

**Nuffield Foundation Education Seminar:
The educational gender gap, specialist schools and labour market performance**

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Context and previous research

Throughout the 1990s, the performance of girls in GCSE exams has been superior to boys. Moreover, the gap has widened. This issue is clearly of public concern, as indicated by reports in the media when GCSE results are announced each year. Our previous research has investigated the evolution and determinants of this educational gender gap. This research shows that girls do better in languages, English and business studies, whereas boys do better in maths and science. This gender gap widened considerably following the switch to GCSEs in 1987 and has been maintained for nearly two decades. Girls have also begun to catch up with boys in maths and science. Why girls perform better than boys in compulsory schooling is still unclear. However, our evidence suggests that although selective schools, and to a lesser extent single sex schools, achieve far higher levels of attainment than comprehensive schools, neither method of selection contributes much to the educational gender gap. A similar argument applies to family background and poverty. The educational gender gap does fall substantially, however, when we control for factors unobserved in our data, and so we conjectured that factors such as school ethos are likely to be important explanations of the educational gender gap.

Aims and objectives of the research

This briefing paper describes the findings from the second stage of our research project. Using school-level data from 1992 to 2003, ten sweeps of the bi-annual Youth Cohort Study from 1987 to 2002, and two sweeps of the National Pupil Database for 2002 and 2003, we have addressed four central issues. First, we have investigated the extent to which the specialist schools programme has affected educational attainment at age 16, and in particular the effect on different groups of pupils. Has this policy benefited girls more than boys? Has it benefited more able pupils more than it has benefited less able pupils? The second strand of our research has been to investigate whether boys subsequently catch up with girls in terms of performance in A-level examinations, and more generally with respect to the NVQ level achieved by age 19. The third part of our research asks whether the educational

gender gap has affected the pattern of post-school destinations. Finally, we investigate whether the educational gender gap has been translated into higher wages for girls relative to boys.

Findings

Our main findings are as follows:

- Claims that the specialist school programme has been an unmitigated success have been greatly exaggerated according to our own evidence. From an analysis based upon long-run trends in the outcome of GCSE exams for all maintained secondary schools, we find that specialist status has had no measurable effect on the exam performance of about 30% of all specialist schools. In comparison with non-specialist schools, those specialising in technology, business studies and science are estimated to have achieved the greatest improvement in educational attainment. Even these effects, however, are small in comparison with previous studies of the specialist schools effect, such as those by the Specialist Schools and Academies Trust. Furthermore, schools specialising in arts, languages, mathematics and sport, appear to have benefited hardly at all. An interesting finding, however, is that schools with a high proportion of pupils from poor families have benefited the most from the specialist schools programme and that schools with a low proportion of pupils from poor families have benefited very little. We could not find any evidence, however, that the specialist schools programme has had any effect on the gender gap.
- We have used two measures to investigate the gender gap at A-level, that is the number of A-level passes and the A-level points score. Having controlled for personal, family, school and neighbourhood factors, we found no significant difference between boys and girls in the number of A-level passes achieved. However, for A-level points score our evidence suggests that boys began roughly one A-level grade ahead of girls in 1987 but by 2001 they were almost half a grade behind. We also took a broader view of post secondary school educational attainment by looking at all qualifications achieved between the ages of 16 and 18. These qualifications could be achieved in either further education, employment or training. Converting these qualifications to a common metric, the NVQ, we show that girls are performing better than boys in NVQ3 level courses. Moreover, the gender gap has been increasing. Added to our evidence on the educational gender gap at age 16, these findings with

respect to post secondary school qualifications suggest that boys are slipping further behind in the education race.

- Does it matter that boys perform worse than girls in education? To answer this question, it is necessary to examine how the educational gender gap translates into labour market performance. Our findings with respect to the pattern of post school destinations showed, unsurprisingly, that both boys and girls who failed to obtain 5 or more GCSEs at grades A*-C were more likely to enter vocational courses in further education or unskilled employment. In fact, as these young people get older the probability of entering unskilled employment increases. We also find that girls who 'pass' their GCSEs are just as likely to stay on for academic FE as boys who 'pass'.
- Whilst there does not appear to be any systematic difference between boys and girls in the pattern of post school destinations, our findings suggest that girls are taking greater advantage of their educational attainment compared to boys. When we look at wage returns, for example, we find that girls do better than boys by their early twenties. This finding has to be interpreted with caution, however, for two reasons. First, the wage returns are estimated fairly soon after education has been completed and it is important to look at the effect of the educational gender gap on wage returns later in their careers. Second, the positive wage return to girls is a double difference, that is between girls who 'pass' their GCSEs relative to girls who 'fail' subtracted from the equivalent for boys. Drilling down into the positive return to girls we find that it is largely determined by the fact that 'failing' girls consistently do worse than 'failing' boys. Moreover, this disadvantage gets worse within each cohort over time.