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# School Vouchers

## An evaluation of their impact on education outcomes

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## Summary

For several years, conservative think tanks and their supporters have been campaigning for the introduction of a school voucher scheme in Australia. Under a voucher scheme, parents would receive government funding on a per child basis, which they could spend on a public or private school of their choice. Supporters of vouchers argue that by providing parents with greater choice, promoting competition and encouraging greater autonomy in the management of schools, vouchers would lead to improvements in teaching standards, student outcomes, parental satisfaction and equality of opportunity.

*The evidence on the effects of vouchers*

The difficulty for voucher advocates is that they are asking for a radical change to the structure of the school sector, but are unable to point to any persuasive evidence on the supposed educational benefits of these schemes. The main pillars of their case are that: voucher-induced competition would raise teaching standards and improve academic outcomes at both public and private schools; vouchers would generate a more cost-effective school sector; and vouchers would provide parents with greater choice. The only one of these arguments that is supported by the available evidence is that vouchers would increase parental choice, although these benefits would probably be largely confined to middle and high income earners.

Not only are the claims about the benefits of vouchers largely unsupported by the available evidence, but the research that has been undertaken also indicates that voucher schemes could have a number of adverse effects and that they are likely to be expensive.

*Financial cost to government*

The cost to the state of a voucher scheme would depend upon its design. However, the types of schemes favoured by many prominent voucher advocates would undoubtedly require a substantial increase in government funding.

To examine the budgetary implications of vouchers, the following four schemes are reviewed in this paper.

- Federal/state scheme. A universal flat-rate scheme that replaces all existing federal and state funding programs where the voucher amount is determined on the basis of the average cost of educating a student in a government school. Using the 2002/03 figures, under this scheme, the parents of all primary school students would be entitled to receive a school voucher worth $8,675.80 and the parents of all secondary school students would receive a voucher worth $11,072.50.

- Federal-level schemes. Three universal flat-rate schemes that replace all federal funding programs where the voucher amounts are $1,802, $3,000 and $5,000. The $1,802 voucher amount equates to the average federal government expenditure per student in government and non-government schools in 2002/03. The $3,000 and $5,000 voucher amounts were selected because they are in the range suggested by a number of voucher advocates.

Government expenditure on schools under the federal/state scheme would have been approximately $32 billion. By comparison, total government recurrent expenditure on schools in 2002/03 was approximately $27 billion, meaning the scheme would have cost $5 billion more than the existing funding system.

As Table S1 shows, the $1,802 voucher scheme would have produced a slight decrease in expenditure, which reflects the effects of rounding in determining the voucher amount. In contrast, the introduction of the $3,000 voucher scheme would have increased annual Federal Government expenditure by approximately $4 billion; from $6 billion to $10 billion. If the voucher amount was set at $5,000 per student, as suggested by Wilson Tuckey MP, Federal Government expenditure would have increased by around $10.6 billion.

**Table S1 Cost of federal-level schemes, 2002/03**

| School sector | Actual Fed. government expenditure ($'000) | Full-time equivalent students | Voucher - $1,802 per child ($'000) | Voucher - $3,000 per child ($'000) | Voucher - $5,000 per child ($'000) |
|---|---|---|---|---|---|
| **Government** | 2,133,333 | 2,266,868 | 4,084,896 | 6,800,604 | 11,334,340 |
| **Non-government** | 3,854,841 | 1,055,751 | 1,902,463 | 3,167,253 | 5,278,755 |
| **Total** | 5,988,174 | 3,322,619 | 5,987,359 | 9,967,857 | 16,613,095 |

Source: SCRGSP (2005; 2006).

*Redistribution of resources*

The introduction of the federal/state scheme would have three main immediate financial effects.

- Funding to government schools would remain unchanged, while funding to the Catholic and independent school sectors would increase substantially. If the scheme was introduced in 2002/03, government subsidies to Catholic schools would have increased by 76 per cent, while those to independent schools would have risen by a minimum of 129 per cent. This would have increased the average per student income of Catholic schools by approximately 55 per cent to $11,877 and independent schools by 51 per cent to $16,605, compared to the average government recurrent expenditure on public schools of $9,605 per student.

- While all non-government schools would probably experience an increase in government subsidies, the greatest beneficiaries would be wealthy non-government schools, particularly wealthy independent schools. This is because the current funding system is weighted in favour of poor schools and the Catholic school sector.

- Schools in rural and remote areas and schools with special needs (including those that cater for students with disabilities) would probably experience a decline in government funding.

In the long-term, the federal/state scheme would probably lead to an increase in the resource gap between government schools and well-off private schools, and between wealthy and poor private schools. This is because of the immediate redistribution of resources, a likely increase in the number of private schools and the proportion of students attending them, and upward pressure on tuition fees (especially amongst wealthier private schools) caused by the positional good characteristics of education. Due to the economies of scale associated with the operation of most schools, the loss of students in government and poor private schools could trigger a downward cycle, leading to the creation of sink schools that are severely disadvantaged and that have a high proportion of hard-to-teach students.

The introduction of the federal-level schemes (i.e. $1,802, $2,000 or $3,000 per student) would have four major immediate financial impacts.

- There would be a substantial increase in funding to the government school sector under all of the proposed voucher amounts – see Table S2.
- The immediate impact of a federal-level scheme on the Catholic and independent school sectors would be negative under a $1,802 and $3,000 voucher amount, but positive if the voucher amount was set at $5,000. Further, the independent school sector would be better off than the Catholic school sector under all of the proposed scenarios.
- The schemes would increase subsidies to wealthy non-government schools, while either disadvantaging, or providing little or no additional benefit to poor private schools.
- There is a risk that schools in rural and remote areas and schools with special needs would experience a decline in government funding.

**Table S2 Distributional effects of the federal-level schemes, 2002/03 and 2003 calendar year**

| School sector | Actual Fed. government expenditure ($'000) | Full-time equivalent students | Voucher - $1,802 per child $'000 (percentage change) | Voucher - $3,000 per child $'000 (percentage change) | Voucher - $5,000 per child $'000 (percentage change) |
|---|---|---|---|---|---|
| Government (2002/03) | 2,133,333 | 2,266,868 | 4,084,896 (+91%) | 6,800,604 (+265%) | 11,334,340 (+508%) |
| Catholic (2003) | 2,700,147 | 660,829 | 1,190,814 (-56%) | 1,982,487 (-27%) | 3,304,145 (+22%) |
| Independent (2003) | 1,242,355 | 404,544 | 728,988 (-41%) | 1,213,632 (-2%) | 2,022,720 (+63%) |

Source: SCRGSP (2005; 2006) and MCEETYA (2003).

The potential long-term impact of the federal-level schemes is difficult to predict. The evidence from voucher trials in other countries suggests that universal voucher schemes

are likely to result in an increase in private schools and a transfer of students from the government to the non-government school sector. However, the fact that the proposed federal-level schemes would result in a substantial increase in funding for government schools may result in the reverse occurring. The additional funding may reduce the resource gap, enabling new government schools to open and prompting many government schools to offer academic and non-academic services that were previously beyond their financial capacity. This could draw students back to government schools, leading to a further increase in government funding to public schools.

*Academic outcomes*

There are four main ways vouchers could affect academic outcomes:

- voucher-induced competition could improve teaching standards and associated services ('competition effects');
- vouchers could result in greater autonomy in the school sector (primarily through an increase in private schools), which voucher advocates argue would improve school services because schools with greater autonomy are more responsive to the needs of students and parents ('autonomy effects');
- vouchers could redistribute resources between government and non-government schools, and between wealthy and poor private schools, which could have repercussions for the levels of academic achievement ('resource effects'); and
- vouchers could cause greater sorting and segregation on the basis of academic ability and socio-economic status, which could drag down the average level of academic achievement and lead to greater inequality in student outcomes because of 'peer effects' (i.e. the notion that the composition of a school's student body has an influence on individual student outcomes).

Claims that voucher schemes in the United States and elsewhere have proven that vouchers lead to higher levels of academic achievement in private and public schools are false. The evidence on the effects of vouchers on academic outcomes is mixed – some positive, some neutral, some negative – although no study has found voucher schemes have a substantial effect on academic achievement. This suggests either that the claimed autonomy and competition effects are negligible, or that any positive effects that vouchers do have are offset by countervailing factors like peer and resource effects. The evidence indicates that a universal voucher scheme is unlikely to have a significant impact on the average level of academic achievement in Australia but that it might lead to greater educational inequality.

*Non-academic outcomes*

Voucher schemes could result in schools providing a selection of non-academic services for students that are more closely aligned with the preferences of parents. There is insufficient evidence to draw solid conclusions on this issue, although the fact that voucher schemes often report high take-up rates and high levels of parental satisfaction suggest it is a possibility. Yet, the effect of universal voucher schemes on the distribution of resources means that any non-academic benefits that do result from their introduction are likely to be skewed towards wealthier private schools.

*Sorting, human capital and equality of opportunity*

The evidence indicates that while there is already a considerable amount of segregation on the basis of academic ability and socio-economic status in Australia, there is a significant risk that a universal voucher scheme could exacerbate the problem. This could lead to lower levels of educational achievement and an increase in the inequality of education outcomes.

*Social cohesion and social capital*

The introduction of a universal voucher scheme could diminish the social cohesion and social capital benefits associated with education in a number of ways. It could trigger greater specialisation in the school sector, thereby reducing the capacity of schools to promote unifying social values. Vouchers could cause greater segregation on the basis of race, religion, academic ability and socio-economic status, which could lead to a loss of social cohesion and connectivity between different social groups. Vouchers could also result in a greater geographic dispersal of students, leading to a loss of community-specific social capital.

There is insufficient evidence to draw definitive conclusions on how a universal voucher scheme would affect social cohesion and social capital. However, these risks should be taken into account when evaluating the merits of voucher proposals.

*Cost-effectiveness*

Due to data limitations and difficulties associated with the measurement of education outcomes, it is currently virtually impossible to draw any meaningful conclusions about the cost-effectiveness of government and non-government schools. However, even if non-government schools were currently more cost-effective than government schools, this does not mean that a universal voucher scheme would lead to a more cost-effective school sector.

On the basis of the available evidence, it seems unlikely that a universal voucher scheme would increase the cost-effectiveness of the school sector. The data indicate that the positive affects of a universal voucher scheme are likely to be outweighed by the negative affects on educational achievement, equality of opportunity, social cohesion and social capital. Further, these outcomes would probably be achieved at a higher cost than under the current system. Government funding would probably have to increase substantially and there is a risk of an increase in wasteful private positional expenditure. A universal voucher scheme could also result in an increase in waste and non-productive expenditure due to greater variability in the school market and an increase in school marketing. These cost increases are unlikely to be offset by any productivity increases that are associated with competition effects and greater labour market flexibility.

*Separation of church and state*

Religious schools already receive generous subsidies under the current funding arrangements. However, a shift to a universal voucher system would probably increase taxpayer-funded religious instruction. This could give religious institutions a greater ability to influence public policy and result in an increase in funding for schools that may teach values that are inconsistent with the welfare of the general community.

*Conclusion*

On the basis of the available evidence, universal voucher schemes do not appear to be a cost-effective policy option because they are likely to be expensive, pose a significant risk to social cohesion and equality of opportunity, and are unlikely to significantly improve average academic outcomes. They could also further erode the separation of church and state.

Before governments consider universal voucher schemes, they should try less radical options, including changes in employment practices and wage scales to promote greater labour productivity and the redistribution of government resources towards the areas where they are likely to provide the greatest educational returns.

# 1. Introduction

A debate has arisen in recent times about school vouchers and their capacity to address what detractors say is the parlous state of Australia's public schools. To justify a switch to vouchers, proponents typically point to neo-classical economic theory that suggests that vouchers would stimulate greater competition between schools, leading to lower prices and a higher quality of education. As Peter Saunders from the Centre for Independent Studies has stated:

> [t]he solution to all this is well-known. Transfer the funds from the producers (the schools and the teachers) to the consumers (the parents) and let them decide how they want to spend the money. This way, good schools prosper, bad schools reform or go to the wall, and overall standards improve (Saunders 2001, p. 10).

The recent interest in voucher schemes forms part of an ongoing debate that has raged in a number of countries since the publication of Milton Friedman's 1955 critique of public education that suggested that vouchers would promote competition and greater efficiency in primary and secondary schools (Friedman 1955).[1] Various voucher models have been proposed and implemented, but their defining feature is that they all involve the provision of government education funding on a per student basis to the school of the parent's choice. This contrasts with traditional funding systems in many western countries, including Australia, where government grants are allocated primarily to public schools on the basis of the needs of each school and parents are given limited choice about which public school their children can attend. While parents are free to send their children to private schools, these schools receive less government funding than their public counterparts and rely mainly on tuition fees and donations for income.

Despite the popularity of the subject as a matter of public debate, only a small number of school voucher systems have been established. Several restricted or targeted voucher schemes have been trialled in the United States, and much of the literature on the subject concentrates on these schemes. Public voucher programs have also been in operation in Sweden and Denmark for a number of years and at least 12 Latin American countries now have voucher-like systems, including Belize, Chile, Guatemala and Colombia. The universal scheme that was introduced by General Augusto Pinochet's military regime in Chile in the early 1980s is amongst the most comprehensive currently in existence and has provided a considerable body of evidence on the impacts of these programs.

Borrowing from right-wing institutions in the United States, conservative Australian think tanks and their supporters have been promoting school vouchers in earnest since the early 2000s. Their strategy has been relatively simple: denigrate the public education system; blame its apparent flaws on teachers' unions and an allegedly

[1] Of the school voucher debates abroad, the discourse in the United States has probably attracted the most political, academic and media attention. Fuelled by right-wing think tanks like the Heritage Foundation, Cato Institute, Manhattan Institute, Heartland Institute and the Hoover Institution, the debate has been a central feature of popular political discussion in America for a number of years. School voucher debates have also been prominent in several other countries, including the United Kingdom, Sweden, Denmark, Colombia, Chile and New Zealand.

stifling bureaucratic system that is shielded from market influences; and then offer vouchers as one of the potential market-based solutions (Buckingham 2000a; 2001a; 2001b; 2002; 2006; Saunders 2001; Partington 2004; Lindsay 2004; *The Australian* 2005a; 2005b; Harrison 2005a). This strategy has perpetuated fears about public schools and teachers' unions and it seems to have had an influence on federal funding programs, but no attempt has been made to date to introduce a universal voucher scheme. This may be about to change as there is evidence of growing support for school vouchers within the Federal Government and some sections of the Australian Labor Party (Norrie and Doherty 2005; Karvelas and Maiden 2005; Fifield 2005; Maiden 2005; 2006; *The Age* 2006). According to Senator Mitch Fifield, chair of the Coalition's backbench committee on education, it is 'an idea whose time has come' (Fifield 2005).

The advocacy of school vouchers has occurred in the context of a broader debate concerning 'choice', the notion that parents should be given greater flexibility to make decisions about the education of their children. One of the main objects of the choice agenda is the separation of school subsidies from state provision of education. Vouchers are one method of achieving this; others include tax credits and charter schools.[2]

The choice agenda has received generous and often supportive coverage in some sections of the media, notably the Murdoch press, with little space provided for the potential pitfalls of these schemes. This paper seeks to help redress this imbalance by critiquing voucher schemes and providing some analysis of what they may mean for Australia's education system.

[2] The other major item on the choice agenda is the school curriculum and enabling parents to have greater control over what children learn.

# 2. The current situation

## 2.1 The existing funding system

A quasi-voucher system already operates in Australia under which a proportion of government funding is provided to both private and public schools on the basis of the number of students attending the school and the demographics of the student population.[3] One of the main means by which this occurs is through Commonwealth recurrent and establishment grant programs.

The General Recurrent Grants Programme is the core federal schools funding mechanism, accounting for around 80 per cent of Commonwealth school expenditure. This program is intended to help schools meet their recurring operating expenses such as teachers' salaries and maintenance costs (DEST 2006). Traditionally, non-government schools have been divided into two groups for the purposes of general recurrent funding: independent and Catholic (or Catholic systemic).

For all government and non-government schools, general recurrent grants are determined on the basis of the Average Government School Recurrent Costs (AGSRC) index, which is a measure of the average recurrent costs associated with educating a student in a government school.[4] However, different funding formulas apply in relation to each sector.[5]

Since January 2001,[6] general recurrent grants to most independent schools have been determined on a per student basis according to the socio-economic status (SES) of the school community.[7] The lower the SES score, the higher the per-student allocation and *vice versa*.[8] Independent schools with the lowest SES scores receive funding calculated at 70 per cent of the AGSRC per student and those with the highest SES scores receiving funding at 13.7 per cent of the AGSRC per student. At the time the SES system was introduced, the Government gave an undertaking that no school would be worse off under the new system. As a result, the independent schools whose general recurrent funding would have dropped as a result of the change to the SES

[3] For example, per student grants are available for students with disabilities and indigenous students.
[4] For a critique of the Federal Government's decision to shift from using the Schools Prices Index to the AGSRC, see Watson (2003).
[5] The following description of the general recurrent grant funding system draws heavily on Harrington (2006a).
[6] See *States Grants (Primary and Secondary Education Assistance) Act 2000* (Cwlth).
[7] Previously, the Educational Resources Index (ERI) was used to determine recurrent funding for private schools. Under this system, each school was allocated a score on the basis of their resources (or 'apparent private income') and the number of students. Using this score, schools were then allocated to one of 12 categories and the level of funding was determined on a per student basis according the category to which the school had been allocated (DEETYA 1997).
[8] There are exceptions to this principle. For example, non-government schools that cater for students with disabilities (called 'special schools') receive the top rate of SES funding irrespective of their SES score. In 2006, an additional category called 'special assistance schools' was created to enable non-government schools that 'cater for students with social, emotional and behavioural problems' to receive additional funding (Harrington 2006b, p. 3). There is no equivalent process under the General Recurrent Grants Programme for government schools that cater for students with disabilities or learning difficulties to receive additional funding, although like all schools they can receive additional funding under targeted programs such as the Literacy, Numeracy and Special Learning Needs Programme.

system had their funding levels maintained at their 2000 levels, with the amounts adjusted according to changes in the AGSRC.

In 2005, new census data was used to calculate the SES scores of independent schools for the period 2005 to 2008 and again the Government took steps to ensure that none of these schools would be made worse off as a result of the changes. Independent schools who previously had their funding maintained and whose funding would fall using the new data will continue to have their funding maintained at the AGSRC adjusted 2000 levels. In addition, independent schools whose general recurrent funding was determined using the SES system who would receive less funding using the new data will also have their funding maintained, only this time at the 2004 levels that are adjusted according to changes in the AGSRC.

Between 2001 and 2004, general recurrent grants to Catholic schools were also provided on a per student basis, although the SES model was not used. Rather, recurrent funding to Catholic schools was provided at a rate equal to 56.2 per cent of the AGSRC per student (the ACT Catholic schools received funding at 51.2 per cent). In 2005, Catholic schools were transferred over to the SES funding system. However, schools that would incur a drop in funding if the SES system was used have had their funding maintained at 2004 levels, which will be adjusted in accordance with changes in the AGSRC.

In contrast to non-government schools, general recurrent grants to government schools are not calculated using SES system. They are determined on a per student basis as a percentage of the AGSRC. All government primary schools currently receive general recurrent grants calculated as 8.9 per cent of the AGSRC per student, while government secondary schools receive 10 per cent of the AGSRC per student.

The end result of the General Recurrent Grants Programme, as well as related targeted funding initiatives, is that approximately 68 per cent of federal recurrent schools funding is directed to non-government schools, with the remaining 32 per cent going to government schools (SCRGSP 2006).[9]

As the name suggests, establishment grants are intended to assist new non-government schools ‘with costs incurred in their formative years and to enable them to be more competitive with existing schools’ (DEST 2006, p. 7). Funding is currently set at a flat rate of $500 per full-time equivalent (FTE) primary and secondary school student in the first year of the school’s operation and $250 per FTE student in the second (DEST 2005a).

In 2005, the former Commonwealth Minister for Education, the Hon. Dr Brendan Nelson MP, introduced another voucher-like scheme that enables students who fail to meet the Year Three minimum national reading benchmarks to obtain subsidised private tutoring (DEST 2005b).[10] As 2005 drew to a close, the former Minister also indicated that the Federal Government would investigate the creation of a voucher system for students with disabilities (Karvelas and Maiden 2005). This was followed by an announcement in the 2006 Federal budget that the Government would allocate

[9] Recurrent funding includes grants made under the General Recurrent Grants Programme and those made under targeted programs, but it excludes capital grants.
[10] The initial scheme was called the Tutorial Voucher Initiative. It was subsequently replaced by the Reading Assistance Voucher (Bishop 2006a).

'$5.8 million for a pilot study to examine current funding arrangements for students with disabilities and ways to maximise portability of funding to support parental choice' (Bishop 2006b). In addition, several Liberal backbenchers have reportedly called for the introduction of a universal national voucher system for preschools that would replace the current state funding systems (Karvelas 2005). The trend toward voucher schemes is likely to continue under the current Minister for Education, the Hon. Julie Bishop MP, who has indicated that the notion of vouchers appeals to her (Maiden 2006).

The existing and proposed voucher-like elements of the school funding arrangements are complemented by more traditional supply-side funding schemes that provide resources to public and private schools on the basis of school need. These include a number of state funding initiatives, as well as Commonwealth capital and targeted funding programs.[11]

The outcome of the current mixed funding system is that the majority of Commonwealth funding is directed towards private schools,[12] while the majority of state funding goes to government schools. In terms of total federal and state recurrent expenditure, approximately 21 per cent currently goes to non-government schools and 79 per cent goes to government schools (SCRGSP 2006). This division in resources has changed considerably over the last decade, with a greater proportion of Commonwealth funding being directed to private schools as a result of the Government's desire to promote choice (for example, through the adoption of the SES funding model for General Recurrent Grants) and the rise in the number of students attending private schools.

## 2.2 Growth in non-government schools

Since the late 1970s, there has been a drift in students from government to non-government schools. In 1979, approximately 78 per cent of full-time primary and secondary school students were educated in government schools, with the remaining 22 per cent attending non-government schools (ABS 2005). By 2005, the proportion of full-time primary and secondary school students in non-government schools had risen to 33 per cent and the proportion in government schools had fallen to 67 per cent (ABS 2006).

In terms of student numbers, approximately 1.1 million full-time school students attended non-government schools in 2005, up from a little over 650,000 in 1979. Students attending government schools have fallen from 2.34 million to 2.25 million between 1979 and 2005, although this trend has not been consistent across the states and territories. Queensland, Western Australia and the Northern Territory have all

[11] For example, the Capital Grants Programme provides funding to schools to construct and maintain school facilities. The Federal Government has also establish another infrastructure funding program, *Investing in Our Schools*, that is supposed to provide $300 million to non-government schools and $700 million to government schools over 2005 – 2008 (DEST 2005a; 2006; Harrington 2006b). The program has been criticised as it places a $150,000 limit on grants to government schools, but there is no equivalent restriction on grants to non-government schools (Harrington 2006b). There have also been accusations that grants made under the *Investing in Our Schools* program have been skewed toward Coalition electorates (Harrington 2006b).

[12] According to the 2006 Budget Papers, approximately 64 per cent ($5.8 billion) of total Federal Government school expenditure in 2006/07 will go to non-government schools, while the remaining 36 per cent ($3.2 billion) will go to government schools (Commonwealth of Australia 2006).

experienced notable increases in students attending both government and non-government schools since the 1970s (ABS 2005; 2006).

The growth in the non-government school sector is also reflected in school numbers. Between 1984 and 2005, the number of non-government schools grew from 2,481 to 2,694. Over the same period, the number of government schools fell from 7,544 to 6,929. Fluctuations in school numbers do not necessarily reflect changes in enrolments,[13] yet when these figures are combined with the statistics on student numbers, there is no doubt there have been a substantial increase in the non-government school sector and a relative stagnation in the government sector over the past 25 years (Wilkinson *et al.* 2004; ABS 2005; 2006).

The growth in non-government schools and student enrolments has not been uniform across the sector with some parts of the sector growing more rapidly than others. The number of independent schools has increased significantly since 1984, rising from 776 to 996, while the number of Catholic systemic schools has actually declined slightly, dropping from 1,705 to 1,698 (ABS 2005; 2006).

Anglican schools have experienced some of the most marked growth within the independent sector. According to the Independent Schools Council of Australia (ISCA):

> [s]mall, usually low-fee, Anglican schools have led the sector's growth since 1996, with an average annual growth rate of 25 per cent. In 2004 there were 6,190 students in smaller Anglican schools in Australia, compared to 1,106 students in 1996. The average annual enrolment growth of these schools was about 40 per cent over the past five years and has been particularly strong in New South Wales and Queensland (ISCA 2005a, p. 2).

Although smaller in absolute numbers, there has also been a significant increase in the number of students attending non-denominational, interdenominational, Christian, Lutheran and Islamic schools (ISCA 2005a; 2005b).

Based on current enrolment trends and birth rates, ISCA predicts that non-government schools (i.e. both Catholic and Independent schools) will educate 35 per cent of Australian students by 2010, up from 33 per cent in 2004 (ISCA 2005a).[14] It argues that the majority of the growth in the non-government school sector will come from independent schools, with their proportional share of enrolments rising from 14.3 per cent to 16.6 per cent over this period. Meanwhile, Catholic school enrolments are expected to stagnate, rising only slightly from 18.3 per cent to 18.5 per cent (ISCA 2005a).

The growth in the non-government sector is likely to be a product of a number of interrelated factors (Wilkinson *et al.* 2004). Generous government subsidies have

[13] For example, the amalgamation of two or more schools will result in a decrease in the number of schools without necessarily bringing about any change in enrolments.

[14] While this seems to be an optimistic projection, some proponents of school choice have suggested that the proportion of secondary students in non-government schools could be as high as 60 per cent in 2010 (Caldwell and Roskam 2002).

undoubtedly had a major impact,[15] as have changes in planning laws governing the development of new schools. Growing affluence has also provided more parents with the financial capacity to send their children to non-government schools that charge tuition fees. The perception, encouraged by conservative politicians and think-tanks, of declining standards in government schools may also be a contributing factor, along with community values regarding social mobility and religion.

[15] Commonwealth subsidies are the major issue here, although state and territory governments also provide a considerable amount of money to non-government schools. In New South Wales for example, there is a 'legislative requirement that non-government schools receive, on average, 25% of the average per capita cost to the state of educating a child in a government school' (Esson *et al.* 2002, p. 152). This requirement, combined with the drift in students towards non-government schools, has resulted in a substantial increase in state funding for non-government schools in recent times.

## 3. Voucher proposals

There are three main types of school voucher systems.

- Universal flat-rate schemes. All parents receive a voucher worth the same amount of money that can be used at the school of their choice.

- Universal but differentiated schemes. All parents receive a voucher that can be used at the school of their choice, but the value of the voucher varies depending on relevant socio-economic, geographic and personal factors. For example, low-income families could receive vouchers that are worth more than those given to high income families. Similarly, children living in rural and remote areas could receive more than those in urban areas.

- Targeted schemes. Only certain types of families or children receive vouchers that can be used at a school (or a collection of schools) of the parent's choice. For example, vouchers could be confined to low-income families, poorly performing students, children with disabilities or families in remote areas. Targeted voucher schemes are essentially a modified form of school scholarships, the main difference being that the scholarship money can be spent at a school of the parent's choice.

All three types of voucher schemes could operate by providing funding directly to parents (called a 'student-based voucher') or to the school of a parent's choice upon enrolment of their child ('school-based voucher') (Tokman Ramos 2002). A further point of variation is the extent to which schools that accept students with vouchers are regulated and, in particular, what restrictions are placed on their ability to accept and expel students and whether voucher schools are permitted to charge fees over and above the prescribed voucher amount (called 'top up fees').

There is also a need to determine whether voucher funding would incorporate all or only part of the available government funding. In Australia, for example, would the voucher scheme replace all federal and state funding mechanisms, or would it be confined solely to the Commonwealth level? Similarly, if it is limited to the federal level, would it replace all existing Commonwealth grants, or merely recurrent grants, leaving the capital grants programs in place?

Many Australian school voucher advocates have been reluctant to detail their favoured schemes. This has led to ambiguity regarding the types of voucher models proposed. Federal Liberal MP, Wilson Tuckey, has simply stated:

> I think we could pay about $5000 per student towards a voucher cashable at approved schools: that could be a private school, a Catholic school, or The King's (School, in Sydney) (Tuckey cited in Karvelas and Maiden 2005).[16]

Jennifer Buckingham, from the Centre for Independent Studies,[17] has been one of the most vocal proponents of school choice. Although initially preferring education tax

[16] Wilson Tuckey MP has also indicated that the value of some vouchers could be increased for disadvantaged students and those living in rural and remote areas (Karvelas and Maiden 2005).
[17] Buckingham is also the schools editor at *The Australian*.

credits, in recent years she has lent her support to the cause of vouchers. However, it is unclear which model she favours. At times, she has argued passionately for a universal flat-rate scheme. For example, in 2001, she stated that one of the two basic principles that underpin school choice is that 'all parents should be entitled to the same basic level of public financial support for their children's education' (Buckingham 2001a, p. 18). Later in the same article, she wrote:

> [w]e are yet to see a government brave enough to offer public subsidies to all students on an equal basis, irrespective of choice of school. But this is precisely what is needed to bring about sustained improvement in schooling and to provide real equity in education (Buckingham 2001a, p. 24).

Similarly, in 2003, she stated that '[u]nder child-centred funding, every child would be entitled to a level of funding giving access to the state school of his/her choice' (Buckingham 2003).

Yet, Buckingham has also made statements supporting a universal but differentiated voucher scheme based on relevant economic and educational factors. In critiquing the federal Australian Labor Party's education policy in 2004 in *The Australian*, she stated that:

> [a]rguments for a student-based funding system – an education entitlement that could be adjusted according to financial and educational need, have always been strong. … This would create parity among families (a means-tested entitlement would give poorer families an advantage), it would decentralise decision-making and allow all schools the discretionary resources they need (Buckingham 2004).

The Institute of Public Affairs, another long-time choice advocate, appears to prefer the universal but differentiated approach. According to Geoffrey Partington writing in the IPA Review (2004, p. 22):

> [i]n the best schemes, the value of vouchers is likely to be higher for children with physical or other learning handicaps, and for rural and isolated children, because of the economics of scale that work in favour of urban centres. Critical to the success of voucher schemes is that they should be based on the needs of families, not of schools.[18]

In contrast, *The Australian*, which has been keen to push voucher proposals in its editorials, appears to support a universal flat-rate scheme (*The Australian* 2005a; 2005b). Similarly, John Phelan, writing in the February 2006 edition of *The Conservative*,[19] has supported a universal flat-rate scheme, arguing that it should replace all existing federal and state school funding systems (Phelan 2006).[20] In a

[18] See also King *et al*. (2004), writing in a paper published by the Melbourne Institute for Applied Economic and Social Research, who support a universal but differentiated voucher scheme over a flat-rate approach.

[19] *The Conservative* is a quarterly magazine that was launched in September 2005 by the Prime Minister. The editorial committee of the magazine includes a number of Coalition members, including Senator Santo Santoro.

[20] Phelan states: '[p]ut simply, the total [government] funding of primary and secondary education in Australia would be calculated, and then divided by the number of students. Hey presto, a 'per student'

report prepared for the Liberal think tank, the Menzies Research Centre, Caldwell and Roskam (2002) also propose a comprehensive voucher scheme to replace all existing government funding mechanisms. However, they favour a universal but differentiated voucher scheme based on the concept of 'educational need'.

> The amount of government support for students' education should be based on the average cost of educating a student at a government school adjusted upward where required according to a schedule of costs based on educational need (Caldwell and Roskam 2002, p. 5).

As this brief overview of the opinions of voucher proponents demonstrates, a wide variety of voucher schemes have been proposed and no unified position has been reached amongst choice advocates. However, the information that is publicly available on the position of Australian voucher supporters suggests the following.

- Most voucher advocates support a universal scheme rather than a targeted approach.
- There seems to be some support for a federal-level voucher scheme, although the preference is for a comprehensive system that replaces most, if not all, existing federal and state government funding programs.
- There is a considerable amount of support for both universal flat-rate voucher schemes and differentiated schemes where variations in the voucher amount are based on family income or the needs of students.
- There are few domestic voucher advocates who support placing tight restrictions on top-up fees (Buckingham 2001b; Harrison 2005a; Phelan 2006), some even suggesting that tuition fees should be tax deductible (Caldwell and Roskam 2002).
- There is little support amongst voucher advocates for schemes that involve placing restrictions on private schools governing student selection, employment and other operational issues (Buckingham 2001b; Harrison 2005a).

cost of education is found. Each student (or more accurately, the student's parent) would be given a voucher to the value of that amount, to be cashed by the school, which would then be able to convert its vouchers into its government funding' (Phelan 2006, p. 16). See also Harrison (2004; 2005a; 2005b) who favours a predominantly universal flat-rate scheme where the only variation is for students with disabilities.

## 4. The arguments for vouchers

School voucher proposals are associated with a broader neoconservative agenda based on the work of free-market economists like Friedrich August von Hayek and Milton Friedman. Underpinning this agenda is a belief in the virtues of individualism and the superiority of the market as a means of maintaining social order and maximising wellbeing. Advocates of this position are suspicious of government involvement in the economy as they see it as interfering with the will of the individual and obstructing the operation of market forces. They also tend to view personal choice as being more important than social or collective ideals.

Drawing on this ideology, Friedman and other voucher advocates have tended to criticise public schools, arguing that many education problems are attributable to the inefficiencies associated with government bureaucracies and the influence of political interest groups like teachers' unions. Harrison (2005b, pp. 211 – 212), for example, has stated that:

> [p]ublic provision has failed. The government does a poor job in providing education, even on criteria such as promoting equity. The problems are inherent in public provision. Those in charge simply do not have the information or incentive to satisfy consumers, control costs, innovate, or encourage good teaching.

To resolve these failures, choice advocates suggest the answer lies in the utilisation of market forces to drive innovation, productivity gains and greater responsiveness of schools to parental demands. Vouchers are one means of stimulating these market-based reforms.

Choice advocates commonly use four arguments to support the introduction of vouchers.[21]

- They would promote competition and an expansion of the private sector, leading to better education outcomes.
- They would lead to a better fit between the school services offered and those demanded.
- They would give parents greater control over the education of their children.
- They are fairer because they would ensure parents receive a more equal government allocation to assist with the education of their children.

*Competition, private schools and education outcomes*

Central to the argument in favour of vouchers is the notion that they would encourage greater competition between schools and an expansion of the private school sector, leading to improved education services and outcomes. In most cases, voucher advocates focus on the competition that vouchers could stimulate and the resulting

[21] See Chubb and Moe (1990); West (1997); Buckingham (2000a; 2000b; 2001a; 2001b); Saunders (2001); Gill *et al.* (2001); Neal (2002); Farrelly (2005); and Harrison (2004; 2005a; 2005b).

impacts on education quality (i.e. the 'competition effects'). As Belfield (2003, p. 1) explains:

> [i]n economic theory, when there is more competition among providers, prices consumers pay for services are lower. In addition, suppliers must accept lower profits, resulting in the survival of only the most efficient ones. In the education sector, where "consumers" are parents/children and "suppliers" are schools/districts, theoretically, more competition should translate into higher quality schooling and enhanced education outcomes.

Choice advocates suggest that voucher schemes can increase competition by giving more parents the ability to 'vote with their feet' by switching schools if they are not happy with the performance of their current school (Phelan 2006). Both public and private schools would, therefore, be forced to compete for students, resulting in lower school fees and improvements in performance. West (1997, p. 86) writes:

> [b]ecause it has no other direct government subsidy, each school is thus in competition with every other school for students. Good schools attract many students, redeem many vouchers, and prosper. Inferior schools, avoided by parents, are stimulated to improve or must close down.

Some choice advocates also suggest that the potential education benefits associated with vouchers are linked to the fact that voucher schemes are likely to lead to greater autonomy in the school sector, primarily through an increase in private schools (Buckingham 2000a; 2002; 2006; Harrison 2005a). This argument is based on the assumption that private schools are more effective than public schools in achieving education outcomes because they adapt quickly to change and are more responsive to the needs of students and parents, which is allegedly a product of having greater freedom from a centralised bureaucracy (what we call 'autonomy effects') (Chubb and Moe 1990; Buckingham 2002; Harrison 2005a).

*Tailoring services – the fit between parents' expectations and schools*

Closely related to the above argument is the notion that voucher schemes would promote greater flexibility in the school market, thereby encouraging schools to offer education services that are tailored to the specific preferences of parents and the needs of children. The tailoring could involve teaching certain religious or social values, providing specific subjects (or placing additional emphasis on certain subjects), or employing different types of teaching methods. If the changes resulted in a better fit between the services provided and those demanded it could result in higher levels of satisfaction with the school system.

The capacity of vouchers to encourage a better fit between the school services provided and those demanded is another product of competition. According to the theory, the threat of losing students would drive schools to ensure their services match consumer preferences.

*Parental choice*

Another prominent argument advanced by voucher supporters is that vouchers would enable a greater proportion of parents to send their children to the school of their

choice, which would lead to better education, social and parental outcomes. There are three strands to this argument.

- That the ability to send your child to a school of your choice is a right and that providing this right to a greater proportion of parents promotes greater equality of opportunity – the opportunity being the ability to determine which school your child attends (Goldring and Shapira 1993; Gill *et al.* 2001; Coons 2005). According to Gill *et al.* (2001, p. 4), school choice:

  > … is a basic parental right that the existing system grants only to those who can afford private-school tuition or a home in the suburbs.[22]

- That parents are in the best position to determine the needs of their children, hence any measure to improve school choice is like to lead to better education and social outcomes (Bast and Walberg 2004; Coons 2005; Harrison 2005b).

- That school choice generates higher levels of parental and student investment in education, leading to greater satisfaction and better outcomes (West 1997; Coons 2005; Harrison 2005b). Coons (2005, p. 606) argues that the lack of choice undermines the integrity of the family unit because compulsory schooling without the ability to determine the school the child attends leaves parents 'essentially impotent'. Buckingham (2001b, p. 21) even argues that:

  > instead of mitigating the effects of family circumstances, enforced common schooling amplifies it by removing the opportunity for disadvantaged families to enhance their relative position. Poor or uneducated parents who cannot choose the school that offers the best opportunity for their children have no way of overcoming their social or economic disadvantage.[23]

*Fairness*

Some voucher advocates have argued that voucher schemes would be fairer because parents would receive a more equal allocation from the government for the education of their children rather than the amount of the subsidy fluctuating substantially depending on the type of school their child attends (Buckingham 2000a; *The Australian* 2005b; Phelan 2006). This is a procedural concept of equity that has become increasingly popular since the Howard Government came to power in 1996. It suggests that equity objectives are fulfilled when every person receives an equal amount, which is contrary to the traditional notion of fairness that looks at the needs of the recipient.

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[22] See also *The Australian* (2005b), which states, 'for the majority of parents who are now obliged to send their kids to the nearest school to home, whatever its failings, [a voucher scheme] would give them something that should be their's by right – a choice in their child's education'.

[23] There are a number of flaws in this argument, including the fact that the available evidence indicates that parents of low socio-economic status are less willing and able to use vouchers to expand their choices than those from higher socio-economic backgrounds. In addition, unless restrictions are placed on the capacity of private schools to charge compulsory fees above the prescribed voucher amount, voucher schemes can lead to low-income families having little or no choice about which school to send their children. See Section 8.5 for further details about this issue.

In support of this argument, voucher advocates have suggested that the current school funding system forces parents with children at private schools 'to double-pay for their children's education' (Buckingham 2000a, p. 7; Lindsay 2004; *The Australian* 2005b). The following extract encapsulates this idea.

> Parents of children in private schools are taxpayers. The proportion of their tax that goes into the government funding of education is the same as that for the parents of children in public schools. Yet the parents of private school students receive a much smaller proportion of this back in the form of education services. The remainder of their tax stays in the public system. These parents, because they prefer not to send their child to a public school, are faced with further out-of-pocket expenses for school fees. Therefore, they pay for their child's education twice, and in doing so they are effectively subsidising the public system (Buckingham 2000a, pp. 2 – 3).[24]

[24] Again, there are a number of problems with this argument. Given Australia's progressive tax system, wealthy parents will always be 'effectively subsidising the public system', or at least the education of the less well-off, unless education allocations are made in proportion to tax contributions. Further, under the preferred voucher proposals, many parents and guardians who send their children to private schools would still face 'further out-of-pocket expenses for school fees' because the schools will charge top-up fees. That is, to use Buckingham's terminology, they would still be 'forced to double-pay for their children's education' (Buckingham 2000a, p. 7). In addition, in some cases, parents whose children attend public schools also subsidise private schools that their children are unable to attend because of entry restrictions (for example, that they subscribe to particular religious beliefs).

# 5. The arguments against vouchers

## 5.1 Why does the state have an interest in education?

The starting point for any critique of voucher proposals is to determine why the state has an interest in education. The two grounds that are most commonly cited relate to efficiency and equity.

*Efficiency arguments*

There are two efficiency arguments that justify the state's involvement (i.e. the provision or subsidisation of education) in education.

- There are spill-over effects associated with education, meaning schooling generates benefits that accrue to both the students and the broader community. This can occur as a direct result of the enhancement of human capital (i.e. the development of the knowledge and skills of individuals). For example, education can promote innovation that creates employment, increases productivity and raises living standards. Similarly, education can play an important role in the development of social capital (i.e. networks that facilitate cooperation) by encouraging the acceptance of unifying social values and ensuring that people have the ability to communicate effectively. In doing so, education can increase wellbeing and economic growth by reducing transaction costs and social conflict, improving democratic processes and promoting compliance with social norms (Gradstein and Justman 2002; Fischel 2006).[25] Due to poverty, neglect and the fact that the positive spill-over effects of education cannot be internalised by students, there is a risk that without government intervention there could be a sub-optimal level of school attendance and investment in education. In other words, if families were left to their own devices, the level of education that children receive may be less than the amount necessary to maximise wellbeing.

- Banks and other financial institutions are often unwilling to provide loans to students at rates that they (or their families) can afford. This is due to the uncertainties associated with education and the asymmetries of information between lenders and students (i.e. lenders are unable to accurately evaluate the earning capacity of students so they refuse student loans or seek higher returns to compensate for the risk). The inability of students to raise capital to finance their education may lead to a sub-optimal level of education in the community, which stifles economic growth and lowers wellbeing.

*Equity and equality of opportunity*

Consistent with the widely-held belief in the notion of a 'fair go', *The Adelaide Declaration on the National Goals for Schooling in the Twenty-first Century*, which was signed by the Federal Government and all state and territory governments in

[25] Fischel (2006) argues that public schools are important in the development of social capital that facilitates the provision of local public goods (i.e. it enables the creation of local groups that are a cost-effective means of providing public goods and services like lobbying local governments, policing neighbourhoods and building parks).

1999, adopts equality of opportunity as a guiding principle of Australia's schools policy. It states that:

> Schooling should be socially just, so that:
>
> 3.1 students' outcomes from schooling are free from the effects of … differences arising from students' socio-economic background or geographic location.
>
> 3.2 the learning outcomes of educationally disadvantaged students improve and, over time, match those of other students.
>
> 3.3 Aboriginal and Torres Strait Islander students have equitable access to, and opportunities in, schooling so that their learning outcomes improve and, over time, match those of other students.[26]

This objective suggests that all students should have access to roughly the same quality of school education other than those who face specific disadvantages who should receive additional assistance.

An alternative interpretation of equality of opportunity is that each student should receive the same quality of education regardless of their background. As Brighouse (1998, p. 138) has stated:

> … the quality of the education received by each child should be independent of the level of wealth, education, and wise choice-making ability of his or her parents.

Some choice advocates reject equality of opportunity altogether, arguing that equity objectives are satisfied by merely ensuring that every child at least has access to an 'adequate minimum education' (Tooley 1995). This position has received little support from domestic choice proponents who have preferred to argue that voucher schemes are simply a better way of ensuring equality of opportunity (Buckingham 2001b; Phelan 2006).

### 5.2 Why vouchers are not a cost-effective policy option

Accepting that the state has a legitimate role in the provision of education, a critical question for policy makers is: what is the most cost-effective way to obtain the benefits of education? Achieving this objective involves maximising the public and private benefits of education at least cost to society and consumers (i.e. parents and guardians).

As Levin and Belfield (2004, p. 11) have argued, debates about school vouchers are often dominated by two groups of people:

> those who see elementary and secondary schooling as an experience that should be guided primarily by private values and goals and those who see it as an experience designed to mould citizens and society through addressing social goals.

[26] *The Adelaide Declaration on the National Goals for Schooling in the Twenty-first Century*.

Choice advocates tend to place a premium on parental choice and competition and, in doing so, often downplay the social cohesion and equality of opportunity objectives of education. They accept that the state has a legitimate role in education, but contend that it should be confined to subsidising schooling rather than actual service delivery.

In contrast, many voucher critics see social cohesion and equality of opportunity as more important than parental choice and have little faith in the ability of markets to generate educational improvements. For this group, public schools have an inherent advantage in developing unifying social values and social capital and are better at promoting equality of opportunity.

The division of voucher debates into these camps can crowd out those who see schooling as providing both public and private benefits and who want policy decisions to be made on the basis of an evidence-based weighing of the costs and benefits of voucher schemes. In the United States, it appears that both voucher advocates and opponents have been guilty of exaggerating the extent to which the evidence supports their causes. Similar trends have been seen in Australia, with supporters of vouchers demonstrating a willingness to present a distorted picture of the research data on the effects of voucher schemes.

Part of the problem is that there is a considerable amount of conflicting data on the effects of vouchers on academic outcomes and the extent to which vouchers could erode social cohesion and equality of opportunity. The variability of the evidence has left room for advocates and opponents alike to be selective in their use of research results. However, policy makers should weigh up all the available data to determine whether voucher schemes would be a cost-effective way to improve education outcomes.

The evidence on the effects of vouchers on academic outcomes is mixed – some positive, some neutral, some negative – although no study has found voucher schemes have a substantial effect on academic achievement (Levin and Belfield 2004). This suggests either that the claimed autonomy and competition effects associated with vouchers are negligible, or that any positive effects that vouchers do have are offset by countervailing factors. The two most likely countervailing factors are peer effects and resource effects.

Peer effects refer to the notion that the composition of a school's student body has an influence on individual student outcomes (McEwan 2000a; Ryan and Watson 2004). The general assumption is that the characteristics of the student population (for example, the proportion of talented students and the socio-economic backgrounds of students) produce 'a dominant ethos that impacts on individual student achievement' (Ryan and Watson 2004, p. 36). The evidence indicates that peer effects can have a significant impact on academic outcomes,[27] suggesting that schools with a large proportion of hard-to-teach students and students from low socio-economic backgrounds are likely to have lower levels of academic achievement than other schools. Consequently, if vouchers lead to greater sorting and segregation on the basis of academic ability and socio-economic status, peer effects could drag down the average level of academic achievement and lead to greater inequality in student

[27] See Epple and Romano (1998); Feinstein and Symons (1999); McEwan (2000a); Ladd (2002); McEwan and Marshall (2004); Ryan and Watson (2004); and Gibbons and Telhaj (2005).

outcomes. Greater sorting and segregation could also adversely affect social cohesion and social capital by undermining the capacity of the education system to promote unifying social values and reducing the links between different socio-economic and cultural groups.

There is evidence that voucher schemes can cause greater sorting and segregation on the basis of academic ability and socio-economic status.[28] However, the nature of the segregation risk is dependent on the design of the voucher scheme and the level of segregation in the current school sector. The evidence indicates that while there is already a considerable amount of segregation on the basis of academic ability and socio-economic status in Australia (Ryan and Watson 2004), there is a significant risk that a universal voucher scheme could exacerbate the problem.

Resource effects describe the capacity of school resources to influence student outcomes. The weight of evidence suggests that school resources are positively related to academic achievement – more resources lead to better outcomes. However, the impact of school resources on average outcomes appears to be relatively modest compared to other factors.[29] Notwithstanding the relative weakness of the relationship between resources and average achievement, there is little doubt that resources can have a significant influence on outcomes at particular schools (for example, those that cater for students with disabilities and students from disadvantaged backgrounds) (Angus *et al.* 2004). School resources can also have a substantial effect on non-academic outcomes and levels of student enjoyment. Therefore, if voucher schemes increase the resource gap between schools, they could lead to greater inequality in education outcomes.

As with peer effects, the risks associated with the redistribution of resources are dependent on the characteristics of the voucher scheme. Universal schemes that aim to provide students with the same or a similar voucher amount are likely to lead to a widening of the resource gap between government and non-government schools, and between wealthy and poor private schools. As resources are redirected away from the areas of greatest need, this could result in a decline in average academic achievement and greater educational inequality.

Acknowledging the limitations of the available data, universal voucher schemes do not currently appear to be a cost-effective policy option because they are likely to be expensive, pose a significant risk to social cohesion and equality of opportunity, and are unlikely to significantly improve average academic outcomes. They could also further erode the separation of church and state. Sections 6 to 12 below will further evaluate the evidence behind these conclusions by looking at: the cost of universal voucher schemes; the distributional effects of universal voucher schemes; the impact of universal voucher schemes on education outcomes; the potential for vouchers to increase sorting and segregation; how vouchers would affect social cohesion and the development of social capital; the cost-effectiveness of universal voucher schemes; and vouchers and the separation of church and state.

[28] Epple and Romano (1998); McEwan (2000a); Ladd (2002); Neal (2002); Saporito (2003); Gonzalez *et al.* (2004); Ryan and Watson (2004); and Ladewski (2005).
[29] See Scheerens and Bosker (1997); Marks *et al.* (2001); Levacic and Vignoles (2002); and Ram (2004). See also Hanushek (1986) and Hanushek (1998).

# 6. The cost of universal voucher schemes

## 6.1 Selecting a voucher model

The cost to the state of a voucher scheme would depend upon its design. It is feasible that voucher schemes could cost the state less than the existing school funding arrangements. However, the types of schemes favoured by many prominent voucher advocates would undoubtedly require a substantial increase in government funding.

This point is conceded by a number of voucher supporters (Levin and Driver 1997; Levin 1998), including Buckingham (2001b, p. 20), who has stated that:

> [a]llocating full funding equal to the cost of educating a child in the public system to all children (many of whom currently receive only a fraction of this amount) would require governments to spend several billion dollars more on schooling.

To examine the budgetary implications of vouchers, the following four schemes are reviewed in this paper.

- Federal/state scheme. A universal flat-rate scheme that replaces all existing federal and state funding programs where the voucher amount is determined on the basis of the average cost of educating a student in a government school. In 2002/03, average government recurrent expenditure per student in public primary and secondary schools (which includes depreciation and user cost of capital) was approximately $8,675.80 and $11,072.50 respectively (SCRGSP 2005; 2006; MCEETYA 2002; 2003).[30] Consequently, under the federal/state scheme, the parents of all primary school students would be entitled to receive a school voucher worth $8,675.80 and the parents of all secondary school students would receive a voucher worth $11,072.50.

- Federal-level schemes. Three universal flat-rate schemes that replace all federal funding programs where the voucher amounts are $1,802,[31] $3,000 and $5,000.

The rationale behind analysing the federal-level schemes is that there appears to be little support for voucher schemes amongst state and territory governments. Even

[30] These figures were obtained from Tables 3A.7 - 3A.9 in SCRGSP (2005) and Tables 3A.1 – 3A.3 in SCRGSP (2006) and checked using the figures from MCEETYA (2002; 2003). They include a notional user cost of capital amount calculated as eight per cent of total written down value of land and other assets as at 30 June 2003. To ensure greater comparability with non-government school figures, out-of-school costs were added to in-school costs on the basis of average student numbers in government schools at the relevant school levels in 2002 and 2003. The AGSRC was not used as it excludes capital items like depreciation and user cost of capital (DEST 2005a), meaning that it provides a less accurate measure of the true cost of operating government schools.

[31] The amount of $1,802 was chosen as it equates to the average federal government expenditure per student in government and non-government schools in 2002/03. It was calculated by adding total Commonwealth recurrent, capital and joint program expenditure in 2002/03, and then dividing that by the total number of full-time equivalent students (SCRGSP 2005). The $3,000 and $5,000 voucher amounts were selected as they are in the range suggested by a number of voucher advocates.

within the Federal Government the support is not overwhelming. In September 2005, the former Federal Education Minister, the Hon. Dr Brendan Nelson MP, explicitly ruled out a universal scheme, saying that he was:

> … strongly opposed to a voucher model for funding for schooling right across the country (Nelson cited in Maiden 2005).

The Prime Minister has also reportedly ruled out a universal program at this point in time (Maiden 2006). However, there have been reports that a number of Federal Government backbenchers and the current Federal Education Minister, the Hon. Julie Bishop, are more supportive of vouchers. The Education Minister has stated that she is:

> … quite supportive of the notion of vouchers across the board. … The notion of vouchers to give parents choice is a notion that appeals to me. There are a whole range of areas where tutorial vouchers could be utilised (Bishop cited in Maiden 2006).[32]

The lack of support for universal voucher schemes from within the Federal Government is likely to be due to a number of factors, including political and constitutional restrictions. In particular, the Commonwealth does not have any express head of power under the Australian Constitution to pass laws with respect to schooling.[33] As a result, school policy has traditionally been a state responsibility. For the Commonwealth to implement a federal/state universal voucher scheme it would have to wrest control of school education from the states and territories. Given this, any voucher system that may be trialled in the near future is likely to be confined to federal-level funding, or a particular state or territory. Consequently, the analysis presented here is weighted in favour of the federal-level schemes. The federal/state scheme is included to provide some insight into the consequences of the schemes favoured by voucher advocates.

## 6.2 Federal/state scheme

Government expenditure on schools under the federal/state scheme in 2002/03 would have been approximately $32 billion – see Table 1 below. By comparison, total government recurrent expenditure on schools in 2002/03 (which includes user cost of capital and depreciation in government schools) was approximately $27 billion (SCRGSP 2005).[34] Consequently, if the federal/state scheme was in operation in 2002/03, it would have cost government approximately $5 billion more than the existing funding system.

[32] Although this statement suggests the Minister may support universal voucher schemes, she may have been referring to tutorial vouchers and other targeted schemes that provide assistance to children with special needs. Indeed, the Ministers comments were made in the context of the release of preliminary statistics from the Year Three reading benchmarks Tutorial Vouchers Initiative.

[33] The Federal Government generally relies on its fiscal powers to engage in issues involving public and private schools.

[34] Calculating the exact amount of government expenditure on schools in 2002/03 is difficult due to data limitations and the fact that school reporting is now done on an accrual basis. The $27 billion figure is arguably the best available estimate (see SCRGSP 2005).

**Table 1 Cost of federal/state scheme, 2002/03**

| School level | Voucher ($) | Full-time equivalent students* | Cost ($'000) | Estimated actual government expenditure ($'000) | Variance ($'000) |
|---|---|---|---|---|---|
| **Primary** | 8,675.80 | 1,931,721 | 16,759,225 | nda | nda |
| **Secondary** | 11,072.50 | 1,390,898 | 15,400,718 | nda | nda |
| **Total** | **n/a** | **3,322,619** | **32,159,943** | **27,029,868** | **5,130,075** |

Source: SCRGSP (2005; 2006) and MCEETYA (2002; 2003).
* Calculated as the average number of full-time equivalent students for 2002 and 2003.
nda = no data available.

### 6.3 Federal-level schemes

In 2002/03, the introduction of the $3,000 federal-level scheme would have increased annual Federal Government expenditure by approximately $4 billion; from $6 billion to $10 billion – see Table 2. If the voucher amount was set at $5,000 per student, as suggested by Wilson Tuckey MP, Federal Government expenditure would have increased by around $10.6 billion. In contrast, if the voucher amount was set at $1,802, there would be a slight decrease in expenditure, which reflects the effects of rounding in determining the voucher amount.

**Table 2 Cost of federal-level schemes, 2002/03**

| School sector | Actual Fed. government expenditure ($'000)** | Full-time equivalent students* | Voucher - $1,802 per child ($'000) | Voucher - $3,000 per child ($'000) | Voucher - $5,000 per child ($'000) |
|---|---|---|---|---|---|
| **Government** | 2,133,333 | 2,266,868 | 4,084,896 | 6,800,604 | 11,334,340 |
| **Non-government** | 3,854,841 | 1,055,751 | 1,902,463 | 3,167,253 | 5,278,755 |
| **Total** | 5,988,174 | 3,322,619 | 5,987,359 | 9,967,857 | 16,613,095 |

Source: SCRGSP (2005; 2006).
* Calculated as the average full-time equivalent student numbers for 2002 and 2003 (SCRGSP 2006, Table 3A.1 – 3A.3).
** Calculated as total federal government expenditure on recurrent, capital and joint programs (SCRGSP 2005, Table 3A.6). Expenditure on joint programs was divided between government and non-government schools on the basis of the number of full-time equivalent students in 2002/03.

In reality, if a federal-level voucher scheme was introduced, the state and territory governments would probably respond by altering their budget allocations for government and non-government schools. For example, if the federal government offered a $3,000 or $5,000 voucher, the state and territories would be tempted to cost-shift by reducing grants to government schools. In relation to a $1,802 or $3,000 federal voucher, the resulting fall in non-government school funding may create

political opportunities and prompt state and territory governments to increase grants to these schools. Yet, given the Federal Government's policy that no non-government school will lose funding as a result of changes to the General Recurrent Grants Programme, it is highly unlikely that a voucher scheme would be introduced that resulted in a fall in funding to the non-government school sector.

The other unknown factor associated with both the federal/state and federal-level schemes is how it would affect the distribution of students. This is discussed in Section 7 below.

# 7. Redistribution of resources

## 7.1 Relationship between resources and outcomes

Before examining how the introduction of voucher schemes would affect the distribution of resources between school sectors, it is necessary to establish why school resources are important.

The most obvious answer is that school resources are positively related to academic outcomes – the more resources a school has, the greater the likelihood that the students will achieve good academic results. As discussed in Section 5, there is a considerable amount of statistical evidence that supports this hypothesis. However, much of this evidence suggests that resource effects are relatively modest compared to other factors.[35]

The reasons why increases in school resources do not seem to generate substantial improvements in average academic outcomes are not clear. One explanation is a weakness in the statistical research that has been undertaken. Resource levels can influence a number of other factors that affect student outcomes, including teacher quality, school culture and the classroom environment (Ram 2004; Marks *et al.* 2001). It is possible that researchers have been unable to adequately control for these interrelated factors when studying the effects of resources on academic outcomes.

Even if school resources only have a relatively modest effect on average academic outcomes, there is little doubt that they can have a substantial impact on outcomes at particular schools. For example, schools with a high proportion of students with disabilities and children with behavioural problems can benefit greatly from additional resources (Angus *et al.* 2004).

In addition, resources can influence non-academic student outcomes, including the development of social skills, physical fitness and the levels of enjoyment that students derive from their education. There is a lack of data on the precise nature of the relationship between resources and non-academic outcomes. However, it seems self-evident that students that have greater access to sporting, musical and other similar facilities are more likely to develop skills that are related to these activities than students that do not have the same opportunities. Similarly, the demand for schools that offer these facilities indicates that parents believe they add something to their children's development.

Consequently, it is clear that access to resources has a significant influence on the ability of schools to produce academic and non-academic outcomes. Given this, in evaluating the merits of voucher schemes, it is important to determine how they would affect the distribution of resources between and within school sectors.

The remainder of this section reviews the likely impact of the universal voucher scheme proposals identified in Section 6 on the distribution of resources between and within the government and non-government school sectors.

[35] See Scheerens and Bosker (1997); Marks *et al.* (2001); Levacic and Vignoles (2002); and Ram (2004). See also Hanushek (1986) and Hanushek (1998).

## 7.2 Immediate distributional effects of the federal/state scheme

The adoption of the proposed federal/state scheme based on the cost of educating a child at a government school in 2002/03 (i.e. $8,675.80 per primary student and $11,072.50 per secondary student) would have three main immediate financial impacts.

*Increase in funding to Catholic and independent schools*

Funding to government schools would remain unchanged, while funding to the Catholic and independent school sectors would increase substantially – see Table 3. If the scheme was introduced in 2002/03, government subsidies to Catholic schools would have increased by 76 per cent, while those to independent schools would have risen by a minimum of 129 per cent.[36]

**Table 3 Distributional effects of federal/state scheme - government funding, 2002/03 and 2003 calendar year**

| School sector | Actual government expenditure ($'000) | Full-time equivalent students | Voucher outcome ($'000) | Variance ($'000) | Change (%) |
|---|---|---|---|---|---|
| **Government** | | | | | |
| Primary* | 12,044,555 | 1,388,291 | 12,044,535 | -20 | |
| Secondary* | 9,728,072 | 878,577 | 9,728,044 | -28 | |
| **Total (2002/03)** | 21,772,627 | 2,266,868 | 21,772,579 | -48 | 0 |
| **Catholic** | | | | | |
| Primary | nda | 365,087 | 3,167,422 | nda | |
| Secondary | nda | 295,742 | 3,274,603 | nda | |
| **Total (2003)** | 3,661,653 | 660,829 | 6,442,025 | 2,780,372 | +76 |
| **Independent** | | | | | |
| Primary | nda | 181,223 | 1,572,255 | nda | |
| Secondary | nda | 223,321 | 2,472,722 | nda | |
| **Total (2003)** | 1,765,025 | 404,544 | 4,044,976 | 2,279,951 | +129 |

Source: SCRGSP (2005; 2006) and MCEETYA (2002; 2003).
* Student numbers calculated as the average number of students for 2002 and 2003.
nda = no data available. Neither the MCEETYA reports (2002; 2003) nor the SCRGSP (2005; 2006) reports provide a breakdown of expenditure on Catholic and independent schools by level of school education.

Based on the private and public sources of income for non-government schools in 2003, this would have increased the average per student income of Catholic schools by approximately 55 per cent to $11,877 and independent schools by 51 per cent to

[36] The analysis of the impacts of the voucher schemes on government schools is based on 2002/03 data, while the impacts on non-government schools are evaluated using 2003 data. This discrepancy is due to limitations in the information that is published by the federal and state governments.

$16,605, compared to the average government recurrent expenditure on public schools of $9,605 per student – see Table 4.[37] Put another way, total income per student would have been roughly 70 per cent higher in independent schools than in public schools, while Catholic schools would have had around 24 per cent more income than public schools. Clearly, this proposal would result in the government school sector being significantly disadvantaged compared to the non-government school sector.

**Table 4 Distributional effects of federal/state scheme – total per student funding, 2002/03 and 2003 calendar year**

| School Sector | Total per student income - actual ($) | Private per student income – actual ($) | Averaged voucher amount ($) | Total per student income ($) | Change (%) |
|---|---|---|---|---|---|
| Government* (2002/03) | 9,605 | 0 | 9,605 | 9,605 | 0 |
| Catholic (2003) | 7,670 | 2,129 | 9,748 | 11,877 | +55 |
| Independent (2003) | 10,969 | 6,606 | 9,999 | 16,605 | +51 |

Source: SCRGSP (2005; 2006) and MCEETYA (2002; 2003).
* Assumes that the only source of funding for public schools is government grants.

*Wealthy non-government schools the major winners, particularly wealthy independent schools*

The greatest beneficiaries under the federal/state scheme would be wealthy non-government schools, particularly wealthy independent schools. This is a result of the current funding arrangements. Government subsidies to non-government schools are generally weighted in favour of poor schools and those that cater for students from low socio-economic backgrounds. Consequently, while most non-government schools are likely to benefit from the federal/state scheme, wealthy schools that cater for students from high socio-economic backgrounds are likely to experience the greatest increase in government funding. This is illustrated by the Federal Government's funding programs.

The Commonwealth currently provides around 72 per cent of total government subsidies to non-government schools and the bulk of federal funding is made via the General Recurrent Grants Program (SCRGSP 2006). The SES funding model that is used to determine general recurrent grants to non-government schools is intended to

[37] Due to data limitations and differences in the methods used to compile statistics on public and private schools, it is difficult to make comparisons between the average incomes in the government and non-government school sectors. Government recurrent expenditure on public schools is used as the best available estimate of income in the government school sector. This includes depreciation and user cost of capital (which inflates the estimate), but it does not include private sources of income (which lowers the estimate). There is evidence that private donations are an important source of funding for the majority of government schools, although the amount raised by the sector is relatively small compared to the amount available to non-government schools and it varies considerably depending on parents' and supporters' willingness and capacity to pay (Martin 2005; ISCA 2006).

ensure that schools with parents from higher SES areas receive less per student than those from low SES areas. At the top end of the scale, schools with an SES score of 130 or above receive $902 per primary student and $1,178 per secondary student. At the bottom end of the scale, those with an SES score of 85 or less receive $4,606 per primary student and $6,017 per secondary student (DEST 2005a) – see Table 5. Given this funding system, under the federal/state scheme where all students would receive a voucher worth the same amount, schools with a high SES score are likely to obtain a greater increase in funding than those with a low SES score.

The funding system that is used for the purposes of the General Recurrent Grants Programme has also ensured that average per student allocations to government schools are less than the average allocations to independent schools, which are lower than the average grants to Catholic schools. As a result, the introduction of the federal/state scheme would increase average per student allocations to independent and Catholic schools, but the increase would be greater in the independent school sector.

**Table 5 SES funding levels for private schools (selected intervals), 2005**

| SES score | Primary rate (per student $) | Secondary rate (per student $) |
|---|---|---|
| 130 or greater | 902 | 1178 |
| 125 | 1316 | 1719 |
| 120 | 1724 | 2252 |
| 115 | 2139 | 2794 |
| 110 | 2547 | 3327 |
| 105 | 2961 | 3868 |
| 100 | 3369 | 4401 |
| 95 | 3784 | 4943 |
| 90 | 4192 | 5476 |
| 85 or less | 4606 | 6017 |

Source: DEST (2005a).

*Loss of resources in needy schools*

Government and non-government schools that are located in rural and remote areas or that cater for hard-to-teach students and students with disabilities often receive more government funding than other schools. Consequently, the introduction of a flat-rate voucher system is likely to result in a decline in government funding to schools with special needs and schools in rural and remote areas. These distributional effects could be offset by other funding programs, but this would place additional pressure on an already highly inflated budget for primary and secondary education.

### 7.3 Immediate distributional effects of the federal-level schemes

The introduction of the proposed federal-level schemes (i.e. $1,802, $2,000 or $3,000 per student) would have a number of immediate financial impacts including the following.

*Increase in funding to the government school sector*

The introduction of the scheme would be a positive development for the government school sector. This is because under the current system, approximately 32 per cent of federal schools funding goes to government schools, which are responsible for the education of around 68 per cent of primary and secondary school students, while the remaining 68 per cent goes to non-government schools (SCRGSP 2005; 2006). Consequently, assuming there is no change in enrolments between sectors, the shift to a flat-rate scheme for federal grants would result in a substantial increase in funding to the government school sector under all of the proposed voucher amounts – see Table 6. With a $1,802 voucher, federal funding to the government school sector would have increased by approximately 91 per cent in 2002/03. If a $5,000 federal voucher scheme was introduced in 2002/03, funding to government schools would have increased by almost $9.5 billion, or a little over 500 per cent.

**Table 6 Distributional effects of the federal-level schemes, 2002/03 and 2003 calendar year**

| School sector | Actual Fed. government expenditure ($'000) | Full-time equivalent students | Voucher - $1,802 per child $'000 (percentage change) | Voucher - $3,000 per child $'000 (percentage change) | Voucher - $5,000 per child $'000 (percentage change) |
|---|---|---|---|---|---|
| Government (2002/03) | 2,133,333 | 2,266,868 | 4,084,896 (+91%) | 6,800,604 (+265%) | 11,334,340 (+508%) |
| Catholic (2003) | 2,700,147* | 660,829 | 1,190,814 (-56%) | 1,982,487 (-27%) | 3,304,145 (+22%) |
| Independent (2003) | 1,242,355* | 404,544 | 728,988 (-41%) | 1,213,632 (-2%) | 2,022,720 (+63%) |

Source: SCRGSP (2005; 2006) and MCEETYA (2003).
* Calculated from Table 23 in MCEETYA (2003) by multiplying Federal Government grants per student by the number of full-time equivalent students in the relevant school sector.

*Variable impact on the non-government sector, with the independents better off*

The immediate impact of a federal-level scheme on the Catholic and independent school sectors would be negative under a $1,802 and $3,000 voucher amount, but positive if the voucher amount was set at $5,000 – see Table 6. Further, the independent school sector would be better off than the Catholic school sector under all of the proposed scenarios. If a $1,802 federal voucher was introduced for the 2003 calendar year, Federal Government funding to Catholic schools would have fallen by approximately 56 per cent, compared to a drop in federal funding to independent

schools of 41 per cent. Similarly, under a $3,000 voucher, federal funding to Catholic and independent schools would have fallen by 27 per cent and two per cent respectively. Under a $5,000 voucher, federal funding to Catholic schools in 2003 would have increased by 22 per cent, while the independent school sector would have seen federal funding rise by 63 per cent.

*Intra-sector impacts*

The introduction of a federal-level flat-rate voucher scheme would have a substantial impact on the distribution of resources within the Catholic and independent school sectors. The schemes would increase subsidies to elite and well-off non-government schools, while either disadvantaging, or providing little or no additional benefit to, less well-off private schools. This is a result of the existing federal funding system. For example, if a $5,000 voucher was introduced in 2005, independent schools with students from the highest socio-economic areas would experience federal funding increases of between 325 per cent and 450 per cent (see Table 5). Meanwhile, some of the poorer independent schools could experience funding cuts of up to around 20 per cent. Even amongst the non-government schools that would experience funding increases, the greatest beneficiaries would be the wealthier schools.

In addition, less well-off non-government schools would often be unable to raise fees to make up for any funding shortfall that arises from the introduction of the scheme. Further, as is discussed in Section 11 below, there is a significant risk that fees at well-off non-government schools would increase as school administrators and parents seek to protect their positional advantage (Chen and West 1996; Adnett and Davis 2002). The end result is likely to be a widening of the resource gap that already exists between wealthy and poor private schools.

A federal-level flat-rate scheme could also affect the distribution of resources within the government sector with schools in rural and remote areas and schools with special needs (for example, those that cater for students with disabilities) potentially experiencing a decline in government funding. The extent to which this could occur is difficult to evaluate and there is a possibility that state and territory governments could reallocate funding to mitigate any adverse funding affects on needy schools. However, there remains a risk that a significant number of these schools would experience a reduction in funding if a flat-rate federal-level scheme was introduced.

### 7.4 Long-term distributional effects

*Federal/state scheme*

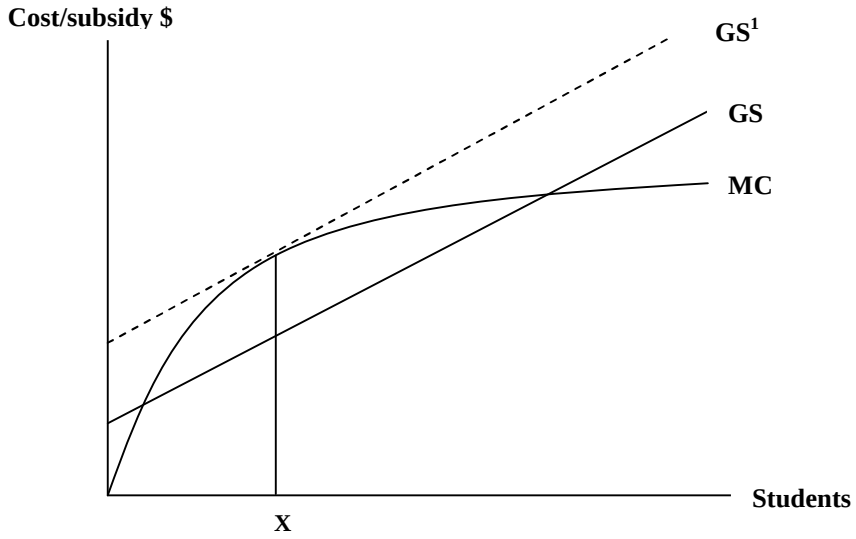
The evidence suggests that a federal/state scheme, which appears to be the model preferred by most voucher advocates, is likely to lead to an increase in the resource gap between government schools and well-off private schools, and between wealthy and poor private schools. There are three main factors that give rise to these risks.

Firstly, as discussed, the immediate effects of the federal/state scheme would be to substantially increase the subsidies to the Catholic and independent school sectors, with wealthy non-government schools (particularly those from the independent school sector) experiencing the greatest funding increases.

Secondly, the introduction of the scheme is likely to lead to an increase in the number of private schools and the proportion of students attending them. Growth in the private sector following the introduction of voucher schemes has been observed in several countries, most notably in Chile, where over 1,000 new private schools were established after its universal voucher scheme commenced in the early 1980s (McEwan 2001). There are a number of factors that are likely to drive the shift towards the private sector, including the resource advantage of non-government schools and the positional good characteristics of schooling. Yet, irrespective of the causes, any shift in students away from the public sector would lead to a decline in the resources available to public schools.

At first glance, it may appear that the transfer of students from the government to non-government school sectors would not have a substantial negative effect on public schools as they would have the same amount to spend on each pupil. However, there are significant economies of scale associated with the operation of most schools, especially those in the public sector. That is, a large proportion of the costs of operating a school are fixed costs, meaning that once essential overheads have been met, the marginal costs associated with admitting additional students is low. With a voucher system that provides a fixed per student subsidy, the loss of a pupil is likely to result in a net financial loss to the school. This is illustrated in Figure 1 below.

**Figure 1 Economies of scale and long-term effects of a universal voucher scheme**




The marginal costs of operating the public school are depicted in the MC curve. The GS (government subsidy) line represents the fixed subsidy per student that would be available under a voucher scheme. The marginal costs are initially large due to the need to purchase or lease the school grounds and buildings and pay other overheads – illustrated by the sharp gradient of the MC curve between 0 and student X. Beyond student X, the marginal cost of enrolling pupils is declining; each extra student costs less to educate than the previous one. Also, once X is reached, the voucher amount paid by the government exceeds the marginal cost of schooling so that the school makes a marginal gain on each additional student.[38] After annual operating expenses have been met, the profit made on the additional enrolments provides a source of

[38] As the $GS^1$ line illustrates, beyond point X, the gradient of the GS line is greater than that of the MC curve.

funding for future investments and extra services. Yet in the opposite scenario the loss of a student leads to a drop in revenue that is greater than any associated cost savings. This cuts into the sources of capital available to schools to maintain and update facilities and fund services that are necessary to guarantee a quality education.

Consequently, as the resources available to public schools decline as a result of the redistribution of students, facilities deteriorate and services are cut back, creating an incentive for more parents to move their children into the private sector. Poor private schools could suffer similar experiences as relatively well-off parents who are able to pay top-up fees move their children to better resourced schools. The ultimate outcome in certain areas may be 'sink schools' that are highly under-resourced and only service hard-to-teach students and those from low socio-economic backgrounds.[39] To some extent this is already occurring. The drift of students away from the public sector has increased the average cost of educating a child in a government school (i.e. the AGSRC). Because federal recurrent grants are based on the AGSRC, as it has increased, so too have subsidies to the private sector. The resulting widening of the resource gap sets up a 'self-reinforcing circle where the rich schools get richer and the poor schools get poorer' (Gittins 2005).[40] While this problem already exists, a universal voucher scheme is likely to magnify its severity and accelerate the declining popularity and viability of the public sector.

The third factor that would widen the resource gap is that many private schools would probably increase their tuition fees in response to the voucher scheme in order to maintain their positional advantage over public schools and other non-government schools.[41] Therefore, as the resources available in government schools stagnate or decline, those available in many private schools would increase as a result of growth in both private and public sources of funding.

The negative impact of a federal/state scheme on the government school sector is unlikely to be distributed evenly across all government schools. Some government schools may prosper as they find ways to attract students and obtain new sources of revenue.[42] However, overall, it seems likely that a federal/state voucher scheme would ultimately lead to a decline in resources at most government schools and a widening of the resource gap between government and non-government schools.

*Federal-level schemes*

The evidence from voucher trials in other countries suggests that universal voucher schemes are likely to result in an increase in private schools and a transfer of students from the government to the non-government school sector. Consequently, as discussed above, there is a risk that any federal-level scheme could exacerbate the current drift away from government schools, which would reduce federal funding to government schools. The transfer of students to the non-government sector could also lead to a decline in state and territory expenditure on government schools, although any decrease in expenditure is likely to be less than proportional to the shift in

[39] The risks associated with segregation, sorting and sink schools are discussed in greater detail in Sections 9 and 10.
[40] See Watson (2003) for further details on the inequities associated with the use of the AGSRC.
[41] See Section 11 for further details of this argument.
[42] See DEST (2005c) for analysis of why certain government schools are in high demand.

students due to the universal service obligations imposed on government schools and the economies of scale associated with operating schools.

Although a shift towards the private provision of school education is possible, the fact that the proposed federal-level schemes would result in a substantial increase in funding for government schools may result in the reverse occurring. The additional funding may reduce the resource gap, enabling new government schools to open and prompting many government schools to offer academic and non-academic services that were previously beyond their financial capacity. This could draw students back to government schools, leading to a further increase in government funding to public schools.

### 7.5 Summary

In summary, the introduction of a federal/state universal voucher scheme would probably result in an immediate widening of the resource gap between government and non-government schools, and between wealthy and poor private schools. It would also probably lead to a reduction in funding to schools with special needs and schools in rural and remote areas. These effects undermine the objective of equality of opportunity, while raising questions about the cost-effectiveness of the scheme in generating academic and non-academic outcomes because returns on investment are likely to be higher in poor schools and schools with special needs. Due to the difference in resources, economies of scale associated with schooling and the positional good characteristics of education, the long-term effects of such a scheme are likely to be a shift in students away from the public sector and a further widening of the resource gap between government and non-government schools, and wealthy and poor private schools. The ultimate outcome could be a public sector that acts only as an under-resourced safety-net for hard-to-teach students and those from low socio-economic families and a number of private ‘sink schools’ that perform a similar function.

The establishment of the federal-level schemes would result in an immediate and substantial increase in funding to government schools, as well as potentially reducing government funding to Catholic and independent schools. Further, a flat-rate federal voucher scheme would favour both the independent school sector over Catholic schools and wealthy over poor private schools. There is also a risk that schools in rural and remote areas and schools with special needs would experience a decline in government funding. The long-term effects of a flat-rate federal-level voucher scheme are less certain than those associated with a federal/state model. The outcomes would ultimately depend on how parents and schools respond to the scheme, although there is a significant chance it may lead to an increase in the proportion of students at government schools and the resources at government schools.

# 8. Effects on education outcomes

## 8.1 How would vouchers affect outcomes?

As discussed in Section 4, the claim that voucher schemes would lead to improved student outcomes is generally based on the orthodox economic theory that competition generates improvements in the efficiency of producers. According to the theory, when schools are faced with the threat of losing students and funding, standards improve, which leads to better student performance and greater parental satisfaction.

There are several aspects of the market for schooling that could be affected by voucher-induced competition, the main ones being:

- the mix of services that are offered by schools (for example, the curriculum, teaching methods, facilities, discipline, etc.);
- the prices charged for the services; and
- labour and capital productivity (i.e. how effective schools are in producing the desired outcomes).

The focus of much of the voucher debate has been on productivity and, more specifically, whether these schemes would improve the skills and knowledge of students. Choice advocates claim that voucher schemes would promote innovation, efficiency improvements and beneficial changes in the labour market for teachers and principals, leading to better academic outcomes. They often use two arguments to support this assertion (Buckingham 2002; 2004; 2006; Harrison 2005a; 2005b). Firstly, they claim that private schools produce better academic results than public schools because they are more autonomous and responsive to change (i.e. autonomy effects). As a result, any mechanism that promotes the proliferation of private schools would lead to improvements in the skills and knowledge of students. Secondly, it is argued that competition brought about by vouchers would result in improvements in academic performance at both public and private schools (i.e. competition effects).

As discussed, while the evidence on the impact of vouchers on student performance is mixed, no study has found that vouchers have substantial positive or negative effects on academic achievement. This suggests either that the claimed autonomy and competition effects are negligible, or that any positive effects that vouchers do have are offset by counteracting factors like peer and resource effects. Although there is insufficient evidence to draw definitive conclusions on the effects of voucher schemes, the available data suggest that they are unlikely to have a significant impact on average academic outcomes but there is a risk they could lead to greater educational inequality.

## 8.2 Measuring school performance

One of the major limitations in education policy debates concerning choice is that it is extremely difficult to evaluate the effectiveness of different school sectors. There are disagreements about what is the best way to measure student performance (Rowe *et al.* 1999; Rowe 2000), and above all else, how to control for the various factors that

influence outcomes (Gannicott 1997; Rouse 1998a; Long *et al.* 1999; Rowe 2000; McEwan 2000a; 2000b; Marks *et al.* 2001).

Student achievement is a product of many things, including teacher quality, access to resources, peer ability and performance, school culture, parental education and occupation, family wealth, parental involvement, personal talent and expectations. Many of these factors are interrelated. For example, schools with a high proportion of children from disadvantaged backgrounds may have discipline problems that make it difficult to attract effective teachers, which then impacts on the school culture and parental aspirations, which then feeds back into student results. Controlling for the influence of these interrelated factors to identify the impact of school type is a difficult task that leaves considerable room for variation in the methods employed by researchers.[43] Due to these problems, as well as data limitations and difficulties associated with establishing rigorous education experiments, the available literature on public and private school performance and voucher schemes provide few conclusive answers to the critical policy questions.

The remainder of this section analyses the domestic and international evidence concerning the relative performance of public and private schools and the likely impacts of the introduction of a universal voucher scheme on student outcomes.

### 8.3 Public vs. private schools

There is evidence that children who attend non-government schools in Australia have higher test scores, school completion rates, and rates of entry and participation in tertiary education than those who attend public schools, even after controlling for other relevant factors such as prior achievement and socio-economic background (Long *et al.* 1999; Rowe 2000; Marks *et al.* 2001; McMillan and Marks 2003). However, in many cases, the advantage conferred by the non-government sector is relatively small and many of these differences have declined in recent times (Marks *et al.* 2001). Further, as most researchers are keen to emphasise, the reasons for these superior results remain unclear. In particular, it is uncertain whether these outcomes are a product of socio-economic, peer and resource factors, or matters that are associated with the structure and administration of schools in the non-government sector.

These issues are illustrated in the research undertaken by Marks *et al.* (2001). They found that students at independent schools achieved an Equivalent National Tertiary Entrance Rank (ENTER) score that was, on average, approximately 12 points higher than those at public schools, while the mean score for Catholic students was six points higher than that achieved in public schools. When controls were introduced for past academic achievement and socio-economic issues, the difference between independent and public schools dropped to six ENTER score points and the difference between Catholic and public schools fell to five points. Controlling for a collection of contextual effects such as the academic environment of the school, socio-economic context, student engagement with the school and classroom climate further reduced the difference, leaving a relatively small 3.4 ENTER score point gap between

[43] See Gannicott (1997); Rouse (1998a); Long *et al.* (1999); Rowe (2000); McEwan (2000a; 2000b); and Marks *et al.* (2001).

independent and public schools and a 2.9 point gap between Catholic and public schools.[44]

These results suggest that non-government schools confer an advantage on their students, yet it is unclear what precisely this benefit is and why it occurs. It may simply be that the research methods employed were imperfect and that they did not adequately control for all relevant variables (Long *et al.* 1999; Keating 2004). As Long *et al.* (1999, p. 109) state candidly in the context of their research on completion rates and participation in higher education:

> [t]hese results could be simply a reflection of the fact that our measurement of family background and other characteristics is imperfect … and that the comparisons are not all else equal.

There are also a number of possible explanations that are unrelated to methodological issues, including the following.

- Test orientation – there is a possibility that some non-government schools are more test- and graduation-orientated than public schools.[45]

- Student types – the inter-sectoral differences may be a product of the types of students that attend non-government schools. For example, the students and their parents may have higher aspirations and motivation. Marks *et al.* (2001) argue that these factors are unlikely to explain their findings. However, given the nebulous nature of these issues and the difficulties associated with controlling for their impacts, it would be premature to dismiss them as a possible explanation.

- School culture – private schools may be better at creating school cultures that are conducive to learning than public schools (McEwan 2000a). This could be a result of a combination of factors, including the selectivity of private schools, their ability to expel students (i.e. a deterrent effect) and the different socio-economic backgrounds of students at government and non-government schools.

- School autonomy and flexibility – many choice advocates argue that the differences between the school sectors are due to the fact that private schools are more autonomous and are better able to respond to the needs of students and teachers (Chubb and Moe 1990; Buckingham 2002; Harrison 2005a; 2005b).

- Resource gap – non-government schools often have more resources than government schools, which may directly or indirectly affect student outcomes.

[44] For independent schools, academic environment appeared to have the greatest influence amongst the tested contextual effects. In relation to Catholic schools, it appeared to be classroom climate.

[45] Evidence that students from non-government schools are more unsettled when undertaking tertiary education than those from government schools (McMillan 2005) could be a product of an over-emphasis on test results and structured learning, which leaves pupils ill-equipped to deal with the education style at university and TAFE. However, conflicting evidence has emerged in relation to this issue and the causes of the observed differences are unclear (Hillman 2005).

- Teaching standards – the differences may be due to more effective teaching at non-government schools, which could be a result of greater teacher flexibility, higher salaries at many non-government schools, student behavioural problems at government schools that interfere with teaching, and the fact that government schools tend to have a larger proportion of hard-to-teach students, which may act as a deterrent for good teachers (McEwan 2000a).

- Peer effects – the fact that non-government schools have a higher proportion of talented students and pupils from high socio-economic backgrounds could be another contributing factor to the differences identified between the school sectors (Ryan and Watson 2004). Given the evidence that peers can have a significant influence on individual achievement, the concentration of talented students and students from high socio-economic backgrounds in non-government schools is likely to have an effect on the relative performance of government and non-government schools.

The key issue in the context of the choice debate is which of the probable causes of the school sector differences do school administrators have control over. If the differences are attributable to factors that are beyond the control of administrators, policies that promote a shift to private schools are unlikely to lead to any improvement in overall student performance. The more appropriate response would be to design policies that target the structural issues that are causing the variance in outcomes.

Not surprisingly, the available evidence from Australia provides limited insight into the question of whether the differences in school sector performance are caused by factors that are able to be influenced by school administrators. Some argue that a significant proportion of the difference may be due to teaching quality (Marks *et al.* 2001; Rowe 2003; 2004; Nelson 2003).[46] This is debatable; however, even if it is correct, it is not clear whether any differences in teaching standards are a product of the fact that non-government schools are able to offer higher salaries because they have more resources. Government schools also tend to have a higher proportion of children from disadvantaged backgrounds, students with disabilities and students that are hard to teach (i.e. children with learning difficulties and behavioural problems) (SCRGSP 2006), which may make certain private schools more attractive to certain teachers. As Keating (2004, p. 8) states:

> … the job of teaching in [non-government] schools has clear advantages. Teachers in these schools have a narrower range of student abilities and preparedness to cope with than those in less selective schools. They also have greater certainty that they will be able to concentrate upon the job of teaching, rather than class discipline … . The teaching task in these schools is 'a million miles away' from the teaching task in the 'failing schools' … .

Research from overseas does not provide a great deal of assistance in shedding light on the issues surrounding the relative effectiveness of private and public schools in generating academic outcomes. For example, several studies have found evidence that students attending private schools (particularly Catholic schools) in the United States tend to outperform those at public schools, even after controlling for socio-economic

[46] See also Rowe *et al.* (1999).

factors (Coleman *et al.* 1982; Coleman and Hoffer 1987; Evans and Schwab 1995). However, other research from the United States has found more mixed results, suggesting that the attainment gains are either non-existent or are largely confined to certain racial groups (namely, African-American and Hispanic) from disadvantaged urban areas (Neal 1997; Grogger and Neal 2000; McEwan 2000a; 2000b; Neal 2002).[47]

Studies on the relative performance of public and private schools in developing countries have also produced mixed results. For example, Lassibille and Tan (2001) found that private schools in Tanzania are less effective in producing student outcomes than public schools. In contrast, Lockheed and Jimenez (1994, p. 4) concluded that research in five developing countries (Tanzania, Thailand, the Philippines, the Dominican Republic and Columbia) pointed to a 'robust private school advantage in terms of achievement test indicators and unit cost'.[48]

Not only is the overseas research unable to answer the question of whether private schools are more effective than public schools, it provides few insights into the reasons for any sectoral differences that have been discovered. Some data indicate that resource, socio-economic and peer effects may be influential. For example, in a literature review of the subject, McEwan (2000a, p. 122) remarks that:

> [a]mong studies that make extensive controls for peer, neighbourhood, and school characteristics there is a marked tendency to find small or statistically insignificant private school effects. This suggests that an overall private school effect may bundle together a diverse set of peer-group or school-resource effects.

There is a considerable amount of evidence that supports this conclusion, but without further information, no definitive conclusions can be drawn.

Given the paucity of research from Australia and the nature of the evidence from overseas, it seems premature to conclude that Australian private schools are any more effective than their public sector counterparts. There are good reasons to suspect that the observed differences are a product of a collection of socio-economic, resource, teaching and peer effects, many of which are beyond the control of school administrators.

## 8.4 Voucher effects

Even if it is assumed that existing private schools are more effective in achieving education outcomes than public schools, it does not follow that the introduction of a universal voucher scheme would allow these benefits to be made available to more students. Issues that will determine the impact of a voucher scheme on education outcomes include: the capacity and willingness for effective schools to expand; the types of new private schools that emerge; how public schools respond to greater competition; and how different types of students are distributed under voucher

[47] See also Stevans and Sessions (2000) who found that white students do slightly better in private schools, but that students from minority groups do not perform any better in private schools than they do in public schools.

[48] As is discussed in Section 8.4 below, the evidence from Chile also provides a mixed picture on the impact of private schools on academic performance.

conditions. The available evidence on these issues is not conclusive. However, there is sufficient data to be sceptical of the positive claims made about vouchers and wary of the potential risks.

Evidence on the impacts of vouchers on education outcomes (primarily academic outcomes) is discussed below. The issues associated with the distribution of students and so-called 'sorting effects' are briefly reviewed, although they are analysed in greater detail in Sections 9 and 10.

*US evidence*

Like many of their overseas counterparts in English-speaking countries, choice advocates in Australia have often concentrated on the results from targeted voucher trials in the United States as their primary source of evidence on the impacts of vouchers on student performance (Buckingham 2004). However, even in these limited trials of targeted programs, the results have been equivocal.

The Milwaukee Parental Choice Program (MPCP) is 'the longest-lasting, and most carefully scrutinised' of the targeted voucher schemes in the United States (Brighouse 2003, p. 43). The scheme allows low-income families in the City of Milwaukee Public School district to apply for a voucher to attend a private school within the district. There are limits on the number of vouchers that are available, so if the scheme is over-subscribed vouchers are allocated by way of a lottery. There are also limits on the number of voucher students that any single private school can accept and schools are not allowed to select students, rather they are assigned on a random basis. In addition, schools that accept voucher students are not allowed to charge top-up fees.

A number of studies have been carried out on the impact of the voucher scheme on the participating students and those remaining in the public system, but the results have been contradictory. Early research by Witte and others from the University of Wisconsin was unable to find any significant differences in student performance between voucher students and those remaining in public schools, except in relation to reading, where voucher students performed worse than public school students (Witte *et al.* 1994; 1995). Consistent with other studies, the researchers found that several other non-school factors had a greater influence on academic results than the public/private status of the schools, including family income, prior academic performance, gender and race (Witte *et al.* 1994; 1995). Witte *et al.* (1995) also found high rates of attrition from the program, which was attributed to several factors including transport difficulties, restrictions on religious instruction and education equality. Despite these less than positive results, parents of voucher students consistently reported high levels of satisfaction with the program (Witte *et al.* 1995).

Employing different methodology, a later paper by Greene, Peterson and Du (1996) found statistically significant positive results in mathematics and reading for voucher students who remained in the MPCP for three to four years.[49] This study has been criticised for being selective in its use of data and for using inappropriate research methods. For example, in a forceful critique of the paper, Witte (1996) argues it is:

[49] See also Greene *et al.* (1997a).

> … a confusing, tortured effort to try to find any evidence that students enrolled in private schools under the Milwaukee Parental Choice Program (MPCP) do better than any students in the Milwaukee Public Schools (MPS).

One of the major flaws with the study is that it did not adequately control for the effects of relevant socioeconomic factors. As Carnoy (1997, p. 110) explains, 'once socioeconomic status is controlled for, the differences in test scores are no longer significant'.

Rouse (1998b) evaluated the MPCP using the same data that was relied upon in Witte *et al.* (1995) and Greene *et al.* (1996) and found that voucher students achieved significantly better results in mathematics, but not in reading. In a related paper, Rouse (1998a, p. 70) explored some of the differences within the private and public sectors in Milwaukee and found that students in certain public schools (i.e. those with small class sizes and additional resources) had test score gains in mathematics that were similar to those seen amongst voucher students and 'significantly faster reading score gains than either the choice or the other public schools'.

In relation to the impacts of the MPCP on non-voucher students, Hoxby (2001a; 2001b) provides evidence that the introduction of the program led to an increase in competition that had a beneficial effect on the academic performance of students in public schools.[50] While this is possible, the results of this and other similar studies have been criticised as being unreliable due to methodological issues and for failing to account for other relevant factors.[51] For example, according to Ladd (2002, p. 16), Hoxby failed to adequately 'control for the changing mix of students in her treatment and control groups'. This was a product of the fact that the evidence indicated that 'the average test scores of the voucher applicants were well below those of other students in the Milwaukee system' (Ladd 2002, p. 16). Consequently, the average performance in the public sector was bound to increase as low performing students exited, leaving a better performing body of students in the public schools.

In 1995, amendments were made to the MPCP that removed the requirement for participating schools to gather relevant academic information on voucher students. This has effectively prevented further detailed research being carried out on the effects of the MPCP on academic outcomes. Yet, on the basis of the evidence that is available, it appears that the MPCP has had little or no impact on the academic performance of students who participated in the program.

Similar unconvincing results have emerged from most other targeted voucher schemes that have been introduced and evaluated in the United States. For example, mixed results have emerged from the Cleveland Scholarship and Tutoring Program (CSTP) and there are disputes over the methods that have been applied in evaluating the program's impacts on student achievement. The first official evaluation of the program that was carried out by researchers at Indiana University found that, while voucher students tended to perform better academically than public school students, when relevant demographic variables and pre-program achievement were controlled for 'there are no statistically significant differences for third-grade test scores (p =

[50] See also Greene (2001), Greene and Forster (2002) and Greene and Winters (2003) for positive results on the effects of voucher schemes on public schools.
[51] See Harris (2001), Camilli and Bulkley (2001) and Ladd (2002).

.05) between public-private scholarship students and their non-scholarship public school peers' (Metcalf *et al.* 1998a, p. 49).

The second official evaluation report found that the effects of the program on voucher students were slightly positive, but that there were significant differences according to the type of private school the students attended (Metcalf *et al.* 1998b). When demographic variables and previous achievement were controlled for, voucher students that attended *existing* private schools achieved significantly better results for language and science than public school students, but not in relation to other performance measures. After classroom variables were accounted for in the analysis, only the higher results in language remained significant. These slightly positive results for existing private schools were not replicated in new private schools. Metcalf *et al.* (1998b, p. 25) found that:

> … in all analyses in which background, previous achievement, and/or classroom variables are controlled, scholarship students attending newly established private schools consistently and significantly achieve at lower levels on each of the six achievement measures than either the other scholarship or public school students.

These results suggest that the CSTP may have conferred a small advantage on those voucher students who were able to attend established private schools, while possibly harming those who attended new private schools.

As in the case of the MPCP, the official study of the CSTP was criticised by voucher advocates and several alternative analyses were prepared by Peterson, Howell and Greene (Greene *et al.* 1997b; Peterson *et al.* 1998; 1999). These found voucher students achieved significantly better results in some subjects and that parents of voucher students reported higher levels of satisfaction than public school parents. However, the method that was used to evaluate the effects of the program on academic achievement has been criticised. Indeed, the United States General Accounting Office excluded these results from its analysis of the Cleveland and Milwaukee targeted voucher programs because they 'did not meet [the Office's] criteria for analyses of the effect of the voucher program' (United States General Accounting Office 2001, p. 28).

Later studies have supported the earlier official findings on student performance; namely, that the CSTP has little or no impact on the academic achievement of voucher recipients (Metcalf *et al.* 2003; Plucker *et al.* 2006). Despite these indifferent achievement results, data gathered in relation to the CSTP indicate that parents who have choices report higher levels of satisfaction, irrespective of whether they choose a public or private school. According to Metcalf (2003, p. 163):

> [t]he findings also suggest that families who perceive themselves to have had available to them and to have deliberately chosen from a range of school options are happier with their children's schools than those who have not. This is true whether they chose public or private or community schools for their children.

In summary, it appears that the best that can be said about the targeted voucher schemes that are in operation in the United States is that they have not led to any

substantial decreases in student performance and that they may have produced some small improvements. Even if this optimistic interpretation of the data on these schemes is correct, it does not provide support for the introduction of similar initiatives, or universal voucher programs, in Australia. There are large differences between the school sectors in the United States and Australia and the effects of targeted schemes may differ from those of a universal program. In particular, it is unclear what types of new private schools would emerge in response to a voucher scheme and whether a regulatory system could ensure that basic teaching and education standards are met by the non-government sector (Neal 1998; 2002).

*Chilean evidence*

Probably the most relevant research on the potential impacts of the introduction of a universal flat-rate voucher scheme in Australia comes from Chile. In the early 1980s, General Pinochet's military government made several reforms to the Chilean education sector, one of which was to introduce a universal voucher system governing the distribution of central government schools funding. Since then, central government schools funding has been allocated primarily on a per-student basis. The amount provided for each student varies slightly between regions, but is not determined by the private/public status of the school. The public schools are run by local municipalities and central government allocations are made to these authorities rather than the schools. The municipalities distribute the schools funding amongst the relevant public schools, while private schools receive their per-student allocations directly from the central government (Tokman Ramos 2002; McEwan 2001; Carnoy and McEwan 2003). In order to be eligible to receive voucher payments, private schools must meet certain requirements governing such things as safety, curriculum, and the provision of facilities (Tokman Ramos 2002). Further, until the mid-1990s, private schools receiving voucher students were effectively prevented from charging additional tuition fees (Tokman Ramos 2002).[52] In addition, private schools are allowed to select students in contrast to public schools, which provide places on a 'first come first serve basis' (Tokman Ramos 2002, p. 4).

The introduction of the voucher scheme had a profound impact on the structure of the Chilean school sector. As McEwan (2001, p. 105) describes:

> [t]he reform sparked a massive redistribution of enrolments across private and public schools, as well as the creation of many new private schools. Between 1981 and 1996, enrolments in private voucher schools expanded from 15% to around 33% of the total; most of these gains at the expense of public school enrolments. Prior to the 1980 reforms, when many private schools already received partial government financing, about one-half were managed by the Catholic church, and the rest by non-religious foundations or Protestant churches. A flood of new private voucher schools, mainly non-religious and for-profit, entered the market following the 1980s reforms.

[52] Schools can now charge a voluntary top-up fee that is capped at a maximum of 1.6 times the value of the voucher. There are a number of restrictions on these top-up fees, including which schools can charge them and how the additional resources can be used (see Gonzalez *et al.* 2004).

It is estimated that over 1,000 new private schools emerged following the introduction of the voucher scheme and, as McEwan (2001) states, most of these were secular, for-profit organisations.[53]

Mirroring the results from the trials of targeted schemes in the United States, the Chilean voucher scheme does not appear to have had a significant positive effect on average student outcomes (Carnoy 1997; McEwan 2001; Carnoy and McEwan 2003; Hsieh and Urquiola 2003; Arenas 2004; Mizala *et al.* 2005). According to Carnoy (1997, p. 111):

> Chile's voucher plan appears to have widened the gap between high- and low-income students in terms of test scores without increasing the overall level of academic achievement.

Analysis of academic results suggests that students attending non-voucher private schools (i.e. private schools that do not accept voucher students) and voucher Catholic schools out-perform students at other private and public schools (McEwan 2001; Carnoy and McEwan 2003; Arenas 2004; Mizala *et al.* 2005). Whether this result is due to schools selecting the most talented and easiest to teach students (a phenomenon called 'creaming') is unclear (Carnoy 1997; McEwan 2001; Mizala *et al.* 2005). There is also evidence that the superior performance of these schools is at least partially attributable to the fact that they have greater access to resources (Carnoy and McEwan 2003; Mizala *et al.* 2005).

Although non-voucher and Catholic private schools may have better results than their competitors, the data suggest that secular private schools that receive voucher students have little or no academic advantage over public schools, and, in fact, public schools may be marginally more effective, particularly in relation to teaching students from disadvantaged backgrounds (McEwan 2001; Tokman Ramos 2002; Mizala and Romaguera 2002; Carnoy and McEwan 2003; Arenas 2004; OECD 2004; Mizala *et al.* 2005).[54] That is, the part of the private sector that expanded most rapidly in response to the introduction of the universal voucher scheme has proven to be no more effective, and possibly less effective, in achieving academic results than public schools.[55] As the OECD (2004, p. 37) has stated in a review of education policies in Chile:

> … the differences in learning performance among schools with different administrative systems (municipal and private-subsidized) are minimal and do not always favour private education, when socio-economically homogenous groups are compared.

There is a considerable amount of evidence that supports the conclusion that the Chilean voucher scheme has resulted in the creaming of better students by private schools and greater segregation according to socio-economic status and academic

[53] See also Carnoy and McEwan (2003) and Arenas (2004).
[54] Similar to the situation in the United States, these results are not undisputed. For example, see Contreras (2002) and Ladewski (2005) for a more positive evaluation of the performance of private schools.
[55] The advantage that public schools appear to have in teaching students from disadvantaged backgrounds may be a result of having greater access to educational and financial resources (Mizala *et al.* 2005).

achievement (Carnoy 1997; Hsieh and Urquiola 2003; Arenas 2004; Mizala *et al.* 2005; Ladewski 2005).[56] The data suggest that this has resulted in greater inequality in education outcomes (Carnoy 1997; Hsieh and Urquiola 2003; Carnoy and McEwan 2003; Arenas 2004). The most likely causes of this trend are the superior resources of wealthier schools and peer effects – talented students from high socio-economic backgrounds have been concentrated in private schools, which has led to a stagnation or fall in the performance of public schools.

There is some evidence that the flow of students from the public to the private sector and the greater segregation along socio-economic and skill lines has had a negative effect on academic outcomes at government schools (Hsieh and Urquiola 2003; Arenas 2004). Other data suggest that, despite exposure to competitive forces, public school performance has remained relatively stable. According to Carnoy and McEwan (2003, p. 21):

> … in the best of cases, fifteen years of intense competition improved achievement in public schools by only a small amount.

They conclude that:

> [t]he measure that most effectively addressed the quality of education problem in low performing schools was not increased competition from privately-run schools, but effective Ministry of Education intervention in building capacity – new curriculum materials and training teachers to use them (Carnoy and McEwan 2003, p. 21).

The intervention referred to in the above extract was comprised of a series of supply-side school funding programs introduced by the Chilean Government in an attempt to address equity and quality issues in the 1990s. One of the most important of these was the '900 Schools Program', which aimed to 'raise levels of achievement in schools in poor rural or urban areas with the lowest academic results' (Garcia-Huidobro 1994, p. 213). The program provided additional resources to improve infrastructure, raise teaching standards and ensure students in the most disadvantaged schools had access to textbooks and libraries.[57] Another important initiative was the MECE-Rural program that was 'specifically designed to support rural small schools where one to three teachers work with combined age groups of children' (Cox 2004, p. 15). Evaluations of both programs found that they resulted in sustained improvements in student outcomes and that they narrowed the gap between the most disadvantaged schools and the rest of the school sector (OECD 2004; Cox 2004).

*Competition effects vs. resource and peer effects*

Research conducted in the United States and the United Kingdom has found that increased school competition may be associated with marginal improvements in student performance (Bradley *et al.* 2001; Hanushek and Rivkin 2002; Belfield and

[56] There is some evidence that the segregation in Chile may have been more along the lines of aptitude than socio-economic status (Narodowski and Nores 2002; Gonzalez *et al.* 2004; Mizala *et al.* 2005). See Section 9 below for more details.

[57] There were 969 schools in the program in 1990, but this was later increased to 2,300 schools (Garcia-Huidobro 1994; Carnoy and McEwan 2003).

Levin 2002; Levacic 2004; Adnett and Davies 2005).[58] These findings are consistent with some data on the effects of targeted vouchers.[59] However, even if these findings are accurate (which is unclear), the research from Chile and elsewhere indicates that it is unlikely that they would be replicated in a universal scheme. In particular, there is a significant risk that the negative impacts of sorting and the redistribution of resources brought about by vouchers would outweigh any positive effects associated with greater competition.[60] A major concern is the potential deleterious effects on disadvantaged and hard-to-teach students as vouchers could result in sink schools and a widening of the resources and achievement gaps. As happened in Chile, the government may eventually be forced to reintroduce supply-side funding programs to ensure basic education objectives are achieved.

Fears about the ability of vouchers to trigger sorting and segregation that lower average student outcomes are supported by evidence that there are diminishing marginal returns to peer group effects. This suggests that 'the gain in educational attainment of the able students from studying with a more able classmate is less than the loss in educational attainment experienced by the class who replaced that pupil with a less able recruit' (Adnett and Davies 2002, p. 200 - 201).[61] That is, any beneficial effects caused by the concentration of talented and high SES students in private schools are likely to be less than the negative effects associated with the decline in performance by students at public schools and poor private schools (Adnett and Davies 2002; Adnett and Davies 2005).

*Applying the evidence to Australia*

Given the evidence from targeted and universal voucher schemes overseas, it seems unlikely that the introduction of a universal flat-rate scheme in Australia would result in a significant improvement in average academic outcomes. However, there is a risk that a universal voucher scheme could lead to greater educational inequality because of peer effects in under-resourced schools, the emergence of sub-standard private schools and the widening of the resource gap between both government and non-government schools, and wealthy and poor private schools.[62] If a voucher scheme caused a significant increase in inequality in education outcomes, it could ultimately lead to a decline in average levels of achievement.

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[58] The effect of competition on outcomes is disputed and many studies have generated conflicting results. On the whole, the weight of evidence suggests a minor positive effect, although there are a significant number of studies that have found competition has had no effect, or a negative effect, on academic performance (Jepsen 1999; McEwan 2000a; Belfield and Levin 2002; Ladd 2002).

[59] For example, see Hoxby (2001a; 2001b), Greene (2001), Greene and Forster (2002) and Greene and Winters (2003).

[60] The most obvious negative impact of sorting relates to peer effects – the notion that vouchers will concentrate hard-to-teach students and students from low socio-economic backgrounds in particular schools, leading to a fall in student performance at these schools. It has also been suggested that voucher-induced sorting could result in interested parents who engage in school monitoring being concentrated in certain schools, leading to a reduction in parental pressure and oversight in other schools (McEwan 2000a). For further discussion of sorting, see Sections 9 and 10.

[61] See also Feinstein and Symons (1999).

[62] As noted in Section 7, the nature of the risks associated with voucher schemes is dependent on their design. The conclusions here assume that any Australian universal voucher scheme will replace most or all federal and state funding programs.

While the evidence on the positive effects of vouchers on academic performance is unconvincing, it must be emphasised that schooling involves more than simply developing the academic skills of students. Voucher schemes could result in schools providing a selection of non-academic services for students that are more closely aligned with the preferences of parents. There is insufficient evidence to draw solid conclusions on this issue, although the fact that voucher schemes often report high take-up rates and high levels of parental satisfaction suggest it is a possibility. Yet, the effect of universal voucher schemes on the distribution of resources means that any non-academic benefits that do result from their introduction are likely to be skewed towards wealthier private schools. Further, the potential non-academic gains should be weighed against financial factors and the risks associated with social cohesion and equality of opportunity.[63]

## 8.5 Why wouldn't vouchers generate improvements?

The fact that the evidence from overseas does not support the conclusion that a universal flat-rate voucher scheme would generate significant improvements in academic outcomes is hardly surprising given the nature of the market for school services. Several characteristics of the market make it resistant to the forces that theoretically should ensure superior results, five of the more important being: consumer inertia; supply constraints; population and geographic factors; asymmetries of information; and the lack of competitive neutrality.

*Consumer inertia*

For a voucher scheme to encourage competition that improves education standards there must be a large cohort of parents who, armed with their vouchers, would put pressure on schools to improve their services or else risk losing their clientele. For this threat to be credible, parents must be willing to remove their children from the school if services are inadequate. However, many parents are likely to be reluctant to switch schools on the basis of poor academic standards because of the difficulties associated with such a change, including the search costs incurred in trying to find a new school, the social and educational disruption to the child, and penalty fees that are sometimes charged for the withdrawal of students.[64]

Parents' decisions regarding schooling are also influenced by a number of non-academic issues, including religion, recreational facilities, family connections, discipline and security, tradition, prestige and the contacts that their children will make while attending the school (Fischel 2006; Metcalf 2003; Wilkinson *et al.* 2004). In some cases, these factors may be more important to parents than the academic performance of the school. Consequently, sub-standard teaching and academic standards may not be enough to motivate certain parents to remove their child from a school or to reject an offer of a place at a school. In addition, there is likely to be a proportion of parents who do not place a high priority on education, meaning they are unlikely to complain or switch schools if problems arise. The inertia that results from

[63] See Sections 9 and 10 below.

[64] For example, at Knox Grammar School in Sydney, on top of the annual tuition fees that range between $10,500 and $17,190, parents are required to pay a $250 application fee, $1,750 enrolment fee and a $1,250 entrance fee, all of which are non-refundable. If parents want to withdraw their child from the school, they must give at least one term's notice; otherwise they are required to pay a penalty of one term's fees (Knox Grammar School 2006).

these factors may lead to many parents being unwilling to 'vote with their feet' as suggested by voucher advocates.

*Population, income, geographic and transport factors*

Four other important demand-side factors that could reduce the level of competition in school markets are population densities, income distribution, geography and access to efficient transport. The number of people in an area and their income levels are key determinants of the size of local school markets. All things being equal, regions with smaller populations and lower levels of income will be able to support fewer schools than areas with larger populations and higher incomes.

Geographic factors are also likely to be important, as many parents may be unwilling to send their child to a school that is outside a particular region or that is not serviced by appropriate transport services. In certain areas,[65] these demand-side issues could limit the level of competition between schools, thereby reducing the degree of market discipline imposed on school administrators.

Rural and regional areas are particularly vulnerable to these effects. People living in these areas tend to have lower levels of income, higher rates of unemployment and lower levels of education than those living in urban areas (Freebairn 2003). Rural and regional areas also have relatively low population densities and limited access to public transport. If it is assumed that voucher schemes enhance competition and that competition produces better education outcomes, there is a risk that the introduction of vouchers could exacerbate existing geographic education differences because of variation in the intensity of competition in school markets.[66] Schools in rural and regional areas are likely to face less competition than those in urban areas, which (according to neo-classical economic theory) should lead to poorer education outcomes in these areas.

*Constraints on supply*

There are a number of factors that act to constrain the supply of school services, including access to financial capital, economies of scale associated with school facilities, planning and environment restrictions, and the supply of qualified teachers.[67] Some schools may even deliberately act to limit supply so as to maintain their market position. For example, successful elite schools may refuse to expand for fear that increased enrolments would reduce their positional advantage and lower the talent and socio-economic mix of their student bodies (Fiske and Ladd 2000; Ladd 2002). These supply-side constraints could hinder the emergence of new schools and the expansion of successful schools in certain areas. The resulting lack of supply and

[65] For example, in rural and regional areas and districts with a high proportion of families with below average income and wealth.

[66] There is a considerable amount of evidence that suggests people from rural and remote areas have lower rates of school completion, school performance, and entry into, and participation in, higher education than those from metropolitan areas (Long *et al.* 1999; Marks and Fleming 1999; Marks *et al.* 2001).

[67] In relation to teacher shortages, see Martin (2005). It is arguable that voucher schemes could lead to improvements in the labour market for teachers by increasing flexibility in wage structures and encouraging greater use of incentives (for example, see Neal 2002). This is a possibility, although these potential benefits could be obtained by changing the industrial relations policies that apply to schools rather than introducing a voucher scheme.

responsiveness could reduce the competitive forces faced by public and private schools.

*Asymmetries of information*

School markets suffer from significant asymmetries of information, which can hinder the ability of consumers (i.e. parents and guardians) to make efficient school choices. The superior information possessed by schools is a product of three main factors.

Firstly, school services are multidimensional and the different elements of these services are often very hard to evaluate objectively. For example, academic outcomes are the product not only of the quality of teaching and the school environment, but also personal, family and social factors. Consequently, a student's relative performance on academic tests may not accurately reflect the quality of services provided.

Secondly, while parents may pay for school services, it is their children that receive the direct benefit of those services. The benefits parents receive are usually vicarious (i.e. they stem from those enjoyed by their children) or they arise as a result of the interaction brought about by the school community. This ensures that parents are reliant on information provided by others (i.e. their children, the school, government authorities) to gauge the standard of school services. The relative ignorance of parents gives rise to adverse selection and moral hazard problems. That is, because parents are unable to accurately gauge the quality of school services, school administrators have an incentive to provide a distorted picture of their services by highlighting their successes and downplaying their failures. As a result, parents may choose schools that are better at marketing rather than those that provide better education services. These factors may reduce the competitiveness of the school market and lead to sub-optimal outcomes.

The third factor is that some parents have special difficulties in obtaining, comprehending and applying information on schools. Overseas research has found that parents of low socio-economic status have problems in obtaining and interpreting information on voucher schemes and that they are less likely to take up vouchers where they are made available (Arenas 2004; Metcalf *et al.* 2003). This may help explain why only approximately 35 per cent of parents with children who failed to meet the Year Three minimum national reading benchmark in 2003 took up a $700 voucher offered by the Federal Government to help pay for private tutorial assistance (Maiden 2006; Harrington 2006b; Carbines *et al.* 2006). There is also evidence that in voucher schemes parents of low socio-economic status are less likely to choose private schools than those from higher socio-economic backgrounds (Carnoy and McEwan 2003; Metcalf *et al.* 2003). This may be a product of information problems (for example, problems comprehending relevant information) and social barriers (for example, poorer parents may feel their children do not 'belong' in private schools). These findings suggest that parents of low socio-economic status are likely to be placed at a considerable information disadvantage and that they are less likely to be able to use vouchers as a means of expanding choice and improving school standards than other parents.

Schools also encounter information asymmetries when selecting students. Children who are more talented and better behaved are easier and less costly to teach. In a

market situation where outcomes (for example, test results) are used as a signal of quality, schools are often keen to attract the best students so as to maintain or improve the goodwill and financial performance of the school. However, before a child becomes a student at a school, the parents are in a superior information position in terms of pupil selection; that is, they know their child better than the school does. To overcome this problem, many schools will screen students and select those who they think are likely to be the most talented and easiest to teach. This could involve mandatory academic entrance requirements or selection criteria that include an evaluation of the socio-economic status of the child's family. Scholarships could also be used as a mechanism to 'cream' the best students so as to raise the standards of a school. In some cases, private schools even reserve the right to expel students or to prevent them from sitting examinations on the grounds of poor performance (Knox Grammar School 2006). The lack of information and capacity of private schools to select and 'cream' students is likely to add to consumer inertia and stifle the ability of market forces to impose discipline on school administrators.

*Competitive neutrality*

Competitive neutrality refers to the notion that businesses should face the same costs, regulatory requirements and commercial pressures irrespective of whether they are in public or private ownership. This 'level playing field' is necessary to prevent the distortion of market forces and ensure the efficient allocation of resources.

Flat-rate voucher schemes are partially consistent with this principle in that they ensure all schools are entitled to receive the same amount of government funding per student. However, public schools are subject to a number of regulations that could not be removed without sacrificing equity objectives. In particular, to ensure all students have access to an education, government schools are generally required to accept all students that fall within their catchment areas, have limited powers to expel students and they cannot charge compulsory tuition fees. Private schools, on the other hand, usually charge tuition fees and have a considerable amount of discretion over the admission and expulsion of students (Wilkinson *et al.* 2004).

To ensure competitive neutrality under a voucher scheme, all private schools that accept voucher students would have to subject themselves to the same equity-based regulations that apply to public schools. However, many prominent voucher advocates in Australia oppose the extension of such regulations to private schools, supposedly on the grounds that it would stifle the flexibility and innovation that drives their success (Buckingham 2001b; Harrison 2005a). As Buckingham (2001b, p. 19) explains:

> [t]he major drawback of a voucher system is that by funding non-government schools on the same basis as state schools, it makes them vulnerable to the same level of government regulation. The success and popularity of non-government schools is arguably due to their greater autonomy and independence.

The evidence suggests that Buckingham is partially correct; the ability of private schools to select students and raise additional funds is likely to be a significant reason for the observed differences in performance between the private and public school sectors. However, the regulations governing public schools perform an essential

function by promoting equality of opportunity (Wilkinson *et al.* 2004). Consequently, voucher advocates want neutrality in funding, without the neutrality in regulation that is needed to achieve many of the public good benefits associated with education and an efficient school market.

## 9. Sorting, human capital and equality of opportunity

A significant risk associated with universal flat-rate voucher schemes is their potential to increase sorting on the basis of socio-economic status and academic ability. That is, there could be a greater level of segregation between children from wealthy and poor backgrounds, and between students with high and low academic ability. Greater segregation along these lines could stifle economic growth by impeding the development of human capital, while also undermining the objective of equality of opportunity.

There is a considerable amount of evidence that when parents are given greater school choice, there tends to be greater segregation according to socio-economic status and academic ability.[68] Ladd (2002, p. 6 - 7) writes:

> [e]vidence from studies around the world indicates that parents exercising choice seek to move their children to schools in which the average socioeconomic characteristics or nonminority share of the students is higher than it would be in their original or assigned school. This phenomenon has been documented in systems as diverse as New Zealand, Chile, Scotland and Chicago.

Consistent with this statement, Ryan and Watson (2004) found that students in non-government schools in Australia tend to come from high socio-economic families and that the drift in students from government to non-government schools since 1975 has mainly come from students from above average socio-economic backgrounds. This change has resulted in a marked fall in the average socio-economic status of students in government schools, but only a relatively slight fall in the socio-economic status of students in non-government schools.

The Chilean research on segregation is particularly relevant given the universal nature of their voucher scheme. In analysing the effect of voucher schemes in Chile and Columbia, Arenas (2004, p. 389) concludes:

> [t]he net result has been a greater segregation of schools in terms of SES [socio-economic status] and academic skill level to the benefit of the private sector over the public one. … Neither system offers private schools economic incentives to accept students who are difficult or expensive to teach (e.g. children with discipline records or special education needs). Consequently, these children may be denied entrance to voucher private schools and found disproportionately in the public sector in both countries.

This conclusion is supported by research conducted by Ladewski (2005) into the level of socio-economic segregation between school types within particular municipalities in Chile. She found that the socio-economic status of the student bodies at schools was arranged in a scale, rising from municipal schools at the bottom (i.e. public schools), then free voucher schools (i.e. private schools that do not charge top-up fees), shared financing voucher schools (i.e. private schools with a tuition cap) and

[68] Epple and Romano (1998); McEwan (2000a); Ladd (2002); Neal (2002); Saporito (2003); Gonzalez *et al.* (2004); Ryan and Watson (2004); and Ladewski (2005).

finally non-voucher private schools. Only part of this segregation could be explained by tuition fees, indicating that other factors like family preference and selection by schools were influential.

Other researchers have suggested that the introduction of vouchers in Chile may only have resulted in greater segregation on the basis of academic ability. For example, Mizala *et al.* (2005) found evidence of talent selection in voucher private schools and greater segregation according to academic ability. However, their research also found that while there were significant differences in the socio-economic composition of non-voucher private schools and public schools, there was less socio-economic variation between voucher private schools and public schools.[69] Similarly, on the basis of a comparative analysis of the Chilean and Argentine school sectors, Narodowski and Nores (2002) contend that the socio-economic segregation seen in Chile is not a product of vouchers, but rather a collection of family choice factors that are also seen in centralised, non-voucher systems. These findings suggest that segregation caused by voucher systems may be more along the lines of aptitude than socio-economic status.

The ability of choice programs to increase segregation on the basis of socio-economic status and/or academic ability could be attributable to a number of factors, including the following.

- Resource advantages

  A contributing factor to the sorting and segregation associated with voucher schemes may be the resource advantages they confer on non-government schools. Due to the academic and non-academic benefits that can be offered by schools with greater resources, parents with the financial means may use the voucher to send their children to private schools, leaving a greater concentration of pupils from low socio-economic backgrounds in the public school system.

- Parental capacity

  There are two relevant issues associated with parental capacity. Firstly, parents with high socio-economic status have a greater capacity to pay school fees and make voluntary contributions than those with low socio-economic status, meaning their children are more likely to attend non-government schools. Secondly, parents with low socio-economic status appear to be less aware of school choice options and have a lower capacity to evaluate the services provided by schools than those with high socio-economic status. As Levin (1995 in Carnoy 1997, p. 113) explains:

  > [s]tudies of parental information on choice show that less educated, minority, and lower-income parents are often unaware of their choice options and are not cognizant of differences among schools of choice.

[69] See also Gonzalez *et al.* (2004).

Again, these differences mean that children from low socio-economic status families are less likely to be sent to private schools under a voucher scheme.[70]

- Peer effects

  Socio-economic factors have a notable impact on student performance[71] and there is a considerable amount of evidence that supports the notion that peer groups have a significant influence on student outcomes.[72] Consequently, parents who are concerned about academic outcomes may try to ensure that their children attend a school with a student body that has the same or higher socio-economic status and a large number of high-achieving pupils.

- Social fit and signalling

  Parents may attempt to place their children in schools where they think they will 'fit in'. Similarly, some parents may select schools in an attempt to signal a certain social status (Adnett and Davies 2002). These factors may result in the concentration of students in schools that reflect their parents' aspirations and perceptions of their socio-economic status.

- Selectivity

  Unlike most public schools, private schools have the capacity to select students. In a market where education outcomes such as test scores are often used as a major source of consumer information on school quality, private schools have an incentive to attempt to attract talented and easy-to-teach students and reject hard-to-teach students. This can lead to the creaming of talented students, the rejection of pupils with special needs and the concentration of children from high socio-economic backgrounds in private schools.

  Voucher-induced creaming and peer effects may not be confined to the private sector. In order to compete, the public sector may engage in similar selective tactics in order to market government schools to parents of talented children and those from higher socio-economic backgrounds. Therefore, by triggering greater competition and a further drift in students to the private sector, voucher schemes could increase the academic and socio-economic sorting within the public sector as it struggles to retain students.

As a number of authors have identified, there is a risk that the increased sorting triggered by vouchers could lead to a hierarchy of schools based on socio-economic status and academic ability (Carnoy 1997; Epple and Romano 1998; Ladd 2002; Adnett and Davies 2005). Talented students and those from high socio-economic

[70] For example, in Chile in 1990, 72 per cent of families in the lowest 40 per cent of income distribution sent their children to public schools, amongst families in the next highest 40 per cent, 51 per cent sent their children to public schools, and in the richest 20 per cent of families, 25 per cent of children were sent to public schools (while 32 per cent went to voucher private schools and 43 per cent went to non-voucher private schools) (Carnoy 1997, p. 108).
[71] Thomson *et al.* (2004); and Thomson and Fleming (2004).
[72] See Epple and Romano (1998); Feinstein and Symons (1999); McEwan (2000a); Ladd (2002); McEwan and Marshall (2004); Ryan and Watson (2004); and Gibbons and Telhaj (2005).

backgrounds would be accumulated in better resourced schools, while hard-to-teach and less well-off students would be concentrated in public schools and poorly resourced private schools. Ladd (2002, p. 7) argues that under voucher schemes:

> … students with the lowest ability and lowest family income end up concentrated in public schools at the bottom of the hierarchy. Other students are distributed among a set of private schools that differ from each other by the ability and income of their students, with the private schools at the top attracting the most able and most affluent students.

Similarly, in relation to research from the United Kingdom, Adnett and Davies (2005, p. 111) state that:

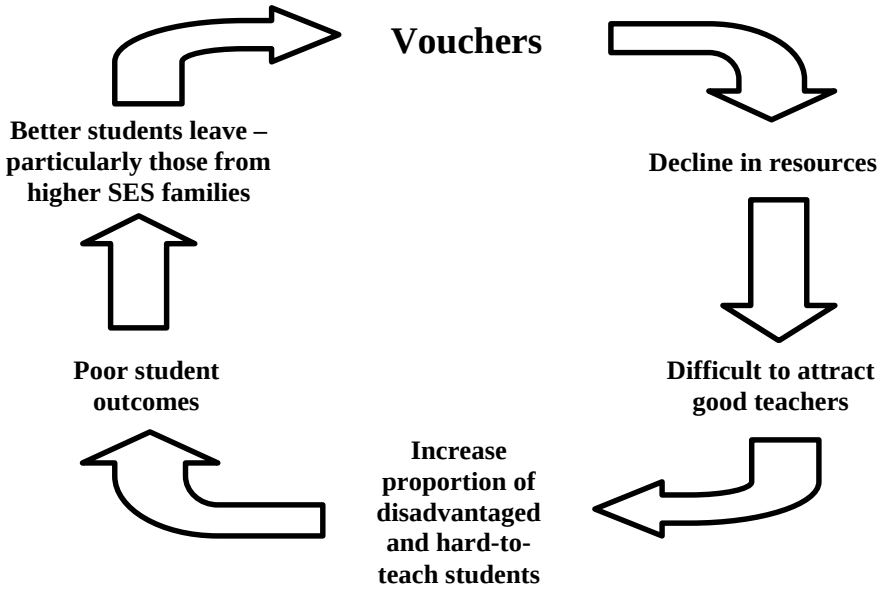
> … school choice reforms tend to reinforce local schooling hierarchies, reduce the diversity of provision and increase differences in the mean pupil's academic attainment between schools.

Given the evidence that peer groups can influence student performance,[73] the winners from schemes that cause greater segregation on the basis of academic ability or socio-economic status are likely to be poor talented students and those from wealthy families. The losers are less talented children from disadvantaged backgrounds who are forced into under-resourced and poorly performing schools. Separating talented, privileged and easy-to-teach students from hard-to-teach and disadvantaged students is likely to raise the performance of the former and lower the outcomes of the latter. However, as discussed, the negative effects of grouping disadvantaged and hard-to-teach students together are likely to be greater than the improvements to talented and easy-to-teach students, leading to a decline in average education outcomes, as well as a decrease in equality of opportunity.

The combination of declining resources and peer effects at schools that cater for disadvantaged and hard-to-teach students could trigger a vicious cycle that results in the emergence of poorly performing, under-resourced sink schools – see Figure 2.

[73] Epple and Romano (1998); Feinstein and Symons (1999); McEwan (2000a); Ladd (2002); McEwan and Marshall (2004); Ryan and Watson (2004); and Gibbons and Telhaj (2005).

**Figure 2 Vicious cycle triggered in disadvantaged schools by universal vouchers**




It has also been suggested that voucher-induced sorting could adversely affect student outcomes by causing a reduction in parental pressure and oversight in certain schools. There is evidence that parental monitoring can assist in improving the administration of schools (McEwan 2000a). Under a universal voucher scheme, the parents who are most likely to oversee teachers and school administrators may be motivated to place their children in similar schools. This is consistent with evidence from voucher trials showing that the parents who are most likely to use them tend to be wealthier, better educated and more involved in their children's education than the average eligible parent (Carnoy 1997; McEwan 2000a). As a result, voucher schemes could lead to the concentration of parents who engage in school monitoring in certain schools, leading to a reduction in parental pressure and oversight in other schools.

On average, Australian students tend to perform relatively well compared to students from other OECD countries in international tests. However, several OECD countries with the same or higher average test scores as Australia (for example, Finland and Canada) have greater educational equality (i.e. there is less difference between the highest and lowest test scores and socio-economic background has less of an effect on performance) (McGaw 2002; Thomson *et al.* 2004). This suggests that one of the major objectives of education policy should be to reduce the degree of inequality in academic outcomes. This would help achieve equity objectives, while also raising average results.

However, due to the risks associated with sorting, the ultimate outcome of a universal flat-rate voucher scheme may be to lower the average level of educational achievement and increase the inequality in access to education and education outcomes (Carnoy 1997; Adnett and Davies 2002). If average student outcomes improved or remained stable, there would still be a risk that the achievement gap between schools would increase because of the emergence of sink schools, the effects on parental monitoring and the widening of the resource gap between both public and private schools, and wealthy and poor private schools.

## 10. Social cohesion and social capital

The introduction of a universal voucher scheme could diminish the social cohesion and social capital benefits associated with education by causing greater:

- specialisation in the school sector, which could reduce the capacity of schools to promote unifying social values;
- segregation on the basis of race, religion, talent and socio-economic status, which could lead to a loss of social cohesion and connectivity between different social groups; and
- geographic dispersal of students, which could lead to a loss of community-specific social capital.

*Specialisation vs. uniformity*

Choice advocates argue that one of the advantages of voucher schemes is that they would result in the emergence of more specialised schools that provide services that are more closely aligned with the preferences of parents than those currently provided. As King *et al.* (2004, p. 52) contend:

> [t]he economic literature on club goods suggests that diversity, chosen by consumers, is generally desirable. There seems little reason why this should not apply to education, subject to minimum standard requirements.

In most cases, consumer choice is a virtue, but there are a number of risks associated with school diversity that offset the potential benefits of enhanced parental choice. One of these is the possibility that, even with 'minimum standard requirements', the loss of a uniform curriculum may lead to a decline in the teaching of unifying social values. In extreme cases, vouchers could result in the emergence of schools that actively threaten social stability by promoting racial hatred, and religious and political fanaticism. As Neal (2002, p. 42) argues:

> … large scale voucher plans would give many different groups of like-minded parents the opportunity to form schools that closely match their desires and aspirations for their children. … Regulations and oversight could limit but not eliminate the possibility that some voucher parents would use public money to form a school that in practice, if not in name, operated as Eastside Ku Klux Klan Academy, and one can imagine other examples of potential voucher schools that might create more social costs than private benefits.

Yet, even where schools are not explicitly teaching aberrant ideals, the greater diversity in curriculum content and teaching methods may undermine the ability of the school sector to foster unifying values such as respect for democratic processes, authority and pluralism.

*Effects of segregation on social cohesion and social capital*

As discussed, vouchers can trigger greater sorting on the basis of academic ability and socio-economic status. They may also lead to an increase in racial and religious segregation.[74] Greater racial and religious segregation could be a result of a number of factors, including the parental desire for their child to receive subsidised religious instruction, the emergence of specialised schools that cater to particular racial and religious groups, and parents' anxieties about ensuring their children fit in. However, regardless of the causes, the increase in sorting and segregation can adversely affect social cohesion and social capital by reducing the acceptance of unifying social values and diminishing the networks between different social groups.

While schools with homogenous populations may try to teach a belief in a core set of social values that are consistent with those necessary for the effective operation of a harmonious liberal democratic society, they are at a disadvantage compared to those with diverse student bodies (Wilkinson *et al.* 2004). Children that are exposed to people with different abilities and from other races, religions and socio-economic backgrounds are more likely to see them as equals and to embrace these differences as positive attributes. They are also in a better position to learn the value of diversity in debates and have a greater understanding of the views of other social groups than those who attend schools with homogenous student populations. Consequently, by causing greater segregation, the introduction of a universal voucher scheme may contribute to a less cohesive society by undermining the ability of the school sector to instil unifying social values in students.

The greater sorting and segregation brought about by vouchers may also reduce networks between different social groups. This can be a result of a reduction in the belief in unifying social values such as the virtues of diversity. The decline in social capital can also be a direct result of the reduction in exposure of students, parents and teachers to people of different abilities and those from different backgrounds. Relationships that are formed in or around primary and secondary schools can play an important role in nurturing the development of trusting relationships between different social groups (Gradstein and Justman 2002; Fischel 2006). By encouraging greater sorting and segregation, voucher schemes are likely to reduce the degree of interaction between different groups, thereby diminishing the cohesiveness of society.

*Community-specific social capital*

Public schools play a crucial role in the development of networks in local communities. These networks arise between students, parents and teachers and give rise to what Fischel (2006) describes as 'community-specific social capital' that facilitates the provision of local public goods like neighbourhood surveillance and residents' lobbying groups.

Voucher schemes threaten the development of community-specific social capital by encouraging greater segregation and the geographic dispersal of students. Where parents would previously send their children to a public school in their neighbourhood, vouchers enable them to look further a field. Although similar bonds may be formed around the voucher schools, the families are less likely to be in the

[74] See Epple and Romano (1998); Ladd (2002); Neal (2002); and Saporito (2003).

same geographic areas, leading to a decline in community-specific social capital. The decrease in community networks can have flow on effects in terms of the cohesiveness of local neighbourhoods and the provision of local public goods.

## 11. Cost-effectiveness

A crucial question for policy-makers in the context of voucher proposals is what funding mechanism is most likely to produce the greatest education outputs from a given level of inputs. According to choice advocates, voucher schemes are more cost-effective than existing funding arrangements because they would produce greater educational returns for the same or less cost.

To support this argument, many voucher proponents argue that the evidence shows that private schools spend about the same or less than public schools per student for the same or better academic outcomes (Buckingham 2000a; 2000b). Analysis from overseas indicates that in some cases private schools do have lower per student expenditures than public schools, but that this is not always the case. For example, in the United States per student expenditure in public schools often exceeds that in private schools because a large proportion of the private sector is made up of low-cost providers (Brighouse 2003).[75] In contrast, per student expenditure in private schools in the United Kingdom generally exceeds that in public schools. According to Brighouse (2003), average per-student expenditure in private schools in the United States is about half the per-student spending in public schools, while the reverse is true in the United Kingdom.

There is evidence from Chile that non-religious private schools spend slightly less on each student than public schools, while achieving the same or slightly worse academic results (Carnoy and McEwan 2003). The lower per-student costs in these private schools appear to be attributable to larger class sizes (Carnoy 1997). Among Catholic private schools in Chile, it appears that they may achieve better results than public schools, but they spend more on each student, leaving them about as cost-effective as public schools (Carnoy and McEwan 2003).

In Australia, there is considerable uncertainty surrounding the per student costs in the government and non-government school sectors. This is largely attributable to a policy of federal, state and territory governments of refusing to publish accurate data on the finances of non-government schools.

A number of voucher advocates have suggested that the per student costs in government schools are about the same as those in non-government schools (Harrison 1996; Buckingham 2000a). For example, Buckingham (2000a) suggested that in 1998 per student expenditure in private schools was approximately $6,728, compared to $6,457 in public schools.

Data published by the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) indicates that in 2003, average per student expenditure in Catholic and independent schools was $7,765 and $11,315 respectively, while the average for the whole non-government sector was $9,118 per student (MCEETYA 2003). As discussed, the average per student government recurrent expenditure on public schools in 2002/03 was $9,605. Yet, the estimates provided by MCEETYA are inaccurate as there are significant differences in the methods used to generate the

[75] See also McEwan (2000a), which discusses the evidence on the costs in public and private schools in the United States, concluding that the extent of the cost differences between the sectors is unclear.

figures for government and non-government schools. For example, unlike the estimates for government schools, the non-government school estimates do not include transport costs or capital expenses like user cost of capital and depreciation.[76] Similarly, the estimates for government schools do not include private sources of income.

An alternative approach is to estimate the average per student income available to government and non-government schools. Data published by MCEETYA suggests that in 2003, per student income in Catholic and independent schools was $7,670 and $10,969 respectively (MCEETYA 2003). For the whole non-government school sector, the average was $8,927, which compares with $9,605 per student for government schools (not including private sources of income). The Federal Government has also published data that indicates that in 2001/02, 41 per cent of non-government school income was provided by the Commonwealth (DEST 2004). On the basis of the information published by the Productivity Commission on government expenditure on schools, this suggests that average per student income in the non-government school sector in 2001/02 was $8,739 (SCRGSP 2004). By comparison, per student government recurrent expenditure on public schools in 2001/02 was $8,937 (SCRGSP 2004). However, as with the data on expenditure, there are differences in the methods used to compile the statistics on income that diminish the value of these comparisons.

Given the weaknesses associated with the data on income and expenditure, it is difficult to accurately evaluate the cost-effectiveness of the government and non-government school sectors. It appears that per student income and expenditure may be higher in independent schools than in Catholic and government schools. However, the nature of the differences between the sectors is unclear and it cannot be resolved until further information is released.

Notwithstanding these issues, several points should be made about the income and expenditure figures that are currently available. Firstly, they hide significant differences in the level of per student expenditure within each school sector.

Secondly, they do not account for service and student differences between government and non-government schools. Government schools provide free education to all students who request schooling regardless of their background or capacity to learn (i.e. the universal service obligation) and they have limited powers to expel students. As a result, the government school sector has a greater proportion of students from low socio-economic backgrounds, children with disabilities and learning and behavioural difficulties, Indigenous students and students from rural and remote areas than non-government schools (Esson *et al.* 2002; SCRGSP 2006).[77] The cost of educating these kinds of students is relatively high, meaning that the average cost of education in government schools is increased relative to the per capita costs in non-government schools.

[76] Taggart, C. New South Wales Department of Education and Training, pers. comms., 6 July 2006.
[77] For example, in 2004, approximately 5.1 per cent of full-time students in government schools were Indigenous, compared to 1.5 per cent in non-government schools; 4.6 per cent of students in government schools had disabilities, compared to 2.2 per cent in non-government schools; 3.1 per cent of students in government schools were in remote areas, compared to 1.2 per cent in non-government schools (SCRGSP 2006).

Thirdly, as students drift from the public to the private sector, per student expenditure in government schools will increase as a result of economies of scale unless there is a proportionate decrease in spending. Cutting funding to government schools is often impossible without sacrificing the commitment to the universal service obligation, or at least the objective of equality of opportunity. Consequently, part of the increase in per capita expenditure in public schools in recent years is likely to be due to the decline in student numbers and current funding arrangements.[78]

Finally, they do not accurately account for all of the resources that are available to many non-government schools. For example, teachers at religious schools are often followers of the relevant religion and they sometimes accept below-market wages because they believe they are contributing to a spiritual cause. Further, religious schools are sometimes able to provide subsidised accommodation to teachers, something that public schools rarely have the capacity to do. As Ladd (2002, p. 12) states, '[p]rivate schools, especially religious private schools, receive resources in many forms: special fees, church subsidies, teachers working at below-market wages and donations of money, time and buildings'.

Further complicating the problems associated with evaluating the cost-effectiveness of government and non-government schools is the fact that it is difficult to adjust academic outcomes to account for non-school factors (i.e. socio-economic status and prior ability).[79] If non-academic outcomes are included in the analysis, the problems are multiplied because it can be hard to accurately measure many of these issues. Due to the lack of income and expenditure data and the difficulties associated with the measurement of education outcomes, it is virtually impossible to draw any meaningful conclusions about the cost-effectiveness of the school sectors.

Even if Catholic and independent schools were currently more cost-effective than public schools, this does not mean that voucher schemes would lead to a more cost-effective school sector. As discussed, the available evidence suggests that it is unlikely that a universal voucher scheme would lead to a significant improvement in student outcomes and there is a risk that it could hinder the achievement of a number of other education objectives (i.e. social cohesion and equality of opportunity). The introduction of a universal voucher scheme would also probably require a substantial increase in government expenditure on schooling. On this basis, it would appear that a universal voucher scheme could reduce the cost-effectiveness of the school sector.

In addition, there are several other factors that suggest a universal voucher scheme would not be cost-effective, including the following.

*Variability in the school market*

If a voucher scheme produces a more competitive school market, it could result in considerable variability in school enrolments, leading to the expansion and contraction of schools and, in certain circumstances, school closures. This would produce considerable waste in the school sector, much of it taxpayer funded. The variability in the school market may also have a negative impact on the children and

[78] This is discussed in greater detail in Section 7.4.
[79] This is discussed in greater detail in Section 8.

parents that are affected by the changes (for example, emotional distress and education disruptions).

*Teachers' salaries*

The introduction of a universal voucher scheme could lead to a decline in teachers' salaries in some government and non-government schools as a result of the redistribution of resources and emergence of new private schools.[80] This could potentially increase the cost-effectiveness of the school sector. However, if lower salaries led to a decline in teaching standards,[81] it could trigger a drop in education outcomes that reduces cost-effectiveness.

The alternative proposition is that voucher schemes could prompt changes in the labour market for teachers that improve teaching standards and student outcomes (Neal 2002). For example, voucher-induced competition and autonomy effects may result in greater variability in the remuneration packages offered to teachers. This could include bonuses for effective teachers and larger incentives being offered to teach difficult subjects or in disadvantaged areas.

Although both scenarios are possible, the evidence from abroad suggests they are unlikely to have a substantial impact on the average level of student achievement and cost-effectiveness of schools, yet they may be influential at the margins. For example, in disadvantaged schools that face little competition, there may be downward pressure on teachers' salaries (particularly in low-cost private schools) that result in worse academic and non-academic outcomes. Similarly, some schools may be able to improve productivity by adopting different pay structures. However, these marginal effects are likely to be overwhelmed by other factors like peer and resource effects.

*Marketing*

Voucher schemes and choice programs are likely to lead to an increase in expenditure on marketing that has no direct impact on education outcomes. The Australian Education Union's (AEU) 2005 survey of the state of public schools found that while the majority of schools are spending less than $1,000 on advertising and marketing, some schools are spending much more (Martin 2005). In 2004, 11.5 per cent spent between $2,000 and $4,000, 6.5 per cent between $4,000 and $10,000, and 2.5 per cent between $10,000 and $30,000 (Martin 2005). Resources that are spent on marketing could be used for more productive educational purposes.[82]

If additional competition is introduced into the school sector as a result of a voucher scheme, marketing expenditure is likely to rise, with much of it being subsidised by

[80] This is most likely to occur in under-resourced schools and for-profit schools (noting that at present for-profit schools are effectively barred from the market because they are ineligible for most government subsidies (Phelan 2006; Novak 2006)).

[81] For example, lower salaries may lead to fewer talented people entering the profession and prompt effective teachers to seek careers outside of the school sector.

[82] Although not necessarily a causal relationship, it is interesting to note that Western Australia – the State that experienced the largest average annual growth over the period 1996-2004 in the independent school sector (ISCA 2005a) – was also the State in which most public school principals said that they had increased advertising and marketing expenditure (Martin 2005).

taxpayers.[83] Faced with the threat of losing funding for each lost student, administrators may be motivated to pay greater attention to the management of the school's image at the expense of educational improvements and innovation (Lubienski 2005). Poorly performing schools are at greatest risk of these effects as they may be forced to divert scarce resources away from important education initiatives in order to retain students.

*Positional goods and wasteful competitive expenditure*

Positional goods are those where the utility derived from their consumption depends upon the relative levels of consumption by other people rather than something innate in the good or service itself. There are few pure positional goods, but most goods have a positional component.

There is a considerable amount of evidence that schooling has significant positional good characteristics (Chen and West 1996; Carnoy 1997; Fiske and Ladd 2000; Ladd 2002; Adnett and Davies 2002). That is, a notable part of the utility derived from education depends on the levels and type of education that others receive. This means that one parent's attempt to improve the relative position of their child will have a negative effect on the utility of others. The response of many parents to an increase in spending by another may be to follow suit by investing a similar amount in their child's education to gain access to particular schools that offer a positional advantage. As the phenomenon spreads, the outcome can be wasteful positional competition that generates 'both low private and social marginal returns to increases in the resources devoted to schooling' (Adnett and Davies 2002, p. 193).

Contrary to the argument put forward by choice advocates that voucher schemes would end disputes about government education funding (Lindsay 2004), the wasteful positional expenditure cycle initiated by vouchers could have a domino effect on government outlays. Describing the situation as an 'arms race', Chen and West (1996, pp. 4 - 5) explain the argument in the following terms.

> [P]roposals to allocate to each family an education voucher of a value equal to the average per capita expenditure in the current public system are deemed inferior because some voucher recipients will then attempt to obtain more education by adding to the voucher from their own pockets. With the appearance of such 'add ons', large numbers of families will emulate the practice so that each and every family will be troubled by the prospect of deterioration of their relative position. When this concern spreads to the vast majority of families there will be irresistible political pressure to increase the per capita expenditure in the public system. Once such pressure is successful, the expenditure escalation will be aggravated still further, and so on.

It is unclear whether the introduction of a universal voucher scheme would prompt an educational 'arms race' and extensive wasteful positional expenditure in Australia. This does not appear to have occurred in Chile, yet the scheme was introduced while the country was under the control of a military dictatorship and Chile is a developing

[83] The New South Wales Department of Education's response to increased competition has been to initiate a marketing campaign for public schools (Doherty 2005a). Voucher schemes could trigger an expansion of similar campaigns from both the public and private sectors.

country that has suffered a prolonged period of economic hardship. Further, there is evidence that many private schools have responded to choice initiatives in the past by raising prices and limiting supply (including by being selective in enrolments). For example, when the SES funding system was introduced for the federal General Recurrent Grants Program in 2001, many private schools still raised their fees (Doherty 2005b). Similarly, over the past 25 years, real fees at both Catholic and independent schools have increased significantly despite a substantial increase in government subsidies (Ryan and Watson 2004). In New Zealand, when choice programs were introduced, certain successful schools 'did everything they could to maintain the mix of students that made them attractive to parents and students in the first place' (Ladd 2002, p. 8).

Data from the United States also support the argument that a voucher scheme would not reduce the political pressure to increase spending on education. For example, the voucher amount offered under the targeted Milwaukee voucher scheme more than doubled over the first decade of the program's operation, rising from $2,500 in 1990, to $4,375 in 1995/96 and to $5,326 in 2000/01 (Carnoy 1997; Wisconsin Legislative Reference Bureau 2001). According to Carnoy (1997), while at the beginning of the scheme voucher private schools may have had lower per student costs than in public schools, by 1995/96 rising wage rates and the escalating value of the voucher had evened out the cost ratios between the sectors. The experience in targeted voucher programs in the United States is not directly transferable to domestic proposals to introduce a universal voucher scheme, but it does cast considerable doubt on the suggestions by some voucher advocates that these initiatives would put an end to political debates about school funding.

*Summary*

On the basis of the available evidence, it seems unlikely that a universal voucher scheme would increase the cost-effectiveness of the school sector. In terms of outcomes, average academic outcomes would probably be largely unaffected by the scheme. However, there is a risk of an increase in educational inequality. There could be an improvement in some non-academic outcomes (for example, parental satisfaction), although these benefits would probably be skewed towards high income earners. Further, there could be a decline in education benefits associated with social cohesion and social capital.

These outcomes would probably be achieved at a higher cost than under the current system. Government funding would probably have to increase substantially and there is a risk of an increase in wasteful private positional expenditure. A universal voucher scheme could also result in an increase in waste and non-productive expenditure due to greater variability in the school market and an increase in school marketing. These cost increases are unlikely to be offset by any productivity increases that are associated with competition effects and greater labour market flexibility.

## 12. Subsidised religion – the separation of church and state

A prominent feature of voucher debates in the United States has been the question of whether the state should be subsidising religion by funding religious private schools. In some cases, legal challenges have been mounted on the grounds that targeted voucher programs violate the prohibition on the making of laws 'respecting an establishment of religion' in the U.S. Constitution[84] and other similar requirements in state constitutions. For example, the validity of the Cleveland Scholarship and Tutoring Program was disputed; a challenge that culminated in the United States Supreme Court's five to four decision in *Zelman v Simmons-Harris* 536 U.S. 639 (2002), where it upheld the validity of the scheme, reversing an earlier decision of the Court of Appeals for the Sixth Circuit. Similarly, in 2006, the Florida Supreme Court struck down a school voucher law on the grounds that it violated a requirement in the Florida Constitution that the state 'make adequate provision for the education of all children residing within its borders'.[85]

The introduction of a universal voucher scheme in Australia would be unlikely to ignite the same legal battles that have arisen in the United States,[86] yet it would raise questions about the division between the church and state. Religious schools already receive generous subsidies under the current funding arrangements. However, a shift to a universal voucher system would probably increase taxpayer-funded religious instruction. In the Catholic school sector, approximately 72 per cent of average per student income in 2003 was derived from government sources, while 40 per cent of average per student income in independent schools was provided by the state (MCEETYA 2003).[87] Further, as discussed in Section 2, much of the growth in the non-government sector over the past 20 years has been in religious schools. The introduction of a universal voucher scheme is likely to result in more government resources being provided to religious institutions.[88] This trend has been witnessed in a number of other areas in Australia in recent times as governments have sought to contract out core activities such as the provision of health and welfare services.

One of the dangers associated with the provision of funding to religious schools is that these schools may teach values that are inconsistent with the welfare of the general community. Greater reliance on religious institutions to provide core government services also gives these institutions a greater ability to influence public policy. For example, they may be able to refuse to provide services to homosexuals, single mothers and people from certain faiths (Wilkinson *et al.* 2004). In addition, the

[84] United States Constitution, Bill of Rights, Amendment One.

[85] Florida Constitution, Article IX, Section 1(a). See *Bush v Holmes* SC04 – 2323 (2006) available at: http://www.floridasupremecourt.org/decisions/2006/sc04-2323.pdf (28 February 2006). In relation to the Milwaukee Parental Choice Program, see *Davis v Grover*, 166 Wis. 2d 501 (1992) and *Jackson v Benson*, 218 Wis. 2d 835 (1998).

[86] The High Court of Australia has approved Commonwealth school funding arrangements that provide resources to religious schools. See *Attorney-General (Victoria); Ex Rel. Black v Commonwealth* (1981) 146 CLR 559.

[87] In 2001/02, approximately 57 per cent of non-government school funding came from government sources (DEST 2004).

[88] Research from the United States has found evidence that the strength of parents' religious beliefs has a significant effect on the probability of their children attending a religious school (Sander 2005).

control that these institutions have over the delivery of these services may give them an enhanced capacity to shape the opinions of politicians and senior public servants.

As a result, voucher schemes could further erode the separation of church and state and give certain religious institutions unwarranted influence over political decisions and public policy. They would also increase the risk that government funding could be provided to groups that threaten the safety and cohesion of society.

## 13. Conclusions

The objective of education policy should be to maximise the public and private benefits obtained from the resources invested in schools. This process is complex because the pursuit of public benefits sometimes conflicts with private benefits and *vice versa*. Proper policy-making should involve a balancing process where public and private costs and benefits are weighed against one another to obtain an outcome that maximises wellbeing.

The problem with universal voucher schemes is that while increased choice provides private benefits for some, there is a significant risk that these benefits would be outweighed by the associated social costs. The main risks are that vouchers would lower the average level of educational achievement, decrease equality of opportunity and reduce social cohesion. Voucher schemes are also likely to be expensive and lead to a widening of the resource gap between both government and non-government schools, and between wealthy and poor private schools.

Debates concerning school vouchers are often dominated by groups that have diametrically opposing views on the role of schooling. Choice advocates believe private concerns and choice are more important than public good objectives, while opponents sometimes see social cohesion and equality of opportunity as more important than parental choice. The polarisation of voucher debates is reflected in the literature on the subject. Both sides have downplayed the legitimate aspects of the opposing arguments and have been guilty of exaggerating the extent to which the evidence supports their causes.

The difficulty for voucher advocates is that they are asking for a radical change to the structure of the school sector, but are unable to point to any persuasive evidence on the supposed educational benefits of these schemes. The main pillars of the case put forward by voucher proponents are that: voucher-induced competition would raise teaching standards and improve academic outcomes at both public and private schools; vouchers would generate a more cost-effective school sector; and vouchers would provide parents with greater choice. The only one of these arguments that is supported by the available evidence is that vouchers would increase parental choice, although these benefits would probably be largely confined to middle and high income earners.

The evidence on the effects of voucher-induced competition is mixed, with the most likely outcome being that while average academic outcomes would neither increase nor decrease significantly, there could be an increase in the level of inequality in achievement. In terms of cost-effectiveness, the impacts would depend on the design of the scheme, although any universal scheme would probably result in a substantial increase in school-related expenditure. Given the data on academic and non-academic outcomes, it is likely that a universal voucher scheme would decrease the cost-effectiveness of the school sector.

While vouchers may not be cost-effective, they would probably increase parental choice. The additional funding provided by vouchers would enable a greater proportion of parents to send their children to private schools and parents wanting to send their children to public schools would probably have a greater range of options.

However, there is likely to be considerable socio-economic and regional variation in the extent of choice. Many parents in disadvantaged and rural and remote areas would probably not see any significant improvements in the choices available to them. Similarly, a significant number of middle and low income families would have limited options because of their inability to pay top-up fees and associated costs (for example, uniforms, excursions and travel costs).

The positives of greater choice must be weighed against the financial costs and risks associated with voucher schemes. Universal voucher schemes would direct more resources to wealthy private schools at the expense of public schools and poor private schools, thereby reducing the opportunities available to children from low socio-economic backgrounds. The redistribution of students and resources under a voucher scheme could result in sink schools that offer services that are vastly inferior to those available in the rest of the school sector. Public schools could ultimately become nothing more than a safety net for those who cannot afford to send their children to private schools. Moreover, vouchers could lead to greater sorting and segregation on the basis of race, religion, socio-economic status and academic ability, which could reduce the capacity of schooling to nurture unifying social values and social capital.

Faced with arguments about the fairness of vouchers, some choice advocates have responded by suggesting that vouchers are more equitable because parents would receive a more equal allocation of government funding. However, rather than promoting greater equality, vouchers could entrench educational disadvantage amongst the most vulnerable groups in society, while fracturing the social capital that is needed to alleviate poverty and raise wellbeing.

There is nothing inherently wrong with policies that promote greater parental choice, but choice should not be pursued at the expense of all other education objectives. This does not mean that school policies should be immune to the forces of change. There is considerable scope for alterations to be made to improve student outcomes, promote greater equality of opportunity and further narrow the performance and resource gap between government and non-government schools. For example, community-based charter schools appear to have some potential and changes may be able to be made to employment practices and wage scales to promote greater labour productivity. Commonwealth school funding policies could also be restructured to ensure resources are directed to the areas where they are likely to provide the greatest educational returns. These and other similar reforms do not suffer from the disadvantages associated with universal voucher schemes and they could potentially realise far greater improvements in education outcomes.

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