# The educational gender gap, catch-up and labour market outcomes*

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**Abstract**

In this paper, we investigate whether the superior performance of girls in exams taken during compulsory schooling translate into superior performance in the labour market. We also investigate whether boys eventually catch up with girls in terms of their educational attainment. Using the Youth Cohort Surveys for England and Wales for the period 1986 to 2003, we find that better educated girls are more likely to stay on for further education, especially for academic courses, such as A levels. Furthermore, towards the end of the time period of our study girls were outperforming boys in A levels, and also in work-based qualifications. Although we find a positive wage return to girls who 'pass' their GCSEs, the difference in gender differentials masks a more worrying trend - the fact that 'failing' girls suffer disproportionately in terms of wages once in the labour market.

**Keywords: Gender gap, catch up, labour market outcomes.**

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# 1 Introduction

In a companion paper, we investigate the evolution and determinants of the educational gender gap in Britain (Andrews, Bradley, Stott and Taylor, 2004). The educational gender gap is typically measured as the difference in the proportion of girls who pass five or more GCSEs with Grades A*-C and the same proportion for boys.[1] This issue attracts considerable political and media attention every year when the exam results are published.[2] This is because the raw data show that, over the period 1985 to 2003, girls have out-performed boys, and that this gap has been widening, such that, by the end of the period the gap stood at 10 percentage points. In our analysis of the educational gender gap using 10 sweeps of the Youth Cohort Study (YCS) and the National Pupil Database, controlling for observable personal, family, school and neighbourhood characteristics has very little effect on the gap, whereas once we control for school-level unobserved heterogeneity, the gap falls by about one half between 1991 and 1999.

Although boys have inferior educational performance in compulsory schooling, it has been claimed that this disadvantage dissipates at later stages in the educational process, for instance at the pre-University entrance stage at age 18. It is important to know whether catch up does, in fact occur, and yet there is very little hard evidence.

There is a view that says that the widening of the educational gender gap in compulsory schooling may itself not matter if this advantage also dissipates by the time girls enter the labour market, where women fare worse than men. However, in many areas of gender discrimination in the labour market, the gap is getting narrower, and so one possible explanation, in the UK at least, is that the increasing educational gender gap has had an impact on subsequent labour-market outcomes. It is possible that girls work harder at school knowing that they will be discriminated against later on in the labour market. Furthermore, even if the increasing educational gender gap has no effect on the adult gender wage gap, it is still possible that it could close the gender wage gap in the youth labour market as young girls are less likely to interrupt their careers because child-rearing usually happens later on in life. It is well documented that women have less work experience and this increases the adult gender wage gap. Thus, the gender wage gap in the youth labour market gets smaller because the acquisition

[1] Pupils prepare for the General Certificate of Secondary Education (GCSE) examinations in typically no more than 10 subjects in their final two years of ompulsory schooling between the ages of 14 and 16. The GCSE is a norm-based examination taken by almost all pupils, and the grades range from A* to G. Grades A* to C are considered acceptable for entry to university, together with the acquisition of advanced qualifications obtained two years later.

[2] Concern about the deteriorating performance of boys is actually more widespread. In the US, for instance, Campbell, Hombo and Mazzeo (1999) document the decline in performance of boys in maths and science between 1973 and 1999.

of more human capital by girls is given greater weight by employers, given that boys and girls have similar levels of work experience. A countervailing force, however, is the propensity for girls to continue to crowd into low paying 'female' occupations, resulting in occupational segregation (Andrews, Bradley and Stott, 2004).

The aims of this paper are therefore threefold. Firstly, we investigate whether boys catch up with girls in terms of A level performance, or, more generally, attainment in National Vocational Qualifications (NVQ).[3] The issue of 'catch-up' has previously been investigated by educationalists but this has tended to be descriptive, whereas we adopt a rigorous econometric approach. Also, we can find no discussion in the literature of the differences between boys and girls with respect to NVQ performance. Secondly, we evaluate the impact of the educational gender gap in GCSEs on the gender wage gap in the youth labour market. Thirdly, we investigate whether differences in educational attainment between boys and girls in GCSEs lead to differences in post-school educational and labour market destinations. For instance, are girls more likely to enter academic further education (FE)? This is important because success in academic FE opens up the possibility of entry to university. To our knowledge, there has been very little previous work which assesses the effect of the educational gender gap on labour market outcomes, especially for the UK. Furthermore, although there is a massive literature on the school-to-work transition, very few papers explicitly seek to quantify gender differences in outcomes. Most of the previous literature is cross-sectional, examining labour market outcomes in a particular year. Longitudinal studies tend to focus on the time it takes for a young person to acquire their first job. The advantage of our research is that, because it refers to the period 1986 to 2004, we can investigate how the labour market outcomes of boys and girls have changed over time. To investigate all three issues we analyse eleven sweeps of the bi-annual Youth Cohort Study (YCS), starting in 1986 and finishing in 2004.

The remainder of this paper is structured as follows. In the next section, we review the available literature, which has focused primarily on the effect of education, measured in a variety of ways, on gender wage gaps. This is followed, in Section 3, by a discussion of the educational and institutional environment, and how this has changed over the period of our study. Several major reforms to the education system have occurred, which may, in addition to changes in the educational gender gap, have affected labour market outcomes. This section also discusses the data we use in our study. Section 4 describes our econometric framework, which is followed by a discussion of our results in Section 5.

[3]The National Vocational Qualification has five levels and all qualifications are attributed to one of these levels. Appendix A reports the conversion adopted.

Section 6 concludes.

# 2 Literature Review

There is an education literature on A level performance of boys and girls, but there is very little formal statistical analysis. Tinklin, Croxford, Ducklin and Frame (2001) and Tinklin (2003) are exceptions in so far as they use data for Scotland, and show that girls and boys are equally likely to become 'high attainers' (i.e. obtain 4 or more H levels, the equivalent of A levels), but that girls who perform well in compulsory schooling are more likely to stay on. There is a large literature focusing upon the school-to-work transition, which is summarised by Bradley and Nguyen (2004). Although almost all of this literature investigates the effect of educational attainment, as well as other factors, on post-compulsory school destinations, boys and girls are treated separately and so there is no explicit attempt to investigate the impact of the educational gender gap on those destinations. Rice (2000) is an exception because she investigates the role of gender in determining differences in staying-on rates into FE in the UK, which again favours girls. She finds that only part of the gender gap in staying on rates is due to differences in GCSE exam performance at school. An 11 percentage point difference in the predicted probability between white males and females would be reduced to 6 percentage points if the distribution of educational attainment between the genders were equalised.

School-based work experience has some effect on the gender differences in the probability of staying on. Jacob (2002) investigates the gender gap in attendance at US colleges, which favours girls, focusing on the effects of differences in the returns to college and the impact of poor non-cognitive skills amongst boys (e.g. their inability to pay attention in class, to work with others and to organize and keep track of homework). Higher non-cognitive skills and college premiums among women account for nearly 80 percent of the gender gap in higher education. Other studies are of indirect relevance to our own work. For instance, Graham and Smith (2005) investigate gender differences in the choice of science and engineering careers for US graduates. Turner and Bowen (1999) show that differences in SAT scores, obtained during compulsory schooling, account for a small part of the gender gap in choice of college majors, the main part being explained by labour market expectations and gender-specific effects of the college experience.

There is a large literature on the gender wage gap. Most of this literature relates to the US and is concerned with adult male-female wage differences. It could be argued that studying adults has the advantage of avoiding transitional labour market effects. However, it is clear that a bad start to ones

working life can have detrimental long-term consequences (Bradley and Nguyen, 2004), and so it is important to also understand what factors influence early labour market performance. We therefore concentrate here on those studies that have tried to assess the impact of specific aspects of education on this gap.

One strand of the literature investigates the effect of course choice on the gender wage gap. Paglin and Rufolo (1990) show that women earn less because they are less likely to choose degree subjects, and hence occupations, requiring quantitative skills, which are in short supply in the US labour market. Similarly, Brown & Corcoran (1997) argue that differences in degree subject account for a substantial part of the gender gap in adult wages for college graduates, however, differences in the courses studied account for little of the equally large gender wage gap for the less educated. In the case of the less educated, courses studied at high school account for about one third of the gap, whereas work experience is shown to be much more important. Interestingly, Christie and Shannon (2001) find that gender differences in educational attainment account for virtually none of the gender gap in earnings in 1985 and 1990 in Canada.

A second strand of the literature has analysed the effect of maths skills on the gender wage gap. Murnane, Willett and Levy (1995) show that even basic maths skills have become increasingly important for predicting wages at age 24 between the late 1970s and the mid-1980s in the US. For women, the increased wage return to maths accounts for all of the increase over this time period in the wage premium with respect to post-secondary education. Altonji (1995) also finds positive returns to achievement in maths for the US and Dolton and Vignoles (2002) found that having maths A level boosts earnings significantly in the UK.

In a third strand of the literature, the issue of curriculum breadth and its effect on the wages of males and females has been investigated. The hypothesis tested is that employers prefer workers with a broader curriculum, and hence reward them with a higher wage. Altonji (1995) finds that the return to additional academic courses, such as maths, English, science and languages is small, especially when compared to the return to one additional year in high school. Furthermore, Dolton and Vignoles (2002) show that employers in the UK do not seem to reward individuals who take a broader curriculum at 16–19 more highly.

The effect of school quality on the gender wage gap has also been analysed. Konstantopoulos and Constant (2005) use US data to examine its effect on the labour market performance of similarly aged individuals observed seven, eight, and fourteen years after high school graduation. School quality is measured by several proxies – the socio-economic composition of the school's pupils, the percentage

of pupils who proceed to college and the percentage of teachers with a degree. They show that the socio-economic composition of the school the pupil attended is important for the future wages of whites and Hispanics, whereas the percent of teachers with graduate degrees is important for the wages of black pupils. A further finding of interest is that the gender gap in hourly wages is larger in the middle and the upper tails of the distribution.

In addition to the effects of education on the gender wage gap, other researchers have found that occupational segregation has a large effect (Mumford and Smith, 2004). The size of the wage gap also varies with workplace characteristics and region. Kunze (2005) uses data on German apprentices for the period 1975-90 to analyse the evolution of the gender wage gap for the first 15 years in the labour market. The initial gap of 25% is explained primarily by gender segregation in the occupation of the apprenticeship undertaken by males and females. Women tended to enter clerical or receptionist occupations, for instance, whereas males entered motor vehicle or electrical work where returns are higher. This occupational sorting had a persistent effect on the gender wage gap over the 15 year period.

# 3 Data and Institutional Background

## 3.1 Institutional background

In the UK, young people can leave formal education at the end of the academic year following their fifteenth birthday, and then proceed to either post-compulsory full-time education or entry to the labour market. With the collapse of the youth labour market in Britain in the early 1980s, reflected by a dramatic fall in the transition from school to employment (see Andrews and Bradley, 1997), the Conservative government introduced the publicly-funded Youth Training Scheme (YTS). Initially, these schemes were essentially work experience programmes for unemployed youths and lasted only 12 months. However, since then, these schemes have been transformed, increasing the training content and evolving ultimately into Modern Apprenticeships (Bradley, 1995). During the period of this study, the youth labour market in Britain had a highly structured recruitment cycle. The bulk of recruitment occurs in the summer when the majority of school leavers enter the labour market. Entry to many employer apprenticeship training schemes and the 'good' Youth Training Schemes (YTS) commenced before the start of courses in post-compulsory education. Other young people entered YTS programmes that had less formal training content or they became unemployed.

The proportion of young people continuing their study in FE has increased dramatically over the period, with a sharp rise in 1990 (see Figure 2, Machin and Stevens, 2004). Those young people who did proceed to post compulsory education pursued an academic route (e.g. A levels) or a vocational route (e.g. business, engineering, etc.), the former route typically regarded as the stepping-stone to higher education. Clark, Conlon and Galindo-Rueda (2002) provide a decomposition of the factors that explain staying-on rates between 1981 and 2001, and the two most important factors are prior educational attainment and the unemployment rate. Note also that girls have a higher propensity to stay on (Rice, 2000).

## 3.2 The Youth Cohort Survey data

In this paper we analyse the biennial Youth Cohort Surveys (YCS) of England and Wales, Cohorts 2 to 11, which cover the years 1986-2004. Each cohort comprises three sweeps: Sweep 1 is conducted in Year 12 (when respondents are aged 16-17); Sweep 2 refers to Year 13 (aged 17-18) and Sweep 3 refers to Year 14 (aged 18-19). There are some exceptions to this general design of the Survey insofar as YCS10 has only two sweeps, essentially omitting Sweep 2, and YCS3 and YCS8 have a fourth sweep which cover individuals aged 21 and 24, respectively. For each sweep, the young person is asked to reflect back on the previous year in education and the labour market, reporting (in the first sweep) their experiences and achievements at school, and their personal and family characteristics. For young people proceeding to post-compulsory education, employer and government-funded training, the YCS also collects information on the type of course taken, whether or not the young person sits her exams and the grades achieved. Another important feature of the YCS is that it records the educational and labour market status of all young people in each of 36 months following the completion of compulsory education.[4]

We take March for each sweep as the point to identify the log of the real hourly wage, $w$, and post-school destination. Six labour-market states, or destinations, are identified, as follows:

- $U$ Unemployment
- $E$ Employment, with wage $w$; disaggregated into
  - Skilled ($E1$)
  - Unskilled ($E2$)
- $Y$ Government-sponsored training

[4]The YCS is known to have several problems with the diary information which are discussed at some length in Bradley and Lenton (2006).

– $F$ Further education; disaggregated into
  - Academic (e.g. A levels, conventional route to HE) ($F1$)
  - Vocational ($F2$)

For individuals who proceed to further education ($F1$) we are also able to observe the A level subjects studied and the grades that they achieve, but this can only be observed in Sweep 2. Similarly, since skills and qualifications can be acquired via a variety of routes ($E$, $Y$ and $F$) we measure the highest level of qualification achieved at Sweep 2 and convert this to a NVQ level. This is clearly a broader range of qualifications and is also measured at Sweep 2.

# 4 Econometric methods

The aim of our analysis is to see what effect, if any, the educational gender gap observed in compulsory schooling has on labour market outcomes and subsequent educational outcomes. We model three such outcomes.

First, we seek to address the question of whether boys catch up with girls in terms of educational performance at the age of 18. To test this hypothesis, we construct two measures of post-school educational performance. One such measure is the A level performance of boys and girls, which is only observed for those young people who 'pass' their GCSE exams.[5] This is a fairly narrow measure insofar as it refers only to those young people who follow the academic route into Further Education ($F1$). The rationale for focusing upon this particular group is that A levels are still the main route to higher education, and it is often claimed that boys actually do better at A level than girls. We estimate models of the points score achieved, using an OLS model, and models for the number of A levels achieved, using a standard binary logit model. Equation (1) describes the model that we estimate for young people for each sweep and for each cohort (we omit individual, cohort and sweep subscripts for simplicity):

$$A = \beta_1 g + x\beta + u \tag{1}$$

where $g$ is a girl dummy and $A$ is either of the two measures of A level performance described above and the vector $x = (x_i, x_r, x_s)$ distinguishes personal characteristics $i$, neighbourhood characteristics

[5] In reality, a small proportion of young people proceed to take A levels even though they have 'failed' their GCSEs according to our definition.

$r$ and school characteristics $s$. (See Table 1 for a full list of the covariates and their sample means for Sweep 1, YCS9 (1997) for illustration.) And so our definition of the A level gender gap is given by

$$\Delta_A = E(A|girl) - E(A|boy) = \beta_1.$$

A second, broader measure of educational performance at age 18, is given by the National Vocational Qualification level. This refers to any type of vocational or academic qualification obtained via any route (i.e. outcomes $E$, $F$ and $Y$) between the ages of 16 and 18. Given the difficulty of comparing the plethora of qualifications available in England (see Appendix A), we convert them to a common metric, the National Vocational Qualification (NVQ) level. In our data, young people can either obtain an NVQ level 1 (qualifications equivalent to less than 5 + GCSE grades A-C), NVQ level 2 (qualifications equivalent to 5+ GCSE grades A-C) or a NVQ level 3 (A level or equivalent). We estimate a multinomial logit model where the specification of the $x$ vector is identical to Equation (1). We then calculate the NVQ gender gap, $\Delta_{Nj}$, as differences in probabilies, as follows:

$$\Delta_{N_1} = \Pr(N = 1|g = 1) - P(N = 1|g = 0)$$
$$\Delta_{N_2} = \Pr(N = 2|g = 1) - P(N = 2|g = 0)$$

The maximum likelihood estimates of the multinomial logit model are difficult to interpret, and so we adopt standard practice and compute marginal effects. Consequently, we impose the normalisation that $\Delta_{N_1} + \Delta_{N_2} + \Delta_{N_3} = 0$.

Turning to the effect of the educational gender gap on labour market outcomes, we first investigate the impact on the log of the real hourly wage, $w$. Equation (2) describes the model that we estimate at each sweep and for each cohort :

$$w = \beta_1 g + \alpha y + x\beta + \gamma gy + u$$

The variable $y$ is educational attainment at GCSE. We adopt two different measure for a "pass" ($y = 1$). These are either (a) 5+GCSE grades A*-C or (b) top half of the points score distribution, although we only report our findings for (a). Thus, during compulsory schooling, a girl can either 'pass' her examinations, in which case her expected log hourly wage is given by:

$$E(w|g = 1, y = 1) = x(\beta_1 + \beta) + \alpha + \gamma$$

or, she can fail, in which case the expected wage is given by:

$$E(w|g=1,y=0) = x(\beta_1 + \beta)$$

Thus the girl's "wage gap to passing" is then given by $\Delta_g$:

$$\Delta_g = E(w|g=1,y=1) - E(w|g=1,y=0) = \alpha + \gamma$$

Exactly the same argument gives the boy's "wage gap to passing" as:

$$\Delta_b = E(w|g=0,y=1) - E(w|g=0,y=0) = \alpha$$

The conditional gender differential in educational returns (hereafter the "wage return") is the difference-in-differentials

$$\Delta_g - \Delta_b = \gamma$$

If $\gamma > 0$, the wage gap to passing is higher for girls (on average), or, equivalently, the wage return is positive.

Also of interest are two more wage gaps, namely the gender gap in the pass rate and the gender gap in the fail rate, namely $\Delta_p$ and $\Delta_f$. The difference between these gives the same difference-in-differentials, $\gamma$, as above.

Wages can only be measured for those young people who are employed. However, young people may derive utility from other educational and labour market states, therefore we also need to consider other outcomes, namely continuing education, government training and unemployment. Hence, we model the post-school destination of each individual, where the six education and labour market states were defined in Section 3, again at each sweep and for each cohort. Specifically, we estimate a multinomial logit model of the form given by Equation (2) but with two changes. First, the $j$ index now refers to the six labour market states, or destinations, described in section 3. Also, $P_j$ is the probability of observing an individual in the $j$th destination with characteristics $x$. Once again we adopt standard practice and report marginal effects. Second, we also change the $x$ vector which is identical to that in Equation (3) above. Because the parameter of interest in Equation (3) is on the interaction between $y$ and $g$, when we estimate the multinomial logit model of post-school destinations there is a problem. This problem

refers to the fact that interaction terms in non-linear models are almost always incorrectly interpreted, and consequently we follow the approach suggested by Norton et al (2004). The conditional destination gender gap, $\Delta_{Sj}$, is then given by:

$$\Delta_{Sj} = [P(S = j|g = 1, y = 1) - P(S = j|g = 1, y = 0)] - [P(S = j|g = 0, y = 1) - P(S = j|g = 0, y = 0)]$$

Where $S$ refers to one of the six states defined above. However, just as with the wage returns, we also compute two further destination gender gaps, that is the gender gap in the pass rate and the gender gap in the fail rate.

# 5 Results

## 5.1 The educational gender gap and catch up

As suggested earlier, although boys have inferior educational performance in compulsory schooling, it has been claimed that this disadvantage is over-turned at later stages in the educational process, for instance in A level examinations.[6] In effect, it is often asserted that boys catch up with girls. We examine this hypothesis by looking at two measures of success at A level, the first of which refers to the number of passes achieved, and the second refers to the total points score in all A level subjects. Table 2 shows that there is no statistically significant gender difference with respect to the number of A level passes.[7] This is probably because the number of A level passes is a crude measure of exam performance, in so far as an A grade is treated as equivalent to an E grade. The points score measure is therefore preferable. Although some of the estimates reported in Table 2 are statistically insignificant, the trend in performance also reported in Figure 1 is very revealing. Over the period it is clear that the educational gender gap in A level exams changes from -1.0 of a grade in favour of boys to 0.8 of a grade in favour of girls by 2003. This suggests that over time boys have been slipping further behind girls in their A level performance, and that the A level gap now mirrors the educational gender gap identified at age 16 in GCSE exams.

[6] Up until 2003 pupils typically sat up to four A level subjects between the ages of 16 to 19, which gave rise to the criticism that they were exiting the education system too narrowly focused in their knowledge. Consequently, the A level system was reformed so that pupils took 5 AS levels in year 1 and up to 4 A2 levels in year 2.

[7] It is possible that our results could be biased if there is non-random selection into A level courses of study. Clearly, this bias will not effect our estimates of the A level gender differential if the selection effect is the same for girls and boys. In fact, if it were then college adminsitrators could be accused of gender discrimination.

We argue, however, that focusing upon the educational gender gap in A levels is itself too narrow a view, given the wide range of vocational qualifications that young people can obtain through further education, employment and government-sponsored youth training programmes. As suggested earlier, it is necessary to convert all academic and vocational qualifications to a common metric, in our case the NVQ level. Table 3 shows the estimates of the NVQ gaps, and it is clear that the main difference between boys and girls occurs for NVQ levels 2 and 3. To highlight the trends in performance we plot the gender gaps in Figure 2. A clear downward trend in the gap is evident for the NVQ 2 qualification, with girls performing worse than boys at the end of the period. The opposite result is obtained for the NVQ 3 qualification, with girls outperforming boys from 1993 onwards.This finding suggests that girls are better able to build on their educational achievements in compulsory schooling, and move further ahead of boys in terms of educational attainment at age 18. Moreover, there is a view that NVQ level 2 qualifications were poorly received by employers, whereas NVQ level 3 qualifications were seen as a genuine reflection of skill and knowledge.

Thus, the educational advantage that girls have on leaving compulsory schooling is reinforced in their early years in the labour market and during further education. In sum, there is no evidence that boys catch up with girls.

## 5.2 The educational gender gap and the gender wage gap

We investigate gender differences in real hourly wages for those in employment, observed at three points in the young person's career: at the ages of 17, 18 and 19. Table 4 reports the estimates from the wage regressions. Notice that the sample sizes for each cohort increase as we move from Sweep 1 to Sweep 3, reflecting the gradual absorption of young people into employment from the other educational and labour market states. It is also worth noting that for YCS3 and YCS8 a fourth sweep of the survey was conducted when the respondents were aged 21 and 24, respectively. Thus, for these two sweeps we are able observe the impact of the educational gender gap on young adults who are at a slightly more advanced stage in their careers.

Columns 4 and 5 report the wage returns to girls and boys, respectively. These are generally positive but larger for girls. Of particular note are the results for 'older' girls (YCS3-1994 and YCS8-2001) where the returns to girls are considerably larger and statistically significant. However, the passes gender gap (column 6) suggests that boys have higher real hourly wages than girls, although there is some variation over time and by age. For 17 year olds, the passes gender gap favours boys from 1998 onwards, whereas for older youths in later cohorts (YCS9-YCS11), there is a decline in the wage advantage for boys

who pass their GCSEs. In contrast, 'failing' girls (column 7) consistently do worse than 'failing' boys, and this disadvantage gets worse within cohort and over time. This is a particularly worrying finding, which may arise because 'failing' girls tend to crowd into highly feminised and relatively low paying occupations.

The conditional gender gap is generally positive, especially for older girls, suggesting that the wage returns to better-educated girls are almost always higher than the returns to better-educated boys. Also, although many of the estimates are statistically insignificant due to small sample sizes, the pattern of estimates show that better educated girls are doing better over time, except for YCS6 and YCS11. It is also worth noting that the point estimates in column 9, although not always statistically significant, are nevertheless quite large. There is some limited evidence for cohorts 3 and 8 that this advantage persists into the early part of adulthood. Furthermore, for most cohorts and sweeps the inclusion of covariates has very little effect on the differential. However, we should interpret the results for the conditional gender gap with some caution, simply because they mask other important trends, especially with respect to 'failing' girls.

Clearly, our estimates refer primarily to gender wage gaps in the youth labour market. Further research should focus on the measurement of the effect of the educational gender gap on wages later in the careers of girls and boys.

## 5.3 The educational gender gap and gender differences in post-school destinations

The methodology adopted for wages is repeated with respect to post-school destinations, except that real hourly wages are replaced by differences in the probability of being in a particular post-school state. Recall that young people are categorised into one of six states: unemployment, skilled employment, unskilled employment, youth training, vocational further education and academic further education. This is more general than the analysis of wage returns insofar as we can think of gender differences in the utility derived from being in each of these six states. Tables 5 to 9 report our findings.

The girls' return (Table 5) shows that there is an advantage to passing GCSEs insofar as they have a higher probability of entering academic further education than equivalent girls who fail. This return swamps that from all other post-school destinations. Moreover, the returns to academic further education and vocational further education are of similar magnitude (but opposite in sign), and increased sharply during the 1990s. The same story emerges with respect to the boys' return (see Table 6). Thus,

improvements in GCSE performance are consistent with these trends for both boys and girls.

The results obtained for the analysis of the gender gap in 'passing' and 'failing' the GCSE exams (as defined in section 4) are much less clear cut than the results reported above. There is evidence, however, that girls who 'pass' their GCSE exams are less likely to proceed to academic further education compared to their male counterparts for most of the cohorts (as indicated by the string of negative signs in the Further Education [1] coulmn in table 7). Girls who 'pass' their GCSE exams are also more likely to end up in unskilled jobs compared to boys who 'pass', though the size of this particular gap fell sharply during the 1990s. These two results are obtained for both sweeps 1 and 3 (17 and 19).

There is also evidence that girls who 'fail' their GCSE exams are more likely to be in unskilled jobs compared to boys who 'fail', especially by sweep 3 (Table 8). In 2004, for example, girls who 'failed' were three percentage points more likely to be in an unskilled job than their male counterparts. There is even stronger evidence that girls who 'fail' are less likely to be in youth training. We also investigated the conditional gender gap but failed to find any results of sufficient interest.

# 6 Conclusion

In this paper, we investigate whether the superior performance of girls in exams during compulsory schooling, discussed in detail in Andrews et al (2004), has translated into superior performance in the labour market. We look at wage returns and post-school destinations. In addition, our research has also investigated whether boys catch up with girls in terms of educational attainment at later stages of their education, including that provided by employers in the forming of work-related training. To investigate these issues, we analyse the Youth Cohort Survey for England and Wales for the period 1986 to 2003.

Our findings suggest that the superior performance of girls in GCSE exams taken during compulsory schooling is mirrored by superior performance in subsequent examinations in advanced (A level and NVQ level 3) studies. These findings support the view that the educational advantage of girls which starts in compulsory schooling is cumulative. This is surprising given that boys who 'pass' are as likely to proceed to academic further education as girls who 'pass', which implies that it is the effort devoted to studying that has helped them to pull ahead of boys in A level subjects, for instance. There is also some evidence from our estimates of the difference-in-differentials that the superior performance of girls in compulsory schooling is beginning to pay off, insofar as in their early labour market careers there are positive wage returns to girls with better education. However, it is necessary to be cautious about

this finding because it masks other worrying trends, the most important of which is the finding that 'failing' girls systematically do worse than their counterparts - 'failing' boys. There is also some evidence that 'failing' girls are crowded into unskilled occupations, which are likely to offer little prospect for promotion and wage increases. Thus, one conclusion from our research is that, whilst policy makers are right to pay attention to the educational performance of boys, they should not lose sight of the fact that 'failing' girls suffer disproportionately once in the labour market.

Although this research has offered many new insights into the early labour market performance of girls and boys, and in particular the gender differences in performance, there are clearly many questions left unresolved. The big question is when does the gender difference turn in favour of males and how does this vary by the different cohorts of young people exiting the education system? There is also a need to investigate further what aspects of the educational gender gap drive the positive wage returns to girls. Is it that employers reward girls because of their superior performance across a range of GCSE subjects (i.e. curriculum breadth), or is it better performance in maths or English which is more important. Furthermore, we have ignored the effect of subsequent exam performance on wages: what is the marginal benefit to GCSE versus A level? Finally, has there been any change in subject choice at university? Are girls as a result of their improved GCSE performance more likely to choose degree subjects that lead to more highly paid jobs? These are questions that we seek to answer in subsequent research.

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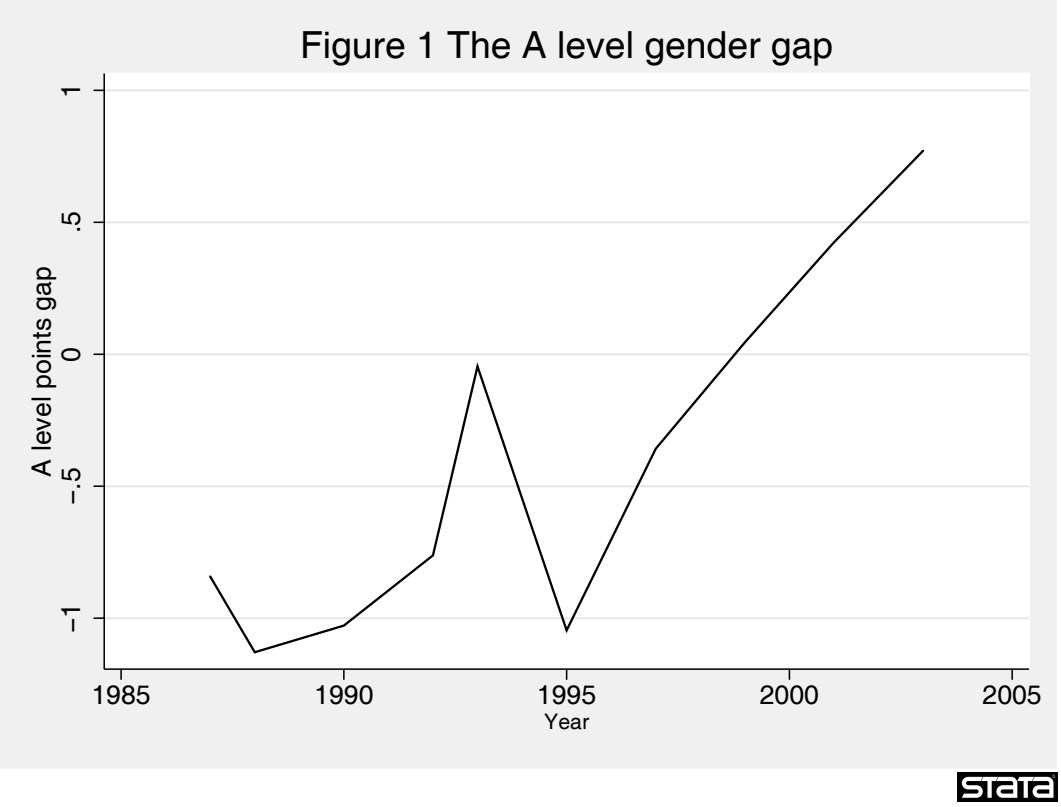
Figure 1 The A level gender gap
A level points gap
1
.5
0
−.5
−1
1985
1990
1995
2000
2005
Year

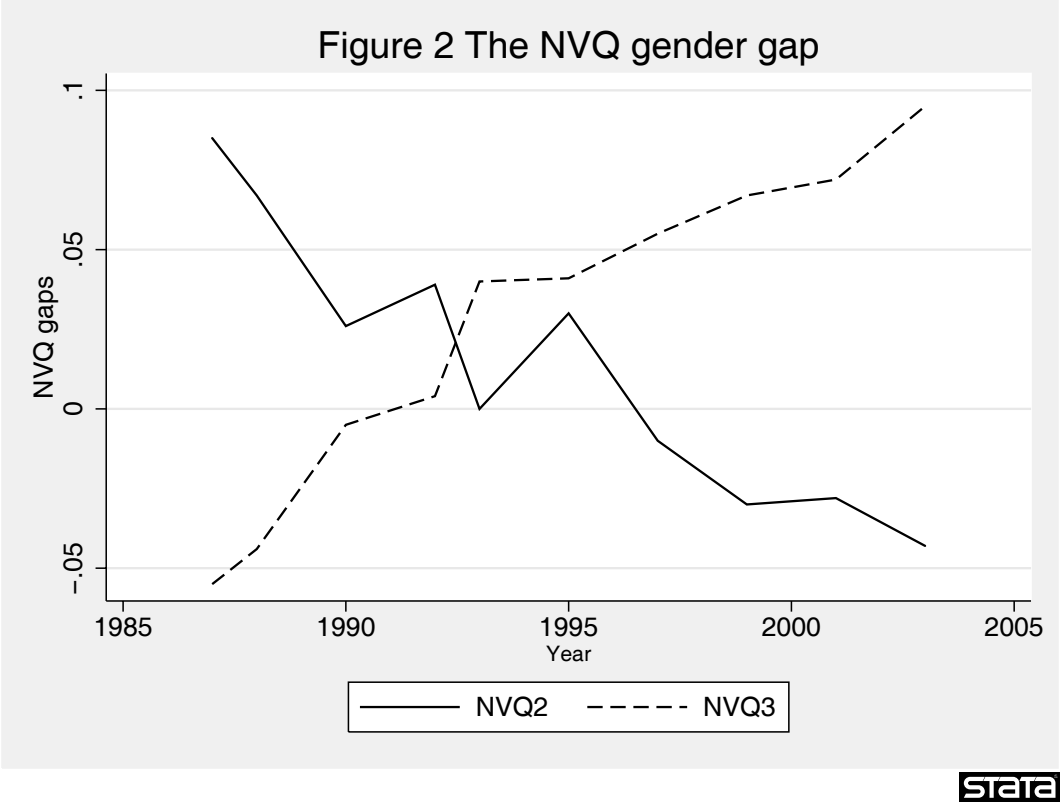
Figure 2 The NVQ gender gap
NVQ gaps
.1
.05
0
−.05
1985
1990
1995
2000
2005
Year
NVQ2
NVQ3

Table 1: Variable definitions and sample means*

| Variable name | Definition | Sample mean |
|---|---|---|
| girldum | girl dummy | 0.5353 |
| gcsebin | GCSE pass (5+ A-C) | 0.5903 |
| single | single-sex school | 0.1155 |
| sel | selective school | 0.0528 |
| mod | secondary modern school | 0.0342 |
| gm | grant maintained school | 0.2122 |
| aided | voluntary assisted school/voluntary controlled school/ special agreement school | 0.1382 |
| ppg | school gender mix (proportion of girls in school) | 0.5089 |
| mix1 | 1st quantile of school gender mix | 0.1497 |
| mix3 | 3rd quantile of school gender mix | 0.1835 |
| pup | school size | 1034.8800 |
| size1 | 1st quantile of school size | 0.2103 |
| size3 | 3rd quantile of school size | 0.4733 |
| pptch | pupil-teacher ratio | 16.5027 |
| ptr1 | 1st quantile of pupil-teacher ratio | 0.2877 |
| ptr3 | 3rd quantile of pupil-teacher ratio | 0.3722 |
| exppup | LEA spending per pupil | 2.5537 |
| expd1 | 1st quantile of LEA spending per pupil | 0.3588 |
| expd3 | 3rd quantile of LEA spending per pupil | 0.2831 |
| qualst | proportion of qualified staff | 0.9858 |
| suphrs | support hours | 0.5171 |
| alev | proportion of pupils taking A levels | 0.0845 |
| elig | proportion of pupils eligible for free school meals | 0.1564 |
| poor1 | 1st quantile of proportion of pupils eligible for free school meals | 0.4087 |
| poor3 | 3rd quantile of proportion of pupils eligible for free school meals | 0.2444 |
| sen | proportion of pupils with special educational needs | 0.0219 |
| socialhs | council housing or housing association | 0.1227 |
| otherhsg | private rented, hostels and other housing | 0.0383 |
| pamanage | father's occupation: manager | 0.1777 |
| papro | father's occupation: professional or ass. professional | 0.1731 |
| paclsk | father's occupation: clerical or skilled manual | 0.2801 |
| mamanag | mother's occupation: manager | 0.0559 |
| mapro | mother's occupation: professional or ass. professional | 0.1874 |
| maclsk | mother's occupation: clerical or skilled manual | 0.2341 |
| paonly | mother absent from household | 0.0227 |
| maonly | father absent from household | 0.0861 |
| blk | black | 0.0149 |
| indian | indian | 0.0308 |
| pak | pakistani | 0.0199 |
| bangla | bangladeshi | 0.0073 |
| chinoth | chinese/other | 0.0250 |
| profman | LAD proportion in "AB" employment | 0.2462 |
| ulag1 | LAD unemployment rate lagged 1 year | 5.3837 |
| ladtgcse | LAD proportion of pupils gaining 5+ A-C, excluding the school itself | 0.4369 |

*YCS9, Sweep 1

Table 2: A level gender gap, $\Delta_A$

| | | 2+ Passes | | | | | Points Score[a] | |
|---|---|---|---|---|---|---|---|---|
| Cohort | Year | Published[b] | $N$ | Raw | $N$ | Conditional | Raw | Conditional |
| YCS2 | 1987 | | 1979 | -0.038 (0.018) | 1196 | -0.033 (0.025) | -0.986 (0.221) | -0.842 (0.308) |
| YCS3 | 1988 | | 1727 | -0.036 (0.018) | 1069 | -0.002 (0.024) | -1.177 (0.242) | -1.129 (0.330) |
| YCS4 | 1990 | | 1958 | -0.027 (0.016) | 1312 | -0.002 (0.016) | -1.198 (0.232) | -1.028 (0.287) |
| YCS5 | 1992 | | 2449 | -0.006 (0.015) | 2208 | -0.005 (0.014) | -0.848 (0.201) | -0.762 (0.210) |
| YCS6 | 1993 | | 2792 | 0.035 (0.013) | 2631 | 0.047 (0.014) | -0.457 (0.202) | -0.046 (0.217) |
| | 1994 | 0.012 | | | | | | |
| YCS7 | 1995 | 0.013 | 2206 | -0.030 (0.015) | 1816 | -0.037 (0.016) | -0.819 (0.227) | -1.046 (0.261) |
| | 1996 | 0.015 | | | | | | |
| YCS8 | 1997 | 0.018 | 3707 | -0.005 (0.011) | 2983 | -0.020 (0.012) | -0.490 (0.177) | -0.358 (0.205) |
| | 1998 | 0.024 | | | | | | |
| YCS9 | 1999 | 0.021 | 2579 | 0.019 (0.012) | 1419 | 0.004 (0.013) | 0.418 (0.214) | 0.045 (0.300) |
| | 2000 | 0.026 | | | | | | |
| YCS10 | 2001 | 0.023 | 2926 | 0.010 (0.011) | 2308 | 0.009 (0.010) | 0.300 (0.200) | 0.424 (0.239) |
| | 2002 | 0.030 | | | | | | |
| YCS11 | 2003 | 0.033 | 4043 | 0.038 (0.012) | 2721 | 0.038 (0.014) | 0.817 (0.198) | 0.771 (0.248) |
| | 2004 | 0.027 | | | | | | |
| | 2005 | 0.022 | | | | | | |
| | 2006 | 0.020 | | | | | | |

[a]Grade A = 5, grade B = 4, ..., grade E = 1.
[b]Taken from the DfES website

Table 3: NVQ gender gap, $\Delta_N$

| Cohort | Year | $N$ | Level 1 | Level 2 | Level 3 |
|---|---|---|---|---|---|
| YCS2 | 1987 | 4376 | -0.0297 (0.0149) | 0.0847 (0.0152) | -0.0550 (0.0125) |
| YCS3 | 1988 | 4262 | -0.0230 (0.0150) | 0.0670 (0.0153) | -0.0440 (0.0125) |
| YCS4 | 1990 | 4100 | -0.0212 (0.0146) | 0.0257 (0.0152) | -0.0045 (0.0130) |
| YCS5 | 1992 | 5975 | -0.0429 (0.0113) | 0.0386 (0.0127) | 0.0043 (0.0126) |
| YCS6 | 1993 | 6512 | -0.0399 (0.0108) | 0.0003 (0.0125) | 0.0397 (0.0129) |
| YCS7[a] | 1995 | 5385 | -0.0709 (0.0104) | 0.0299 (0.0148) | 0.0410 (0.0144) |
| YCS8[a] | 1997 | 6403 | -0.0451 (0.0086) | -0.0095 (0.0125) | 0.0546 (0.0129) |
| YCS9 | 1999 | 2883 | -0.0376 (0.0113) | -0.0297 (0.0186) | 0.0672 (0.0190) |
| YCS10 | 2001 | 4470 | -0.0439 (0.0094) | -0.0280 (0.0141) | 0.0719 (0.0149) |
| YCS11 | 2003 | 4197 | -0.0524 (0.0085) | -0.0428 (0.0135) | 0.0952 (0.0144) |

[a]Actually Sweep 2, but equivalent to Sweep 3 for all other cohorts.

Table 4: Regression on logged real wages for jobs

| Cohort | Year | $N$ | Girls' gap $\Delta_g$ | Boys' gap $\Delta_b$ | Passes gender gap $\Delta_p$ | Fails gender gap $\Delta_f$ | Raw gender gap | Difference in gender differentials $\gamma = \Delta_g - \Delta_b$ |
|---|---|---|---|---|---|---|---|---|
| | | | | | Sweep 1 (age 17) | | | |
| YCS2 | 1986 | 1257 | 0.1227 (0.0247) | 0.0729 (0.0295) | 0.0412 (0.0340) | -0.0087 (0.0194) | 0.0511 (0.0358) | 0.0498 (0.0365) |
| YCS3 | 1987 | 1058 | 0.0804 (0.0280) | 0.0037 (0.0331) | 0.0596 (0.0400) | -0.0170 (0.0222) | 0.0928 (0.0442) | 0.0766 (0.0413) |
| YCS4 | 1989 | 697 | 0.0663 (0.0388) | 0.0357 (0.0539) | 0.0310 (0.0569) | 0.0004 (0.0317) | -0.0114 (0.0652) | 0.0306 (0.0630) |
| YCS5 | 1991 | 1384 | 0.0775 (0.0339) | 0.0714 (0.0390) | -0.0408 (0.0503) | -0.0469 (0.0238) | 0.0103 (0.0545) | 0.0061 (0.0514) |
| YCS6 | 1992 | 1292 | 0.0830 (0.0502) | 0.0119 (0.0388) | 0.0882 (0.0603) | 0.0171 (0.0254) | 0.0709 (0.0687) | 0.0711 (0.0629) |
| YCS7 | 1994 | 844 | 0.1027 (0.0517) | 0.0878 (0.0539) | -0.0035 (0.0787) | -0.0184 (0.0481) | 0.0241 (0.0765) | 0.0149 (0.0802) |
| YCS8 | 1996 | 709 | 0.0493 (0.0643) | -0.0201 (0.0546) | 0.0624 (0.0824) | -0.0069 (0.0453) | 0.0365 (0.0838) | 0.0694 (0.0838) |
| YCS9 | 1998 | 869 | 0.0259 (0.0442) | 0.1287 (0.0626) | -0.1588 (0.0626) | -0.0561 (0.0364) | -0.0798 (0.0702) | -0.1027 (0.0692) |
| YCS10 | 2000 | 437 | 0.0095 (0.0695) | 0.0781 (0.0567) | -0.1098 (0.0740) | -0.0412 (0.0651) | -0.0338 (0.0854) | -0.0686 (0.0887) |
| YCS11 | 2002 | 583 | 0.0026 (0.0476) | 0.0170 (0.0685) | -0.0887 (0.0678) | -0.0744 (0.0495) | 0.0257 (0.0791) | -0.0144 (0.0894) |
| | | | | | Sweep 2 (age 18) | | | |
| YCS2 | 1987 | 2087 | 0.0111 (0.0254) | -0.0485 (0.0260) | 0.0057 (0.0326) | -0.0539 (0.0185) | 0.0364 (0.0383) | 0.0596 (0.0340) |
| YCS3 | 1988 | 1988 | 0.0602 (0.0250) | -0.0088 (0.0249) | 0.0185 (0.0325) | -0.0504 (0.0155) | 0.0714 (0.0375) | 0.0690 (0.0341) |
| YCS4 | 1990 | 1114 | 0.1703 (0.0286) | 0.1079 (0.0374) | -0.0250 (0.0423) | -0.0874 (0.0216) | 0.0560 (0.0475) | 0.0624 (0.0466) |
| YCS5 | 1992 | 1287 | 0.0708 (0.0275) | 0.0040 (0.0318) | 0.0047 (0.0369) | -0.0622 (0.0232) | 0.0565 (0.0440) | 0.0669 (0.0412) |
| YCS6 | 1993 | 976 | 0.0197 (0.0383) | 0.0318 (0.0445) | -0.0190 (0.0583) | -0.0069 (0.0267) | -0.0390 (0.0593) | -0.0121 (0.0583) |
| YCS9 | 1999 | 950 | 0.0433 (0.0361) | -0.0209 (0.0411) | -0.0214 (0.0422) | -0.0856 (0.0399) | 0.0303 (0.0541) | 0.0642 (0.0529) |
| YCS11 | 2003 | 596 | -0.0341 (0.0417) | 0.1114 (0.0460) | -0.0991 (0.0447) | 0.0464 (0.0364) | -0.0958 (0.0532) | -0.1455 (0.0592) |
| | | | | | Sweep 3 (age 19) | | | |
| YCS2 | 1988 | 2629 | 0.0085 (0.0172) | -0.0385 (0.0201) | -0.0484 (0.0215) | -0.0955 (0.0147) | 0.0398 (0.0270) | 0.0471 (0.0243) |
| YCS3 | 1989 | 2569 | 0.0463 (0.0186) | 0.0095 (0.0238) | -0.0378 (0.0233) | -0.0746 (0.0153) | 0.0327 (0.0277) | 0.0368 (0.0271) |
| YCS4 | 1991 | 1995 | 0.0725 (0.0193) | 0.0758 (0.0239) | -0.0775 (0.0240) | -0.0742 (0.0188) | -0.0148 (0.0293) | -0.0033 (0.0284) |
| YCS5 | 1993 | 1765 | 0.0399 (0.0211) | -0.0001 (0.0261) | -0.0195 (0.0254) | -0.0595 (0.0201) | -0.0015 (0.0329) | 0.0400 (0.0305) |
| YCS6 | 1994 | 1136 | 0.0135 (0.0305) | 0.0741 (0.0329) | -0.0789 (0.0350) | -0.0183 (0.0250) | -0.0409 (0.0410) | -0.0606 (0.0419) |
| YCS7[a] | 1996 | 1869 | 0.0110 (0.0186) | -0.0012 (0.0250) | -0.0210 (0.0245) | -0.0333 (0.0198) | 0.0047 (0.0301) | 0.0122 (0.0290) |
| YCS8[a] | 1998 | 1443 | -0.0007 (0.0286) | 0.0237 (0.0319) | -0.0927 (0.0293) | -0.0683 (0.0309) | -0.0363 (0.0401) | -0.0244 (0.0383) |
| YCS9 | 2000 | 1247 | 0.0196 (0.0284) | -0.0253 (0.0322) | -0.0373 (0.0253) | -0.0821 (0.0349) | 0.0417 (0.0405) | 0.0449 (0.0414) |
| YCS10 | 2002 | 1359 | 0.0620 (0.0340) | -0.0322 (0.0325) | -0.0090 (0.0285) | -0.1033 (0.0476) | 0.0937 (0.0435) | 0.0943 (0.0506) |
| YCS11 | 2004 | 1191 | -0.0021 (0.0305) | 0.0274 (0.0627) | -0.0438 (0.0324) | -0.0143 (0.0638) | -0.0094 (0.0619) | -0.0295 (0.0635) |
| | | | | | Sweep 4 | | | |
| YCS3[b] | 1994 | 1965 | 0.1053 (0.0203) | 0.0321 (0.0236) | -0.0605 (0.0220) | -0.1337 (0.0195) | 0.0826 (0.0284) | 0.0732 (0.0283) |
| YCS8[c] | 2001 | 1849 | 0.0523 (0.0256) | 0.0062 (0.0257) | -0.0593 (0.0182) | -0.1054 (0.0306) | 0.0576 (0.0355) | 0.0461 (0.0344) |

[a] Actually Sweep 2, but equivalent to Sweep 3 for all other cohorts.
[b] Age 24.
[c] Age 22. Actually Sweep 3, but equivalent to Sweep 4.

Table 5: Multinomial logit of labour market states; girls' gap, $\Delta_g$

| Cohort | Year | $N$ | Unemployment | Further education [1] | Further education [2] | Skilled employment | Unskilled employment | Youth training |
|---|---|---|---|---|---|---|---|---|
| | | | | | Sweep 1 (age 17) | | | |
| YCS2 | 1986 | 6988 | -0.0130 (0.0087) | 0.3102 (0.0125) | -0.3044 (0.0113) | 0.0783 (0.0142) | -0.0664 (0.0124) | -0.0047 (0.0066) |
| YCS3 | 1987 | 5937 | -0.0063 (0.0063) | 0.3552 (0.0120) | -0.3525 (0.0120) | 0.0638 (0.0140) | -0.0517 (0.0123) | -0.0086 (0.0068) |
| YCS4 | 1989 | 4465 | -0.0094 (0.0044) | 0.3884 (0.0145) | -0.3826 (0.0141) | 0.0233 (0.0132) | -0.0269 (0.0090) | 0.0071 (0.0089) |
| YCS5 | 1991 | 11180 | -0.0269 (0.0082) | 0.3637 (0.0112) | -0.3547 (0.0116) | -0.0028 (0.0067) | 0.0293 (0.0118) | -0.0086 (0.0085) |
| YCS6 | 1992 | 16159 | -0.0198 (0.0064) | 0.4566 (0.0102) | -0.4307 (0.0100) | 0.0020 (0.0046) | -0.0006 (0.0082) | -0.0075 (0.0076) |
| YCS7 | 1994 | 13511 | -0.0275 (0.0060) | 0.4916 (0.0121) | -0.4584 (0.0122) | 0.0064 (0.0043) | 0.0055 (0.0088) | -0.0175 (0.0063) |
| YCS8 | 1996 | 11102 | -0.0272 (0.0060) | 0.5307 (0.0147) | -0.4986 (0.0147) | 0.0012 (0.0029) | -0.0052 (0.0078) | -0.0008 (0.0056) |
| YCS9 | 1998 | 10673 | -0.0179 (0.0059) | 0.5122 (0.0160) | -0.4751 (0.0158) | -0.0027 (0.0031) | -0.0103 (0.0092) | -0.0061 (0.0055) |
| YCS10 | 2000 | 7840 | -0.0221 (0.0061) | 0.5234 (0.0198) | -0.4835 (0.0199) | 0.0069 (0.0039) | -0.0127 (0.0098) | -0.0119 (0.0067) |
| YCS11 | 2002 | 8433 | -0.0164 (0.0061) | 0.4918 (0.0196) | -0.4478 (0.0199) | -0.0067 (0.0031) | -0.0112 (0.0093) | -0.0096 (0.0057) |
| | | | | | Sweep 2 (age 18) | | | |
| YCS2 | 1987 | 5761 | -0.0188 (0.0125) | 0.2212 (0.0147) | -0.2054 (0.0157) | 0.1076 (0.0223) | -0.0805 (0.0176) | -0.0240 (0.0134) |
| YCS3 | 1988 | 5923 | -0.0111 (0.0102) | 0.2178 (0.0146) | -0.1985 (0.0151) | 0.0861 (0.0204) | -0.0808 (0.0164) | -0.0135 (0.0119) |
| YCS4 | 1990 | 4439 | -0.0073 (0.0374) | 0.2720 (0.0427) | -0.2541 (0.0335) | 0.0294 (0.0361) | -0.0463 (0.0192) | 0.0063 (0.0191) |
| YCS5 | 1992 | 8466 | -0.0289 (0.0097) | 0.3078 (0.0146) | -0.2538 (0.0163) | 0.0092 (0.0083) | -0.0129 (0.0154) | -0.0213 (0.0108) |
| YCS6 | 1993 | 8590 | -0.0233 (0.0087) | 0.2817 (0.0142) | -0.2378 (0.0163) | 0.0029 (0.0071) | -0.0055 (0.0115) | -0.0180 (0.0106) |
| YCS9 | 1999 | 7141 | -0.0246 (0.0071) | 0.4451 (0.0191) | -0.3809 (0.0201) | 0.0034 (0.0073) | -0.0320 (0.0145) | -0.0109 (0.0073) |
| YCS10 | 2001 | 6045 | -0.0181 (0.0064) | 0.4840 (0.0250) | -0.3876 (0.0277) | -0.0040 (0.0048) | -0.0644 (0.0154) | -0.0100 (0.0093) |
| YCS11 | 2003 | 5474 | -0.0248 (0.0082) | 0.4058 (0.0283) | -0.3450 (0.0285) | 0.0004 (0.0059) | -0.0432 (0.0138) | 0.0068 (0.0088) |
| | | | | | Sweep 3 (age 19) | | | |
| YCS2 | 1988 | 4559 | -0.0114 (0.0119) | 0.1016 (0.0136) | -0.1006 (0.0140) | 0.1346 (0.0214) | -0.1166 (0.0188) | -0.0076 (0.0068) |
| YCS3 | 1989 | 4495 | 0.0010 (0.0095) | 0.1190 (0.0147) | -0.1215 (0.0152) | 0.1267 (0.0226) | -0.1208 (0.0179) | -0.0044 (0.0062) |
| YCS4 | 1991 | 4250 | -0.0076 (0.0111) | 0.1319 (0.0190) | -0.1261 (0.0187) | 0.0104 (0.0185) | 0.0037 (0.0236) | -0.0123 (0.0065) |
| YCS5 | 1993 | 6380 | -0.0032 (0.0101) | 0.2386 (0.0190) | -0.2341 (0.0194) | 0.0196 (0.0118) | -0.0216 (0.0194) | 0.0008 (0.0086) |
| YCS6 | 1994 | 6459 | -0.0216 (0.0097) | 0.2381 (0.0175) | -0.2182 (0.0179) | 0.0186 (0.0124) | -0.0156 (0.0188) | -0.0013 (0.0073) |
| YCS7[a] | 1996 | 5990 | -0.0323 (0.0104) | 0.2579 (0.0190) | -0.2108 (0.0186) | 0.0016 (0.0111) | -0.0115 (0.0193) | -0.0049 (0.0066) |
| YCS8[a] | 1998 | 7070 | -0.0250 (0.0082) | 0.3164 (0.0199) | -0.2638 (0.0199) | 0.0015 (0.0053) | -0.0368 (0.0203) | 0.0078 (0.0083) |
| YCS9 | 2000 | 4637 | -0.0147 (0.0087) | 0.2980 (0.0267) | -0.2665 (0.0268) | 0.0088 (0.0144) | -0.0155 (0.0216) | -0.0102 (0.0095) |
| YCS10 | 2002 | 4169 | -0.0384 (0.0116) | 0.2620 (0.0313) | -0.2400 (0.0325) | 0.0132 (0.0146) | -0.0070 (0.0250) | 0.0102 (0.0096) |
| YCS11 | 2004 | 4119 | -0.0169 (0.0081) | 0.3083 (0.0350) | -0.2619 (0.0324) | -0.0092 (0.0152) | -0.0249 (0.0238) | 0.0046 (0.0100) |

[a]Actually Sweep 2, but equivalent to Sweep 3 for all other cohorts.

Table 6: Multinomial logit of labour market states; boys' gap, $\Delta_b$

| Cohort | Year | $N$ | Unemployment | Further education [1] | Further education [2] | Skilled employment | Unskilled employment | Youth training |
|---|---|---|---|---|---|---|---|---|
| | | | | | Sweep 1 (age 17) | | | |
| YCS2 | 1986 | 6988 | -0.0018 (0.0081) | 0.3184 (0.0084) | -0.3166 (0.0068) | 0.0596 (0.0137) | -0.0467 (0.0110) | -0.0129 (0.0056) |
| YCS3 | 1987 | 5937 | -0.0041 (0.0088) | 0.3602 (0.0099) | -0.3469 (0.0073) | 0.0703 (0.0155) | -0.0631 (0.0102) | -0.0164 (0.0098) |
| YCS4 | 1989 | 4465 | -0.0122 (0.0037) | 0.3763 (0.0083) | -0.3687 (0.0065) | 0.0211 (0.0113) | -0.0245 (0.0078) | 0.0081 (0.0095) |
| YCS5 | 1991 | 11180 | -0.0275 (0.0077) | 0.3647 (0.0105) | -0.3354 (0.0094) | -0.0053 (0.0094) | -0.0010 (0.0104) | 0.0045 (0.0099) |
| YCS6 | 1992 | 16159 | -0.0265 (0.0050) | 0.4765 (0.0109) | -0.4411 (0.0092) | 0.0122 (0.0065) | -0.0018 (0.0070) | -0.0193 (0.0067) |
| YCS7 | 1994 | 13511 | -0.0214 (0.0050) | 0.5135 (0.0115) | -0.4745 (0.0102) | 0.0121 (0.0057) | -0.0150 (0.0059) | -0.0146 (0.0055) |
| YCS8 | 1996 | 11102 | -0.0318 (0.0043) | 0.5646 (0.0142) | -0.5211 (0.0117) | -0.0007 (0.0042) | -0.0009 (0.0071) | -0.0102 (0.0054) |
| YCS9 | 1998 | 10673 | -0.0234 (0.0046) | 0.5676 (0.0152) | -0.5042 (0.0124) | -0.0046 (0.0046) | -0.0296 (0.0082) | -0.0058 (0.0050) |
| YCS10 | 2000 | 7840 | -0.0245 (0.0036) | 0.5251 (0.0187) | -0.4824 (0.0156) | 0.0048 (0.0053) | -0.0192 (0.0080) | -0.0038 (0.0057) |
| YCS11 | 2002 | 8433 | -0.0204 (0.0044) | 0.4848 (0.0137) | -0.4152 (0.0103) | 0.0027 (0.0059) | -0.0364 (0.0079) | -0.0155 (0.0048) |
| | | | | | Sweep 2 (age 18) | | | |
| YCS2 | 1987 | 5761 | -0.0133 (0.0126) | 0.1876 (0.0095) | -0.1823 (0.0078) | 0.1065 (0.0224) | -0.0892 (0.0164) | -0.0092 (0.0136) |
| YCS3 | 1988 | 5923 | -0.0061 (0.0076) | 0.1859 (0.0097) | -0.1630 (0.0081) | 0.0847 (0.0191) | -0.0990 (0.0128) | -0.0025 (0.0121) |
| YCS4 | 1990 | 4439 | 0.0037 (0.0399) | 0.2132 (0.0362) | -0.1958 (0.0111) | 0.0192 (0.0352) | -0.0411 (0.0146) | 0.0009 (0.0250) |
| YCS5 | 1992 | 8466 | -0.0223 (0.0092) | 0.2616 (0.0122) | -0.2415 (0.0119) | -0.0066 (0.0105) | -0.0179 (0.0118) | 0.0267 (0.0120) |
| YCS6 | 1993 | 8590 | -0.0027 (0.0090) | 0.2633 (0.0184) | -0.2184 (0.0206) | 0.0081 (0.0097) | -0.0341 (0.0082) | -0.0163 (0.0115) |
| YCS9 | 1999 | 7141 | -0.0173 (0.0057) | 0.4043 (0.0187) | -0.3570 (0.0153) | -0.0019 (0.0057) | -0.0242 (0.0124) | -0.0040 (0.0066) |
| YCS10 | 2001 | 6045 | -0.0197 (0.0038) | 0.4606 (0.0207) | -0.3728 (0.0205) | -0.0105 (0.0058) | -0.0521 (0.0090) | -0.0056 (0.0073) |
| YCS11 | 2003 | 5474 | -0.0229 (0.0057) | 0.4171 (0.0179) | -0.3267 (0.0133) | -0.0124 (0.0066) | -0.0545 (0.0103) | -0.0005 (0.0096) |
| | | | | | Sweep 3 (age 19) | | | |
| YCS2 | 1988 | 4559 | 0.0173 (0.0135) | 0.1016 (0.0118) | -0.1236 (0.0069) | 0.1101 (0.0228) | -0.0964 (0.0192) | -0.0090 (0.0070) |
| YCS3 | 1989 | 4495 | -0.0105 (0.0101) | 0.1170 (0.0143) | -0.1116 (0.0095) | 0.1210 (0.0253) | -0.1171 (0.0165) | 0.0013 (0.0132) |
| YCS4 | 1991 | 4250 | 0.0184 (0.0149) | 0.0936 (0.0161) | -0.1149 (0.0110) | 0.0213 (0.0251) | -0.0159 (0.0234) | -0.0026 (0.0093) |
| YCS5 | 1993 | 6380 | 0.0165 (0.0135) | 0.2464 (0.0229) | -0.3117 (0.0185) | 0.0010 (0.0154) | 0.0294 (0.0204) | 0.0184 (0.0128) |
| YCS6 | 1994 | 6459 | 0.0100 (0.0115) | 0.2136 (0.0166) | -0.2141 (0.0116) | 0.0062 (0.0146) | -0.0036 (0.0182) | -0.0121 (0.0092) |
| YCS7[a] | 1996 | 5990 | -0.0262 (0.0091) | 0.2825 (0.0211) | -0.2431 (0.0139) | 0.0050 (0.0150) | -0.0150 (0.0188) | -0.0032 (0.0075) |
| YCS8[a] | 1998 | 7070 | -0.0197 (0.0065) | 0.3004 (0.0226) | -0.2321 (0.0126) | -0.0135 (0.0062) | -0.0326 (0.0204) | -0.0025 (0.0091) |
| YCS9 | 2000 | 4637 | -0.0109 (0.0083) | 0.2932 (0.0281) | -0.2848 (0.0176) | 0.0247 (0.0166) | -0.0173 (0.0228) | -0.0049 (0.0088) |
| YCS10 | 2002 | 4169 | -0.0131 (0.0103) | 0.3073 (0.0248) | -0.2356 (0.0126) | -0.0152 (0.0158) | -0.0452 (0.0233) | 0.0018 (0.0105) |
| YCS11 | 2004 | 4119 | -0.0090 (0.0086) | 0.3416 (0.0323) | -0.3283 (0.0179) | 0.0015 (0.0165) | -0.0081 (0.0245) | 0.0023 (0.0111) |

[a]Actually Sweep 2, but equivalent to Sweep 3 for all other cohorts.

Table 7: Multinomial logit of labour market states; gender gap for passes, $\Delta_p$

| Cohort | Year | $N$ | Unemployment | Further education [1] | Further education [2] | Skilled employment | Unskilled employment | Youth training |
|---|---|---|---|---|---|---|---|---|
| | | | | | Sweep 1 (age 17) | | | |
| YCS2 | 1986 | 6988 | -0.0126 (0.0106) | -0.0243 (0.0103) | 0.0264 (0.0087) | 0.0099 (0.0175) | 0.0021 (0.0147) | -0.0015 (0.0076) |
| YCS3 | 1987 | 5937 | -0.0014 (0.0097) | -0.0372 (0.0120) | 0.0311 (0.0094) | 0.0031 (0.0186) | 0.0104 (0.0139) | -0.0059 (0.0103) |
| YCS4 | 1989 | 4465 | -0.0020 (0.0022) | -0.0192 (0.0094) | 0.0128 (0.0074) | 0.0238 (0.0103) | 0.0022 (0.0056) | -0.0177 (0.0070) |
| YCS5 | 1991 | 11180 | -0.0022 (0.0100) | -0.0192 (0.0104) | 0.0192 (0.0096) | -0.0445 (0.0106) | 0.0718 (0.0147) | -0.0250 (0.0120) |
| YCS6 | 1992 | 16159 | 0.0086 (0.0071) | -0.0132 (0.0101) | 0.0118 (0.0087) | -0.0371 (0.0074) | 0.0240 (0.0096) | 0.0059 (0.0091) |
| YCS7 | 1994 | 13511 | -0.0007 (0.0063) | -0.0209 (0.0104) | 0.0075 (0.0093) | -0.0248 (0.0063) | 0.0423 (0.0092) | -0.0033 (0.0069) |
| YCS8 | 1996 | 11102 | 0.0021 (0.0055) | -0.0183 (0.0108) | 0.0150 (0.0093) | -0.0089 (0.0044) | 0.0147 (0.0083) | -0.0046 (0.0063) |
| YCS9 | 1998 | 10673 | 0.0074 (0.0060) | -0.0281 (0.0107) | 0.0215 (0.0094) | -0.0133 (0.0049) | 0.0187 (0.0095) | -0.0063 (0.0059) |
| YCS10 | 2000 | 7840 | -0.0005 (0.0043) | 0.0010 (0.0124) | 0.0085 (0.0109) | -0.0077 (0.0051) | 0.0104 (0.0087) | -0.0117 (0.0063) |
| YCS11 | 2002 | 8433 | 0.0005 (0.0049) | -0.0214 (0.0111) | 0.0174 (0.0090) | -0.0231 (0.0056) | 0.0250 (0.0086) | 0.0016 (0.0052) |
| | | | | | Sweep 2 (age 18) | | | |
| YCS2 | 1987 | 5761 | -0.0009 (0.0161) | -0.0157 (0.0105) | 0.0247 (0.0105) | 0.0057 (0.0287) | 0.0110 (0.0217) | -0.0249 (0.0188) |
| YCS3 | 1988 | 5923 | 0.0069 (0.0116) | -0.0284 (0.0107) | 0.0211 (0.0098) | 0.0094 (0.0257) | 0.0194 (0.0182) | -0.0284 (0.0166) |
| YCS4 | 1990 | 4439 | -0.0268 (0.1198) | -0.0040 (0.0449) | 0.0101 (0.0150) | 0.0299 (0.0696) | 0.0040 (0.0237) | -0.0132 (0.0354) |
| YCS5 | 1992 | 8466 | -0.0001 (0.0117) | 0.0030 (0.0112) | 0.0161 (0.0121) | -0.0275 (0.0123) | 0.0761 (0.0174) | -0.0676 (0.0162) |
| YCS6 | 1993 | 8590 | -0.0176 (0.0109) | 0.0054 (0.0130) | -0.0172 (0.0157) | -0.0353 (0.0110) | 0.0706 (0.0131) | -0.0060 (0.0139) |
| YCS9 | 1999 | 7141 | -0.0099 (0.0060) | 0.0026 (0.0121) | 0.0121 (0.0112) | 0.0179 (0.0075) | -0.0055 (0.0129) | -0.0172 (0.0078) |
| YCS10 | 2001 | 6045 | 0.0023 (0.0046) | -0.0057 (0.0125) | 0.0037 (0.0139) | -0.0118 (0.0057) | 0.0193 (0.0102) | -0.0077 (0.0075) |
| YCS11 | 2003 | 5474 | -0.0061 (0.0058) | -0.0180 (0.0133) | 0.0262 (0.0114) | -0.0055 (0.0068) | 0.0213 (0.0108) | -0.0179 (0.0096) |
| | | | | | Sweep 3 (age 19) | | | |
| YCS2 | 1988 | 4559 | -0.0120 (0.0132) | -0.0252 (0.0097) | 0.0181 (0.0072) | 0.0501 (0.0240) | -0.0283 (0.0208) | -0.0026 (0.0087) |
| YCS3 | 1989 | 4495 | 0.0019 (0.0110) | -0.0224 (0.0108) | 0.0085 (0.0085) | 0.0345 (0.0261) | -0.0024 (0.0188) | -0.0202 (0.0134) |
| YCS4 | 1991 | 4250 | -0.0214 (0.0138) | -0.0116 (0.0117) | 0.0074 (0.0093) | -0.1335 (0.0246) | 0.1765 (0.0262) | -0.0174 (0.0095) |
| YCS5 | 1993 | 6380 | -0.0192 (0.0121) | -0.0287 (0.0122) | 0.0202 (0.0116) | -0.0213 (0.0144) | 0.0874 (0.0201) | -0.0384 (0.0130) |
| YCS6 | 1994 | 6459 | -0.0205 (0.0107) | -0.0211 (0.0122) | -0.0065 (0.0097) | -0.0156 (0.0140) | 0.0762 (0.0193) | -0.0124 (0.0098) |
| YCS7[a] | 1996 | 5990 | -0.0016 (0.0092) | -0.0317 (0.0136) | 0.0077 (0.0108) | -0.0456 (0.0133) | 0.0867 (0.0183) | -0.0155 (0.0078) |
| YCS8[a] | 1998 | 7070 | 0.0002 (0.0061) | -0.0165 (0.0124) | 0.0108 (0.0093) | -0.0059 (0.0064) | 0.0217 (0.0153) | -0.0104 (0.0084) |
| YCS9 | 2000 | 4637 | -0.0088 (0.0074) | 0.0036 (0.0151) | 0.0050 (0.0119) | -0.0080 (0.0131) | 0.0215 (0.0170) | -0.0132 (0.0089) |
| YCS10 | 2002 | 4169 | -0.0240 (0.0089) | -0.0281 (0.0144) | 0.0196 (0.0104) | -0.0070 (0.0131) | 0.0557 (0.0187) | -0.0162 (0.0094) |
| YCS11 | 2004 | 4119 | -0.0107 (0.0074) | 0.0219 (0.0156) | 0.0037 (0.0119) | -0.0093 (0.0125) | 0.0157 (0.0173) | -0.0213 (0.0097) |

[a]Actually Sweep 2, but equivalent to Sweep 3 for all other cohorts.

Table 8: Multinomial logit of labour market states; gender gap for fails, $\Delta_f$

| Cohort | Year | $N$ | Unemployment | Further education [1] | Further education [2] | Skilled employment | Unskilled employment | Youth training |
|---|---|---|---|---|---|---|---|---|
| | | | | | Sweep 1 (age 17) | | | |
| YCS2 | 1986 | 6988 | -0.0015 (0.0050) | -0.0161 (0.0111) | 0.0143 (0.0121) | -0.0089 (0.0074) | 0.0218 (0.0085) | -0.0097 (0.0036) |
| YCS3 | 1987 | 5937 | 0.0007 (0.0049) | -0.0323 (0.0113) | 0.0367 (0.0125) | 0.0096 (0.0083) | -0.0011 (0.0092) | -0.0136 (0.0050) |
| YCS4 | 1989 | 4465 | -0.0048 (0.0040) | -0.0314 (0.0137) | 0.0267 (0.0163) | 0.0216 (0.0101) | 0.0046 (0.0081) | -0.0167 (0.0057) |
| YCS5 | 1991 | 11180 | -0.0028 (0.0052) | -0.0182 (0.0102) | 0.0385 (0.0122) | -0.0470 (0.0033) | 0.0414 (0.0061) | -0.0119 (0.0046) |
| YCS6 | 1992 | 16159 | 0.0019 (0.0045) | 0.0067 (0.0087) | 0.0014 (0.0106) | -0.0270 (0.0023) | 0.0229 (0.0049) | -0.0060 (0.0044) |
| YCS7 | 1994 | 13511 | 0.0054 (0.0049) | 0.0010 (0.0102) | -0.0086 (0.0127) | -0.0192 (0.0023) | 0.0218 (0.0059) | -0.0004 (0.0045) |
| YCS8 | 1996 | 11102 | -0.0025 (0.0053) | 0.0157 (0.0125) | -0.0075 (0.0156) | -0.0108 (0.0018) | 0.0191 (0.0064) | -0.0140 (0.0045) |
| YCS9 | 1998 | 10673 | 0.0020 (0.0051) | 0.0273 (0.0131) | -0.0076 (0.0163) | -0.0151 (0.0022) | -0.0006 (0.0076) | -0.0060 (0.0045) |
| YCS10 | 2000 | 7840 | -0.0029 (0.0058) | 0.0027 (0.0178) | 0.0097 (0.0221) | -0.0098 (0.0022) | 0.0039 (0.0088) | -0.0035 (0.0058) |
| YCS11 | 2002 | 8433 | -0.0035 (0.0061) | -0.0283 (0.0194) | 0.0500 (0.0227) | -0.0137 (0.0029) | -0.0003 (0.0093) | -0.0043 (0.0056) |
| | | | | | Sweep 2 (age 18) | | | |
| YCS2 | 1987 | 5761 | 0.0046 (0.0065) | -0.0493 (0.0139) | 0.0478 (0.0166) | 0.0046 (0.0116) | 0.0023 (0.0111) | -0.0101 (0.0052) |
| YCS3 | 1988 | 5923 | 0.0119 (0.0063) | -0.0604 (0.0142) | 0.0566 (0.0166) | 0.0080 (0.0111) | 0.0012 (0.0114) | -0.0174 (0.0056) |
| YCS4 | 1990 | 4439 | -0.0159 (0.0501) | -0.0628 (0.0268) | 0.0684 (0.0435) | 0.0198 (0.0545) | 0.0091 (0.0332) | -0.0186 (0.0281) |
| YCS5 | 1992 | 8466 | 0.0065 (0.0067) | -0.0432 (0.0143) | 0.0284 (0.0169) | -0.0433 (0.0043) | 0.0712 (0.0099) | -0.0196 (0.0057) |
| YCS6 | 1993 | 8590 | 0.0030 (0.0061) | -0.0130 (0.0141) | 0.0022 (0.0169) | -0.0300 (0.0041) | 0.0421 (0.0082) | -0.0043 (0.0072) |
| YCS9 | 1999 | 7141 | -0.0026 (0.0070) | -0.0381 (0.0186) | 0.0360 (0.0228) | 0.0126 (0.0068) | 0.0024 (0.0142) | -0.0103 (0.0060) |
| YCS10 | 2001 | 6045 | 0.0007 (0.0064) | -0.0291 (0.0231) | 0.0185 (0.0299) | -0.0183 (0.0042) | 0.0317 (0.0155) | -0.0034 (0.0092) |
| YCS11 | 2003 | 5474 | -0.0042 (0.0088) | -0.0068 (0.0296) | 0.0445 (0.0335) | -0.0183 (0.0053) | 0.0100 (0.0142) | -0.0252 (0.0075) |
| | | | | | Sweep 3 (age 19) | | | |
| YCS2 | 1988 | 4559 | 0.0167 (0.0098) | -0.0252 (0.0142) | -0.0049 (0.0163) | 0.0255 (0.0168) | -0.0081 (0.0164) | -0.0041 (0.0039) |
| YCS3 | 1989 | 4495 | -0.0096 (0.0066) | -0.0245 (0.0147) | 0.0184 (0.0175) | 0.0288 (0.0174) | 0.0014 (0.0156) | -0.0145 (0.0032) |
| YCS4 | 1991 | 4250 | 0.0046 (0.0096) | -0.0499 (0.0200) | 0.0187 (0.0221) | -0.1226 (0.0133) | 0.1569 (0.0193) | -0.0077 (0.0043) |
| YCS5 | 1993 | 6380 | 0.0005 (0.0087) | -0.0208 (0.0106) | -0.0575 (0.0186) | -0.0398 (0.0086) | 0.1385 (0.0182) | -0.0208 (0.0047) |
| YCS6 | 1994 | 6459 | 0.0111 (0.0097) | -0.0457 (0.0181) | -0.0024 (0.0217) | -0.0280 (0.0099) | 0.0881 (0.0182) | -0.0232 (0.0050) |
| YCS7[a] | 1996 | 5990 | 0.0045 (0.0105) | -0.0071 (0.0183) | -0.0246 (0.0228) | -0.0423 (0.0097) | 0.0833 (0.0190) | -0.0138 (0.0048) |
| YCS8[a] | 1998 | 7070 | 0.0055 (0.0091) | -0.0324 (0.0165) | 0.0426 (0.0241) | -0.0209 (0.0040) | 0.0259 (0.0211) | -0.0207 (0.0075) |
| YCS9 | 2000 | 4637 | -0.0050 (0.0091) | -0.0013 (0.0268) | -0.0133 (0.0333) | 0.0078 (0.0150) | 0.0197 (0.0244) | -0.0079 (0.0086) |
| YCS10 | 2002 | 4169 | 0.0014 (0.0127) | 0.0172 (0.0331) | 0.0239 (0.0385) | -0.0354 (0.0137) | 0.0175 (0.0271) | -0.0245 (0.0087) |
| YCS11 | 2004 | 4119 | -0.0028 (0.0093) | 0.0553 (0.0346) | -0.0627 (0.0395) | 0.0014 (0.0167) | 0.0325 (0.0263) | -0.0237 (0.0091) |

[a]Actually Sweep 2, but equivalent to Sweep 3 for all other cohorts.

Table 9: Multinomial logit of labour market states; gender gap, $\gamma$

| Cohort | Year | $N$ | Unemployment | Further education [1] | Further education [2] | Skilled employment | Unskilled employment | Youth training |
|---|---|---|---|---|---|---|---|---|
| | | | | | Sweep 1 (age 17) | | | |
| YCS2 | 1986 | 6988 | -0.0112 (0.0123) | -0.0082 (0.0150) | 0.0122 (0.0140) | 0.0188 (0.0194) | -0.0197 (0.0172) | 0.0082 (0.0084) |
| YCS3 | 1987 | 5937 | -0.0021 (0.0109) | -0.0050 (0.0162) | -0.0056 (0.0146) | -0.0065 (0.0202) | 0.0114 (0.0164) | 0.0078 (0.0114) |
| YCS4 | 1989 | 4465 | 0.0029 (0.0026) | 0.0122 (0.0102) | -0.0139 (0.0108) | 0.0023 (0.0053) | -0.0024 (0.0034) | -0.0010 (0.0046) |
| YCS5 | 1991 | 11180 | 0.0006 (0.0114) | -0.0010 (0.0149) | -0.0194 (0.0152) | 0.0025 (0.0113) | 0.0304 (0.0156) | -0.0131 (0.0130) |
| YCS6 | 1992 | 16159 | 0.0067 (0.0083) | -0.0199 (0.0137) | 0.0104 (0.0134) | -0.0102 (0.0079) | 0.0011 (0.0106) | 0.0118 (0.0100) |
| YCS7 | 1994 | 13511 | -0.0061 (0.0082) | -0.0219 (0.0151) | 0.0161 (0.0155) | -0.0056 (0.0068) | 0.0205 (0.0103) | -0.0030 (0.0083) |
| YCS8 | 1996 | 11102 | 0.0046 (0.0078) | -0.0339 (0.0171) | 0.0224 (0.0177) | 0.0019 (0.0049) | -0.0044 (0.0103) | 0.0094 (0.0077) |
| YCS9 | 1998 | 10673 | 0.0055 (0.0077) | -0.0554 (0.0176) | 0.0291 (0.0183) | 0.0018 (0.0055) | 0.0193 (0.0121) | -0.0003 (0.0075) |
| YCS10 | 2000 | 7840 | 0.0024 (0.0074) | -0.0017 (0.0230) | -0.0012 (0.0244) | 0.0021 (0.0057) | 0.0066 (0.0124) | -0.0081 (0.0089) |
| YCS11 | 2002 | 8433 | 0.0040 (0.0079) | 0.0069 (0.0232) | -0.0326 (0.0237) | -0.0094 (0.0070) | 0.0252 (0.0123) | 0.0059 (0.0076) |
| | | | | | Sweep 2 (age 18) | | | |
| YCS2 | 1987 | 5761 | -0.0055 (0.0178) | 0.0336 (0.0180) | -0.0231 (0.0188) | 0.0011 (0.0313) | 0.0087 (0.0244) | -0.0148 (0.0197) |
| YCS3 | 1988 | 5923 | -0.0050 (0.0134) | 0.0319 (0.0183) | -0.0356 (0.0185) | 0.0015 (0.0279) | 0.0182 (0.0214) | -0.0110 (0.0176) |
| YCS4 | 1990 | 4439 | -0.0110 (0.0731) | 0.0588 (0.0527) | -0.0583 (0.0375) | 0.0102 (0.0521) | -0.0051 (0.0264) | 0.0054 (0.0313) |
| YCS5 | 1992 | 8466 | -0.0066 (0.0139) | 0.0462 (0.0193) | -0.0123 (0.0212) | 0.0158 (0.0132) | 0.0050 (0.0200) | -0.0480 (0.0174) |
| YCS6 | 1993 | 8590 | -0.0206 (0.0129) | 0.0184 (0.0195) | -0.0194 (0.0233) | -0.0053 (0.0119) | 0.0286 (0.0144) | -0.0017 (0.0158) |
| YCS9 | 1999 | 7141 | -0.0073 (0.0098) | 0.0407 (0.0230) | -0.0239 (0.0249) | 0.0053 (0.0091) | -0.0078 (0.0193) | -0.0070 (0.0100) |
| YCS10 | 2001 | 6045 | 0.0016 (0.0080) | 0.0234 (0.0278) | -0.0148 (0.0332) | 0.0065 (0.0077) | -0.0123 (0.0189) | -0.0043 (0.0122) |
| YCS11 | 2003 | 5474 | -0.0018 (0.0110) | -0.0113 (0.0333) | -0.0183 (0.0340) | 0.0127 (0.0088) | 0.0113 (0.0178) | 0.0073 (0.0126) |
| | | | | | Sweep 3 (age 19) | | | |
| YCS2 | 1988 | 4559 | -0.0287 (0.0173) | 0.0000 (0.0170) | 0.0229 (0.0167) | 0.0245 (0.0297) | -0.0201 (0.0274) | 0.0014 (0.0098) |
| YCS3 | 1989 | 4495 | 0.0115 (0.0128) | 0.0021 (0.0186) | -0.0099 (0.0192) | 0.0057 (0.0316) | -0.0037 (0.0248) | -0.0057 (0.0140) |
| YCS4 | 1991 | 4250 | -0.0260 (0.0177) | 0.0383 (0.0236) | -0.0112 (0.0236) | -0.0109 (0.0291) | 0.0196 (0.0314) | -0.0097 (0.0111) |
| YCS5 | 1993 | 6380 | -0.0197 (0.0153) | -0.0079 (0.0165) | 0.0776 (0.0216) | 0.0186 (0.0171) | -0.0510 (0.0258) | -0.0176 (0.0143) |
| YCS6 | 1994 | 6459 | -0.0316 (0.0149) | 0.0245 (0.0220) | -0.0041 (0.0237) | 0.0124 (0.0169) | -0.0119 (0.0246) | 0.0108 (0.0110) |
| YCS7[a] | 1996 | 5990 | -0.0061 (0.0140) | -0.0246 (0.0231) | 0.0323 (0.0246) | -0.0034 (0.0172) | 0.0035 (0.0250) | -0.0017 (0.0094) |
| YCS8[a] | 1998 | 7070 | -0.0053 (0.0108) | 0.0160 (0.0207) | -0.0318 (0.0248) | 0.0150 (0.0076) | -0.0042 (0.0257) | 0.0103 (0.0112) |
| YCS9 | 2000 | 4637 | -0.0037 (0.0122) | 0.0048 (0.0314) | 0.0183 (0.0348) | -0.0159 (0.0200) | 0.0018 (0.0292) | -0.0053 (0.0126) |
| YCS10 | 2002 | 4169 | -0.0253 (0.0173) | -0.0453 (0.0357) | -0.0043 (0.0380) | 0.0284 (0.0190) | 0.0382 (0.0318) | 0.0084 (0.0132) |
| YCS11 | 2004 | 4119 | -0.0079 (0.0129) | -0.0334 (0.0391) | 0.0664 (0.0407) | -0.0107 (0.0212) | -0.0168 (0.0313) | 0.0024 (0.0138) |

[a]Actually Sweep 2, but equivalent to Sweep 3 for all other cohorts.

Appendix A: Conversion of academic and vocational qualifications to NVQs

**NVQ level 5**

1. Higher degree

**NVQ level 4**

2. Degree
3. Diploma
4. Teacher training
5. HND/HNC
6. BTEC higher/level 4
7. RSA higher/level 4
8. NVQ level 4

**NVQ level 3**

9. A level, 2+
10. AS level, 4+
11. OND/ONC
12. GNVQ advanced
13. BTEC national/level 3
14. RSA advanced/level 3
15. C&G part 4
16. NVQ level 3

**NVQ level 2**

17. A level, 1
18. AS level, 2 or 3
19. GCSE, 5+ A-C
20. GNVQ intermediate
21. BTEC diploma/level 2
22. RSA diploma/level 2
23. C&G part 3
24. Other advanced professional/vocational qualifications
25. NVQ level 2

**NVQ level 1**

26. AS level, 1
27. GCSE, 1-4 A-C, 1+ D-G
28. GNVQ foundation
29. GNVQ unknown
30. BTEC certificate/level 1
31. BTEC multilevel/unknown
32. RSA certificate/level 1
33. RSA multilevel/unknown
34. C&G part 2
35. C&G part 1
36. C&G multilevel/unknown

37. Other non-advanced professional/vocational qualifications
38. Other unknown professional/vocational qualifications
39. NVQ level 1
40. NVQ unknown
41. CPVE
42. TVEI
43. RSA vocational preparation/basic clerical procedures
44. C&G foundation/vocational preparation general
45. Regional examining bodies

"GCSE" = GCSE/16+/O-level/CSE/CEE
"AS level" = AS level/OA level/AO level
"A level" = A level/S level/International Baccalaureate