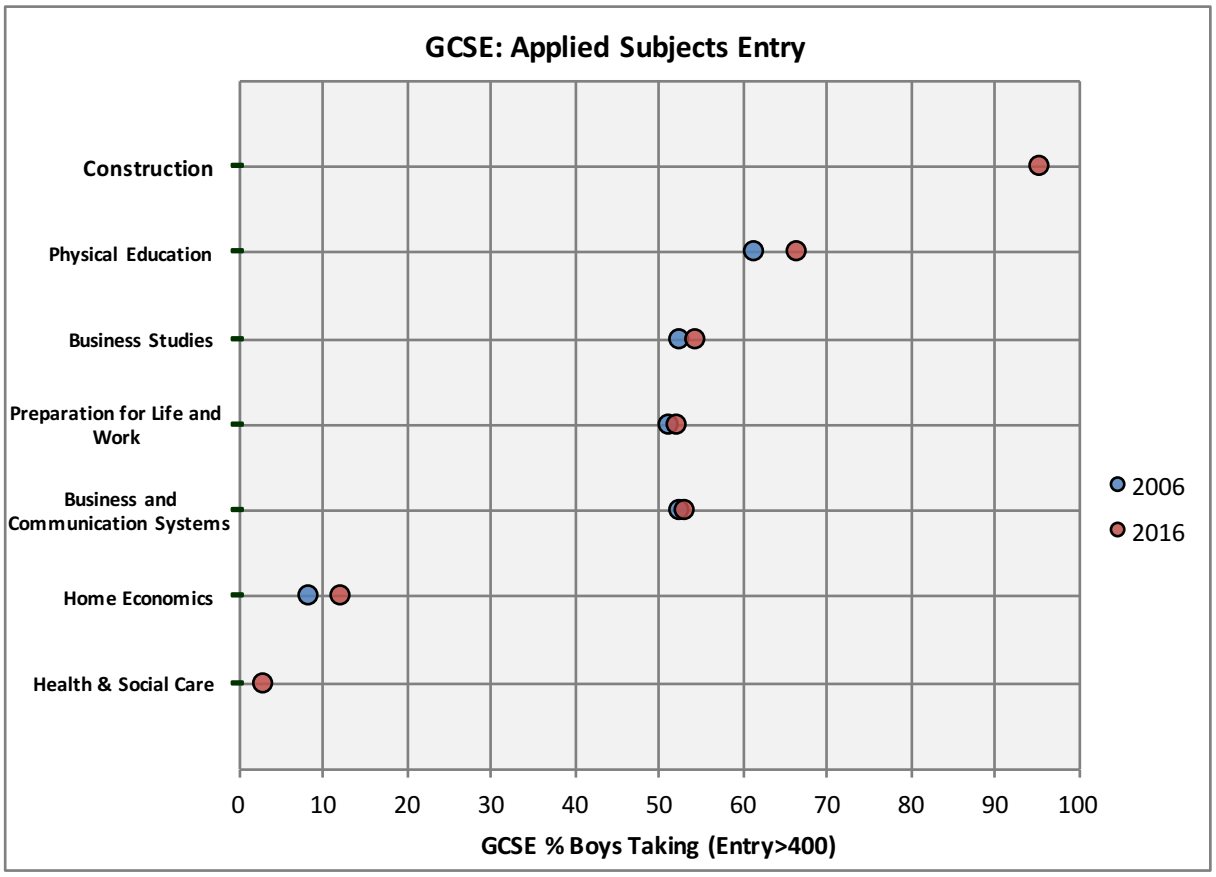
Figure 59: Percentage of Exam Entry that were Boys (Expressive Subjects) in 2006 and 2016



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2006 & 2016

Figure 59 shows that, amongst the Expressive subjects, there were differences along the stereotypical lines. Art and Design, the Performing/Expressive Arts, Drama and Music were mostly taken by girls, whereas Design and Technology and related subjects (grouped as Other Technology) were mostly taken by boys. The proportion of entries from girls have increased for Design and Technology, Art and Design and Music since 2006.

Figure 60: Percentage of Exam Entry that were Boys (Applied Subjects) in 2006 and 2016



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2006 & 2016

Figure 60 shows that, similar to the Expressive subjects, there were differences along the stereotypical lines in Applied Subjects. Home Economics and Health & Social Care were mostly taken by girls, whereas Physical Education and Construction were mostly taken by boys. Entries for Business Studies, Business and Communication Systems and Preparation for Life and Work were roughly equivalent for boys and girls.

7.3 Subject Outcomes (Grades) at GCSE

Figures 61 to 70 are the counterparts of Figures 56 to 60, showing the same subjects in the same order (i.e. vertically ordered by the proportion of boys taking the subject in 2006).
Tables 44 and 45 summarise the information in the graphs. The graphs show the difference in the percentage (boys minus girls) gaining a Grade C or above or A* in 2006 and 2016. That is, if in subject X 12% of the boys got a Grade C or above and 10% of the girls got a Grade C or above, the dot for that subject would be at a value of +2 percentage points. The vertical line at 0 thus represents subjects where the same proportion of boys and girls achieved at or above the grade in question. Subjects to the right of the line are those where the 'gender gap' was in favour of boys; those to the left of the line where the 'gender gap' was in favour of girls.

The analyses show that:

- Overall, girls outperform boys at GCSE by approximately 7.8 percentage points at Grade C and above.
- This has not changed substantially since 2006, when they outperformed boys by approximately 7 percentage points at Grade C and above.
- Girls outperform boys at Grade A* by approximately 4.8 percentage points. This is a slight increase from 2006, when they outperformed boys by approximately 3.4 percentage points.
- The gender gap has consistently been smallest in STEM subjects: this 'gender' gap has increased slightly over time.
- In the Humanities, there has been a +2.25 percentage point change over time in performance in favour of girls at Grade C and above. The most consistent and marked change since 2006, appearing at Grade C and above and Grade A* and above, has been seen in Geography.
- In the languages, the 'gender' gap has reduced in German, French and Irish. The gap in Spanish has increased slightly at A* and above.
- In the Applied Subjects, the most substantial 'gender' gap in favour of girls is observed in The Performing/Expressive Arts, particularly at Grade C and above. Performance favours boys only in 'Other Technology'.
- Similarly large performance gaps favouring girls were observed in the Applied Subjects for Home Economics and Health & Social Care at Grade C and above.

Figure 61: Difference in % (Boys minus Girls) Achieving Grade C or Above in 2006 and 2016 (STEM)

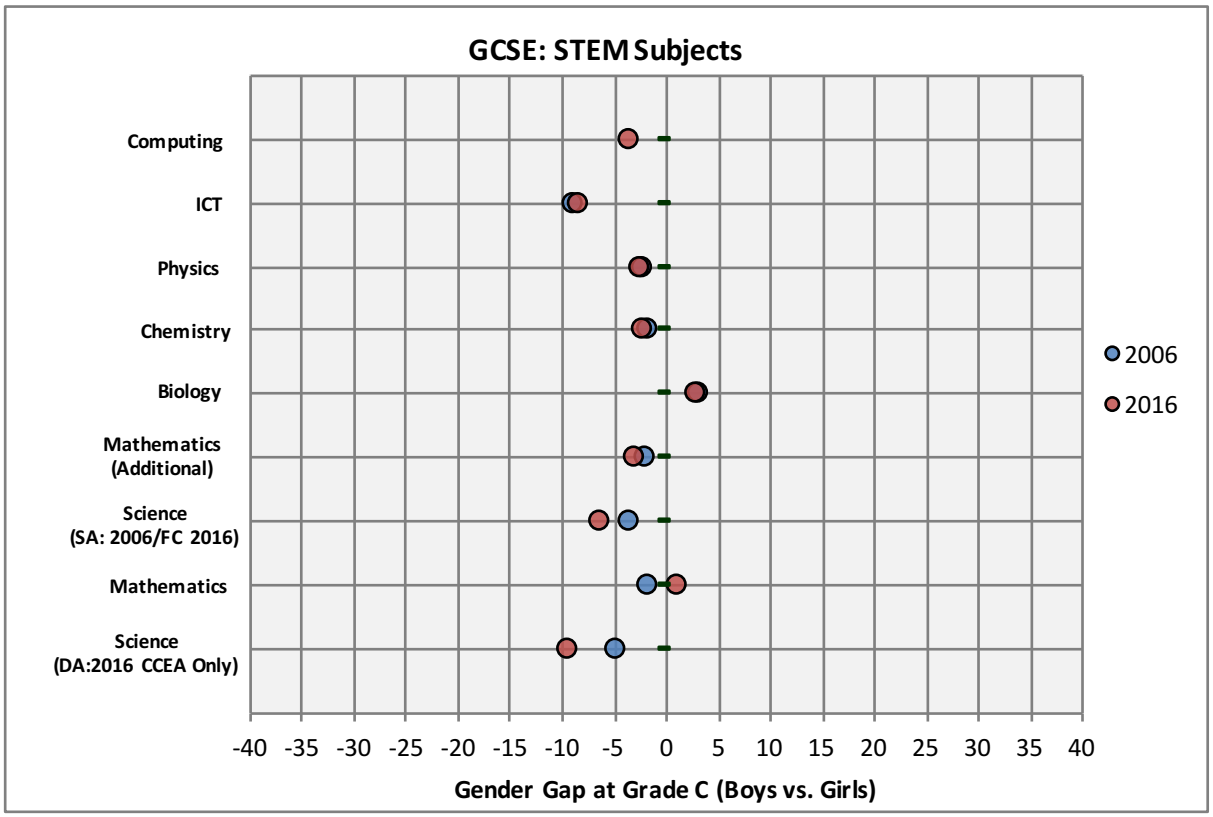
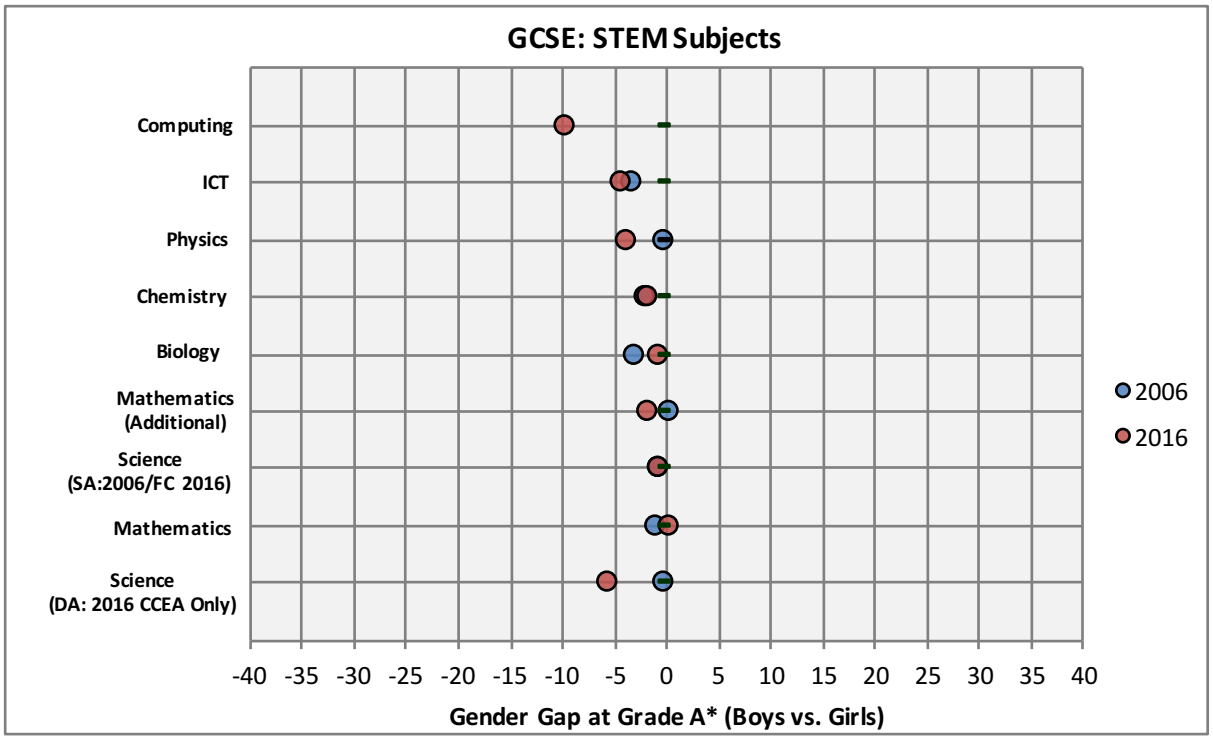


Figure 62: Difference in % (Boys minus Girls) Achieving A* in 2006 and 2016 (STEM)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2006 & 2016

Figure 63: Difference in % (Boys minus Girls) Achieving Grade C or Above in 2006 and 2016 (Humanities)

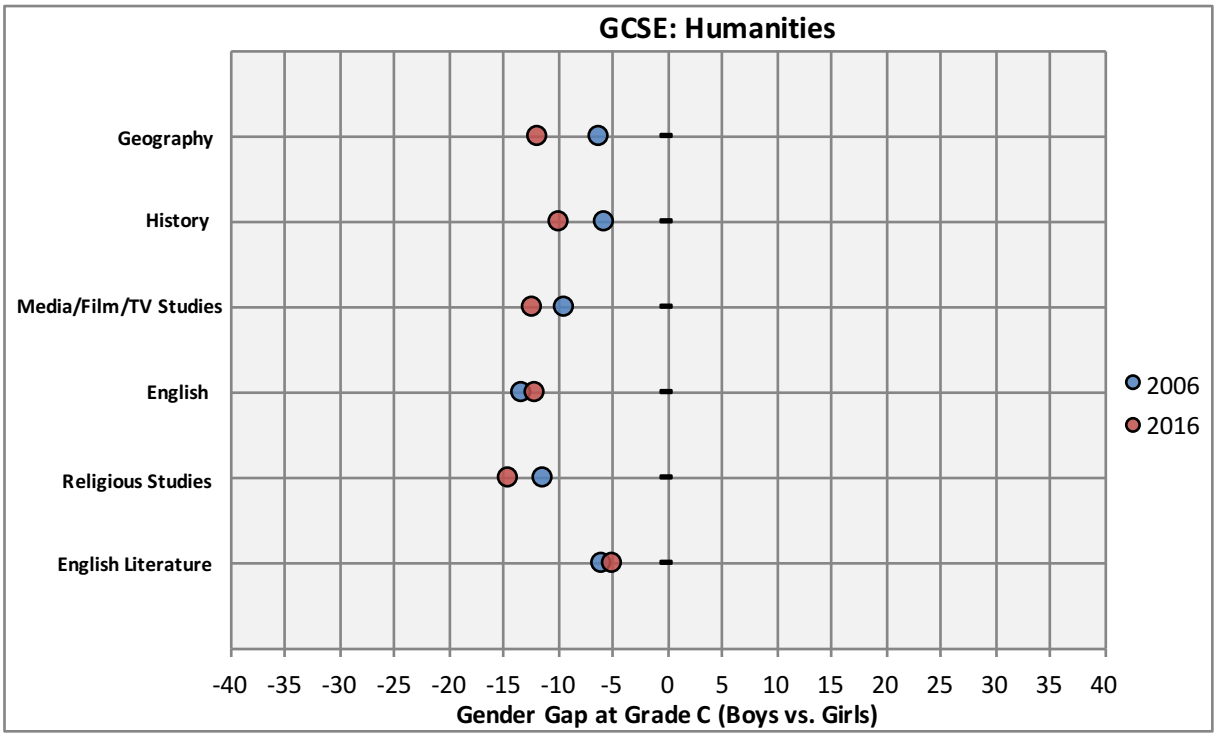
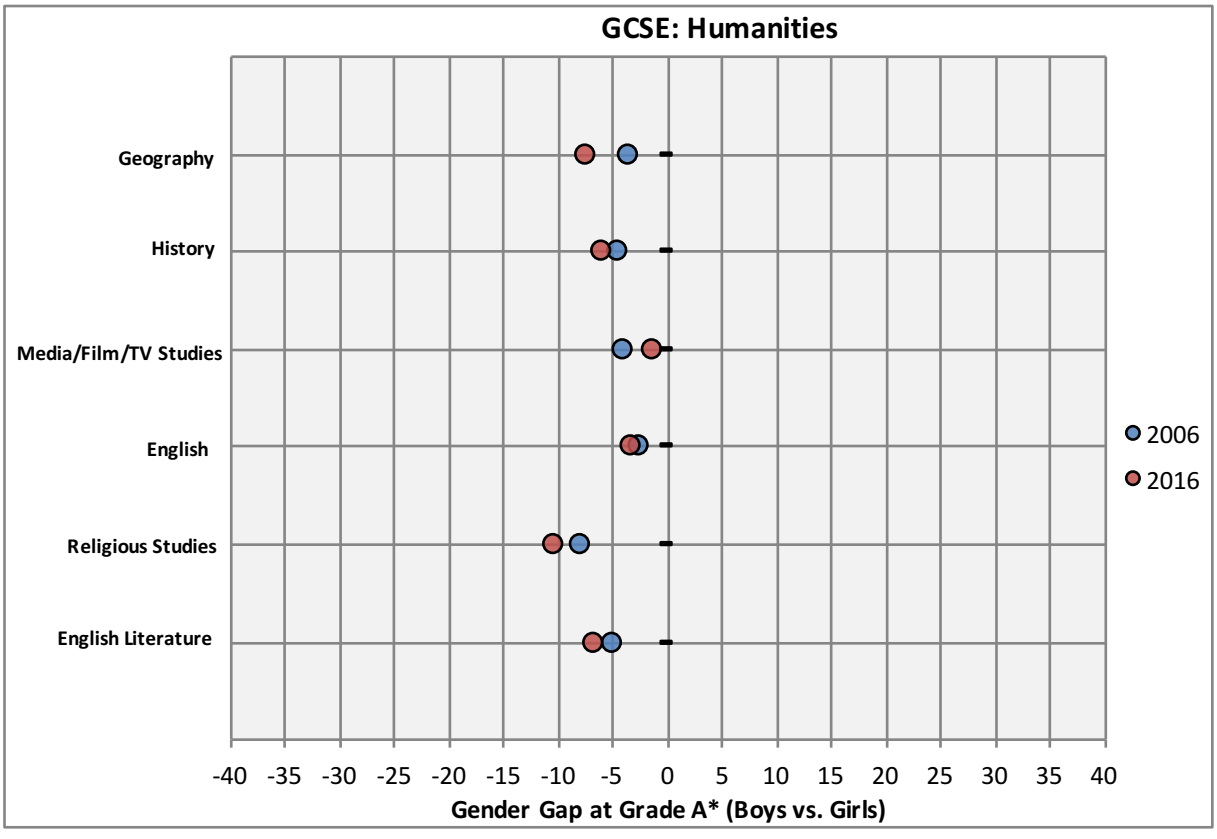


Figure 64: Difference in % (Boys minus Girls) Achieving A* in 2006 and 2016 (Humanities)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2006 & 2016

Figure 65: Difference in % (Boys minus Girls) Achieving Grade C or Above in 2006 and 2016 (Languages)

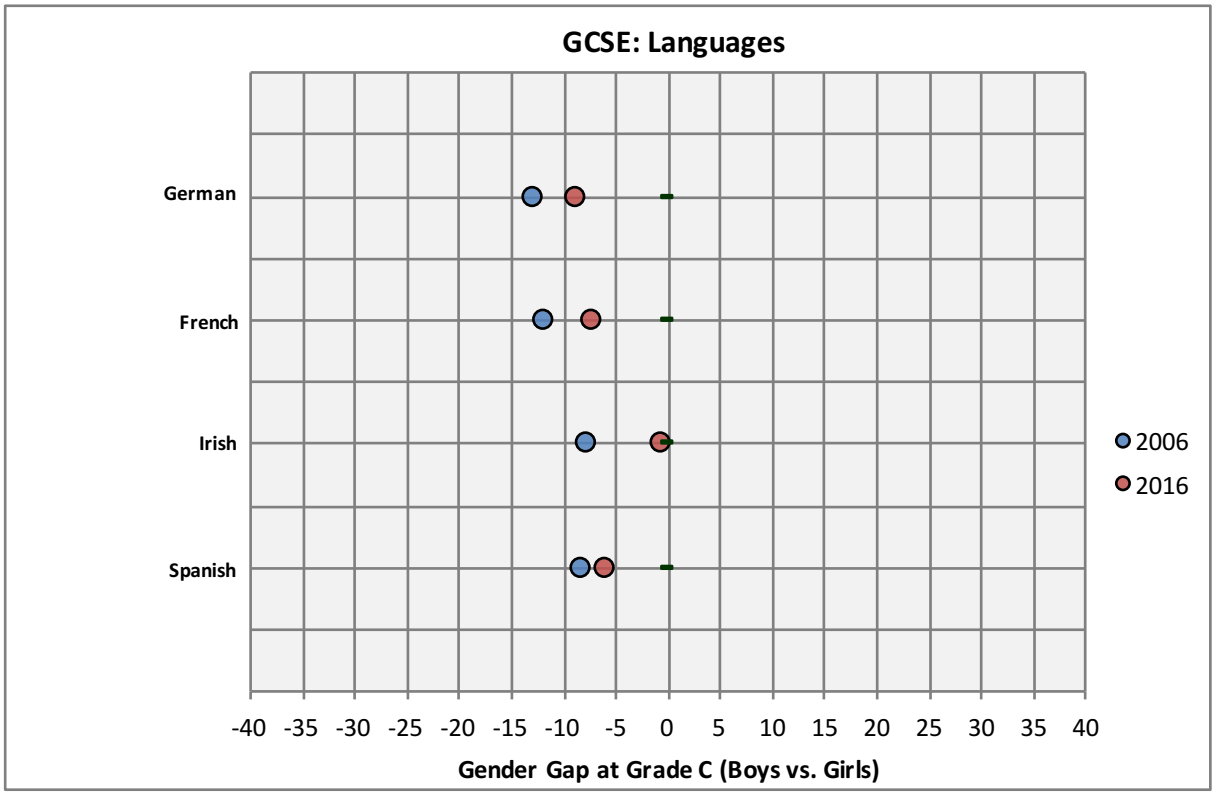
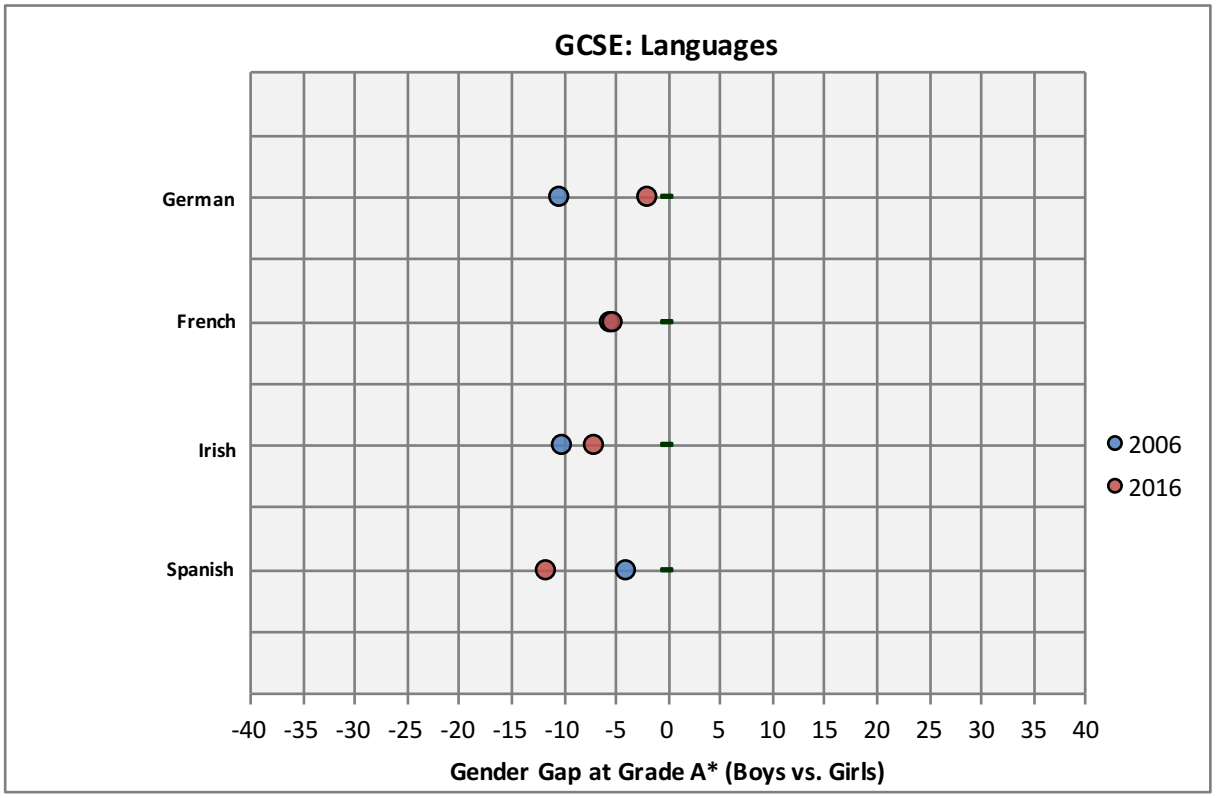


Figure 66: Difference in % (Boys minus Girls) Achieving A* in 2006 and 2016 (Languages)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2006 & 2016

Figure 67: Difference in % (Boys minus Girls) Achieving Grade C or Above in 2006 and 2016 (Expressive Subjects)

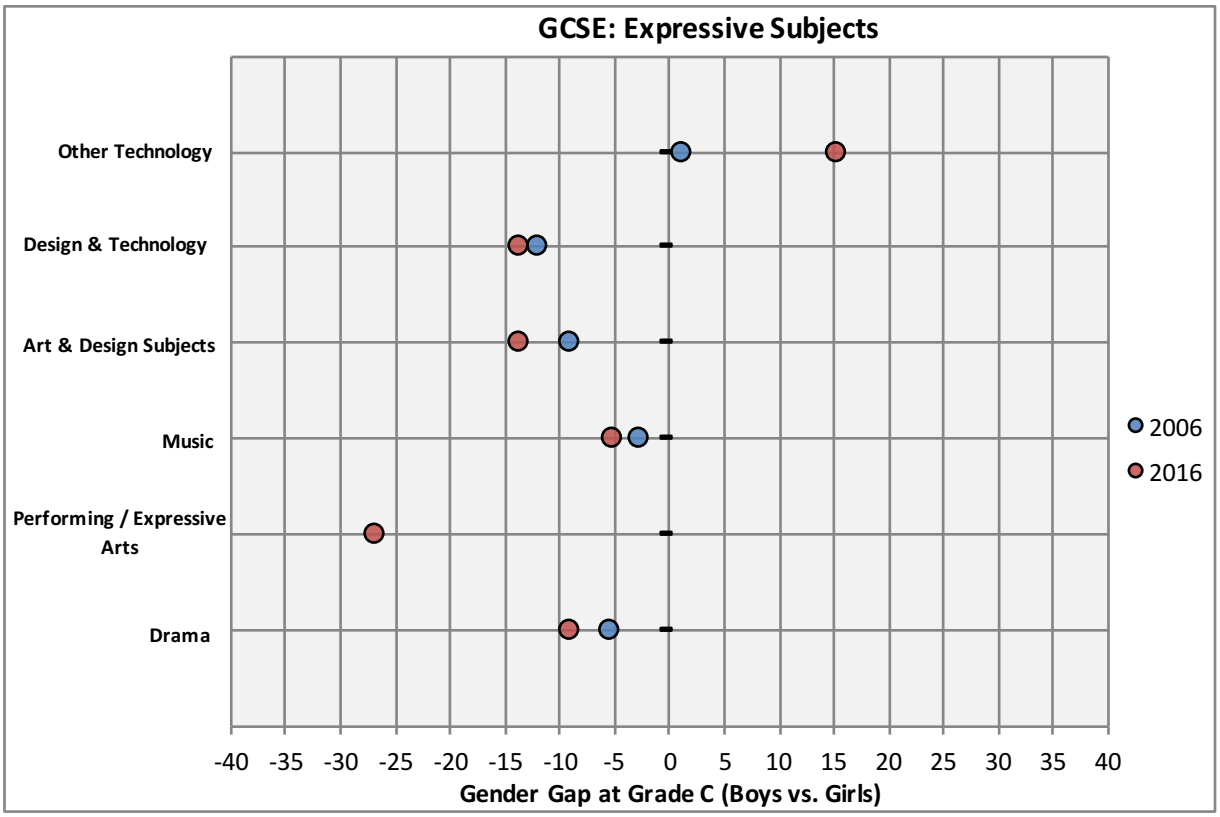
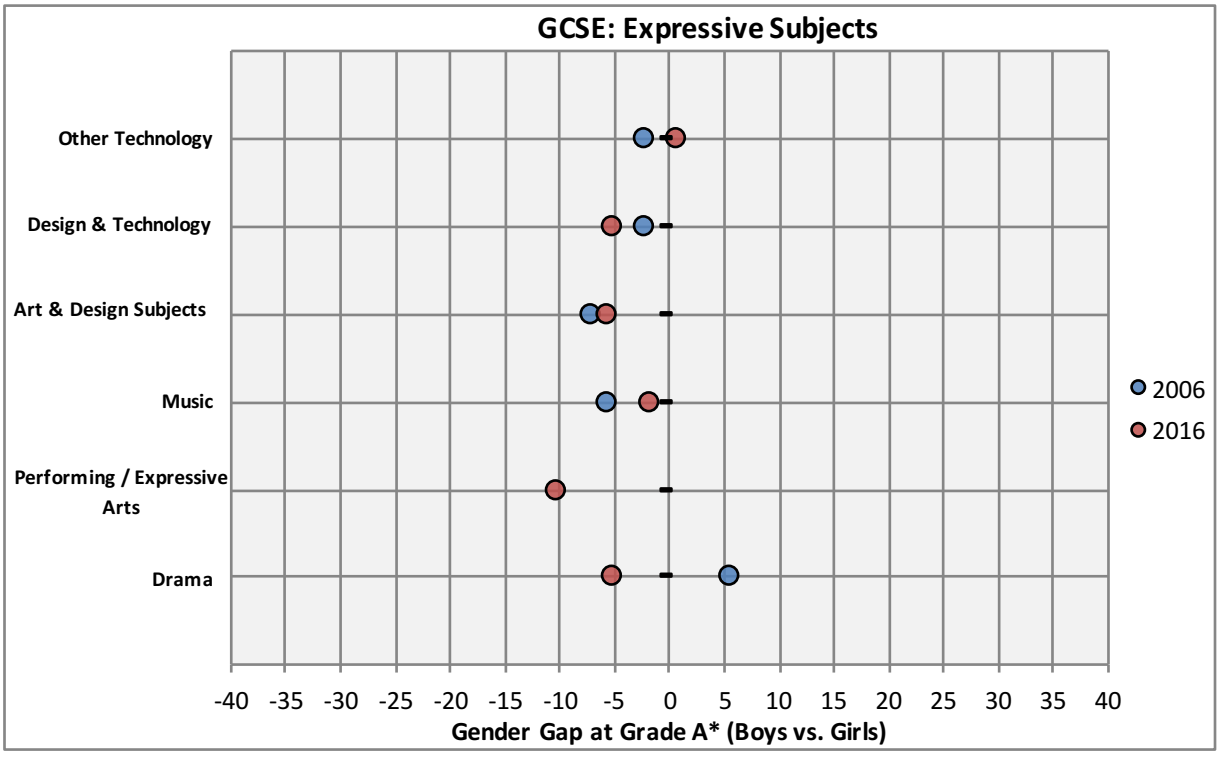


Figure 68: Difference in % (Boys minus Girls) Achieving A* in 2006 and 2016 (Expressive Subjects)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2006 & 2016

Figure 69: Difference in % (Boys minus Girls) Achieving Grade C or Above in 2006 and 2016 (Applied Subjects)

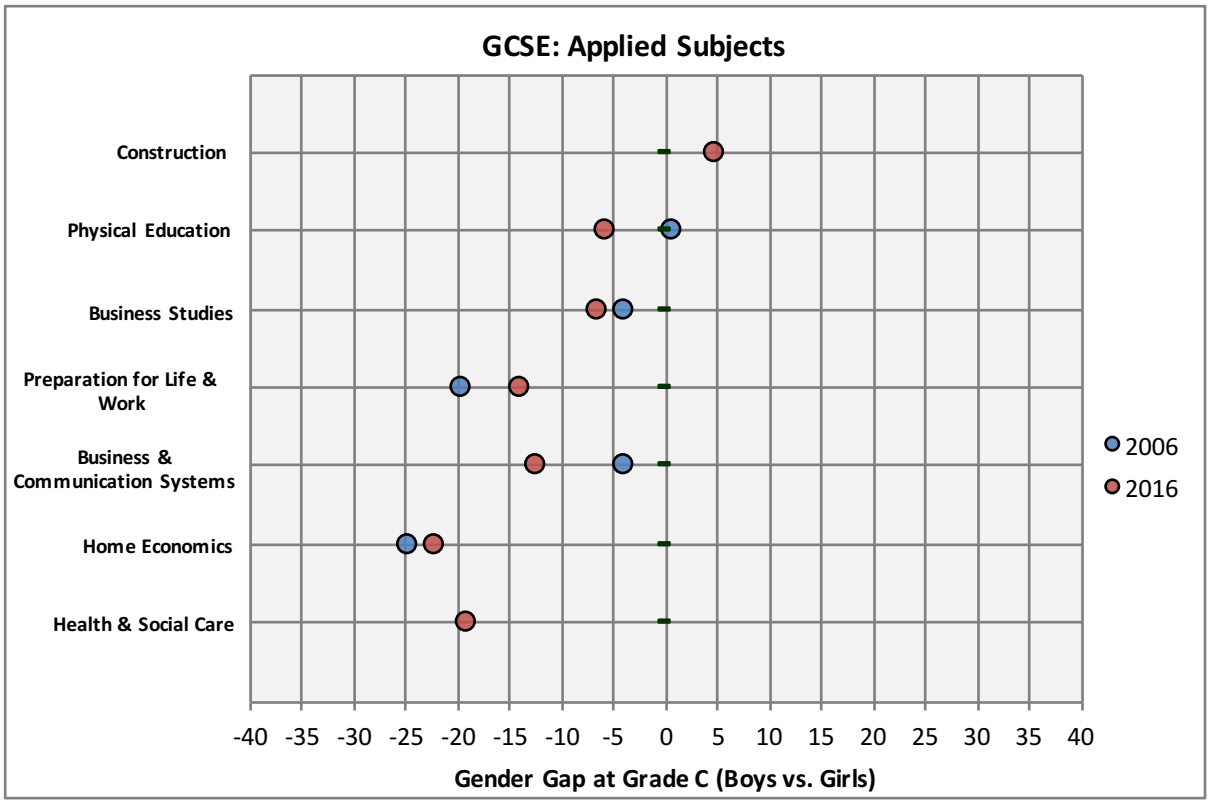
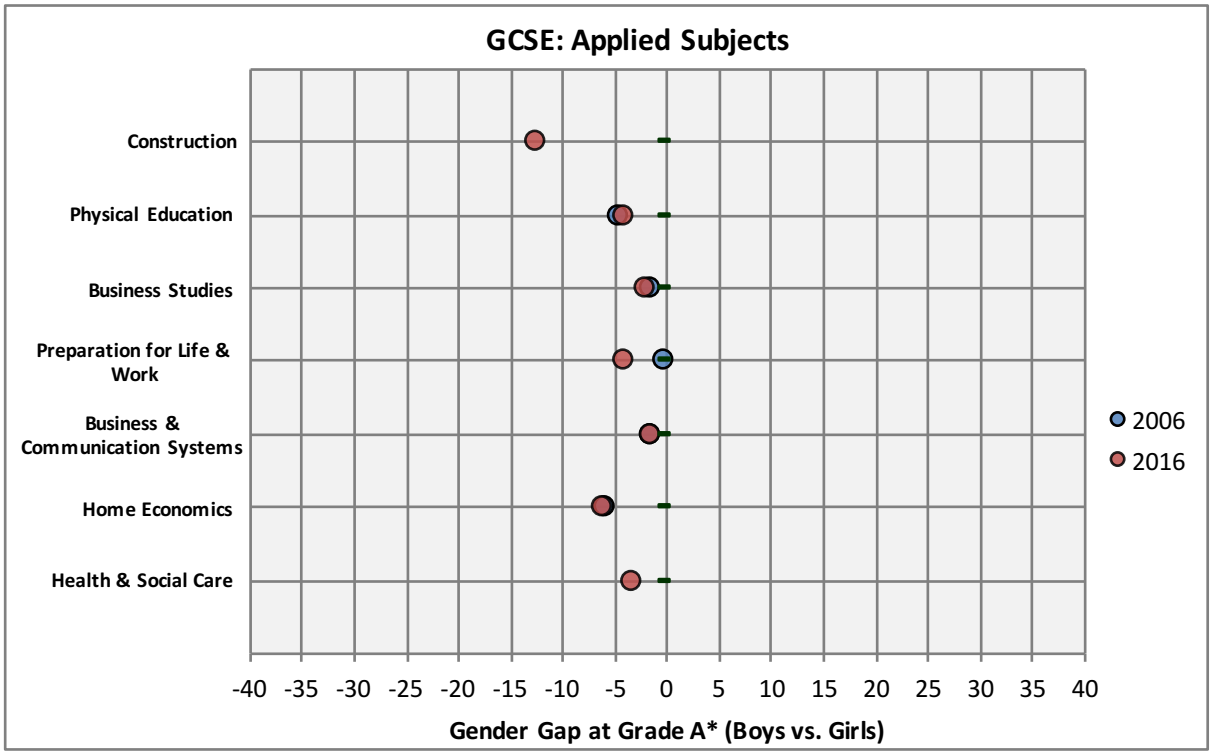


Figure 70: Difference in % (Boys minus Girls) Achieving A* 2006 and 2016 (Applied Subjects)



Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2006 & 2016

Table 44: Average Gender Gap at Grade C and Above (percentage points) in Subjects with an Entry of 400 or More

Category	Year	N	Mean	SD	Minimum	Maximum
Applied	2006	5	-10.44	11.1	-24.9	0.5
	2016	7	-10.8	9.1	-22.3	4.7
Expressive	2006	5	-5.66	4.62	-12.1	1
	2016	6	-8.87	13.88	-26.9	15.2
Humanities	2006	6	-8.72	0.07	-13.3	-5.9
	2016	6	-10.97	4.74	-14.5	-5.1
Languages	2006	4	-10.25	2.54	-13	-7.8
	2016	4	-5.7	3.51	-8.8	-0.7
STEM	2006	8	-2.47	3.39	-8.9	3.1
	2016	9	-3.22	4.05	-9.5	2.9
All	2006	28	-7	6.15	-24.9	3.1
	2016	32	-7.8	8.01	-26.9	15.2

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2006 & 2016

Table 45: Average Gender Gap at Grade A* and above (percentage points) in Subjects with an Entry of 400 or More

Category	Year	N	Mean	SD	Minimum	Maximum
Applied	2006	5	-2.8	2.38	-6	-0.4
	2016	7	-4.89	3.68	-12.5	-1.7
Expressive	2006	5	-2.34	4.92	-7.1	5.6
	2016	6	-4.58	3.72	-10.3	0.6
Humanities	2006	6	-4.67	1.06	-8	-2.6
	2016	6	-5.93	0.57	-10.4	-1.4
Languages	2006	4	-7.55	3.23	-10.5	-4.1
	2016	4	-6.5	4.08	-11.7	-1.9
STEM	2006	8	-1.21	1.36	-3.4	0.1
	2016	9	-2.91	3.1	-9.7	0.2
All	2006	28	-3.39	3.33	-10.5	5.6
	2016	32	-4.76	3.45	-12.5	0.6

Source: Joint Council for Qualifications (JCQ) – Provisional GCSE Full Course Results (Northern Ireland), 2006 & 2016

7.4 Probability of Girls Outperforming Boys at GCSE[7]

As Bramley and colleagues (2015) note, grades are not always the best metric for analysing gender differences. Figures 71 to 75 and Table 45 show the probability of superiority p(sup) for girls in 2016 in CCEA specifications with an entry of more than 500. If the confidence bars do not overlap the vertical reference line at 50% then the value is 'statistically significant' in the sense that if the exam scores were a random sample from a population of scores where p(sup) for girls was 50% there would be a probability of less than 5% of obtaining a result as far from 50% as the one observed. This is arguably not relevant since the data represents the entire population taking the CCEA exam and not a random sample.

The underlying score scale from which the p(sup) was calculated was either the Uniform Mark Scale (UMS) for exams with a 'modular' assessment structure, or the weighted aggregate mark for exams with a 'linear' assessment structure.

Similar to the results presented in Section 7.3, Figures 71 to 75 and Table 46 show that girls tended to do better than boys in a substantial number of subjects. The only clear exception was Motor Vehicle and Road User Studies, where boys outperformed girls. Note that the entry for this subject was primarily comprised of boys. Also, girls did not significantly outperform boys in Biology, Mathematics or Construction as the mean was at and/or confidence bars overlapped the vertical reference line at 50%.

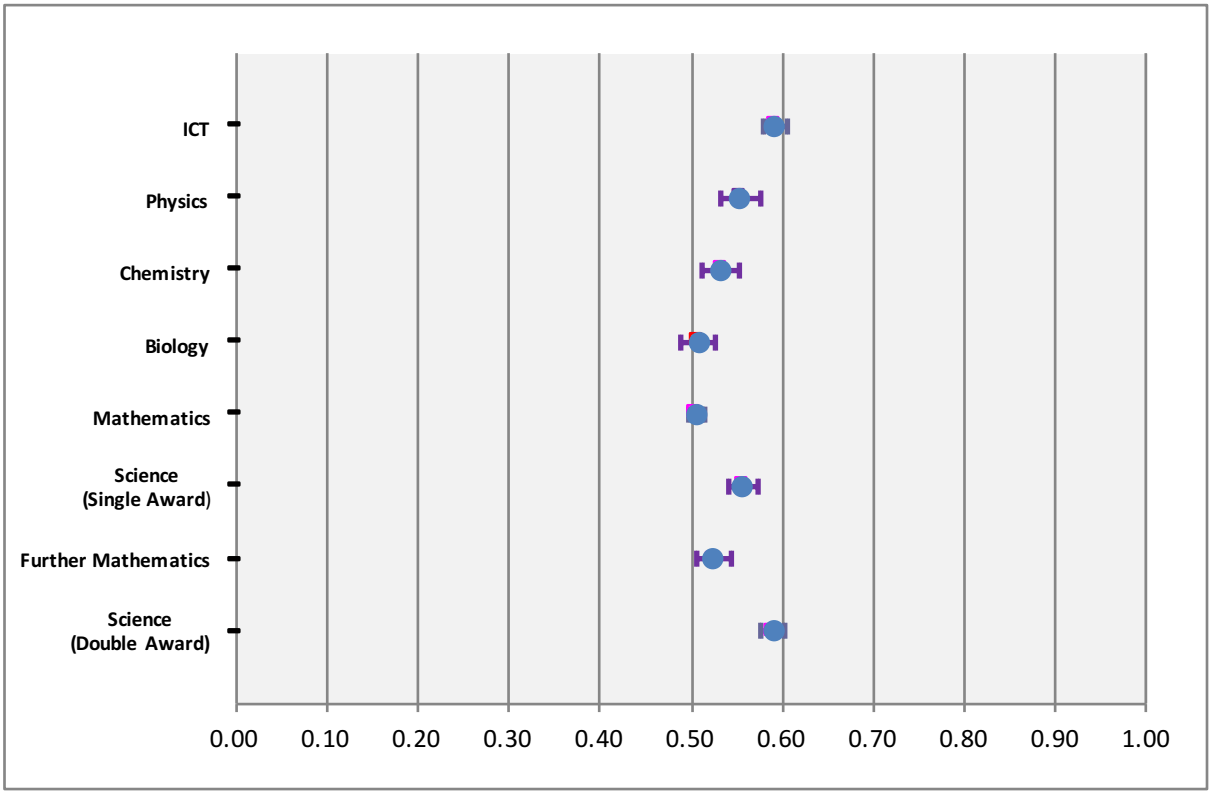
In STEM subjects, the probability of superiority at 0.54 on average was closer to 0.5 than in other types of subjects (which would imply that there was less difference between the performance of girls and boys).

The greatest difference between girls and boys was in Applied subjects, where the average p(sup) was 0.63, which was not substantially different from Humanities subjects (p(sup)=0.62) and Expressive subjects (p(sup)=0.61). The ordering of p(sup) across the five categories is not quite the same as the order of the gender gap in percentage points at Grade C and above and A* and above using the full JCQ data: the Humanities (2016) showed the greatest difference at Grade C and above and Languages (2016) showed the greatest difference at A* and above in the latter analyses.

[7]Please Note: Due to the availability of data this section covers CCEA Specifications only.

7.4.1 STEM 2016: Probability of Superiority

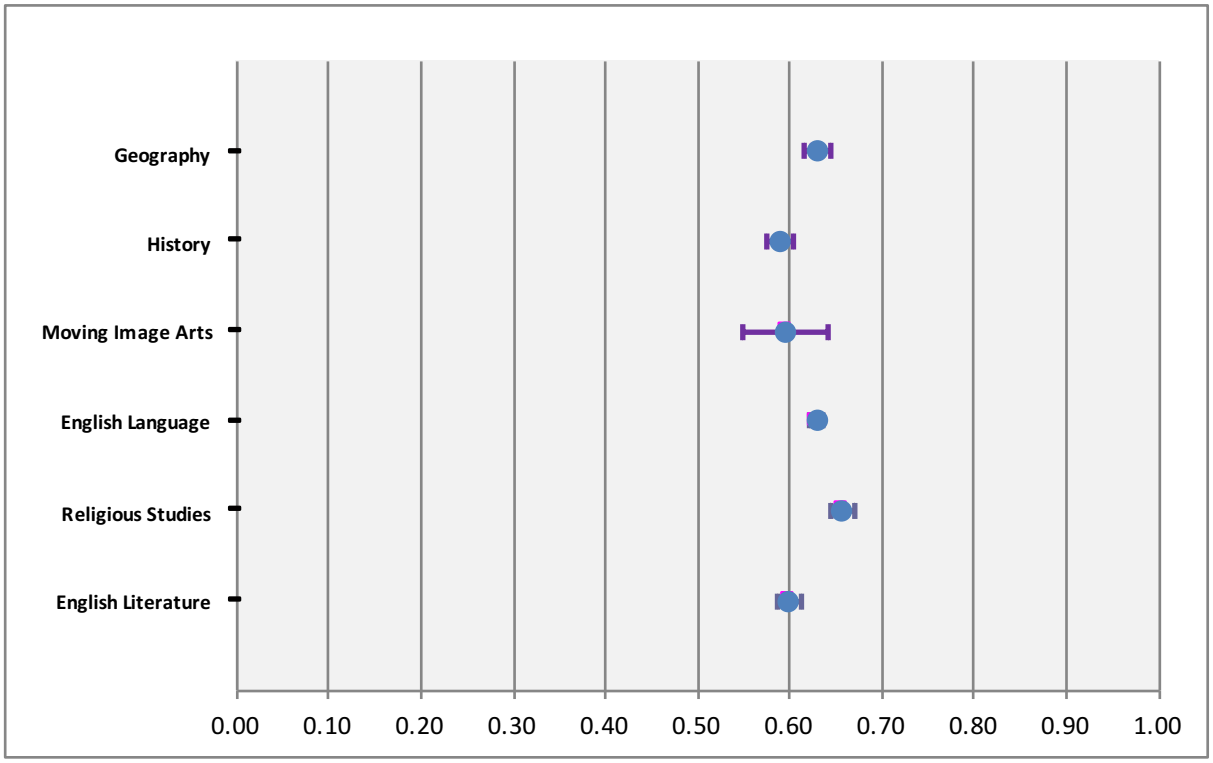
Figure 71: P (Girls Scoring Higher than Boys) in GCSE STEM



Source: CCEA Internal Performance Statistics, 2006 & 2016

7.4.2 Humanities 2016: Probability of Superiority

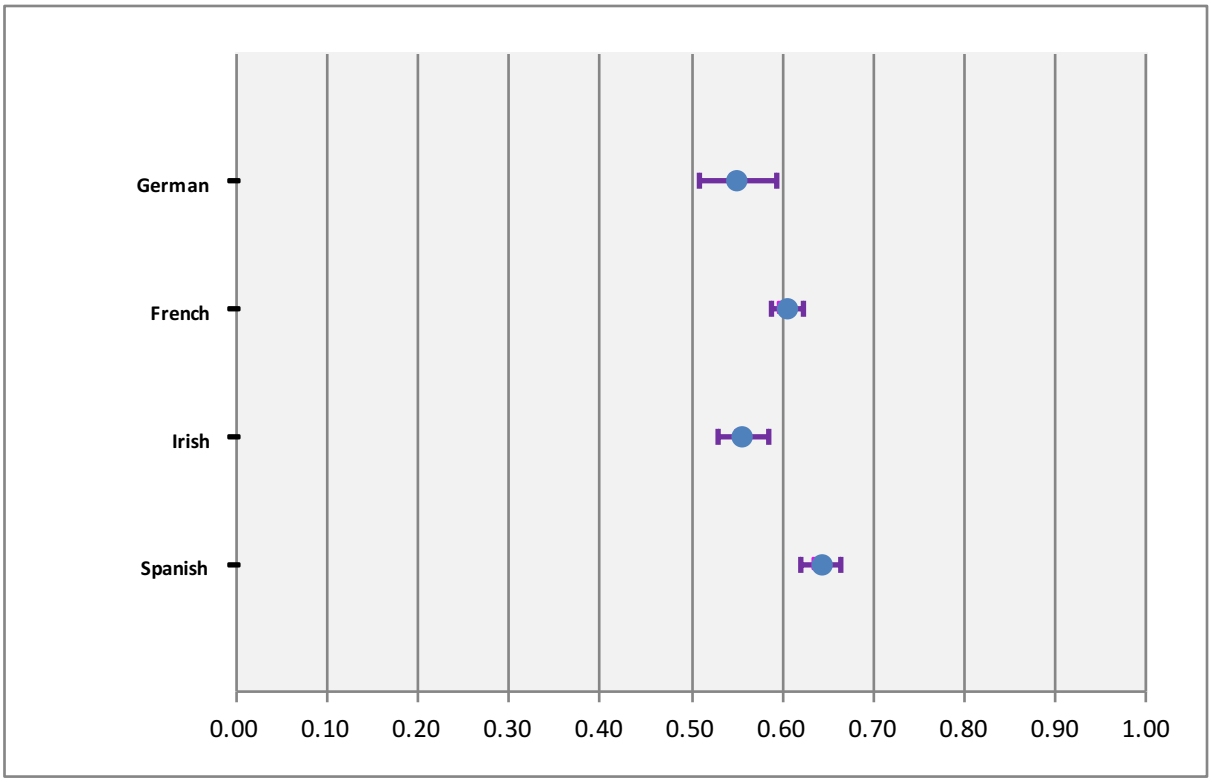
Figure 72: P (Girls Scoring Higher than Boys) in GCSE Humanities



Source: CCEA Internal Performance Statistics, 2006 & 2016

7.4.3 Languages 2016: Probability of Superiority

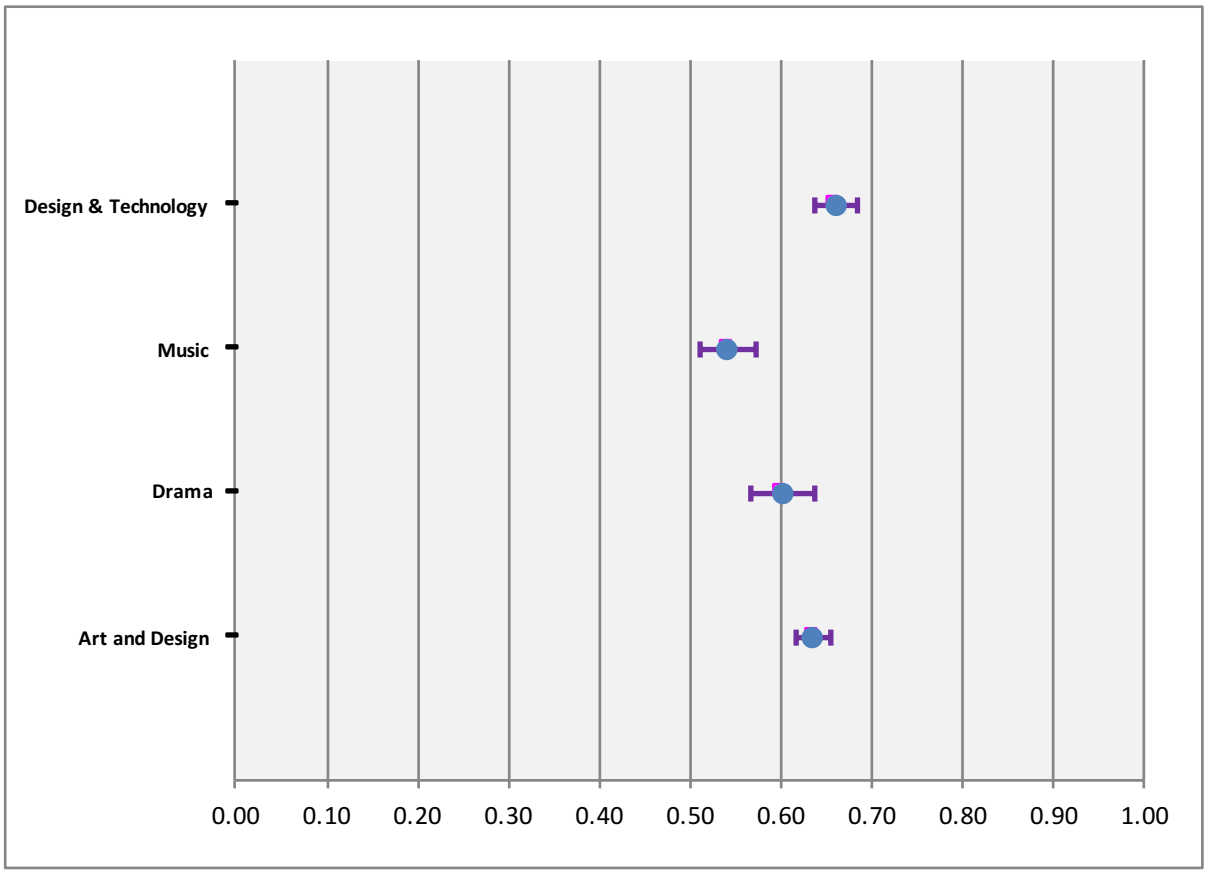
Figure 73: P (Girls Scoring Higher than Boys) in GCSE Languages



Source: CCEA Internal Performance Statistics, 2006 & 2016

7.4.4 Expressive Subjects 2016: Probability of Superiority

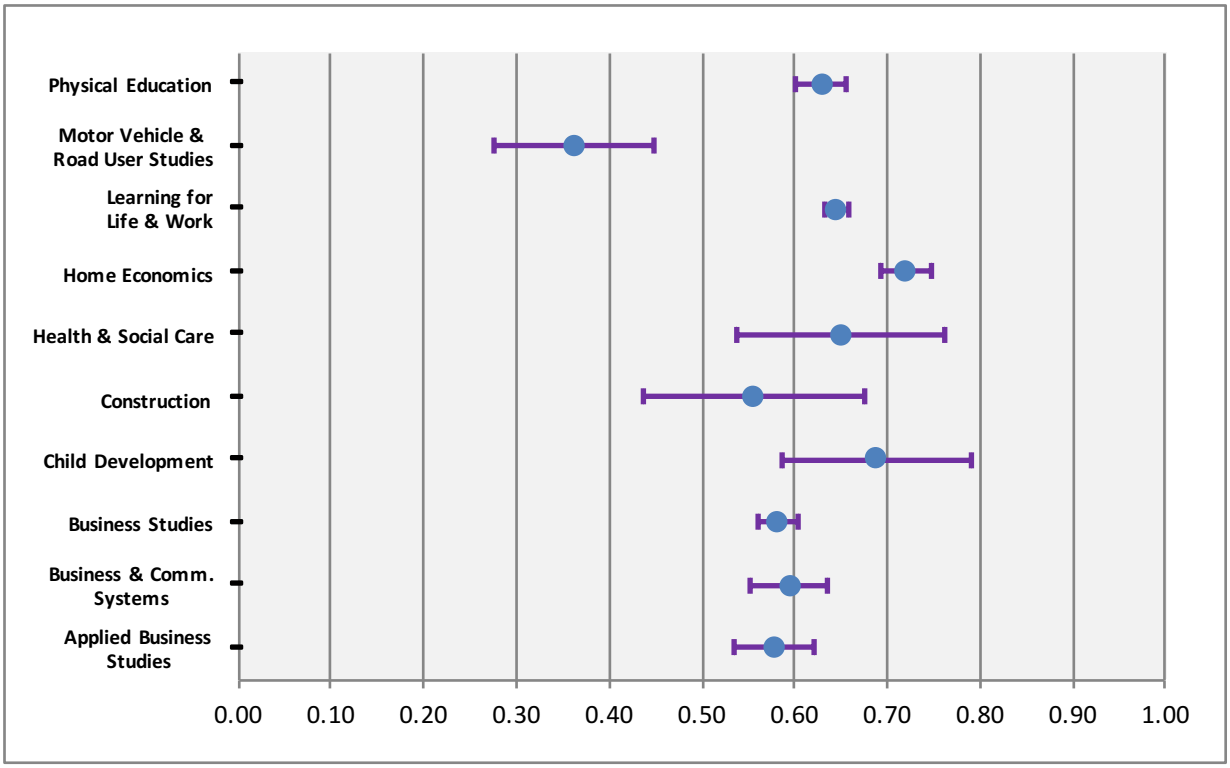
Figure 74: P (Girls Scoring Higher than Boys) in GCSE Expressive Subjects



Source: CCEA Internal Performance Statistics, 2006 & 2016

7.4.5 Applied Subjects 2016: Probability of Superiority

Figure 75: P (Girls Scoring Higher than Boys) in GCSE Applied Subjects



Source: CCEA Internal Performance Statistics, 2006 & 2016

Table 46: Average P (Girls Scoring Higher than Boys) by Category

Category	N	Mean	SD	Minimum	Maximum
Applied	10	0.63	0.05	0.56	0.72
Expressive	4	0.61	0.05	0.54	0.66
Humanities	6	0.62	0.03	0.59	0.66
Languages	4	0.59	0.04	0.55	0.64
STEM	8	0.54	0.03	0.51	0.59
All	32	0.6	0.05	0.51	0.72

Source: CCEA Internal Performance Statistics, 2006 & 2016

8

Projected Entries

This section of the report takes putative information and forecasts subject entries for the next five years. This analysis was conducted by using prior entry data, population and economic projections.

The sections below set out the economic, educational and political context of N. Ireland. Subsequent to this are graphs depicting estimated changes in entry over the next five years.

8.1 Economic Context for Northern Ireland

The Northern Ireland Composite Economic Index (an experimental quarterly measure of the performance of the Northern Ireland (NI) economy based on available official statistics) (NICEI) results[8] show that NI economic activity was estimated to have increased by 0.4% in real terms between October – December 2015 and January – March 2016. The index also increased by 0.7% over the year (January-March 2015 to January-March 2016) in real terms. Although the measures are not produced on a fully equivalent basis, comparisons with the UK over the same period show that the NICEI grew at a slower rate (1.3%) compared to UK GDP growth (2.0%).

The NICEI findings show that the Northern Ireland private sector index was estimated to have grown by 0.6% over the period October – December 2015 and January – March 2016 and by 2.3% over the last four quarters (January-March 2015 to January-March 2016) compared to the previous four.

The NICEI data shows that the Northern Ireland public sector jobs index declined by 0.2% over the quarter (January – March 2016) and is now at its lowest level since the index began in 2002. However, it was noted that the public sector index has been impacted by the Voluntary Exit Scheme (VES) implemented by the Northern Ireland Civil Service during 2015/16.

It is important to note that these predictions were made in advance of the 'Brexit vote'. The Northern Ireland economy will face considerable challenges in the near and long-term future following the United Kingdom's vote to leave the European Union (EU). The exchange rate has fallen and the outlook for growth has been forecast to weaken.

The draft programme for government issued after this year's assembly elections does not refer to the referendum, much less the possibility of the United Kingdom (UK) leaving the EU. The result and the prospect of the UK leaving the EU opens up a multitude of questions and challenges for Northern Ireland.

Concerns have long been expressed over what leaving the EU could mean for Northern Ireland's economy. Economic forecasts suggest that the effects will be negative, at least in the short and medium-term, and under most scenarios to be greater than for most of the rest of the UK.

PwC has forecast that the vote to leave the EU is likely to lead to a significant slowdown, with UK GDP growth forecast to decelerate to about 1.6% in 2016 and 0.6% in 2017. For Northern Ireland, they forecast growth of about 1% in 2016, falling to 0.2% in 2017, making it the poorest-performing region of the 12 UK regions (PwC, 2016). The firm has also predicted a gradual recovery later in 2017 as immediate post-referendum shock starts to fade. PwC's chief economist Esmond Birnie indicated that the main reason for the slowdown is the projected decline in business investment and foreign direct investment (FDI).

[8]https://www.economy-ni.gov.uk/articles/northern-ireland-composite-economic-index-nicei

The pursuit of FDI has always been a major objective for Northern Ireland policy makers. FDI has a much wider outreach than just company/business investment. It also includes mergers, acquisitions and property.

Many companies located in Northern Ireland trade internationally under EU trade agreements. It is still unclear as to how the UK's new trade arrangements outside the EU will look and how they will compare. The referendum result therefore raises questions about the ability of Northern Ireland to attract FDI in the future and this will remain unclear until there is further clarity around the new trading and immigration arrangements for the UK.

8.2 Educational/Skills Context for Northern Ireland

Peter Weir (Democratic Unionist Party) succeeded John O'Dowd (Sinn Féin) as Northern Ireland Education Minister in May 2016. Mr Weir overturned a decision by the former minister to allow pupils in Northern Ireland to receive GCSE grades from English exam boards who give results using numbers from 9–1. Therefore, from 2018, Northern Ireland pupils using English Awarding Organisations will receive results in both letter and number form. CCEA, will continue to award GCSEs from A* to G only. However, CCEA will introduce a new C* grade. Under the numerical grading system 9 is the highest and 1 is the lowest score.

The new Education minister also reversed a long-standing departmental policy on preparing pupils in class time for AQA and GL Assessments. However, the education minister decided against re-introducing a common, department-run 11-plus test.

There remains a fear that access to world class research and higher education opportunities will suffer due to the Brexit decision. On the Monday after the Brexit result, the heads of 103 British universities issued an open letter expressing how they were "gravely concerned" about the impact of a Leave vote on their universities and students, cautioning voters that the power of their universities on local communities and economy "should not be underestimated"[9]. The signatories were concerned that skills and innovation in terms of the freedom of movement for talent and gifted European academics and scientists may be lost.

The priorities of the European Social Fund (ESF) are to promote employment and support the labour market, promote social inclusion and invest in education, skills and lifelong learning. 205.2 million euro has been granted to Northern Ireland for the period 2014–20 and this includes a programme which supports under 25s in areas of high unemployment, particularly those classed as not in employment, education or training (NEET)[10]. It is unclear whether Northern Ireland will still have access to these funds after 2020.

The EU funded educational exchange programme, Erasmus+ provides opportunity for young people in Northern Ireland and beyond to benefit from study, training, volunteering and professional development across Europe. It also provides opportunities for institutional partnerships and exchange of ideas and best practice. It is unclear whether British students will face exclusion from the scheme in future years following the Brexit vote.

The EU also provides funding for Education and Training 2020, a framework for exchanging best educational practice and disseminating what works across the EU member states. It is again unclear whether the UK will have access to this EU funded project after 2020.

However, in the above context, education will be seen as a key agent in re-establishing skills, particularly for emerging opportunities in digital technology and ensuring such skills are portable and have global currency.

8.3 Political Context for Northern Ireland

As mentioned above, Peter Weir (Democratic Unionist Party) succeeded John O'Dowd (Sinn Féin) as Northern Ireland Education Minister in May 2016.

The two main governing parties (Sinn Féin and Democratic Unionist Party) were on opposite sides of the referendum campaign and it remains a politically sensitive issue for all parties that are tied into the efforts of agreeing a post-conflict society. The 1998 Belfast Agreement was premised on both the UK and Irish membership of the EU.

[9]http://www.independent.co.uk/news/uk/politics/eu-referendum-an-open-letter-to-uk-voters-from-leaders-of-96-british-universities-a7092511.html
[10]http://www.eurolink-eu.net/eu-funding-2/

Northern Ireland has benefited considerably from European structural funds and peace monies. Indeed, some €2.4 billion was received from the EU between 2007 and 2013 with a broadly similar amount being made available between 2014 and 2020 (Irish Centre for European Law & Centre for Democracy & Peace Building)[11]. Many commentators are asking what would be the implications for Northern Ireland as it develops as a post-conflict society.

As soon as results indicated that a Leave vote was likely, Sinn Féin's Martin McGuinness, the Deputy First Minister, called for an all-Ireland vote on unification, a so-called "border poll". This was immediately resisted by unionists, but the call has nonetheless been made.

The result challenges the Executive and Northern Ireland in general on several other fronts. Northern Ireland will need to decide what interests it wants to see defended in the withdrawal negotiations and safeguarded under whatever new relationship replaces the UK's membership. Questions around the border have inevitably come up with both sides offering different prognoses, however most would concede that with the result of Brexit, the status quo cannot be sustained regardless of the Common Travel Area arrangements between the UK and the Republic of Ireland.

8.4 Projected Increased Entries 2016/17–2020/21

Using population projections, the mean percentage change in N. Ireland entries over the previous years, and economic forecasts, the following forecasted entry increases for N. Ireland have been calculated.

It is estimated that in the future N. Ireland Gross Value Added (GVA) growth will be provided by the private sector with the largest contributions from wholesale and retail trade, manufacturing with specific mention of ICT and professional, scientific and technical sectors.

Economic forecasts suggests that there will be growth in ICT and Business sectors and this may impact future students' choice of GCSE, AS and A level.

There has been significant investment in N. Ireland film and TV productions and with HMRC Tax Relief of 10–25% for productions, the trend could continue.

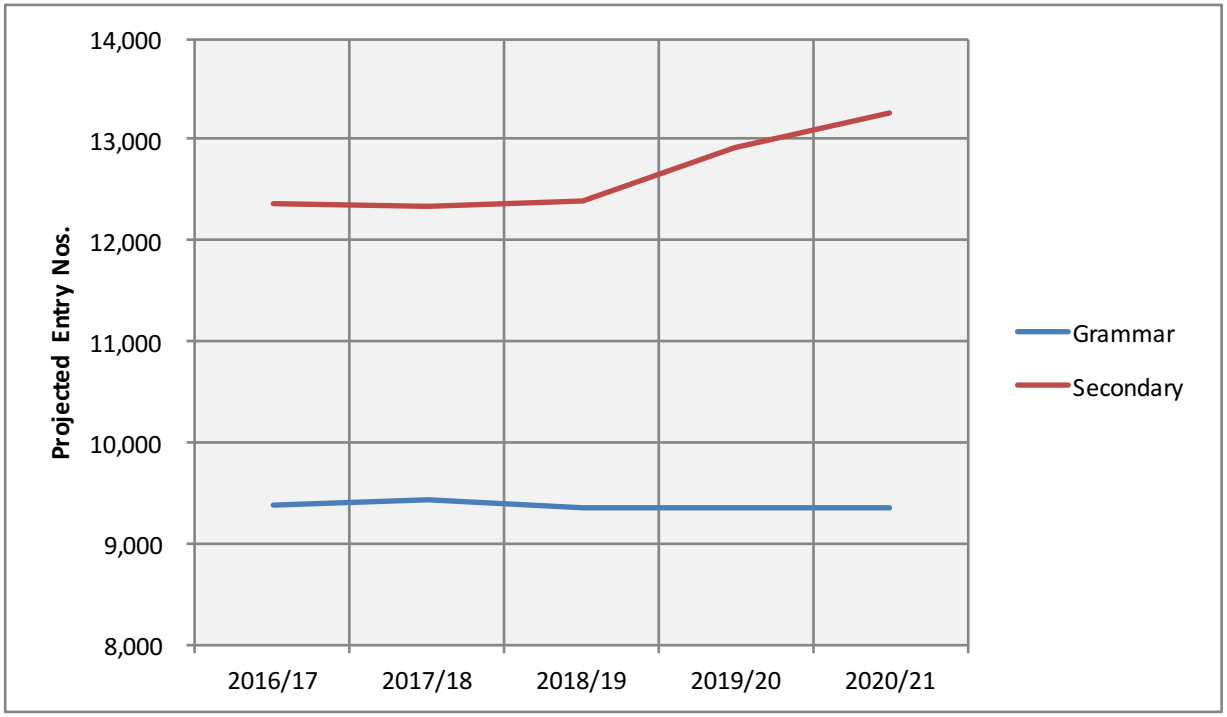
Using this information and that previously mentioned, it is speculated that certain STEM subjects, Film Studies (at AS and A2), and Business Studies will show growth in the coming years. This information is indicative of subject choice and does not speculate on which subjects will have decreasing entries over the next 5 years to accommodate the increases in these areas.

Overall population projections for the period 2016/17– 2020/21 show a relatively stable statutory post-primary population with a slight decrease of -0.6% in the GCSE (Year 12) population. The projected populations for AS Level (Year 13) and A Level (Year 14) show a decrease of -4.5%.

[11]http://www.icel.ie/userfiles/file/conferences/Brexit%202016/ICEL%20CDPB%20Brexit%20Conference%20-%20Brian%20Doherty%20Paper.pdf

8.4.1 GCSE

Figure 76: GCSE Projected Population



These assumptions do not account for the possible impact of potential changes to the nature of admissions within the post-primary sector.

Figure 77: GCSE Projected STEM Entries (ICT)

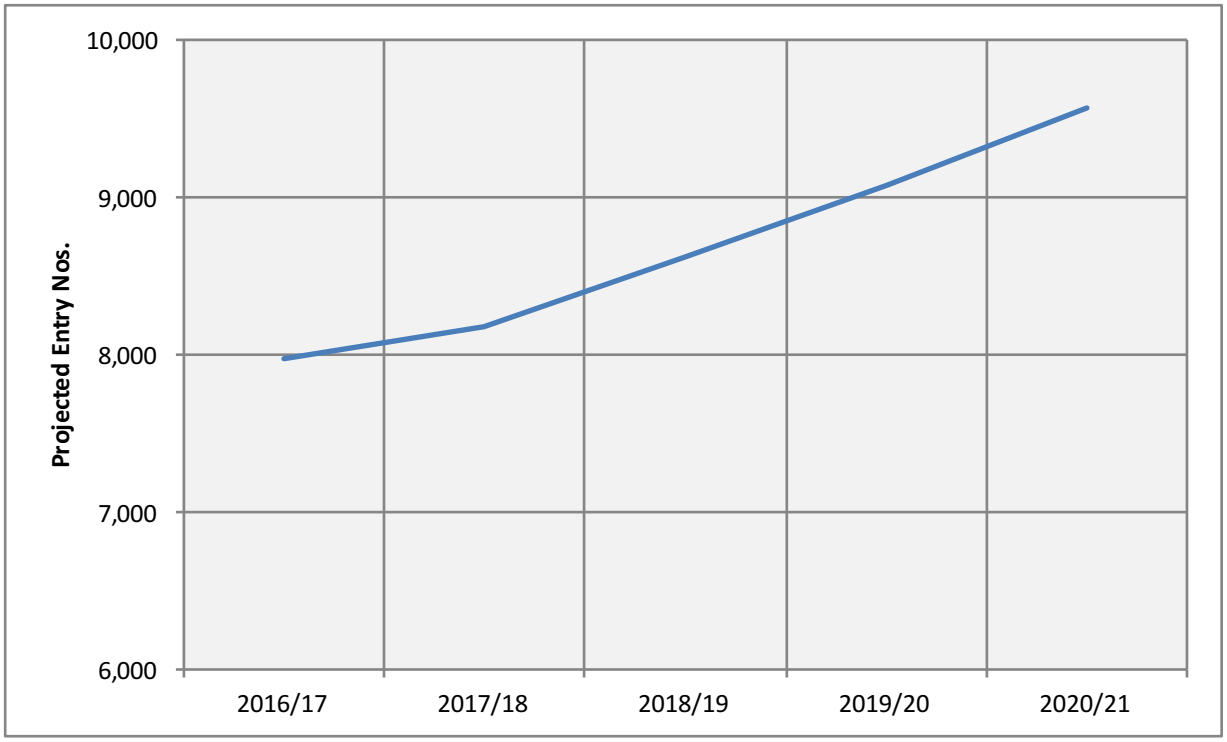


Figure 78: GCSE Projected STEM Entries (Biology, Chemistry, Physics and Design & Technology)

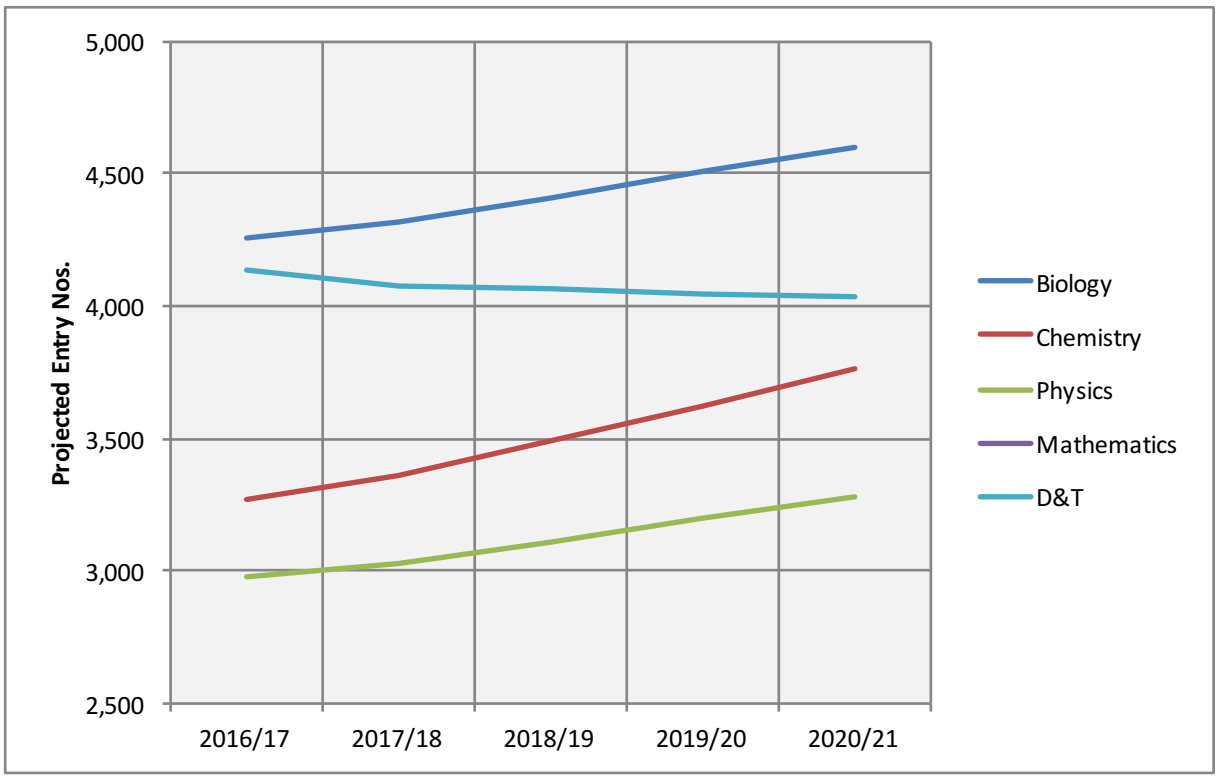


Figure 79: GCSE Projected STEM Entries (Mathematics)

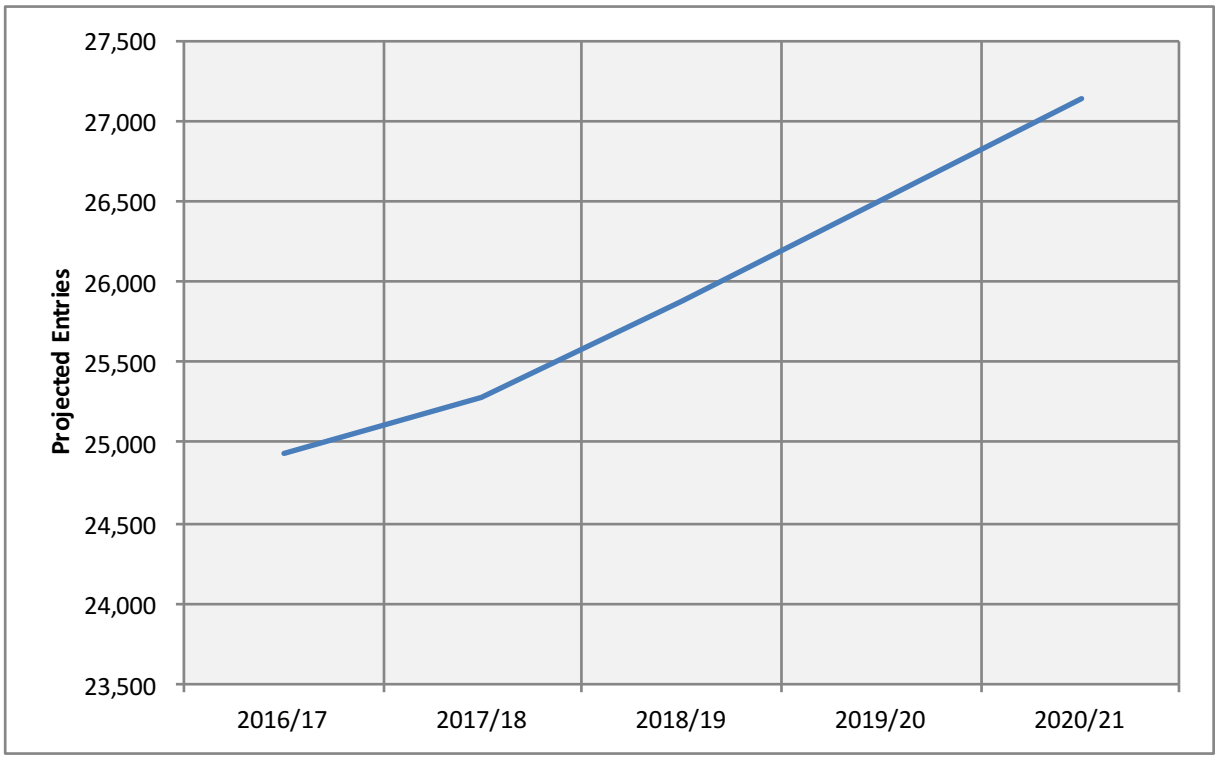


Figure 80: GCSE Projected Business Studies Entries

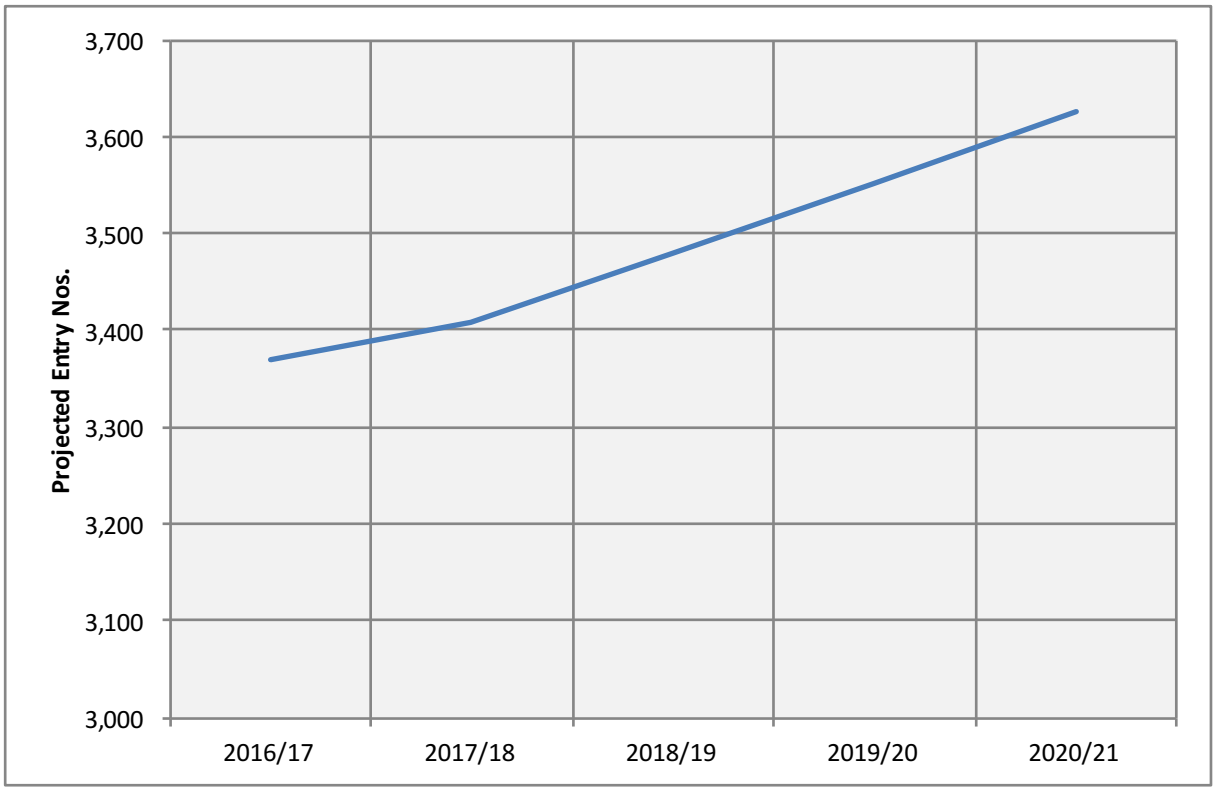
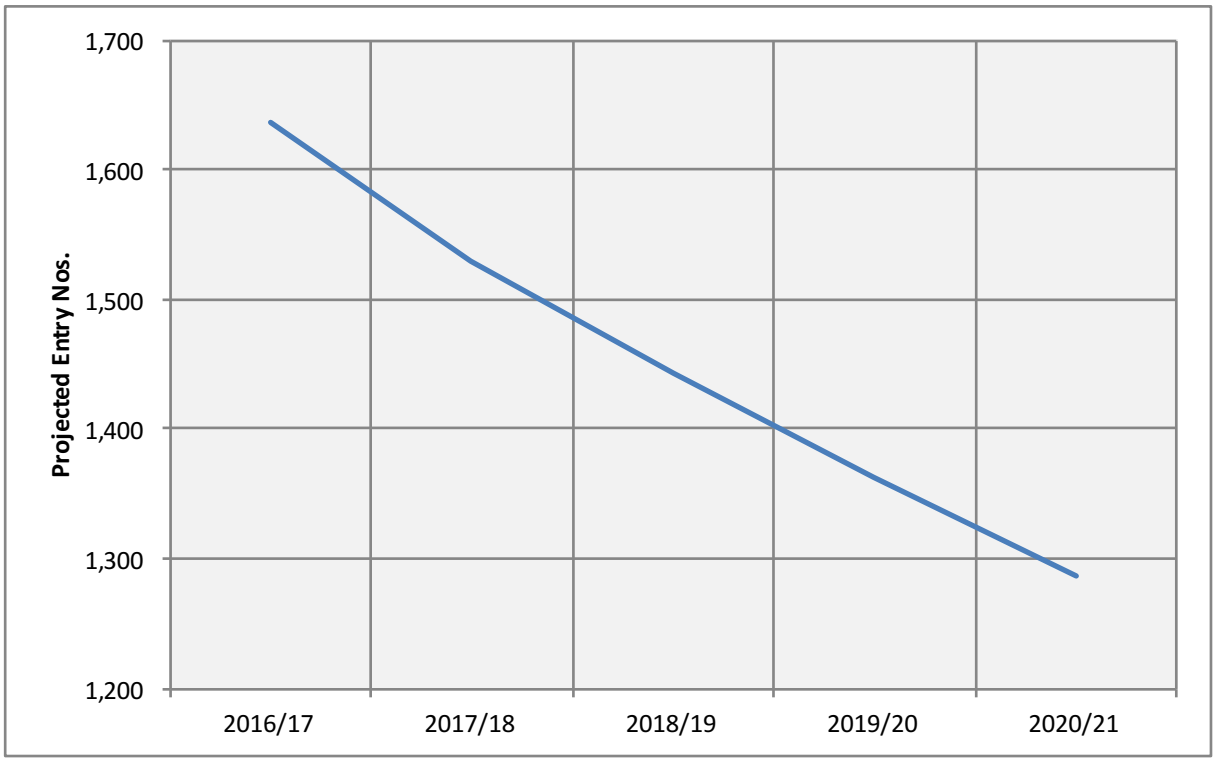


Figure 81: GCSE Projected Media/Film Studies Entries



8.4.2 GCE AS-Level

Figure 82: GCE AS Projected Population

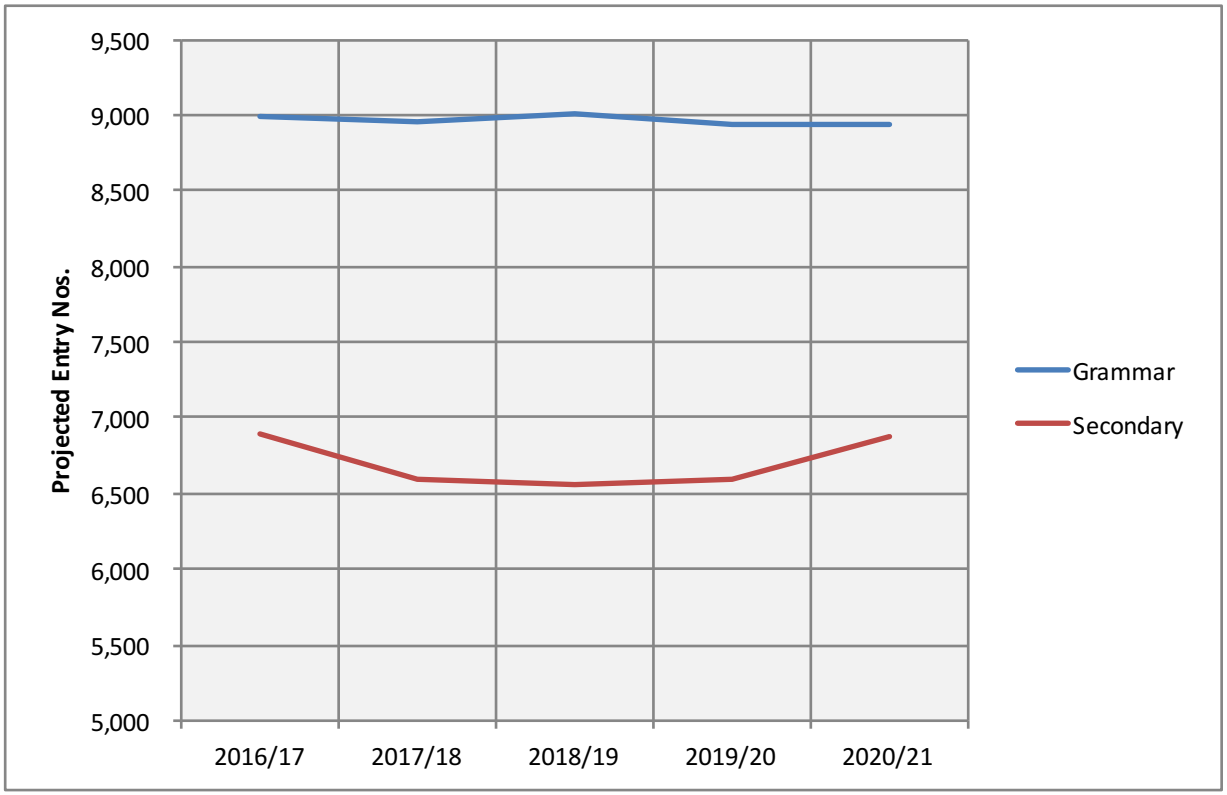


Figure 83: GCE AS Projected STEM Entries (Biology and Mathematics)

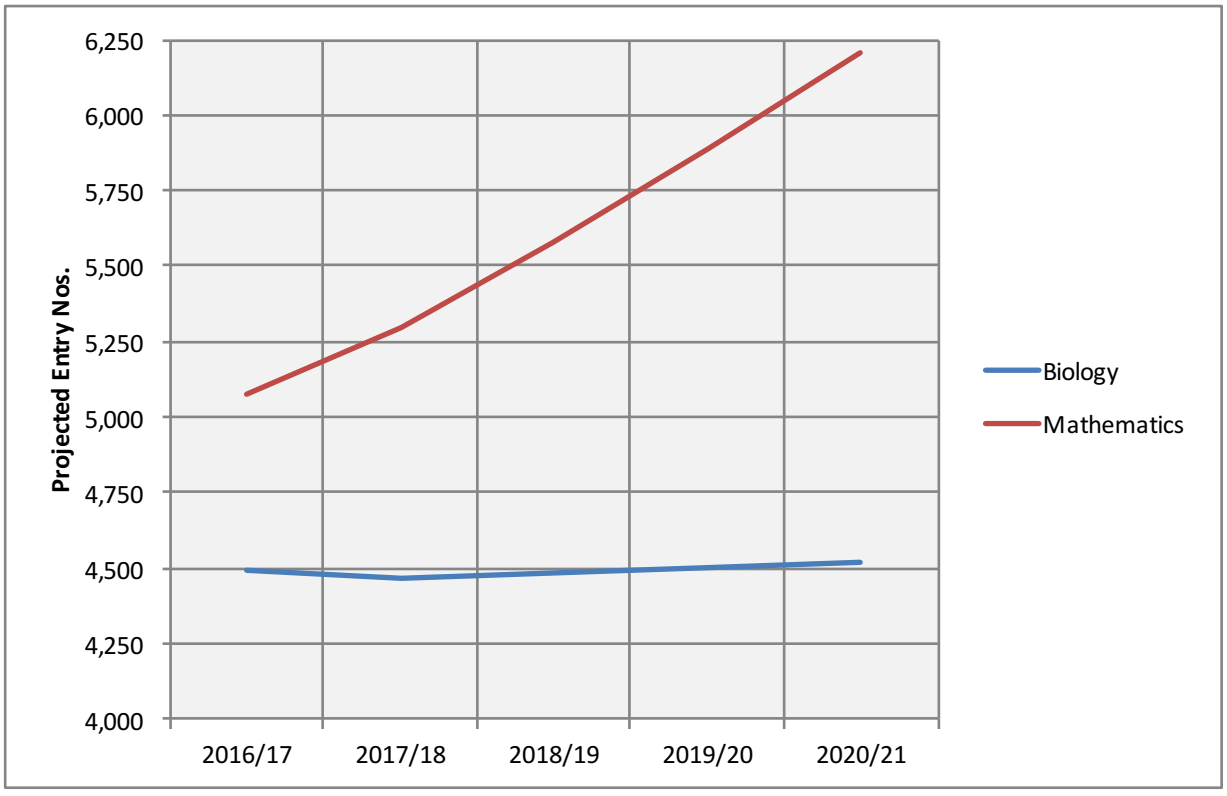


Figure 84: GCE AS Projected STEM Entries (Chemistry, Physics and ICT)

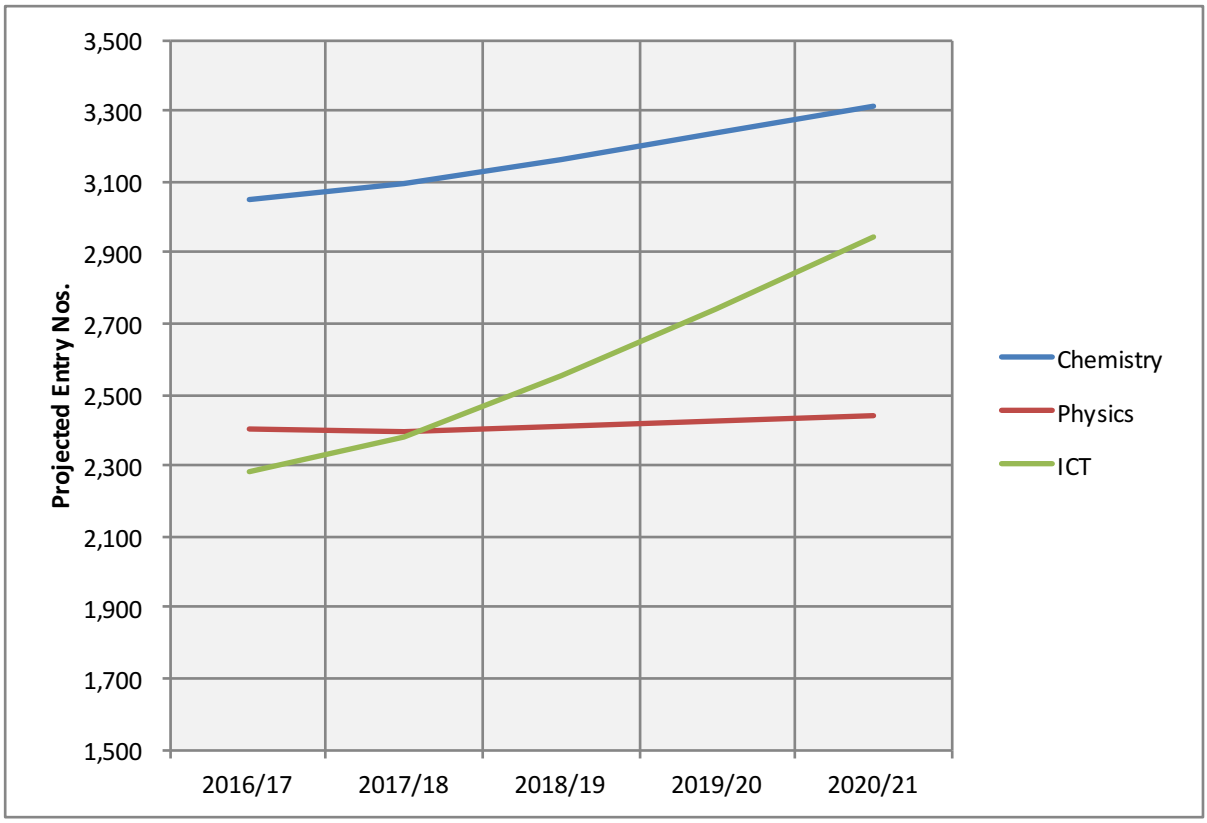


Figure 85: GCE AS Projected STEM Entries (Further Mathematics and Design & Technology)

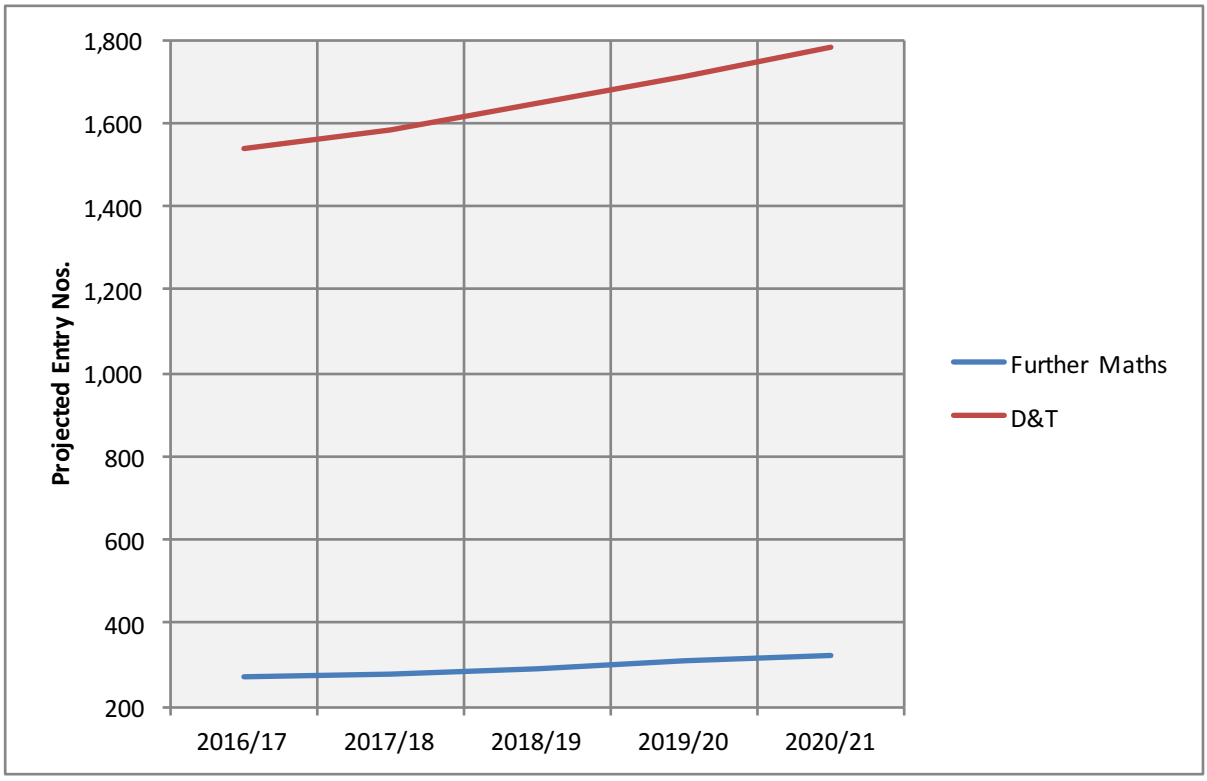


Figure 86: GCE AS Projected Business Studies Entries

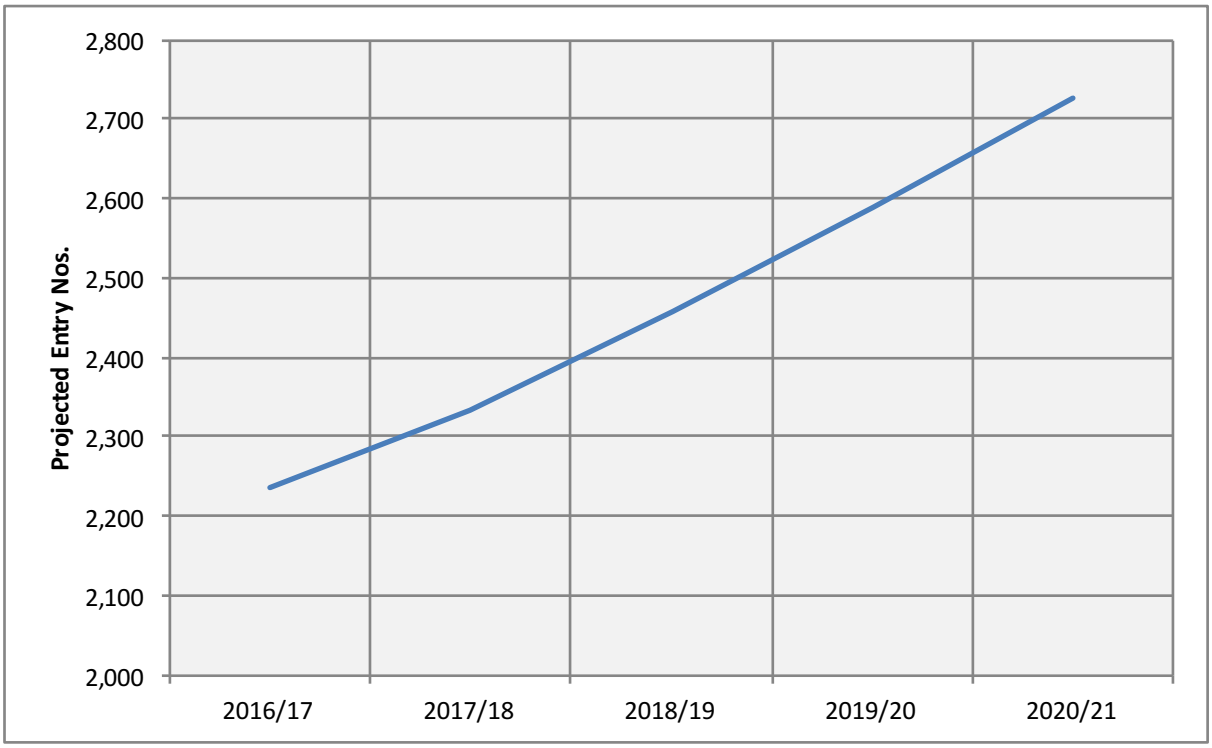
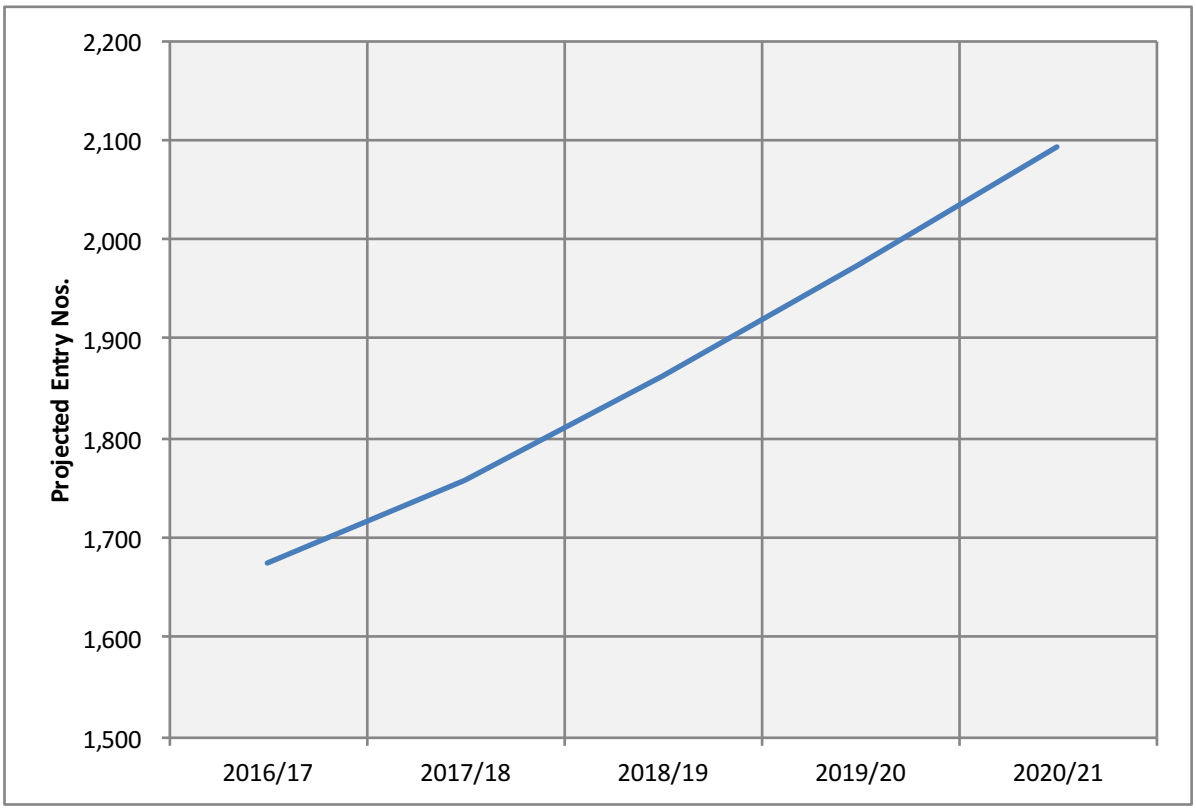


Figure 87: GCE AS Projected Media/Film Studies Entries



8.4.3 GCE A Level

Figure 88: GCE A Level Projected Population

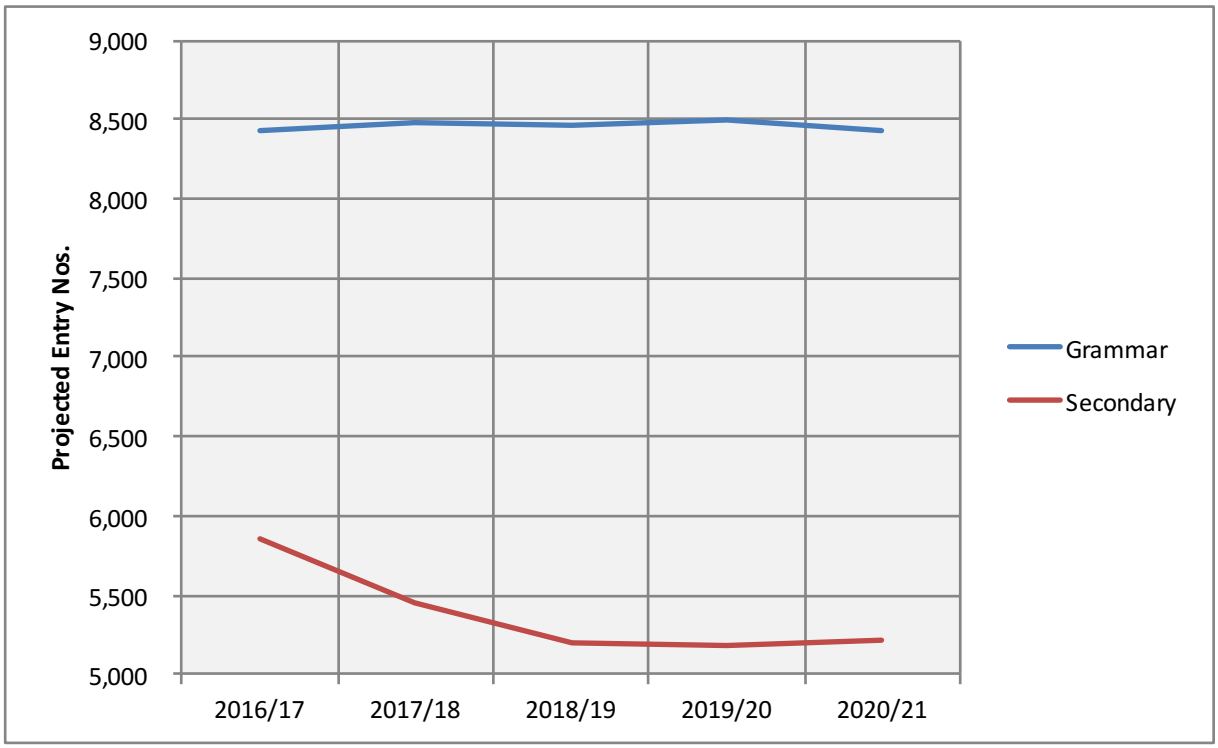


Figure 89: GCE A Level Projected STEM Entries (Biology and Mathematics)

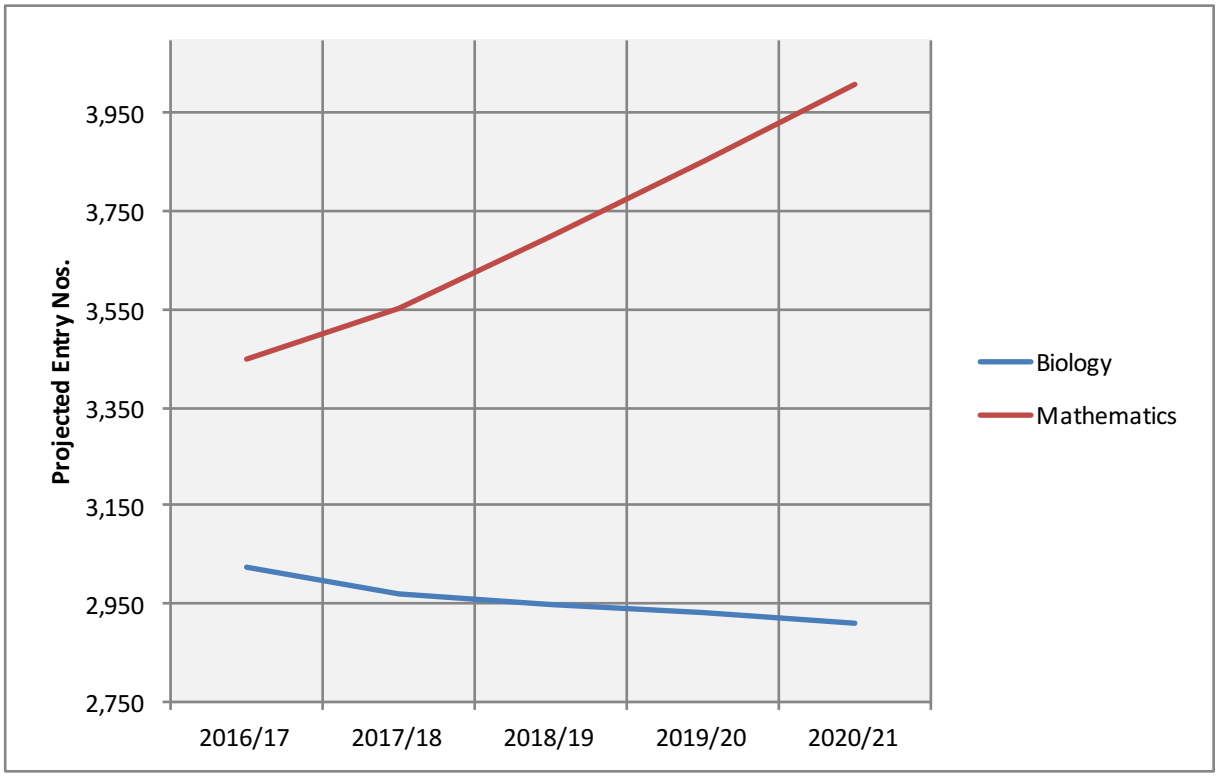


Figure 90: GCE A Level Projected STEM Entries (Chemistry, Physics and ICT)

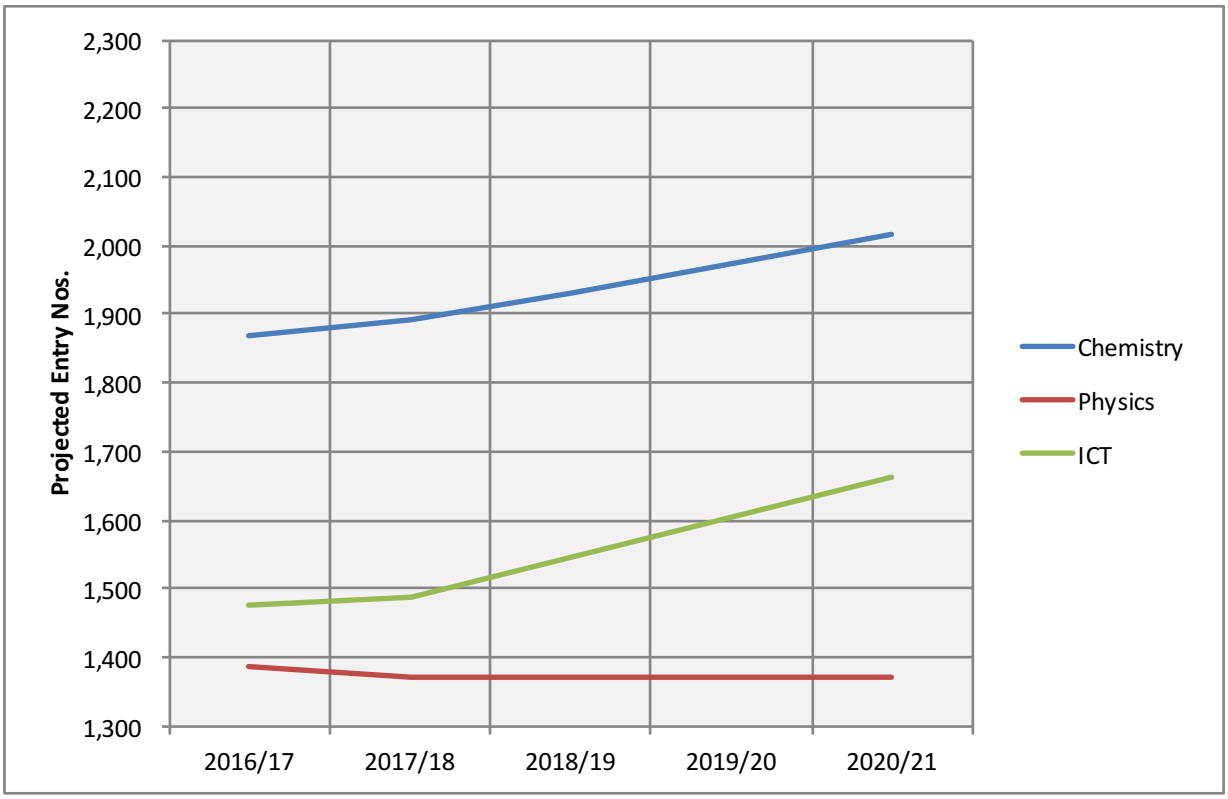


Figure 91: GCE A Level Projected STEM Entries (Further Mathematics & Technology)

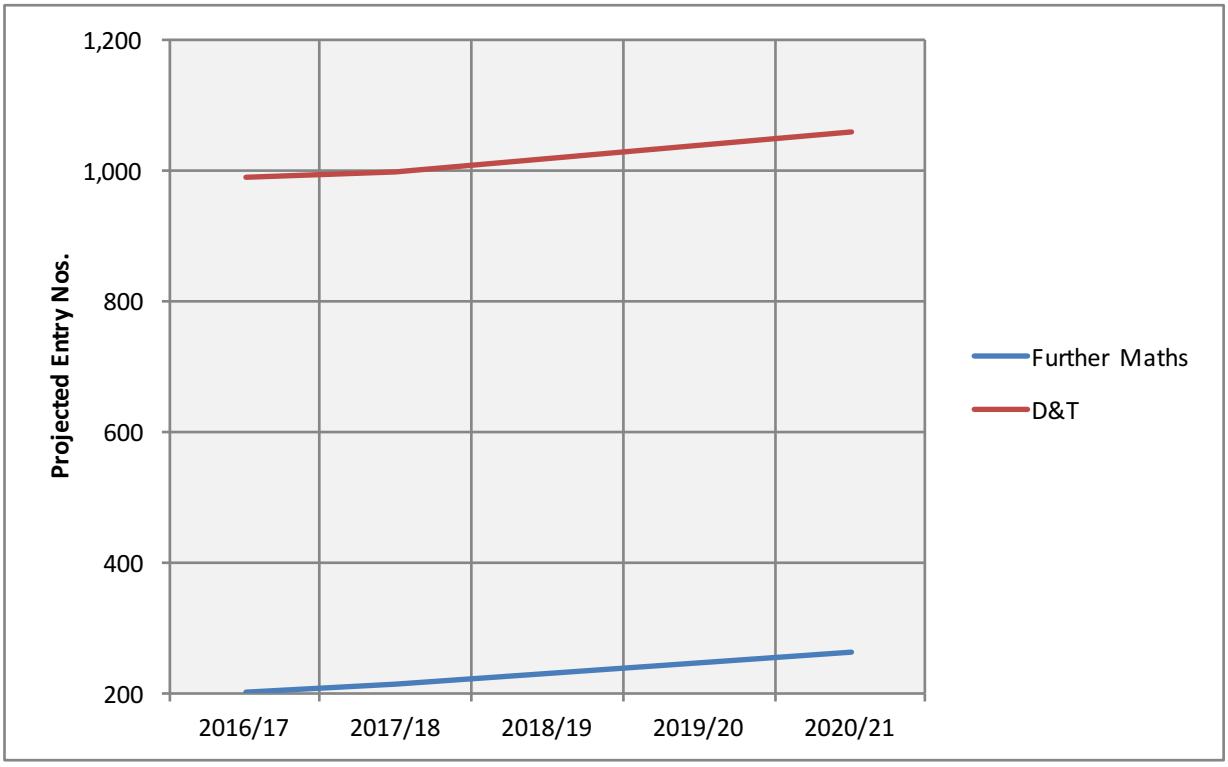


Figure 92: GCE A Level Projected Business Studies Entries

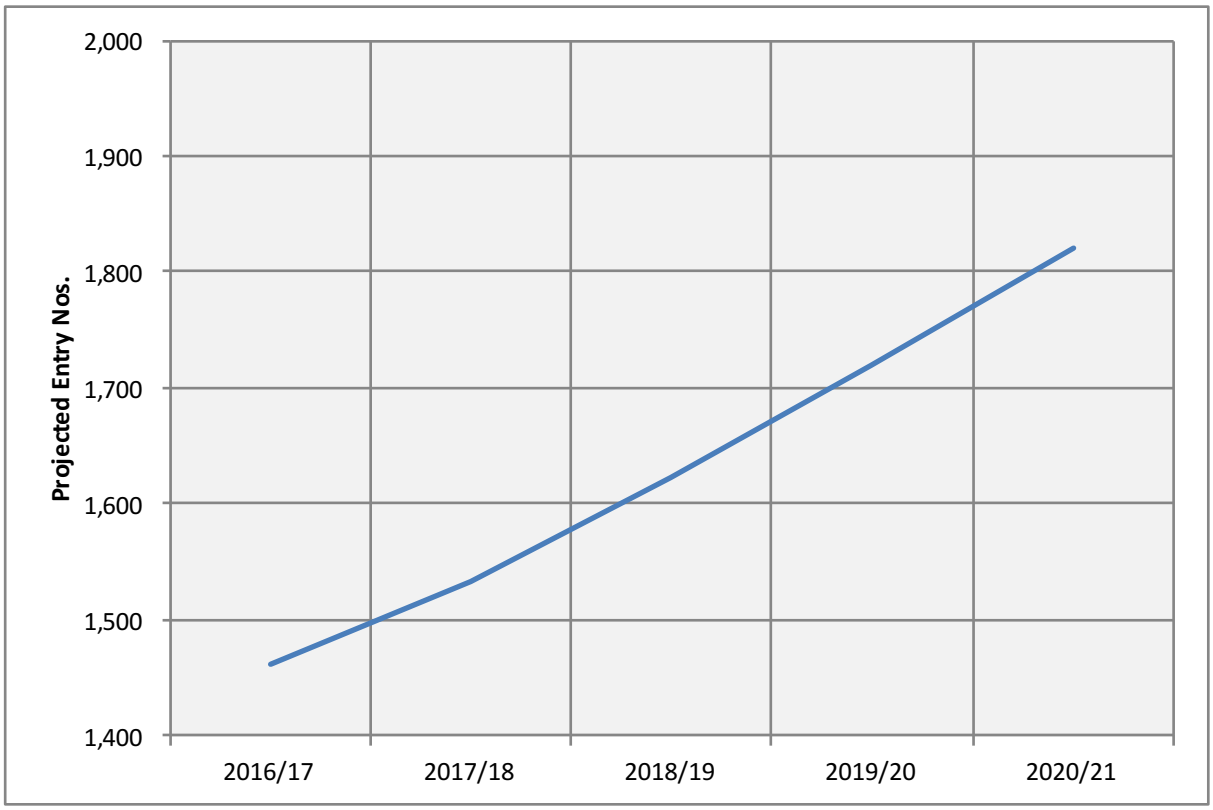
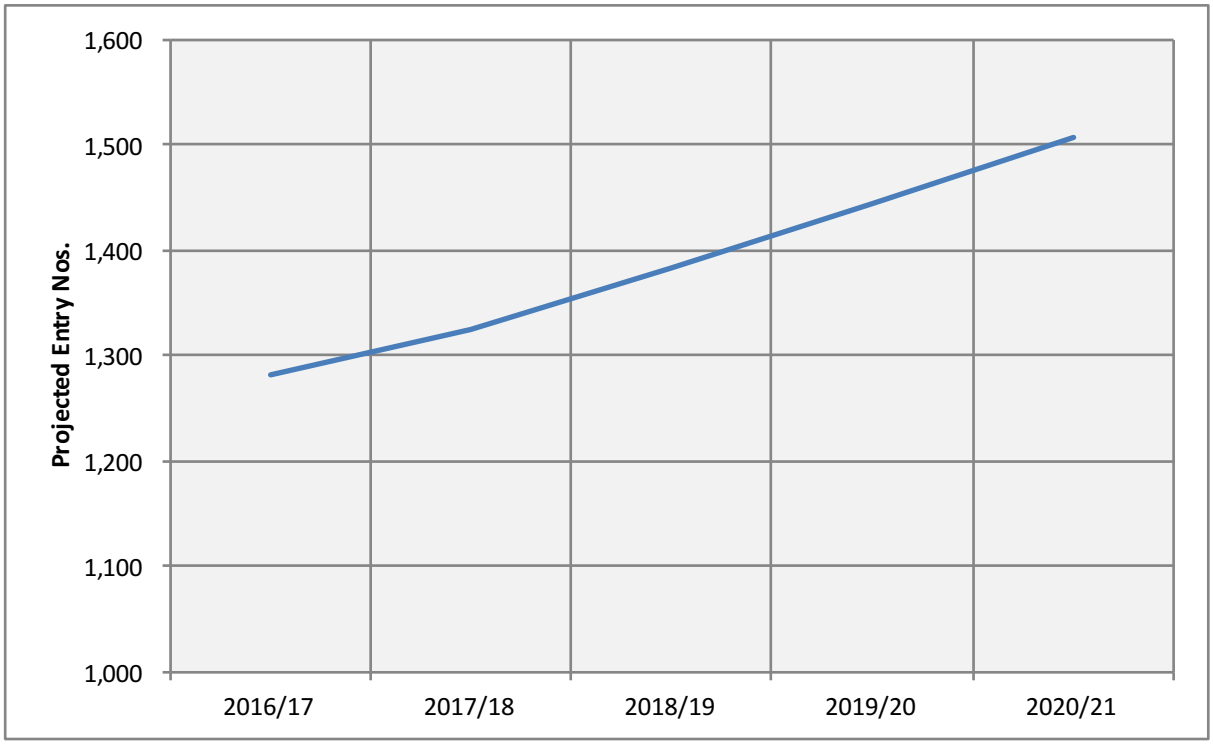


Figure 93: GCE A Level Projected Media/Film Entries



9

Conclusions

CCEA produces a significant amount of information and data analysis regarding GCSE and GCE qualifications, using our own qualification results, Northern Ireland figures and Three Country (UK) information.

This report presents a detailed summary analysis for GCSE, AS and A2 subjects and grade outcomes for the period 2012–16. Similarities and differences between the entry figures for each year for males and females for all N. Ireland students are outlined and notable entry patterns are highlighted. It allows the reader to take a more in depth look at gender/sex differences in subject choice, examination outcomes and performance probability, focusing on GCSEs taken in N. Ireland; focusing on changes over the last ten years. Our projection of subject entries for the next five years should be of interest to a wide stakeholder base.

GCSE

- Improved GCSE results - an increase in A*–C grades. The proportion of entries awarded at least a Grade C has risen by 0.4 percentage points this year to 79.1%;
- Performance in English has continued to improve with A*–C grades now representing 77.8% of entries in the subject, a rise of 2%;
- There has been a slight decline in Mathematics performance; however, performance is still higher than it was five years ago, with males continuing to outperform females in this subject;
- Females are still well ahead in overall GCSE performance; the performance gap sits at 7.6% at A*–C; an increase of 0.5 percentage points on the previous year; and
- Increases in participation across the STEM subjects. The proportion of entries in STEM subjects has grown by 2.5%.

GCE

- Mathematics is now the most popular A Level in N. Ireland; approximately one in ten students study this subject at this level;
- The proportion of female students studying STEM at A Level has experienced a pronounced increase since 2012. Over one-third of female students (36.5%) now study STEM at A Level. This has helped drive the increase in overall share; particularly over the last two years;
- For N. Ireland candidates, female students outperform their male counterparts across all grades; and
- High performance maintained, N. Ireland continues to be the top performing region in the Three Country comparison at Grades A*–A (+3.7%) and A*–E (+0.1%).

Going forward, future insight reports could extend the gender/sex differences in subject choice and examination outcomes, analysis to A Levels, where subject choice is more influential.

The research report has provided a large quantity of evidence that will help enable discussions between industry, business, policy makers and educationalists.

For further information or copies of this report, please contact:

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