

Private schooling in the UK and Australia*

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1. Introduction

The type of school a child attends is known to impact on educational attainment and later-life outcomes. But there is very little persuasive empirical evidence (although widespread and varied anecdotal evidence) on why parents opt to take their children outside the state system.

As part of an international collaboration funded by the Economic and Social Research Council and the Australian Research Council, researchers at the Institute for Fiscal Studies and the Australian National University have sought to address this question by comparing the determinants of private school choice in both Australia and the UK. The experiences of the two countries have been very different over the recent past. Whilst private school attendance has remained largely flat in the UK at around 6–7% of children, it has risen sharply in Australia, with about a third of children currently attending a school outside the government sector. The levels of public subsidies are also very different in the two countries, with large public subsidies on offer in Australia and no direct subsidies in the UK.

In what follows, we look separately at the experience of private schooling in the UK (Section 2) and Australia (Section 3), and attempt to draw lessons from each country's individual experience.

2. Private schooling in the UK

In the UK, only a small proportion of pupils attend private schools (or independent schools, as they are more commonly known). According to the Independent Schools Council (ISC), the umbrella body representing the majority of independent schools in the UK, there are currently about 2,600 independent

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schools in the UK, educating around 628,000 pupils, or about 6.5% of the total.¹ This proportion is slightly higher when we consider England only, where just over 7% of children attend independent schools. Both figures are much lower than current private school participation rates across Australia.

Pupils can attend independent schools either as day pupils or as boarding pupils (the latter reside at the school during term time). According to the 2010 ISC census,² about 87% of independent school pupils in 2010 were day pupils, with the remaining 13% being boarders. The age range of independent school pupils can differ slightly from that in the English state sector. The majority of pupils in the state sector attend a primary school from age 4 up to age 11 (or sometimes separate infant and junior schools) before attending a secondary school from age 11 up to age 16 or 18.³ In the independent sector, preparatory schools educate children from age 7 up to age 11 or 13. Before age 7, children can attend pre-preparatory schools, which often have nurseries attached to them. From age 11 or 13, children can attend senior or high schools. Some private schools cover the full age range from age 3 up to age 18.

Independent schools in the UK currently receive no direct government funding, although if the school has charitable status (which the majority of independent schools hold) it receives substantial tax exemptions. Private schools receive the majority of their income in the form of fees. According to the recent ISC census, the average annual fee in 2010 was £10,100 for day pupils (considering day schools only) and £24,000 for boarders (the latter fee being higher to cover the cost of accommodation and food during term time). These average fees (focusing on day schools) are much higher than those charged in Australia, where the public subsidies to Catholic and independent schools are substantial.

Bursaries and discounts are available in the UK, with about one-third of pupils receiving some discount or bursary in 2010, according to the ISC census. This provision ranges from academic scholarships and means-tested contributions, to staff and sibling discounts. A previous government policy, called the 'Assisted Places Scheme', provided free or subsidised places to pupils scoring in the top 10–15% of applicants to independent schools, but who could not afford to go. In 1996, just before this policy was abolished by the incoming Labour government,

¹ http://www.isc.co.uk/FactsFigures_PupilNumbers.htm.

² http://www.isc.co.uk/Publications_ISCCensus.htm.

³ Some local authorities still operate middle schools between age 7 and age 12 or 13.

this scheme provided assistance to about 37,000 pupils (according to the 1997 ISC census).

Being outside the state sector, independent schools in the UK naturally possess a substantial degree of autonomy. They own or rent their own premises, and are free to set their own terms and conditions for staff. They also set their own curriculum and admissions policies. A number of independent schools are faith-based and some follow particular pedagogical styles, such as Steiner–Waldorf and Montessori schools.

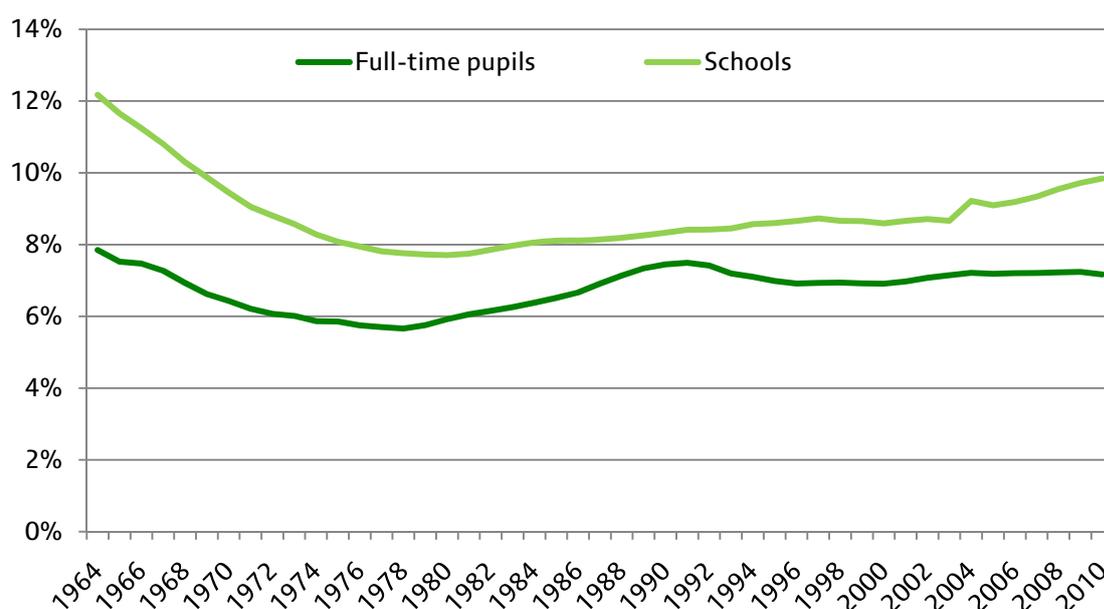
Although they do not generally participate in national Key Stage tests or assessments up to age 14, most pupils at independent schools do sit national GCSE examinations at age 16, as well as AS/A level examinations at ages 17 and 18 (and their equivalents in Scotland). However, in recent years, a number of independent schools have chosen to offer other qualifications, including the international GCSE, the International Baccalaureate or just going straight to A levels.

In what follows, we analyse how participation in the independent sector has changed over time, fee levels and pupil–teacher ratios, as well as how these and other factors affect participation. We then discuss the fairly recent innovation of autonomous schools within the state sector (for example, foundation schools and academies). The new UK coalition government, comprising the Conservatives and the Liberal Democrats, has pledged to continue this trend, with schools set up in response to parental demand, as has happened in Sweden.

Participation in independent schools

As Figure 1 shows, the proportion of pupils attending independent schools in England is currently 7.2% (considering full-time pupils only). This is slightly below the level seen in 1964, at the start of the time series, when around 8% of pupils attended independent schools. However, there has not been a gradual fall over time. Between 1964 and the late 1970s, participation fell from a little under 8% to reach a low of 5.7% in 1978. During the 1980s, participation rose, reaching 7.5% by 1991. Over these 13 years, participation in the independent sector increased by 1.8 percentage points or by just over 30%. The changes since 1990 have been less dramatic, participation falling to 6.9% by 1996 before increasing very slightly after 2000 to reach 7.2%, as seen at present.

Figure 1. Relative quantities of independent education in England, 1964 to 2010



Note: Independent schools include city technology colleges.

Sources: 1964 to 2003 – Department for Education and Skills, 2003,

<http://www.dcsf.gov.uk/rsgateway/DB/SBU/b000384/b01-2003.pdf>; 2003 to 2010 –

Department for Children, Schools and Families, 2010,

<http://www.dcsf.gov.uk/rsgateway/DB/SFR/s000925/index.shtml>.

Figure 1 also shows the number of independent schools in England as a proportion of the total number of schools. As can be seen, and as one would expect, this series largely follows the same trends as the number of pupils. However, it is worth noting that the proportion of schools rose at a slower rate during the 1980s than did the proportion of pupils, meaning that the average size of independent schools must have risen relative to the state sector. Since 2000, the proportion of independent schools has risen at a faster rate than has the proportion of pupils, suggesting that private schools have become smaller relative to the state sector (though schools in both sectors have increased in average size over this period).

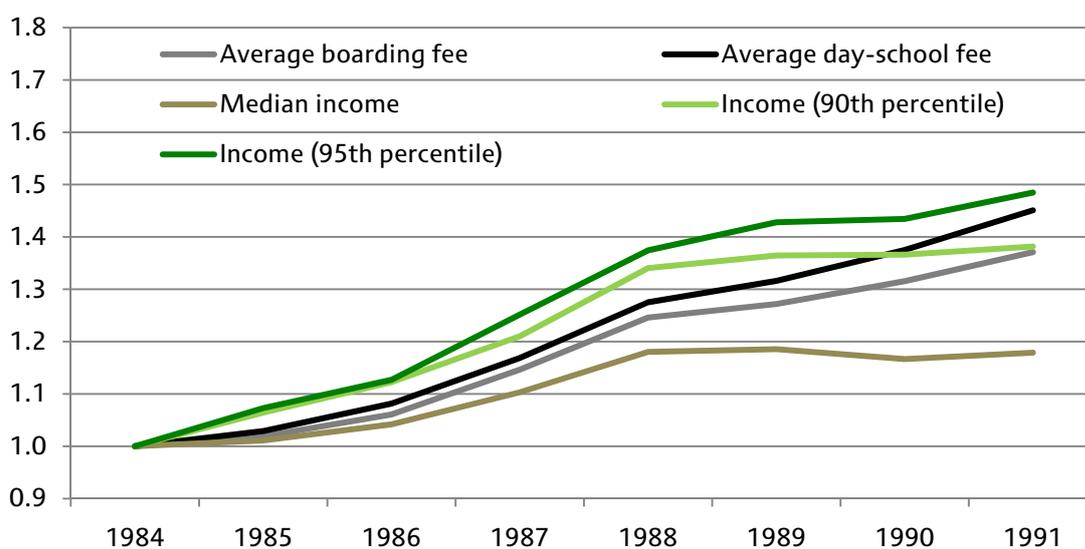
One further interesting participation trend occurring over the last few years is the increasing numbers of pupils from overseas attending UK independent schools. According to the ISC census for 1989, there were about 11,700 foreign pupils at independent schools in the UK whose parents lived overseas in that year, accounting for a little over 2.5% of the total ISC pupil population in 1989. In 2010, this number had increased to about 23,300, or 4.6% of the total.

Fees

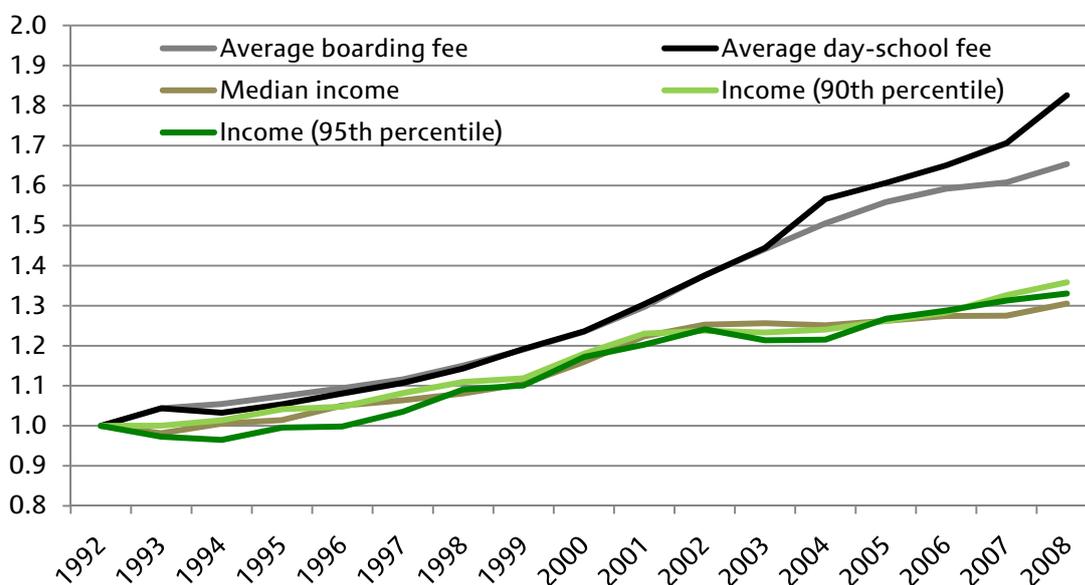
Figure 2 shows the average level of independent school fees over time in real terms, both for boarding schools and for day schools. Panel (a) shows their level

Figure 2. Average school fees and household disposable incomes amongst families with children, 1984 to 2008

(a) 1984 to 1991 (relative to level in 1984)



(b) 1992 to 2008 (relative to level in 1992)



Sources: Independent Schools Council census 1984–2008; authors' calculations using the Family Resources Survey.

between 1984 and 1991 (indexed to 1 in 1984), whilst panel (b) shows their level between 1992 and 2008 (indexed to 1 in 1992).⁴

In order to provide some comparison to gauge changes in affordability, Figure 2 also illustrates trends in average and top incomes amongst families with children. Specifically, it shows the median level of household disposable income amongst families with children in order to represent average incomes, with the 90th and 95th percentiles representing trends in top incomes. All are shown relative to their level in 1984 in panel (a) and relative to their level in 1992 in panel (b).

During the 1980s, independent school fees grew rapidly. Average boarding school fees rose by 37% in real terms and day-school fees by 45% between 1984 and 1991. Both increases are far in excess of the 18% real-terms growth in median disposable incomes observed over the same period. However, the growth in top incomes amongst families with children was similar to the growth in fees: the 90th percentile grew by 38% in total in real terms and the 95th percentile by a little under 50% between 1984 and 1991. The fact that top incomes grew by more than the median reflects the large increase in income inequality observed over the 1980s among all households.

Between 1992 and 2008, median income amongst families with children grew by a slightly smaller amount (31%) than did the 90th and 95th percentiles (36% and 33% respectively). However, the differences are clearly much less stark than those observed between 1984 and 1991. Average school fees have grown by a much larger amount, with average day-school fees growing by 83% in real terms and average boarding fees by 65% over this period. It can be seen that much of the excess growth in average school fees over and above that in household incomes seems to have occurred from the early 2000s onwards.

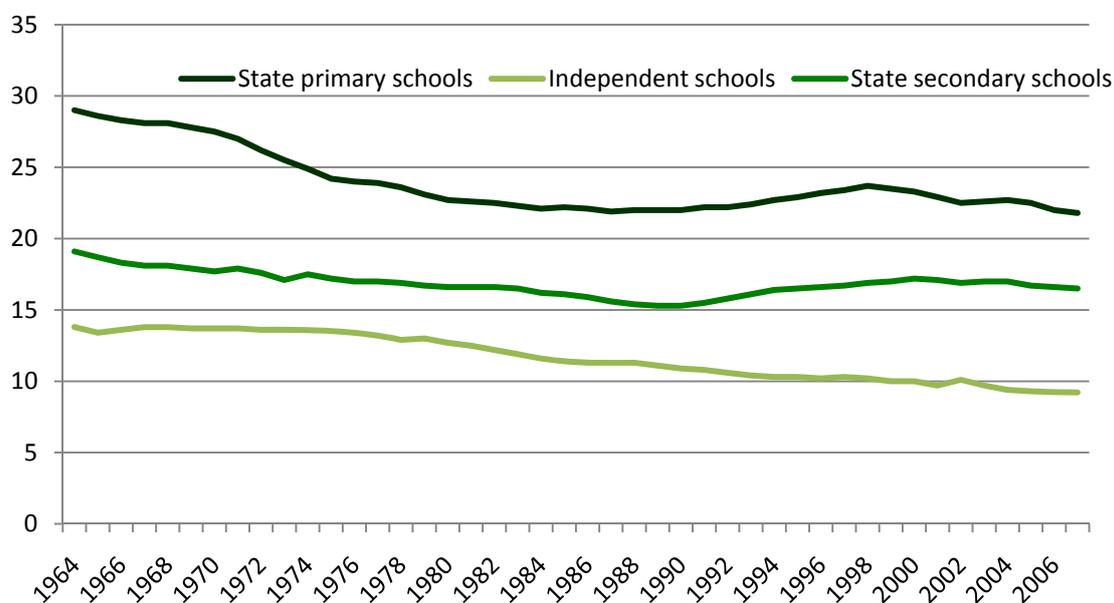
Pupil–teacher ratios

Generally speaking, the pupil–teacher ratio tends to be much lower at independent schools than at state schools. Figure 3 shows the pupil–teacher ratio amongst state schools (split by primary schools and secondary schools) and independent schools between 1964 and 2007. It can be seen that the pupil–teacher ratio has been on a long-run decline in the independent sector, falling from just under 14 in the 1960s to just over 9 in recent years. By way of contrast,

⁴ Figures are shown in separate panels due to a significant change in the ISC methodology for calculating fees in 1992 (a move from average fee per school to average fee per pupil).

the pupil–teacher ratio was 16.5 in state secondary schools and 21.8 in primary schools in 2007. Both declined between the 1960s and late 1980s. However, during the 1990s, pupil–teacher ratios in the state sector increased slightly, before falling back again a little during the 2000s.

Figure 3. Pupil–teacher ratios in state and independent schools, 1964 to 2007



Sources: 1964 to 2002 – Department for Education and Skills, 2003, <http://www.dcsf.gov.uk/rsgateway/DB/SBU/b000384/b01-2003.pdf>; 2003 to 2007 – Department for Children, Schools and Families, 2007, <http://www.dcsf.gov.uk/rsgateway/DB/TIM/m002005/index.shtml>.

Determinants of participation

Which factors drive attendance at independent schools, and what could have driven the changes in participation over time, particularly during the 1980s? In recent research, the authors and colleagues have examined the role played by a number of potentially important factors. In one paper, we use administrative data to examine the effect of regional fee levels, as well as state school and independent school quality, on demand for independent school places. In another paper, we examine the role played by household income and regional levels of income inequality. In a third paper, we investigate the role played by household income, parental education, family size/structure and political preferences.

In our first paper,⁵ we use English school-level data from 1993 to 2008, aggregated up to small neighbourhood areas, to look at the determinants of the demand for independent schooling in England from the age of 7 until 15 (the last year of compulsory schooling in England at present). We focus on the relative importance of price and quality of schooling (both state and independent). However, unobservable factors correlated with private school prices and/or the quality of state schools may also impact on levels of attendance at private schools (for example, shocks to the supply side). The fact that we are able to follow trends across regions and local authorities over a long time frame allows us to use various methods to try to account for this problem.

We find that the demand for private schooling is inversely related to private school fees as well as to the quality of state schooling in the local area at the time families were making key schooling-choice decisions at the ages of 7, 11 and 13. Specifically, we estimate that a one standard deviation increase in the private school day fee (or about £1,300 a year in 2008) when parents/students are making these key decisions reduces the proportion attending private schools by around 0.33 percentage points, which equates to an elasticity of around -0.26 . This estimate is only significant for choices at age 7 (but the point estimates are very similar at the ages of 11 and 13). At age 11 and at age 13, an increase in the quality of local state secondary schools (measured as the proportion of pupils achieving five GCSEs graded A*-C) reduces the probability of children attending private schools. At age 11, a one standard deviation increase in state school quality reduces participation in private schools by 0.31 percentage points, which equates to an elasticity of -0.21 . The effect at age 13 is slightly smaller, but still significant.

In the second paper,⁶ colleagues examine the role played by household income and income inequality within regions using the Family Expenditure Survey between 1974 and 2002. This shows that people with higher household incomes are more likely to send their children to private schools, an unsurprising result given the level of private school fees. However, the results also show that an increase in income inequality within regions raises the proportion of parents

⁵ R. Blundell, L. Dearden and L. Sibieta, 'The demand for private schooling in the UK: the impact of price and quality', paper presented at Society of Labor Economists conference, London, June 2010.

⁶ L. Blow, R. Blundell and S. Machin, 'The demand for private schooling in the UK: the role of income and inequality', unpublished mimeo, IFS, 2010.

choosing to send their children to a private school, even after controlling for the level of individual household incomes. This suggests that part of the rise in private school attendance during the 1980s may well have been driven by the rising income inequality experienced over the period within regions.

In the third paper,⁷ we use the British Household Panel Survey to study the wider determinants of private school attendance in the UK. We relate attendance at a private school at age 15 to household income, as well as to other parental and household characteristics. As one might expect, we observe a strong effect of household income on private school attendance, with high-income households the most likely to send their children to private schools.

The addition of other household characteristics reduces this income effect. It also reveals a strong degree of intergenerational transmission, with children being at least three times more likely to attend a private school if one of their parents attended one, controlling for all other observable characteristics. This represents a very large effect considering that only about 6.5% of children currently attend private schools in the UK. The analysis also reveals significant effects of parental education levels, with more educated parents more likely to choose a private school for their children. There is a negative estimated effect of the number of siblings on private school attendance.

As one might expect, political preferences also seem to impact upon private school attendance, with Labour supporters being 2 to 3 percentage points *less* likely to send their children to private schools than uncommitted voters, and Conservative supporters 2.5 to 5 percentage points *more* likely to send their children to private schools than uncommitted voters. Liberal Democrat supporters lie somewhere in between these two, with there being no significant effect of being a Liberal Democrat supporter relative to being an uncommitted voter.

Later-life outcomes

Much descriptive evidence is available on the relative success enjoyed later on in life by pupils educated at private schools relative to those educated at state schools (for example, see the work undertaken by the Sutton Trust⁸). Dolton and

⁷ L. Dearden, C. Ryan and L. Sibieta, 'What determines private school choice? A comparison between the UK and Australia', unpublished mimeo, IFS, 2010.

⁸ Sutton Trust, *The Educational Backgrounds of the UK's Top Solicitors, Barristers and Judges*, 2005,

Vignoles (2000) and Dearden et al. (2002) provide evidence on the economic returns to private school attendance in terms of future earnings.⁹

Using a number of different surveys that follow individuals over time, Green et al. (2010) investigate the changing economic returns to private schooling over time, as well as the mechanisms that generate these returns and their changing importance over time.¹⁰ They find that the education and earnings differentials between children educated in the state and independent sectors have widened, comparing children born in the late 1950s with those born in the 1970s. A large part of the increase in the earnings differential in later years can be attributed to the increased differential in educational attainment.

Autonomous schools within the state sector

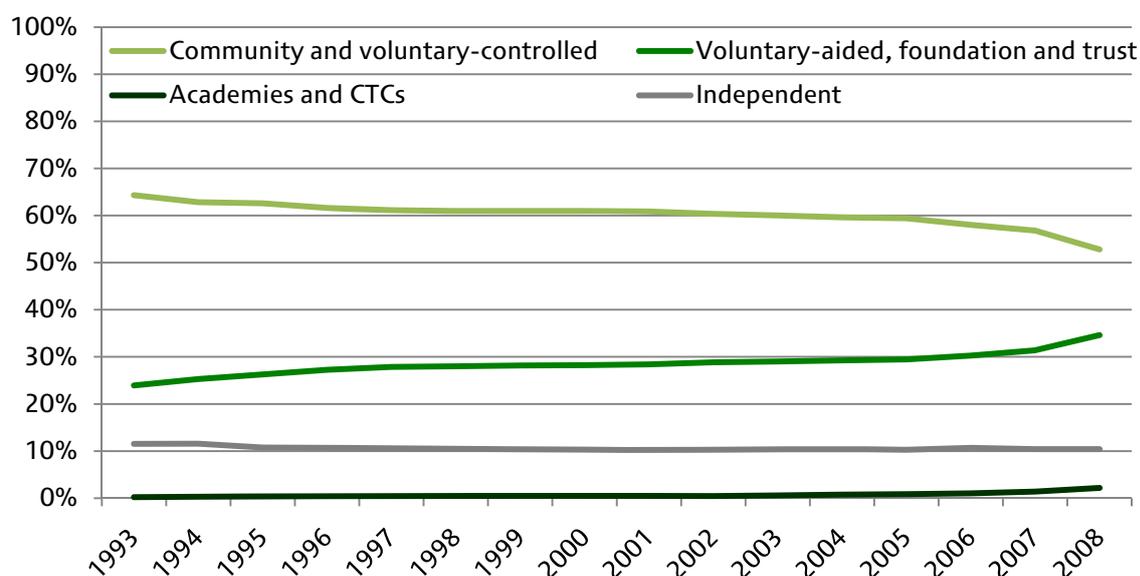
Although there has been little change in the proportion of pupils attending independent schools over the past 15 years, there has been an increase in the proportion of pupils attending autonomous schools within the state sector, such as academies, voluntary-aided and foundation schools. These schools all receive their funding from the government, but they have varying degrees of autonomy from local authorities in their day-to-day operation. Figure 4 displays the proportions of secondary pupils attending different types of schools in England between 1993 and 2008. As can be seen, most pupils in secondary education still attend either community or voluntary-controlled schools, which are both largely under local authority control (though voluntary-controlled schools have greater autonomy). However, this proportion has been declining over time.

http://www.suttontrust.com/reports/Comparison_educational_backgrounds.pdf; Sutton Trust, *The Educational Backgrounds of Members of the House of Commons and House of Lords*, 2005, http://www.suttontrust.com/reports/PoliticiansBackgrounds_09-Dec-05.pdf; Sutton Trust, *The Educational Backgrounds of Leading Journalists*, 2006, <http://www.suttontrust.com/reports/Journalists-backgrounds-final-report.pdf>.

⁹ P. Dolton and A. Vignoles, 'The incidence and effects of overeducation in the U.K. graduate labour market', *Economics of Education Review*, 2000, **19**, 179–98; L. Dearden, J. Ferri and C. Meghir, 'The effect of school quality on educational attainment and wages', *Review of Economics and Statistics*, 2002, **84**, 1–20.

¹⁰ F. Green, S. Machin, R. Murphy and Y. Zhu, 'The changing economic advantage from private school', Centre for the Economics of Education (CEE), Discussion Paper 115, 2010, <http://cee.lse.ac.uk/cee%20dps/ceedp115.pdf>.

Figure 4. Proportion of pupils attending different types of secondary schools in England, 1993 to 2008



Source: Authors' calculations using Local Education Authority and School Information Service (LEASIS), 1993 to 2008.

The proportion of secondary pupils attending fully independent, fee-charging schools has been relatively constant at around 10–11%. In contrast, the proportion attending autonomous schools within the state sector has increased. None of these schools charges fees, and all day-to-day costs are covered by the local authority. However, they all have a certain degree of autonomy in other matters:

- **Voluntary-aided, foundation and trust schools**

Voluntary-aided (VA) schools mostly have a religious character. The land and buildings are often owned by a charity, usually a religious organisation. The governing body is responsible for the running of the school and employs the staff (subject to national agreements surrounding pay and conditions). The school is mostly funded by the local authority, with only some capital costs met by the charity. VA schools are free to set their own admissions criteria within the context of the national admissions code.

Foundation schools were created in 1998 to replace grant-maintained schools, with trust schools created in 2006. Foundation and trust schools are similar to VA schools in that the governing body or foundation owns the land and buildings, employs the staff and sets the admissions code (all within national guidelines and codes). However, all capital costs are met by the local authority.

The proportion of secondary pupils attending voluntary-aided and foundation/trust schools has grown over the past 15 years. It grew in the 1990s to reach just under 30% in 1997, and it largely remained at that level between 1997 and 2005, since when it has risen to about 35% by 2008.

- **Academies and city technology colleges**

Academies were initiated by the previous Labour government and enjoy some of the widest freedoms of any state-funded schools. They are state-funded independent schools, supported by one or more sponsors, and they operate outside the control of local authorities. Academies are often set up in deprived areas where a persistently failing school has been closed. Sponsors are expected to contribute to the running of the academy (for example, appointing members to the governing body) and are often expected to give financial support in terms of set-up costs. The governing body is responsible for the running of the school and admissions criteria. Academies need not follow the national curriculum, and they can deviate from national pay and conditions. They are funded directly by the Department for Education (DfE), but on an equivalent basis to other schools in the same local authority. Their number was still relatively small in 2008 (representing only 2% of the secondary pupil population), but it is growing rapidly.

Academies are similar to city technology colleges (CTCs), established by the Conservatives during the late 1980s. The previous Labour government encouraged as many CTCs as possible to join the academy programme.

The new UK coalition government plans to expand the academy programme. Shortly after taking office, the new Secretary of State for Education invited all schools to apply for academy status, with schools rated by OFSTED as 'outstanding' to be fast-tracked. According to DfE, over 1,000 schools registered an interest in becoming academies.¹¹ The likely expansion of the academy programme was a major theme of the Conservatives' 2010 general election manifesto, which stated that the party would 'break down barriers to entry so that any good education provider can set up a new Academy school',¹² emulating the Swedish 'free schools' system (which allows charities, businesses and parent co-operatives to open new schools).

¹¹ <http://www.education.gov.uk/news/news/academyfreedom>s.

¹² Page 53, <http://www.conservatives.com/Policy/Manifesto.aspx>.

The expansion of the academy programme would clearly continue the trend of recent years for an increasing proportion of pupils to attend autonomous schools within the state sector (with fewer pupils attending schools under local authority control). The impact that this reform would have on school quality and educational outcomes is difficult to predict. The extent to which increased school competition improves educational outcomes remains a hotly debated topic in the academic literature.¹³ Böhlmark and Lindahl (2008) study the impact of Sweden's reforms on pupils' attainment, finding a moderate improvement in short-run educational outcomes but no significant impact on medium- or long-term outcomes.¹⁴ This evidence suggests that competition may have benefits, but that they may not be sustained.

Policy lessons from the UK

With no direct government subsidies, the UK provides a very different experience of private schooling from that of Australia. In the UK, private schools seem to occupy a niche market. They have high fees, their pupil–teacher ratios are low and they account for a relatively small percentage of the pupil population (6–7% in recent times). The parents of this small percentage tend to belong to high-income households and be more highly educated and highly likely to have attended a private school themselves.

The proportion attending a private school has been subject to only small changes in recent history. It increased slightly during the 1980s, which was a time of rising income inequality. Our research suggests that increases in income inequality could have driven some of the increase in private school attendance in regions with the fastest rises in income inequality. Changes since the early 1990s have been very small, despite a large rise in fees relative to both top and average incomes since 2000. This fits with findings from our research, which suggests that increases in fees do reduce private school attendance but at a relatively low rate.

The main shift in the school population over the past 20 years has instead been towards autonomous schools within the state sector (for example, academies and

¹³ For a non-technical overview, see the debate between Caroline Hoxby and Jesse Rothstein documented at gsppi.berkeley.edu/faculty/jrothstein/hoxby/wsj.pdf.

¹⁴ A. Böhlmark and M. Lindahl, 'Does school privatization improve educational achievement? Evidence from Sweden's voucher reform', Institute for the Study of Labour (IZA), Discussion Paper 3691, 2008.

foundation and voluntary-aided schools). Given the new UK government's proposed expansion of the academy programme, this trend is likely to continue in future years.

3. Private schooling in Australia

The proportion of students who attend a private school in Australia increased by 13 percentage points between 1977 and 2009.

The public school system in Australia is administered at the state government level, so there are eight separate public systems, with slight variations in how they are structured. The public systems now educate around two-thirds of Australian school students, with the balance educated in Catholic schools (20%) and other non-government or independent schools (13%).¹⁵

The Catholic schools are also organised via state-level Catholic authorities, while the other non-government schools are known as 'independent' because they have traditionally not belonged to school 'systems'. State public education authorities are responsible for determining educational policies in the areas of curriculum and state-wide student assessment, final-year assessment and certification, as well as the registration of private schools.

Independent schools are traditionally non-Catholic in religious affiliation (for example, Anglican and Protestant denominations) and include many community-operated schools and schools based on a particular educational philosophy such as Montessori or Steiner education. Traditionally, independent schools have been concentrated in urban areas at the high-school level and focused on the preparation of students for university. However, the independent school sector is now the fastest-growing sector of private schooling in Australia and has gained an increased share of the student population over the past decade, in part through growth in low-fee schools in non-urban areas.

The Australian government provides some funding for public school education (most public school funding comes from the states), but it provides more money directly for the operation of private schools. These payments commenced as small per-capita, flat-rate payments to all schools in 1970. They have increased substantially in real terms since then and they effectively provide a weighted subsidy (voucher) for all students to attend the school of their choice in the

¹⁵ Australian Bureau of Statistics, *Schools Australia 2009*, Cat. No. 4221.0.

private sector. Federal grants to private schools are supplemented by state government grants to the value of approximately half the federal grant.

The Australian government will spend very close to \$7 billion in 2010–11 on private schools. This amount is to increase at a rate of 7–8% real each year in financial years covered by budget estimates (or just over half a billion dollars per annum). The \$7 billion figure is close to 2% of anticipated Commonwealth expenditure in 2010–11.¹⁶

Schools in the Catholic system receive a combined (i.e. federal and state) grant per student that is worth approximately 80% of school operating costs. Students attending independent schools attract a federal voucher weighted according to the socio-economic status (SES) of their parents' home address, ranging from 70% to 14% of school operating costs (plus the grant from the state governments). The weighted subsidies are paid in a lump sum to the school and all students attending a particular school are charged similar fees (these vary by grade).¹⁷

In what follows, we analyse how participation in the independent sector has changed over time and the determinants of private school attendance.

Participation in private schools: trends and determinants

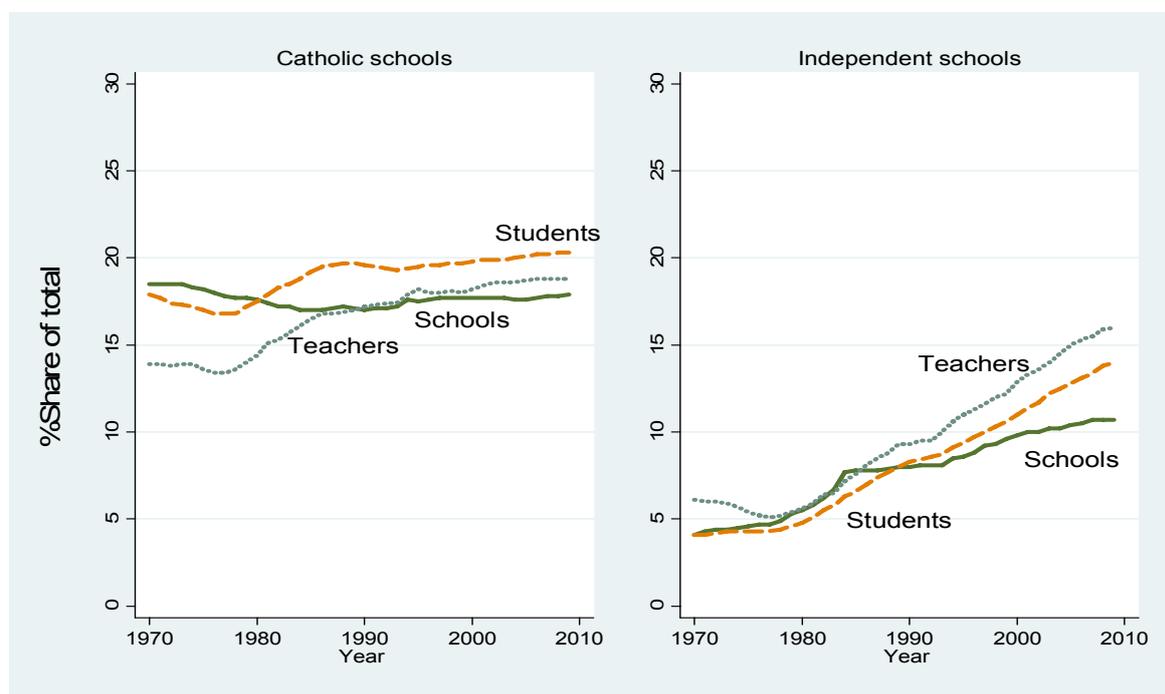
Figure 5 shows how the shares of schools, students and teachers in the Catholic and independent school sectors have changed since the 1970s. The trends in these aggregates are shown for the Catholic sector in the left panel and the independent school sector in the right panel.

The Catholic system has traditionally been the larger sector, though its shares show little growth since the late 1980s. In contrast, student, school and teacher shares of the independent school sector have been growing strongly since 1980 and the growth shows no sign of abating. In both sectors, schools are above average in size (the share of students exceeds the share of schools). In the independent sector, student–teacher ratios are lower than average (the share of teachers exceeds the share of students), while they are above average in the Catholic sector.

¹⁶ Australian Government Budget Papers, 2010–11, accessed at <http://www.budget.gov.au/>.

¹⁷ Funding to schools in the Catholic system also occurs on the basis of the SES of students. However, the money is paid to the Catholic education authorities, which have their own mechanisms for allocating the funding between schools.

Figure 5. School, student and teacher shares of total: Catholic and independent school sectors, 1970 to 2009



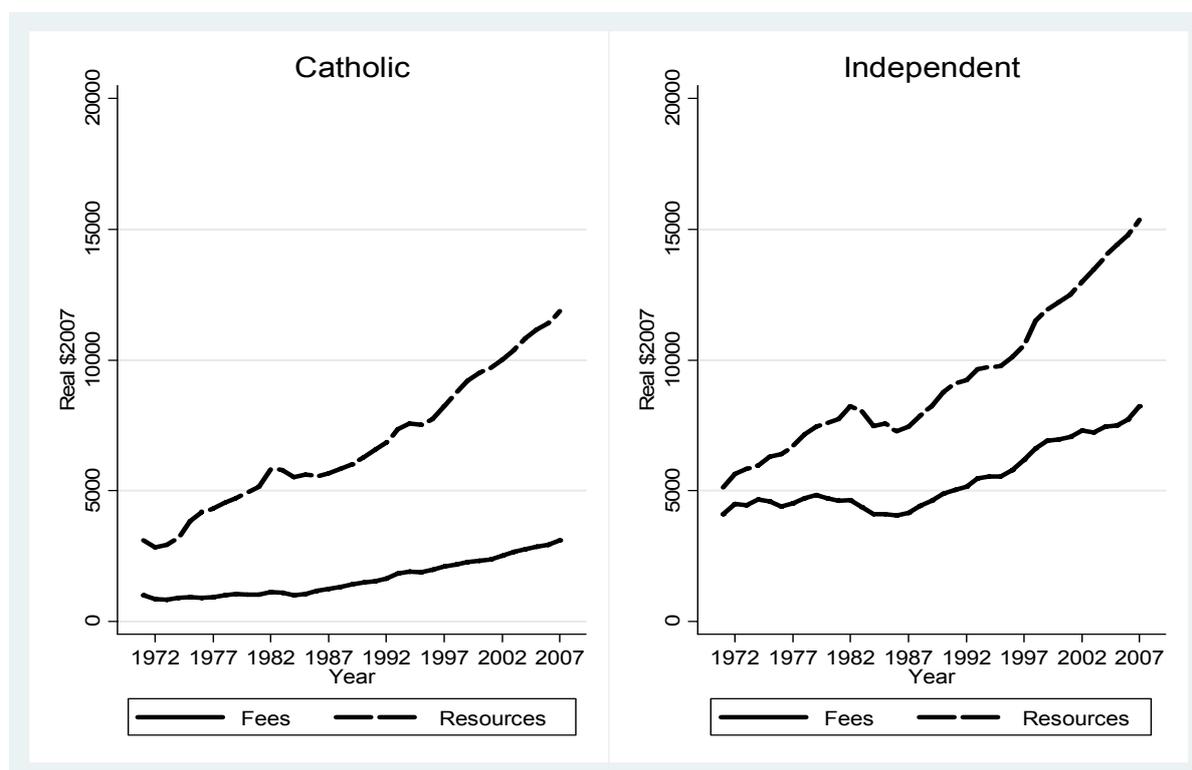
Source: Australian Bureau of Statistics, *Schools Australia*, Cat. No. 4221.0, various years.

What factors have driven attendance patterns at Australian private schools, and what could have driven the changes in attendance since the late 1970s? In recent research, we have examined the role played by a number of potentially important factors: fees; various dimensions of public and private school quality; household income and socio-economic status; household size; preferences resulting from religious affiliation; and the role of intergenerational factors. We now discuss each of these in turn.

Fees

Despite increased government funding, average real fees have increased substantially in both the Catholic and independent sectors since the late 1970s, as well as compared with average household incomes. In the independent sector, this has occurred despite most of the student growth occurring in low-fee schools. Trends in both real fees and real government grants to each sector are shown in Figure 6. With the growth in government funding since the 1970s, real per-capita resources available to private schools have increased by substantially more than the increase in fees.

Figure 6. Real secondary-school fees and per-capita resources (fees plus government grants): Catholic and independent school sectors, 1970 to 2007 (\$2007)



Sources: Education Ministers Council, *National Report on Schooling*, various years; Schools Commission, *Triennial Report*, various years.

The proportion of students who attend low-fee schools (the Catholic system plus those independent schools with similar fees) does not vary much with household income, while those who attend high-fee schools come overwhelmingly from the top of the income distribution.

School quality

Private schools used the increased government funding they received after 1970 to lower student–teacher ratios substantially, rather than to lower fees.¹⁸ The improvements in student–teacher ratios are apparent in Figure 5 and the increase in real fees can be seen in Figure 6. Student–teacher ratios fell relative to those in the government system over the period shown in Figure 5.

Students in private schools tend to experience learning outcomes that exceed those in public schools. Not all of these differences can be explained by the

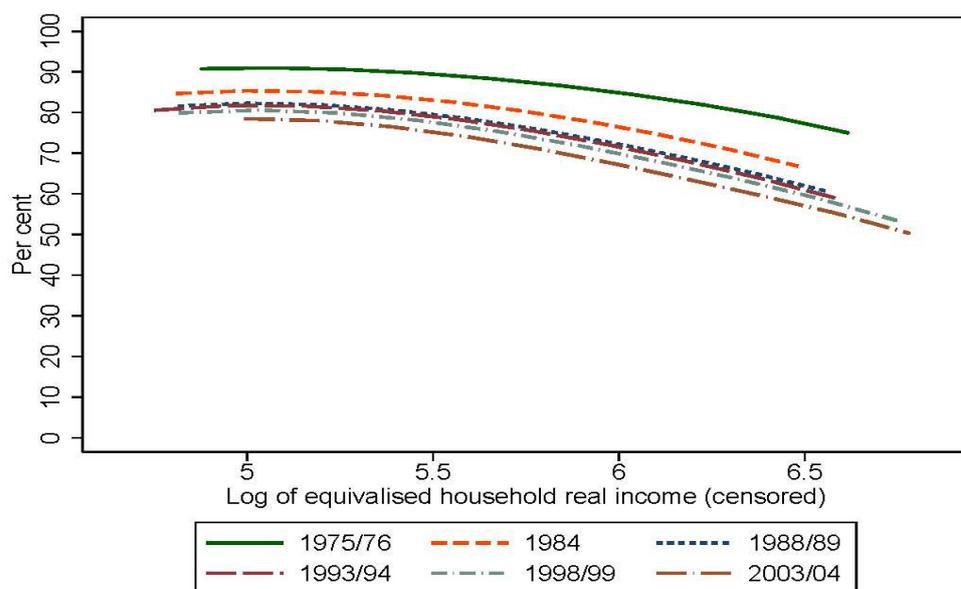
¹⁸ C. Ryan and L. Watson, ‘Choosers and losers: the impact of government subsidies on Australian secondary schools’, *Australian Journal of Education*, 2010, **54**, 86–107.

students' advantageous social backgrounds. Specifically, there is evidence of positive independent school sector effects on student outcomes, including university entrance scores. Aggregate Catholic school effects on university entrance scores are less robust.¹⁹

Household income and socio-economic status

While attendance at private schools is associated with household income at any point in time, changes in household income explain little of the growth in private school attendance in Australia, since household incomes changed only modestly in Australia between the 1970s and the 1990s. The propensity to attend low-fee schools increases only weakly with household income, while the propensity to attend high-fee schools is negligible over much of the income distribution but increases strongly at the top of the distribution.²⁰

Figure 7. Incidence of attending a government school by log of equivalised household real income, 1975–76 to 2003–04



Note: Unweighted regression sample.

Source: Australian Bureau of Statistics, *Household Expenditure Survey*, various years.

¹⁹ C. Ryan and L. Watson, 'The impact of school choice on students' university entrance rank scores in Australia', paper presented at Society of Labor Economists conference, London, June 2010.

²⁰ T. Gørgens and C. Ryan, 'Expenditure on private schooling in Australia', unpublished mimeo, Australian National University, 2010.

Broadly, the change in attendance incidence since the late 1970s was stronger at the top of the income distribution than it was at the bottom – around 20 percentage points at the top compared with 12 at the bottom. This difference is apparent in Figure 7, which shows the changes in the incidence across income levels of attending a *government* school since the mid-1970s. Similar patterns were observed when this change from the 1970s was looked at in terms of family SES, with more of the change occurring in the top half of the SES distribution.

Household characteristics

A number of characteristics of households appear to influence school sector choices differentially. These include the following:²¹

- Single parenthood – Children in households headed by a single parent are less likely than others to attend private schools, controlling for household income.
- Number of siblings – Previous studies have found that the more children there are in a household, the more likely it is to be Catholic, so these children are more likely to attend Catholic schools, while the fewer there are, the more likely they are to attend independent schools.²² In our research, which adjusts income for household size, additional use of sibling information suggests that increases in Catholic school attendance associated with the number of siblings are at the expense of attendance at government schools.
- Parental education – The children of more educated parents are more likely to attend private schools, notably independent schools.
- Intergenerational transmission – The children of parents who both went to Catholic schools or both went to independent schools are three and four times, respectively, more likely to attend the same type of school as their parents. Where parents' school types differed, their children were substantially more likely (than children whose parents both went to government schools) to attend a private school.
- Religious affiliation – Individuals who identify themselves or whose parents identify themselves as being religious are much more likely to attend a private school.

²¹ L. Dearden, C. Ryan and L. Sibieta, 'What determines private school choice? A comparison between the UK and Australia', unpublished mimeo, IFS, 2010.

²² For example, A. T. Le and P. Miller, 'Choice of school in Australia: determinants and consequences', *Australian Economic Review*, 2003, **36**, 55–78.

Policy lessons from Australia

The following policy lessons can be drawn from this analysis of the Australian experience with private schooling:

- While per-capita grants to private schools may increase the incidence of students attending them, they do not necessarily increase access at the bottom of the income distribution, especially to elite schools.
- Related to the previous point, per-capita grants may be used by schools, not to lower fees, but rather to improve the 'quality' of the education they provide their existing student base.
- The fastest student growth area in private schooling, low-fee private schools, are also the high-grant schools, so this growth has led to substantial growth in government expenditure.
- There has been growing concern about the relative funding of public and private schools in Australia, including among senior educators. The government announced a review of funding arrangements for all schools in April 2010.²³

²³ For details, see <http://www.deewr.gov.au/Schooling/Programs/Pages/FundingReview.aspx>.