

## A review of research evidence on the apparent underachievement of boys

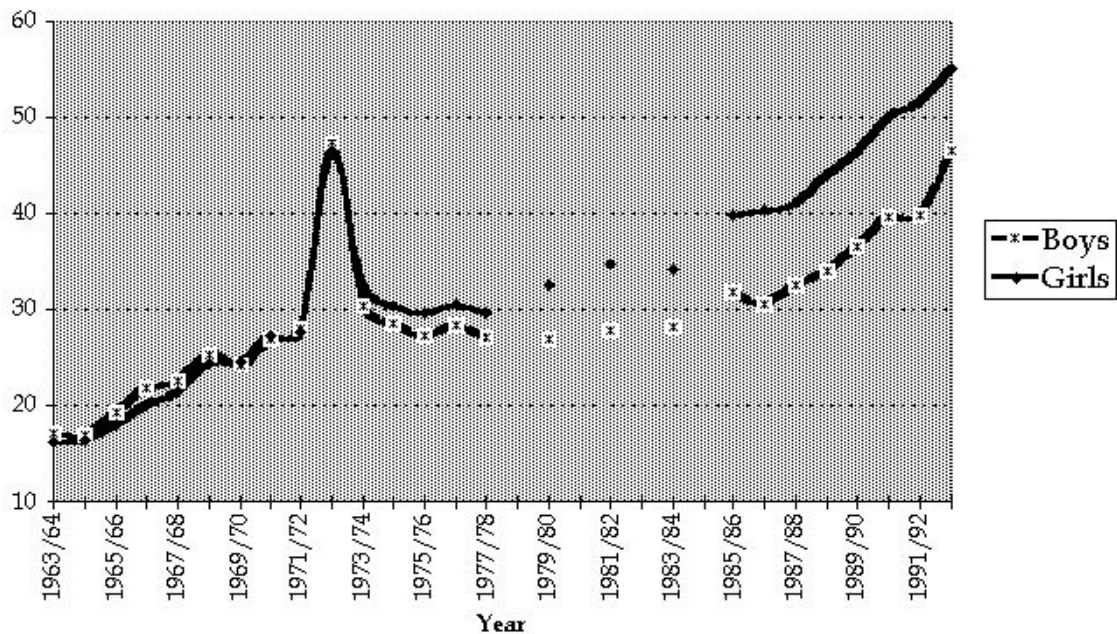
### Key points

When evidence covering a variety of jurisdictions is examined, using different measures of achievement, a number of general themes emerge:

- There is a general pattern of educational attainment levels tending to increase over time on most, but not all, levels. Within this overall pattern the rate of increase on measured educational attainment levels for females has tended to be faster than that for males.
- The overall trend and the sex trend in attainment levels have developed steadily over time and appear to be linked to broader processes of social change.
- The general effect that attainment levels of females are higher than those for males is evident in developed industrial societies and appears on most, but not all, measures of attainment.
- The sex pattern in educational attainment to the advantage of females is not evident in the area of vocational education.
- Definitive conclusions on comparative sex patterns in educational attainment are complicated both by different patterns of curriculum and by different levels of participation in post-compulsory education.

Figure 1.

### Proportion of school leavers with 5 or more GCSEs, grades A-C, or equivalent, by sex and year



### Introduction

1. There was a time when boys consistently outperformed girls on O Level, A Level and university level examinations. However, this pattern appears to have changed in recent years, a fact which has prompted widespread comment and, in some quarters, an apparent sense of 'panic' that boys are underachieving. In Britain the issue was highlighted in a BBC Panorama programme 'The Future is Female', broadcast on October 24, 1994, and given even more prominence when the Chief Inspector of OFSTED, Chris Woodhead, declared that:

...the failure of boys and in particular white working-class boys is one of the most disturbing problems we face within the whole educational system.

## Findings

2. An examination of evidence on educational attainment in a variety of jurisdictions, including Britain, the United States, the European Union and Northern Ireland, in addition to evidence on broader global patterns, suggests the following conclusions:

(i) There has been a general pattern such that educational attainment levels for all pupils are tending to increase over time.

(ii) Within this overall pattern, the rate of increase tends to be higher for females than for males.

(iii) Both trends have developed steadily over time and appear to be linked to broader processes of social change.

(iv) The evidence for the absolute level of attainment to be higher for females than males is characteristic of developed, industrial societies, and appears on most, but not all, measures of attainment.

(v) The attainment levels of males remain higher than those of females in vocational education, that is, courses of study which involve a significant vocational or occupational component.

3. A variety of explanations have been considered to explain these patterns, but the difficulty for many is that they fail to account for the changing nature of relative attainment patterns over time. There is little compelling evidence in the literature, for example, to suggest that sex patterns in educational attainment are predominantly influenced by biological factors.

4. One theme which does emerge from the literature is the finding that girls were more likely to perform better than boys on certain types of tasks. Murphy and Elwood (1996) highlighted the out-of-school influences which socialise young boys and girls towards particular roles, based often on adult interpretations of appropriate and inappropriate behaviours. Across a range of examination and assessment systems, Murphy and Elwood suggest that boys and girls often deal with curriculum content differently, and this can result in gender differences in assessment outcomes. As an example of this Murphy and Elwood point to discussions of Assessment of Performance Unit (APU) surveys where girls' preferred style of written response was described as 'extended, reflective composition', whereas the preferred style of boys was 'more often episodic, factual and focusing on commentative detail'. Murphy and Elwood continue:

...certain styles of expression are expected in particular subject areas and thus influence teachers' judgements of students' ability often in ways that misrepresent students' real achievements. Whilst girls appear to be advantaged by this in English, research indicates that the reverse obtains in science. Furthermore as students progress beyond compulsory education to GCE A Level study post-16 a shift in performance patterns arises that can again be seen to link to styles of response.

A further point they highlight deals with the importance of tiered entry for GCSE subjects as a filter for GCE A Level participation levels and results. Again this represents a potential example where external judgements can differentially impact on the opportunities to learn of boys and girls and thus affect measured achievement levels. In this particular case the effect of tiered entry can disguise its own effect. This would occur if a girl, for example, was entered for a subject tier set with a maximum grade C. Even though she might achieve the top grade of C and appear within the examination statistics as contributing to the grades A-C band, she might nevertheless be unable to take the subject to GCE A Level if her school required performance at grade B or above.

5. An additional factor that seems to be important is that boys' underachievement is linked to behaviour, and, in particular, anti-school subcultures and peer-group pressures. The corollary of this is the importance of positive aspirations or perceptions of school as promoting higher educational achievement: this factor operates usually, but not exclusively, to the advantage of girls, as they tend to have more positive attitudes to school than boys. However, the same effect is found in areas where boys have more positive attitudes as in, for example, science. Also, the achievement of girls can be constrained by negative attitudes and stereotypes held by others. A number of other research studies develop this further and conclude that the educational attainment of girls is positively correlated with equal opportunities in school and the wider society.

6. The weight of the evidence would suggest that sex patterns in education are largely influenced by social factors. This would help to explain why they have changed so much over time, but also implies that they are amenable to further change in the future. As indicated above, it is important to emphasise the extent to which current debates are set within a context where educational achievement levels generally have been increasing, even though the presentation of statistics can sometimes provoke the misleading impression that the attainment levels of boys have decreased in recent years. Discussions on sex patterns in education ought not to be cast as a zero-sum game. Rather the evidence suggests that boys represent an increasing extent of a declining problem.

7. Caution should be exercised in drawing oversimplified conclusions from attainment data, particularly where these relate to examination and assessment systems in post-compulsory education, where not only the measured level of achievement, but also the comparative levels of participation, need to be considered. For example, whilst a higher proportion of girls than boys left school with three or more A-levels in 1992/93, among year 14 school leavers a higher proportion of boys than girls achieved three or more A-levels.

8. The evidence reviewed in this paper would suggest a number of areas where further work might usefully be carried out:

(i) Is there any evidence that the criteria used in examination and assessment systems in Northern Ireland contain unintended sex biases?

(ii) How can the participation of girls in vocational education be increased?

(iii) To what extent do anti-school cultures operate among boys in schools in Northern Ireland? Do these pressures contribute to underachievement, and is it possible to identify ameliorative strategies to tackle this problem?

### **The Project**

9. The project was undertaken for DENI by the School of Education at Queen's University, Belfast. The cost was £5,000.

### **Full Report**

10. The full report entitled "Educational achievement and gender: a review of research evidence on the apparent underachievement of boys", DENI Research Report Series No. 6, by Dr A M Gallagher, is available free of charge from DENI.

***This paper is a summary of the research report and as such any views it contains are not necessarily those of DENI.***

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