

# **Towards 2020: An Unsubstantiated, Flawed and Inequitable School Plan**

**A Submission to the ACT Department of Education  
and Training**

**Save Our Schools**

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# Table of Contents

<b>Summary</b> .....	<b>4</b>
Government claims are unsubstantiated or just plain wrong .....	4
The educational case .....	4
The savings case .....	4
The demographic case .....	5
Arresting the shift to private schools .....	6
Towards 2020 is inequitable .....	6
Towards 2020 is a threat to public education .....	6
There is an alternative .....	7
<b>1. Introduction</b> .....	<b>8</b>
<b>2. The Educational Case for Closing Schools is Unsubstantiated</b> .....	<b>9</b>
Government case .....	9
Defining small schools .....	9
Small schools and education outcomes .....	10
The interaction of school size and SES background on student achievement .....	13
Curriculum and small schools .....	14
ACT curriculum .....	14
Research studies .....	15
Curriculum breadth and depth .....	17
School amalgamations and student outcomes .....	17
Choice of school structures .....	19
<b>3. The Savings to Government are Over-Estimated</b> .....	<b>22</b>
Government case .....	22
Over-expenditure on ACT government schools .....	23
Cost difference between small and large schools is exaggerated .....	23
Savings to the Department of Education are over-estimated .....	24
SBM enrolment-related costs appear to be under-estimated .....	24
Several one-off costs are excluded .....	25
Some on-going costs are ignored .....	26
Failure to account for actual and potential loss of rental revenue .....	26
Savings from shifting enrolments to the private sector .....	26
Costs and revenue incurred by other Government agencies .....	27
School bus costs are not included in savings estimate .....	27
Traffic safety measures .....	29
Building maintenance and security costs .....	29
Sale of school sites .....	29
Conclusion .....	30
<b>4. Costs are Transferred to Families and the Community</b> .....	<b>31</b>
Financial and other costs to families .....	31
Traffic safety issues .....	31
Environmental and other impacts .....	31
Employment effects .....	31
Impact on property values .....	31
Social impact .....	32
Failure to provide a social cost-benefit analysis .....	34
<b>5. Towards 2020 is Inequitable</b> .....	<b>37</b>
Low-income families .....	37

Indigenous families .....	39
Families of students with disabilities .....	40
Compound effects on target equity groups .....	41
<b>6. The Enrolment Shift to Private Schools is More Likely to Increase .....</b>	<b>42</b>
Factors influencing choice of private schools .....	42
Loss of choice of small schools.....	43
<b>7. The Role of the Neighbourhood School in Public Education is Ignored.....</b>	<b>44</b>
Public education and the neighbourhood school.....	44
Has the public deserted the neighbourhood school? .....	46
<b>8. Excess Space in Schools is an Opportunity.....</b>	<b>47</b>
A hierarchy of options for use of excess space .....	48
Education uses.....	48
Community uses.....	49
Private Sector uses .....	49
<b>9. An Alternative Vision: Community Schools.....</b>	<b>50</b>
What are community schools? .....	50
The objectives of community schools.....	51
Impediments to extending school/community links.....	52
Future directions.....	54
<b>References .....</b>	<b>55</b>
Appendix A .....	60
<b>The Interaction of School Size and Socio-Economic Status on Student Performance 60</b>	<b>60</b>
School size research .....	60
School size, socio-economic status and student achievement.....	61
Assessment of methodology.....	63
Policy implications.....	64
References .....	66
Appendix B .....	69
<b>Main Findings of Curriculum Review in Belconnen High Schools .....</b>	<b>69</b>
Appendix C .....	73
<b>School Bus Cost Studies 1990 .....</b>	<b>73</b>
Treasury study .....	73
SOS Canberra study .....	74

## Summary

Save Our Schools rejects the Government's plan to the closure and amalgamation of schools proposed in Towards 2020. Towards 2020 constitutes a major threat to the future of public education in the ACT. It will remove easy geographical access to public education for a large number of families, including many low income and Indigenous families. It threatens greater inequity in education rather than improved equity as the Government claims.

### Government claims are unsubstantiated or just plain wrong

#### The educational case

- The Government has failed to show that small schools deliver lower student results than larger schools and that educational outcomes will be improved by closing schools.
  - Student results in small schools are just as good, if not better, than in larger schools.
  - New research shows that school closures and amalgamations are more likely to lead to lower student achievement.
- The Government has failed to take account of new research that shows that students from low socio-economic backgrounds do better in smaller schools.
- The Government has failed to show that curriculum is less comprehensive in small primary schools than in larger schools or that it is inadequate in the smaller high schools and colleges.
  - The Government's claims on the curriculum are contradicted by the findings of the ACT Curriculum Renewal Task Force and other comparisons of school curriculum.
- The Government has failed to demonstrate that changing school structures will improve education outcomes.
  - Research shows that changing school structures has little effect on education outcomes.

#### The savings case

- Government claims that the ACT is over-spending on government schools are wrong. Most of the difference between the ACT and the national average is accounted for by:
  - higher superannuation costs;
  - higher depreciation costs; and
  - a higher proportion of students in the high cost senior secondary years.
- The Government has exaggerated the financial case for school closures.
  - It has over-estimated the costs of small schools;
  - It has over-estimated the savings to the Department of Education from closing schools
  - It has failed to take account of increased costs to other government departments;
  - It has failed to take account of increased costs to families and the community.
- ACT Government has overstated the difference between the average costs of larger primary schools and small schools by over \$7,500 per student.

- The savings to the Department of Education are over-estimated because:
  - The enrolment component of school-based management funds appears to be too low;
  - Several significant one-off costs have been ignored, including for the duplication of special education facilities in other schools, purchase of new demountable classrooms and/or the transfer and installation of existing demountables, and refurbishment works in schools that will receive additional students.
  - The loss of actual and forgone rental revenue and some ongoing costs were not included.
- Other government agencies will incur additional costs as a result of school closures for:
  - Increased demand for school bus services;
  - Additional traffic safety measures; and
  - Ongoing building maintenance and security costs.
- Significant savings to the Government from closing schools will be dependent on selling off school grounds and shifting large numbers of students into the private sector where the Commonwealth provides most of the funding.
- Savings to the Government will be at the expense of increased costs to families and the community, including:
  - Increased financial costs to families for transport to and from school;
  - Increased traffic safety risks in travelling to and from school;
  - Increased environmental costs;
  - Reduced property values;
  - Loss of community facilities and services; and
  - The break-up of support and friendship networks for students and families based around schools

### **The demographic case**

- The Government's projections of declining enrolments in schools proposed for closure appear to be inaccurate according to new ABS birth figures for the ACT.
- New births are increasing in most of the suburbs in which schools are proposed to close
  - Nine of the 13 urban primary schools in Canberra proposed for closure are in suburbs where birth numbers have increased over the last 5 years.
  - The birth numbers in many suburbs where schools are proposed for closure are now similar to those in many other suburbs whose schools are seen as viable in the longer term.
- Fertility rates have increased since 2000 in suburbs where 11 schools are proposed for closure. All 13 urban schools slated for closure are in suburbs where the fertility rate in 2005 is above the average for the ACT.
  - Several suburbs in which schools are proposed for closure have amongst the highest fertility rates in Canberra. For example, the fertility rates for Flynn and Chifley (Melrose PS) are 2.29 and 2.22 respectively, compared to the average for the ACT of 1.63.

## **Arresting the shift to private schools**

- The Government claims that the introduction of a range of new school configurations will improve choice in the government school system and help arrest the shift of enrolments to private schools are mistaken.
  - Research shows that demand for different school structures is not a factor in the choice of private schools.
- Despite Government claims, the physical infrastructure of schools is not an important consideration in the choice of private or public schools.
- Towards 2020 is more likely to drive more people into the private sector because:
  - it denies many parents what they want most – a good quality local school, where their children can mix with others in the neighbourhood and travel safely to and from school.
  - it denies parents the choice of sending their child to a small school in the government sector.
- Government policy on small schools is contradictory because it proposes to abolish or severely reduce the option to attend a small school in the government sector, while it continues to fund small schools in the private sector.

## **Towards 2020 is inequitable**

- The least well-off families will bear the brunt of the burden of school closures.
  - Nearly half of all primary schools in Canberra with disadvantage factors of over 40% are proposed for full or part closure.
  - Of the 20 primary schools listed for full or part closure, 10 have a relatively high proportion of their students from disadvantaged family backgrounds.
- Indigenous students and their families will bear a disproportionate burden of the costs and disruption from the Government's school closure plan.
  - Only 10 schools in Canberra have more than 5% of their total enrolments comprised of Indigenous students and 7 of these schools are on the list for full or partial closure.
- Students with disabilities (SWD) and their families will also bear a disproportionate burden of school closures.
  - Over half of the primary schools proposed for full closure (8 of 15) and four of the five schools proposed for partial closure (4) have 5% or more of their enrolments comprised of SWD.
  - Over half of all primary schools with 10% or more of their enrolments comprised of SWD are proposed for full or partial closure (7 of 12).
  - The two high schools and the college with the largest proportion of enrolments comprised of SWD are proposed for closure.

## **Towards 2020 is a threat to public education**

- Towards 2020 abrogates the principle of public education to provide easy geographical access to schools in order to ensure universality and equity in education.

- Closing neighbourhood schools eliminates a key feature that distinguishes public education from private schools, namely ready access to a local primary and high school.
- Reduced access to neighbourhood schools will undermine parent and community participation in schools.

### **There is an alternative**

- Excess space in schools is an opportunity for other educational, community and private uses.
- Community schools offer a better way of strengthening public education than closing neighbourhood schools.

# 1. Introduction

Towards 2020 is a major policy initiative of the ACT Government announced on 6 June 2006. It has four main features:

- An extensive school consolidation program involving the closure and amalgamation of pre-schools and schools;
- The introduction of a range of different school structures;
- A capital funding program for new schools and infrastructure upgrades of existing schools; and
- Increased funding for school maintenance.

In addition, the ACT Government has initiated significant changes in the operations of the Department of Education and Training by transferring some functions to a whole-of-government shared services centre and by making significant reductions in central office costs. This initiative is not considered to be part of the Towards 2020 package of measures.

The overall objective of Towards 2020 as stated by the Government is to rejuvenate the public education system to deliver the best educational outcomes for students.

*Towards 2020: renewing our schools* is a commitment to provide children and young people in the ACT with a vibrant, responsive world-class public education system, a system that is second to none, one that celebrates diversity, strives to achieve excellence and is accessible to all. This announcement will make immediate and far-reaching improvements to our schools and will secure a sustainable education system into the future. [Minister for Education, Hansard, 7 June 2006].

The particular objectives of Towards 2020 are outlined in Budget Paper 3 [ACT Treasury 2006b: 23] as follows:

- Achieve better educational outcomes for students;
- Improve confidence in the government school system and make it a more attractive choice for parents and students; and
- Deliver government schooling in more efficient ways.

The submission assesses the Government's rationale for the school consolidation and restructuring proposals. It focuses on issues relating to schools, although many of these are also relevant to pre-school closures and amalgamations.

ACT Education Act 2004, section 20 (5), states that:

Before closing or amalgamating a government school, the Minister must-  
(a) have regard to the educational, financial and social impact on students at the school, the students' families and the general school community.

This provision implies that a social cost-benefit analysis should be undertaken of proposals to close schools. This submission attempts to address the range of issues that should be taken into account in such an analysis.

## **2. The Educational Case for Closing Schools is Unsubstantiated**

### **Government case**

The Minister for Education has stated that Towards 2020 is intended to provide students with greater choice and diversity through the provision of a range of high quality learning environments and opportunities [ACT Department of Education and Training 2006]. Towards 2020 provides a range of different school structures for students and their families to choose from.

The Government's case for closing schools is partly based on educational grounds. It considers that small schools limit the curriculum and educational opportunities available for students.

...small schools limit the opportunities for students to participate in a rich curriculum and all key learning areas. [Towards 2020 website]

There is another potential complication with smaller schools—particularly high schools. When population size falls beyond a particular point a school must, of necessity, limit its curriculum choices. In some cases, students at small schools lack the choices—and the resources—students at more sustainable schools take for granted. [ACT Treasury 2006c: 11]

However, the Government has failed to demonstrate that educational outcomes will be improved by closing schools. It has failed to show that small schools deliver lower student results than larger schools. There is no robust research evidence that shows that small schools have lower student achievement than other schools and there is no research evidence that there is a minimum school size in relation to education outcomes. Student outcomes in small are at least equal to, if not better than, outcomes in larger schools.

The Government has failed to take account of a new stream of research literature that shows that small schools mitigate the effects of low socio-economic status (SES) on education outcomes and that students from low SES backgrounds do better in smaller schools.

There is no evidence to show that curriculum is less comprehensive in small primary schools than in larger schools. However, high schools with under about 100 students per year level have some difficulty in providing adequate curriculum breadth.

The Government has also failed to demonstrate that changing school structures will improve education outcomes. The available research shows that changing school structures has little effect on education outcomes.

There is also evidence that school closures and amalgamations are more likely to result in lower student achievement in a majority of cases, unless long lead times are allowed and careful planning and support for change management is implemented.

### **Defining small schools**

The definition of small and large schools is a key point in the discussion of the relationship between school size and student outcomes. The range of school size varies considerably between countries, regions and school systems. The range of school size in the United

States, where most research on the impact of school size has been undertaken, is much wider than in Australia. It is apparent, for example, that many urban secondary schools are very large compared with the larger secondary schools in Australia and the ACT.

These differences in school size between countries and regions raise issues as to the definition of a small or large school. Different studies employ widely differing definitions. For example, even among small school advocates there is little agreement about the definition of a small school [Howley 2002a].

Some broad approximations about school size categories can be derived from surveys of research results. A common approach in the United States is to define small schools at the primary or elementary school level as those with enrolments of less than 200. At the secondary school level, a small school seems to be one with less than 400 or 500 students.

In general, one can think of high schools enrolling 400 or fewer and K-8 or K-6 elementary schools enrolling 200 or fewer (on the basis of a 2:1 ratio with high schools) as small. [Howley 2002a]

In contrast, it is more common in the UK to define small schools as having less than 100 students [Phillips 1997; Ofsted 2000]. It is also common practice in the UK to refer to “very small schools” as schools of less than 50 students [Ofsted 2000].

A classification adopted by the Commonwealth Schools Commission [1984] in its study of school size and its effects still remains a useful guide (Table 1).

Table 1: Classification of School Size

Size Category	School Level	
	Primary	Secondary
Very small	<35	<200
Small	<200	<500
Medium	200 - 300	500 – 900
Large	500	900
Very large	800	1000

### Small schools and education outcomes

There is no robust research evidence to suggest that small schools deliver worse education outcomes than larger schools. Indeed, many studies conducted during the past 20 years have found that small school size, particularly at the primary school level, has a positive effect upon student achievement, extra curricular participation, student satisfaction, student behaviour and attendance.

Professor Brian Caldwell has summarised the research evidence on school size and it provides a compelling critique of the Government’s proposal to close small schools [Caldwell 2005]. His summary of the research shows that academic achievement in small school is at least as equal, and often superior to that of large schools. Student attitudes towards school and learning are overwhelmingly positive in small schools. Students have a better concept of themselves as individuals and learners. They also have a much better sense of belonging to a community, with much less alienation than occurs in large schools.

As a result, behaviour problems are much lower in small schools. Students are much safer and suffer less harassment and bullying. Attendance is higher and more students participate in extra-curricular activities.

It is worth citing Professor Caldwell's detailed findings from the review of the literature because it effectively rebuts the Government's education rationale for closing small schools. These findings are:

- Academic achievement in small schools is at least equal – and often superior – to that of large schools.
- Student attitudes towards school in general and toward particular school subjects are more positive in small schools.
- Student social behaviour – as measured by truancy, discipline problems, violence, theft, substance abuse, and gang participation – is more positive in small schools.
- Levels of extracurricular participation are much higher and more varied in small schools than large ones, and students in small schools derive greater satisfaction from their extracurricular participation.
- Student attendance is better in small schools than in large ones.
- A smaller percentage of students drop out of small schools than large ones.
- Students have a greater sense of belonging in small schools than in large ones.
- Student academic and general self-concepts are higher in small schools than in large ones.
- Interpersonal relations between and among students, teachers, and administrators are more positive in small schools than in large ones.
- Students from small and large high schools do not differ from one another on college-related variables such as entrance examination scores, acceptance rates, attendance, grade point average, and completion.
- Teacher attitudes toward their work and their administrators are more positive in small schools than in large ones.

The positive benefits of smaller school environments are particularly important for students from disadvantaged backgrounds. Caldwell notes that “poor students and those of racial and ethnic minorities are more adversely affected ..... by attending large schools than are other students.”

It should be noted that, despite public assertions by the Minister for Education that Caldwell's research is Australian based, it is in fact based almost entirely on a review of the research literature in the United States by Cotton [1996].

Caldwell's summary of findings has been confirmed by a recent overview of the research on school size prepared by the Education Commission of the States [ECS n.d] in the US. It states that researchers have reached broad consensus on several key issues:

- Under the right conditions, as schools get smaller they produce stronger student performance as measured by attendance rates, test scores, extracurricular activity participation and graduation rates;
- Smaller schools appear to promote greater levels of parent participation and satisfaction, and increase communication between parents and teachers;
- Teachers in small schools generally feel they are in a better position to make a genuine difference in student learning than do teachers in larger schools;

- There appears to be a particularly strong correlation between smaller school size and improved performance among poor students in urban school districts. These findings provide evidence that smaller schools can also help narrow the achievement gap between white/middle class/affluent students and ethnic minority and poor students;
- Smaller schools provide a safer learning environment for students.

These findings confirm earlier reviews of the research literature [Fowler & Walberg 1991]. More recent reviews and research studies generally support the conclusion that students perform better in smaller elementary and middle schools while the findings for high schools are mixed [Garrett et.al. 2004; Howley 2002a; Hicks & Rusalkina 2004; McMillen 2004; Stevenson 2006]. Small schools bring a range of benefits to students [Jimerson 2006].

Similar conclusions about small schools and student achievement have been arrived at in reviews of primary schools in the UK. For example, the Office of Standards in Education (Ofsted) has made the following conclusion.

In terms of the overall quality of education, inspections show that pupils in small schools are not disadvantaged in comparison with those in larger schools because of the size of school. Small schools are equally capable of providing an effective education and many are among the most effective in the country. [Ofsted 2000]

The Ofsted review found that in the end-of-key-stage National Curriculum tests, small schools achieve on average higher scores than larger schools. The very small schools, while also achieving test results well above the average overall, are more variable in their performance.

There are conflicting findings about the optimal size of schools. Caldwell states that many researchers indicate that an appropriate and effective size is 300-400 students for a primary school and 400-800 students for a secondary school. However, there is no general agreement about the optimal size of schools, especially in the case of primary schools. This is acknowledged on the Towards 2020 website, which states that there is no optimal size for a school.

Similarly unresolved is the question of when, if ever, a school can be too small [ECS n.d; Lee & Smith 1997; Howley & Howley 2004]. Despite the extensive literature on the relationship between school size and student achievement, there is little research evidence about the lower limits of school size.

A school serving 50 students cannot be judged to be “too small” on the basis of any research known to the authors. [Johnson et.al. 2002]

A review of school size issues in Australia by the Commonwealth Schools Commission concluded that it is unclear how small primary schools can become before they become educationally disadvantaged [1984: 57].

Some years ago, the International Encyclopedia of Education stated that the quality of education argument was rarely strong enough to justify closing small schools. The subsequent accumulation of evidence only confirms this judgement.

## **The interaction of school size and SES background on student achievement**

Much of the research literature on school size and student achievement has overlooked the possibility that school size may be associated with different outcomes for students from different backgrounds. This gap has been rectified by a range of state-wide and national studies in the United States since the mid-1990s. A review of these studies is presented in Appendix A.

Almost without exception, the studies show that small school size is unambiguously good for students from low socio-economic status (SES) backgrounds and communities with relatively high levels of disadvantage. Students from low SES backgrounds achieve better results in smaller schools. Small schools with high concentrations of students from low SES backgrounds have higher average results than large schools with similar concentrations.

Large schools do academic harm to students from low SES backgrounds. As schools get larger, average achievement among schools enrolling high proportions of low SES students declines. As one study says, increasing school size “imposes increasing ‘achievement costs’ in schools serving impoverished communities”.

Small schools mitigate the effect of low income and poverty on student achievement, the relationship being substantially weaker among smaller schools than among larger schools. In general, the impact of poverty on student achievement in small schools is estimated to be about half that in large schools.

For example, a 2004 Ohio University study of national data shows that students attending the smallest schools experience a 60 per cent reduction in the influence of SES on mathematics performance, a 39 per cent reduction on reading performance, a 50 per cent reduction for science, and a 45 per cent reduction for history.

The benefits of small schools for students from low SES backgrounds appear to be particularly important in the middle years of schooling, when some students start becoming susceptible to dropping out of school in later years.

The methodology used in these studies has undergone rigorous assessment, most recently in May this year by a review at the University of Maine’s College of Education. The findings have proved robust for different technical specifications of the modeling procedures used for the statistical analysis, which is a rare degree of consistency in educational research.

Many of the studies included statistical controls for a range of other factors that influence student achievement. For example, a 2001 study of Texas schools included controls for ethnicity, language, size, expenditure per student, and curricular composition factors including special education programs. The inclusion of these factors did not significantly alter the results.

The range of school sizes included in the studies was variable. Some studies compared small and larger schools while others compared schools on a continuum from smaller to larger schools. Most of the studies included schools of less than 100 students while in some the minimum size of schools was about 200.

These studies offer no support for government proposals to close small schools, especially those serving communities with significant levels of socio-economic disadvantage. The following conclusion from one study is representative:

Findings from this study obviously offer no support for arrangements that work to increase the size of already small schools, especially those that serve impoverished communities...In light of the findings from this and other studies, concern for achievement and for reducing achievement gaps means that educators and policy makers must search for ways to meet these challenges without closing schools that are already appropriately small.

Indeed, increasing school size may produce educational effects that are the opposite of those that the Stanhope Government claims it intends with Towards 2020. School consolidation, without regard to student background, is likely to increase the large inequity that already exists in ACT school outcomes and diminish the outcomes of some students. In particular, it may undermine recent progress in improving Indigenous outcomes.

The ACT Government has ignored these research studies in developing its school closure plan. The Towards 2020 website fails to include them in its links to papers on school size research. This is unfortunate because the studies have clear policy implications.

First, small schools should be maintained in low SES communities and the most impoverished communities should be served by the smallest schools. Second, government policies should strengthen the benefits of smaller schools serving low income families, rather than seek to close them. Third, large schools may not be as cost effective as is often assumed, especially if they lower outcomes for significant groups of students and increase inequity in education.

## **Curriculum and small schools**

As noted above, the Government claims that curriculum opportunities are limited in small schools. This assertion is unsubstantiated. The Government has failed to provide evidence to support this statement.

The Government's claims are contradicted by with information about curriculum in small schools in ACT government schools and broader research on curriculum in small schools. The Government's claims also tend to ignore the place of curriculum depth in student learning.

### **ACT curriculum**

The review of ACT curriculum undertaken by the Curriculum Renewal Task Force [2004] found that the structure of curriculum was similar across primary schools and high schools in the ACT. Its evaluation of curriculum did not observe that students in smaller schools had a less comprehensive curriculum than students in other larger schools.

A cursory review of the curriculum in government primary schools shows that it is broadly similar across schools and that there are no significant differences between small and larger schools. All small schools cover the key learning areas and provide a range of enrichment and extra-curricular activities.

The curriculum of small and larger high schools across schools is also similar. In 2005, Save Our Schools conducted a survey of the curriculum at Ginninderra District, Canberra,

Belconnen and Melba high schools. It found that the small high school (GDHS) had a similar curriculum to the other larger schools in the region. A summary of the review findings is provided in Appendix B.

In particular, students at GDHS had access to a comprehensive curriculum that incorporated all Key Learning Areas (KLAs), considerable choice in electives and programs designed to meet their particular needs. The curriculum structure in each high school in the region was broadly similar: all Year 7 students in each school were required to study each of the 8 KLAs and each school required all students in Years 8-10 to study in 7 KLAs. Each school had a variety of electives in Years 9 and 10.

The review also showed that each school has a similar range of special programs. For example:

- Each school provided special learning assistance in small classes for students who were significantly behind their peers
- Each school offered debating and public speaking experience
- Each school had one or more school bands
- Each school provided student welfare/support services such as counselling
- Each school provided careers advice and work experience opportunities

Each school also had similar facilities and equipment. Each school had similar IT, Library and Technology facilities. As in the other schools, GDHS incorporated IT learning across curriculum programs and students had access to modern IT equipment and facilities.

The most significant difference between the curriculum program at GDHS and the other high schools surveyed was in streaming students by ability. GDHS operated mixed ability classes in all areas except Mathematics while the other schools all stream students by ability in English, Maths and Science. However, this is not a difference in the quality of schooling. Modern research shows mixed findings on streaming and mixed ability classes. Some researchers claim slight gains for one type of grouping, while others find the contrary.

## **Research studies**

There are relatively few research studies on school size and curriculum and they largely focus on high schools, where breadth of curriculum is considered to be more important than in primary schools.

Haller et. al. [1990] raise the important issue of what is meant by a more comprehensive curriculum. It is clear that large schools offer more courses than small ones. Proponents of planning larger schools and consolidating existing schools often point to this fact in support of their position. However, it is less clear that offering more courses is equivalent to offering more comprehensive programs. Secondary schools have sometimes been criticised for adopting a 'shopping mall' approach to curriculum provision by offering students choice among inconsequential and disconnected elective courses.

...if large size simply leads to more courses ungoverned by any larger view of purpose, the result can be a decrease in comprehensiveness of the curriculum actually experienced by students. Courses in Rock Poetry and Occult Literature are not patent improvements to the comprehensiveness of a school's English curriculum. Thus, arguments connecting school size with curricular comprehensiveness are problematic when they are based on the mere number of courses offered. [Haller et. al. 1990: 110]

Another consideration is the extent to which any relationship between size and comprehensiveness is the same across subject areas. Even if increasing size routinely promotes a more comprehensive program in foreign languages, for example, there is no reason to expect the same result in other program areas.

It is important to ascertain the extent to which benefits of size generalize across curricula. Studies that contrast the total number of courses offered by small and large schools miss the important possibility of such variation. [Haller et. al. 1990: 110]

Moreover, where deficiencies occur in the breadth of curricula it is necessary to establish the significance of such deficiencies. Some gaps will not be as of concern as others.

A review of research studies on school size and curriculum suggests that many small high schools maintain programs that are comparable in quality to curricula of larger schools [Roellke 1996]. In cases where deficiencies have existed, many small schools have achieved curricular adequacy through various restructuring efforts, including integration of curricula, innovative scheduling, higher education cooperatives, inter-district sharing, and use of instructional technologies.

Haller et.al. [1990] found that high schools enrolling as few as 100 to 200 students offer base courses in core curricular areas such as mathematics and science at rates comparable to high schools enrolling between 1,200 and 1,600 students. However, it also found that there is less incidence of advanced courses in the smallest high schools.

Extracurricular opportunities in small high schools appear to be less extensive than in large high schools [Roellke 1996]. Nevertheless, student participation rates are greater in smaller high schools than in larger high schools and individual students in smaller settings are involved in a greater diversity of activities.

In the UK, Ofsted has found that it is well within the capacity of small schools to teach the full range of the National Curriculum [Ofsted 2000; see also Ofsted 1999]. Many do it well, making good use of their environment and the community. They often supplement the strengths of staff with outside help, which provides not only better provision for the National Curriculum subjects but also extends the range of curricular and extracurricular activities on offer. It found that the curriculum of small schools was generally as broad and as balanced as that of larger schools. Most small schools provide a range of extra-curricular activities.

An Australian study analysed the influence of enrolment size on the broad patterns of curriculum provision, specifically curriculum breadth and depth, in the Victorian system of government high schools [McKenzie 1992]. Schools ranged in size from 76 to 1234 students. It showed that at the whole school level, school size played a relatively small role in accounting for variation between schools in curriculum breadth. Almost all the schools provided some classes in the nine broad curriculum areas that were used to guide the analysis.

School size was more important in accounting for variation between schools in curriculum depth, that is, the average number of subjects provided per broad curriculum area. On average, each additional 100 students was associated with the provision of an extra subject, so that a school with 1200 students provided about nine more subjects than a 300 student

school. Thus, the differences in curriculum depth between small and large schools are not all that significant. However, by providing multiple classes for subjects, large schools have the potential to offer students a greater chance to enrol in their subject of choice.

The study showed that enrolment size was a more important influence on curricular provision in Years 11 and 12 than in Years 7-10. It suggested that curricular gains from increasing school size begin to peter out above 800 students. Above that level, schools started to offer more of the same rather than a curriculum that was markedly more comprehensive. Even in regard to Years 11 and 12, the results suggested that schools with 700 students provided a curriculum that differed little in comprehensiveness from schools that enrolled half that number.

While much school consolidation has been based on the belief that larger schools have higher-quality curricula, one of the key findings of Professor Caldwell's summary of research on small schools is that this assertion is not necessarily true [Caldwell 2005].

### **Curriculum breadth and depth**

It is important to emphasise that breadth of curriculum breadth is not the only criteria to have regard to in assessing the adequacy of school curricula. Indeed, it may not even be the most important criterion.

To develop competence in an area of inquiry, students must have a deep foundation of factual knowledge, understand facts and ideas in the context of a conceptual framework and organise knowledge in ways that facilitate retrieval and application [Donovan et. al. 2000: 12, 16]. Consequently, the emphasis on breadth as a means of helping students to identify areas that interest them needs to be balanced by a commitment to teaching fewer topics in depth thereby allowing students to grasp the core and defined concepts in each area. In the same vein, assessment must focus on deep understanding rather than surface knowledge.

In-depth study sets students a demanding challenge that is valuable for developing their skills and abilities. It requires them to engage with a degree of complexity and detail not found in breadth of study alone. Depth of study is therefore an important component of the secondary school curriculum.

As long as small schools are engaging students in opportunities for in-depth learning, any absence of a wide range of curriculum options is unlikely to be a significant detriment to their education.

### **School amalgamations and student outcomes**

Closing a school and moving students from the site where they have a sense of belonging and community to an alien environment has varying effects on the lives of students and their families. The available research reports that students are likely to experience loss, displacement and various degrees of difficulty settling into a new school environment [Churchill & Carrington 2001]. In particular, students are likely to experience something of a culture shock. They are often dispersed between receiving schools thus disintegrating friendship groups and patterns of collegiality. In effect, the culture in which these individuals have been successfully operating is dissolved. Furthermore, students enter environments where the culture is both firmly established and different to the culture they have known.

These experiences may have implications for student achievement in the new school.

There is evidence that school closures and amalgamations are more likely to result in lower student achievement. A recent study by the Hay Group [2006], a major international consultancy firm, shows that 55% of merged schools in the UK had a sustained decline in student performance in the three years after the merger compared to the average for the separate schools in the three years beforehand. It says that the number of merged schools that have lower student results 'is worryingly high.'

The findings vary between primary and secondary education, with 68% of merged secondary schools experiencing an ongoing drop in performance and half of all primary schools experiencing a sustained decline.

The Hay Group's findings are based on a detailed study of 73 full-scale school mergers across the UK over the past six years, involving more than 200 schools in a broad range of socio-economic areas. The study collected data compared student achievement in the three years after the merger (for the combined school) with attainment in the three years before the merger (for the two or three separate schools).

The study found that there are three distinct groups developing among merged schools:

- 28% of schools experienced a one- or two-year dip and then recovered;
- 21% of schools immediately exceeded their pre-merger performance and continued to improve; and
- 51% of schools dipped, and did not recover to their pre-merger levels during the period studied.

The study casts doubt on whether the performance of under-achieving schools can be improved by mergers. While the secondary schools that showed increased performance tend to be those at the lower end of the attainment scale to begin with, they were already strongly improving before the merger. In these situations merger can be part of a deliberate strategy for school improvement, chosen by the schools themselves. For primaries, it is the already strong schools which tend to do best – although they sometimes seem to stumble briefly in the year before the merger.

The report states that school mergers are a complex process and success depends on successfully combining school visions and culture. Negotiating differences in school visions and cultures for schools undergoing mergers is always managed effectively enough to minimise the impact on student achievement.

The report concludes that the success of school mergers depends on several factors.

First, schools facing a merger need additional resources and support to help them plan and implement the organizational changes appropriately and specific tools should be developed to assist decisions at each stage of the process. Success is often dependent on having the support of outside specialist advice and involvement.

Second, it is essential that the future principal, and preferably the majority of the senior leadership team, is identified and confirmed long before the formal merger takes place so

that they have the space to form as a team, develop their vision and begin the communication process with staff, parents and students.

Third, governing bodies have an essential role and could benefit from similar support in setting expectations and monitoring progress.

## **Choice of school structures**

Towards 2020 proposes a range of new school structures such P-3/4, P-10, 5-8, 6-10 and 7-12 schools. The Minister for Education says that they will provide greater choice and diversity and enhance educational opportunities in the government school system.

In effect, Towards 2020 proposes to substitute loss of choice of small schools by a wider choice of other school structures such P-3/4, P-10, 5-8, 6-10 and 7-12 schools.

The Government has failed to substantiate its claims that greater diversity in school structures will improve education outcomes. There is no research evidence that suggests that school structures have any real or significant effect on education outcomes. Schools of different grade or Year level spans and middle schools do not appear to significantly change education outcomes [Howley 2002b; Weiss & Bearman 2004; McEntire 2005; Cobbold 2005]. Paglin & Fager [1997] concluded that designing a school system to use a particular span of grades in individual schools will not in itself guarantee that students will learn well and be well adjusted. A recent review concluded as follows:

The most straightforward message is that despite a long history of reform, counter-reform, tinkering, and structural change, student outcomes, whether academic or non-academic, are basically insensitive to school structure. [Weiss & Bearman 2004: 20]

In general, there is little empirical research on the range of grades or year levels appropriate for different school structures. A few studies have attempted to gauge the influence of various grade configurations on academic achievement of students, but other reports are anecdotal or descriptive in nature and describe the perceived benefits and drawbacks of various grade configurations. Studies on the relationship of grade span to other measures of school success, such as students' socialization skills or the existence of a positive school culture, are also scarce.

While many case studies of grade-span effects in particular schools exist, little research has been done using statistical techniques to control for confounding factors such as differences in ethnic and socio-economic background. Most of the research on grade span focuses on the middle grades.

The major studies of the relationship between grade configuration and student achievement using statistical control techniques are of schools in Louisiana, Maine, Missouri, New York city, Pennsylvania and Texas. In general, the studies suggest that achievement in the middle grades is higher in schools having a primary school-wide configuration than in those with a specific middle school configuration [Coladarci & Hancock 2002a, 2002b; Howley 2002; Renchler 2000].

The Louisiana study compared student outcomes in grades 6, 7 and 9-12 among four configuration types: elementary, middle, secondary and K-12 schools [Franklin & Glascock 1996]. It found that sixth and seventh graders performed equally well in K-6, K-7, and K-12 schools and performed significantly higher in these schools than students in 6-

8 and 7-9 middle schools. Further, students in the 10th grade had significantly higher test scores, and fewer behaviour problems, in K-12 schools than in 7-12, 8-12, or 9-12 schools. The statistical analysis took into account school size and community socioeconomic status.

The Maine study examined the influence of grade span on eighth-grade student performance [Wihry et.al. 1992]. It statistically controlling for school-level socio-economic status, per-capita income in the community, and parent educational attainment. It found that eighth-grade total achievement was significantly higher in K-8, K-9, and 3-8 schools than in schools configured around the middle grades (4-8, 5-8, 6-8) or those having a junior/senior high school configuration (6-12, 7-12, 8-12).

The New York study found that 7<sup>th</sup> and 8<sup>th</sup> grade reading achievement was higher for students in K-8 schools than in middle schools with a 6-8 configuration [see Colardarci & Hancock 2002a, 2002b]. The K-8 and 6-8 schools were similar in terms of ethnicity and socioeconomic status. The study also statistically controlled for the sixth-grade achievement of these students, so that the achievement disadvantage associated with 6-8 schools was not due to a pre-existing achievement deficit. Better attendance, more positive attitudes toward school, and higher self-esteem also were reported for seventh and eighth graders in K-8 schools.

A study of 330 Pennsylvanian schools found that the grade-span effect on academic achievement depended on the socio-economic status of students' families. It found that there was an overall achievement advantage to locating sixth graders in an elementary versus a middle school configuration, the advantage was most evident among students low in socioeconomic status. This interaction between grade-span configuration and socio-economic status prevailed across content areas (mathematics, reading, science, and social studies), and it held after statistically controlling for such factors as instructional practices, tracking and ability grouping, and enrolment per grade.

The Texas study examined student achievement in 10th-grade in different school configurations and adopted a range of control variables such as demography, school size and expenditure. It found a slight but statistically significant advantage for K-12 schools when compared to all other configurations containing the 10th grade.

The proposed closure of a college is also contradicted by the available evidence. The recent college review has shown that the college system continues to provide major benefits for most students.

The argument that the Government has used for forcing a Year 7-12 structure onto Campbell High School and Dickson College is that some students do not prosper in ACT colleges. However, there is no evidence that the problems a minority of students have in colleges are related to the college structure itself. In every other jurisdiction in Australia, where Year 7-12 high schools are the norm, the non-completion problem is much more significant, so it is hard to blame the college structure. It is far more likely that it is the students, most from disadvantaged backgrounds, who have fallen behind their peers earlier in their education in primary and high schools who end up struggling.

There is, in addition, an obvious solution – to provide students who are at risk of non-completion with additional support for learning and welfare needs across the school years. In the last election campaign, the Stanhope Government promised to provide additional

teachers for the secondary sector for precisely these reasons. But, it has now decided to cut the number of teachers in the secondary sector. Once again, there is no educational rationale.

### **3. The Savings to Government are Over-Estimated**

#### **Government case**

Budget Paper No. 3 states that current ACT Government expenditure levels are unsustainable and that efficiencies need to be made. It nominates school rationalisation as a way to make direct savings in education expenditure.

The Government has stated that the ACT has relatively high government school costs when compared with other jurisdictions [ACT Treasury 2006d]. It notes that recurrent expenditure per student in the ACT is 17.4% higher than the national average and is the second highest in the country. This implies that the ACT is over-spending on education.

The Government says there is a large excess capacity in the government system which needs to be reduced in order to make better use of education resources. The Chief Minister says that the level of education spending in the ACT is unsustainable and it has to be cut back.

The case for school closures is just absolute. [ABC News, 19 April 2006]

We have enormous excess capacity, coupled with declining enrolments and increasing costs... There's no doubt that with a smaller number of schools, economies of scale could be achieved. [Canberra Times 20 April 2006]

The Minister for Education has emphasised that surplus capacity must be reduced to make better use of education resources.

Keeping surplus capacity at such levels is costly, making it increasingly difficult to maintain the highest standards of educational facilities and services in all 95 schools. [Hansard, 7 June 2006]

...our education system was built to accommodate around 55,000 students and we have about 35,000 students, so clearly we have to adjust the number of schools in order to get a more optimum use of our education resources. [Barr 2006a]

The Chief Minister has stated that small schools are too costly.

It costs Canberra ratepayers up to \$10, 000 a year more to educate each pupil in these schools than it does to educate a child at a school which is at or near capacity. [Stanhope 2006]

The Government also argues that the higher costs of small schools represent an inequitable distribution of resources. It says that the allocation of resources should be based on need rather than location.

...such heightened expenditure is inequitable, particularly when it is based entirely on location rather than student need.

The Review also found that costs-per-student are very much higher in schools with low enrolments—up to \$19,000 in primary schools with enrolments of fewer than 200, compared with \$8,000 in schools with enrolments of between 400 and 600. And this expenditure is based solely on location, rather than educational need. [ACT Treasury 2006c: 24]

SOS considers that the Government has exaggerated the financial case for school closures. It has over-estimated the costs of small schools and over-estimated the savings to the Government as a whole from closing schools.

The ACT Government's estimates of ongoing savings from school closures are based on estimates of the gross savings to the Department of Education of closing schools, and even these have been over-estimated. They fail to take account of additional costs to the Department of Education and other government agencies that are incurred by closing schools.

The Government has failed to provide an estimate of the net saving (or cost) to Government of closing schools. Given the nature of the additional costs that have been ignored, the actual ongoing savings are likely to be much lower than the gross savings estimate.

Significant savings will be dependent on selling off school grounds and shifting large numbers of students into the private sector where the Commonwealth provides most of the funding.

### **Over-expenditure on ACT government schools**

The Government says that the ACT is over-spending on government schools. However, ACT government schools are not as well-resourced as the national figures appear to indicate. Much of the difference between the ACT and the national average is accounted for by higher superannuation, slightly higher teacher salaries, higher depreciation and a higher proportion of students in the high cost senior secondary years.

The salary and superannuation conditions have been used to attract teachers in face of highly competitive conditions in the public service. Expenditure on superannuation and depreciation in ACT government schools is about double the average for Australia. The much more generous provisions of the Commonwealth superannuation arrangements push the ACT higher up the school expenditure national ranking. The more expensive depreciation method is one chosen by the ACT Government. The shorter asset lives used in the ACT reduce the period over which the asset is depreciated increase depreciation expenditure per student relative to those states that adopt longer asset lives.

The national comparison of expenditure on government schools does not take into account significant differences in costs incurred because of differences in retention rates. The retention rate from Year 7 to Year 12 in ACT government schools is very high in comparison to other states and territories. As school costs are much higher in the senior secondary years than in the junior years, the ACT government school system incurs relatively higher costs than all other governments. The higher proportion of senior secondary students is surely a measure of the success of the ACT college system.

### **Cost difference between small and large schools is exaggerated**

In making its case that small schools cost more per student than larger schools, the ACT Government has used a sleight of hand to exaggerate the difference between the costs of larger primary schools and small schools. The average cost difference has been overstated by over \$7,500 per student.

The Government statement on the Economic and Financial Outlook for the ACT, which sets the economic context of the Budget, states:

...the costs per student in these low-enrolment schools are much higher than they are in larger schools. For example, costs per student in government primary schools with enrolments of fewer than 200 range as high

as \$19,000. In schools with enrolments of between 400 and 600, costs per student are about \$8,000. [ACT Treasury 2006c:10]

This statement gives the impression that the costs of small schools are some \$11,000 per student higher than in the larger schools. However, this is far from the actual truth. The actual difference is \$3,468 per student. In other words, the Treasury has effectively overstated the difference by over 3 times.

The sleight of hand consists of dishonestly citing cost figures for the larger schools that are less than the actual average cost of these schools and citing costs for the small schools that are higher than their actual average. The Government has compared an (understated) average cost for larger schools with the highest cost examples of small schools and not the average cost of all small schools. This false comparison has been repeated *ad nauseam* by the Minister for Education.

The Department of Education's figures show that the overall weighted average cost of all the larger schools with enrolments between 400 and 600 is \$8,680 per student, or 8.5 per cent higher than the Treasury's rounded down figure of around \$8,000. Only one of the schools with 400 – 600 students has an average cost below \$8,000 per student - in this case \$7,998.

On the other hand, there are only two schools below 200 students with a cost of about \$19,000 per student. One of these is Tharwa, which is a very small school serving the rural population south of Canberra. The other is Rivett, which is the site of a major special education unit whose costs have been included in the school's cost figures.

The weighted average cost of all schools in the ACT (excluding Jervis Bay) with enrolments below 200 is \$12,148 per student, or \$6,852 per student less than the figure cited by the Treasury.

Overall, the difference between the average per student costs of larger schools of 400 – 600 students and smaller schools below 200 is \$3,468 and not \$11,000 as stated by the Government. The Government and the ACT Treasury have effectively overstated the difference by 300 per cent.

### **Savings to the Department of Education are over-estimated**

The estimate of savings to the Department of Education from closing schools is based on savings in staff salaries and SBM payments. The total estimated savings is about \$13.5 million per annum from closure of 17 schools and part-closure of 5 other schools.

There are several reasons to consider that this savings figure is over-estimated:

- The enrolment component of school-based management funds appears to be too low;
- Several significant one-off costs have been excluded;
- Some ongoing costs have not been taken into account; and
- It fails to include loss of actual and forgone rental revenue.

### **SBM enrolment-related costs appear to be under-estimated**

The savings in SBM payments may be over-estimated because the allowance for the enrolment component seems low. The Department's estimates of the enrolment-related

component of SBM payments are about 15% of total SBM payments. This appears to be unduly low as many of the items in school operating costs are enrolment-related, as outlined in the SBM Manual (<http://www.decs.act.gov.au/publicat/smm.htm>). If this is the case, the Government estimates of savings from closing schools will be over-estimated. This issue warrants further investigation.

### **Several one-off costs are excluded**

The Minister for Education admitted in answer to questions from the Estimates Committee of the Legislative Assembly that several additional one-off costs that will be incurred by the Department of Education as a consequence of closing schools. These additional costs have not been offset against the savings estimates.

These additional costs include:

- Duplication of special education facilities in other schools;
- Purchase of new demountable classrooms and/or the transfer and installation of existing demountables;
- Refurbishment works in schools that will receive additional students.

The Minister admitted that there will be additional costs involved in order to duplicate the special Learning Support Unit at Rivett PS on another location. Similar additional costs will also be incurred in duplicating other Learning Support Units in schools slated for closure at other schools. There are Learning Support Units at Holt PS, Melrose PS, Mt. Neighbour PS, Kambah HS and Dickson College.

However, the Department of Education has not yet undertaken the planning for the re-location of these units nor has it estimated the cost of replacing them. These new units will involve significant additional costs which should be offset against the savings estimates from closing schools.

The Minister has admitted that the Department of Education may have to purchase additional transportable classrooms in order to implement the school closure plan. Some schools may be over-capacity as a result of students transferring to new schools of choice and the Department will have to purchase and install demountable classrooms in order to ensure parents are given their choice of school.

The Minister stated that the estimated average cost for the purchase of a new transportable is \$200,000. In addition, there are installation costs such as preparing the site, air conditioning, footpaths and landscaping, IT cabling and provision of furniture. The cost of transporting and installing an existing demountable is about \$200,000. These costs have not been taken into account in the Government's savings estimates.

The Minister has also admitted under questioning that a range of general refurbishment works will take place in the schools that receive additional students. These refurbishments may include building renovations, new furniture, additional or upgraded playgrounds, new IT equipment and additional car parking space.

The Minister said that these works will be funded from the School Infrastructure Refurbishment funding announced in the 2006-07 Budget. However, these additional costs have not been offset against the Government's savings estimates from school closures.

The Minister's answers to questioning by the Estimates Committee thus reveal some significant costs which require an adjustment to the savings estimates from school closures.

In addition, there are a range of other one-off costs associated with school closures. These include staff re-location costs, counselling for students and staff and re-training or professional development. While these costs may be covered by the transitional funding allocated for the implementation of Towards 2020, they should be deducted from the gross savings estimate in order to determine the projected net savings figure.

### **Some on-going costs are ignored**

The Department of Education may also face additional accommodation costs for Education Department staff currently housed in small schools and who will be forced into commercial office space because of school closures. This will add to overall government expenditure and should be subtracted from the gross savings estimate.

The amalgamation of pre-schools with schools creates potential for increased costs to the Department of Education. The amalgamations of pre-schools and primary schools proposed by Towards 2020 will involve changes in the governance arrangements for pre-schools which could affect the revenue from co-payments and fund raising by parents. The change of governance arrangements for pre-schools implied by the amalgamation with schools creates much uncertainty about the continued role of parents and the ongoing funding of pre-school operating costs. A longer term outcome could be increased ACT Government expenditure on pre-schools, specifically in relation to resources and services currently funded by parents.

### **Failure to account for actual and potential loss of rental revenue**

The estimate of savings does not take account of the loss of revenue to the Department of Education from tenants using excess space in schools. Several government and community organizations rent accommodation in schools that are proposed for closure and this provides revenue to the Department of Education which will be lost upon closure. This should be treated as a cost of school closure and be subtracted from the saving estimate.

This loss of revenue may be offset to a greater or lesser extent by increased rental revenue to the Department of the Territory and Municipal Services, depending on what uses are made of the vacated school premises. Nevertheless, both the reduction and increases in rental revenue should be included in any estimate of the savings (cost) impact on government finances of closing schools.

In addition, the opportunity to rent excess space is foreclosed by shutting down a school and there is income forgone which is a cost to be set against the gross savings to be obtained from school closures. Previous consideration of the benefits and costs of school closures in the ACT have included estimates of the loss of potential rental revenue for excess space as part of the costs of school closures to be deducted from estimates of gross savings [ACT Treasury 1990; Perkins 1990].

### **Savings from shifting enrolments to the private sector**

One source of additional savings to the Department of Education and Training is if a significant proportion of students displaced from closed schools transfer to the private sector. The Stanhope Government has a very big incentive to move large numbers of

students to the private sector because it shifts costs to the Commonwealth and provides large savings for the Territory. The Territory provides 90 per cent of government school funding but only about 15 per cent of private school funding while the Commonwealth and private fees fund the rest. The potential savings amount to \$9 000 - \$10 000 per student so that, if a third of all students displaced by school closures end up in private schools, the Government would save upwards of \$10 million per annum.

The Territory gets an immediate dividend of 50 per cent of these savings while the other 50 per cent is nominally retained by the Commonwealth through the Enrolment Benchmark Adjustment (EBA). However, the EBA liability is returned to states and territories as a conditional grant for science and innovation capacity in schools. As a result, the Territory Budget gains all round.

However, it is not stated Government policy to directly encouraging the transfer of students to the private sector to make such savings.

### **Costs and revenue incurred by other Government agencies**

The savings estimates from closing schools also fail to take account of several one-off and ongoing costs to other Government agencies.

The large part of these additional costs is likely to be incurred by the Department of the Territory and Municipal Services. The major additional costs include:

- provision of additional bus services;
- traffic safety measures; and
- building maintenance and security costs.

### **School bus costs are not included in savings estimate**

A major ongoing cost of school closures is increased school bus costs. The ACT Government has failed to acknowledge that increased student bus travel following school closures will increase the costs to government and reduce the savings from closing schools. The Government has failed to provide any information on the impact of its proposed school closures on student bus travel or on ACTION costs and revenues. The Minister for Education Minister asserted at regional consultation meetings that increases in student bus travel will be met by alterations to existing services.

Changes in school location are likely to result in changes in demand for bus transport to school. Up to 4000 students could be displaced if Towards 2020 is fully adopted. A significant proportion of these students are likely to travel the longer distance to a school by bus. Additional bus services would be required to transport them. Additional demand for bus services by school children will cause an increase in the Government subsidy payable to ACTION for these services to cover the loss which ACTION makes on these services. This loss is met by the Government in its general funding of the overall loss made by ACTION.

ACTION may also incur increased one-off costs. It may need to purchase additional buses to meet the increased demand and expand bus depot facilities.

These additional costs related to school bus transport should be included in the accounting of the benefits and costs to be obtained from school closures.

The Minister for the Territory and Municipal Services has admitted, in response to questions on notice by the Estimates Committee of the Legislative Assembly, that the Government has not estimated what increase in student bus travel is expected over the next four years as a result of the school closures proposed in the Towards 2020 Plan. It has not estimated how many new bus services will be required or how many new buses will need to be purchased by ACTION to meet the increased demand.

The Minister also admitted that his Department has not estimated the increase in total expenditure that will need to be budgeted to meet the costs of providing increased bus services such as new buses, additional drivers and other staff and repairs and maintenance.

In the debate over school closures in 1990, increased demand for student bus travel was a significant issue affecting the net savings to Government from closing schools. Following public discussion of the school closure plan, it was generally acknowledged that school closures would have significant implications for student bus travel and that these costs should be included in the assessment of the savings and costs of the plan.

The ACT Treasury and SOS both engaged consultants to prepare a study of the school bus requirements following school consolidation. While the findings of the studies differed significantly, they both concluded that the closure of 18 primary schools and 3 high schools would lead to an increase in student bus travel which would result in a net increase in ACTION costs.

The ACT Treasury and SOS subsequently carried out separate whole of government assessments of the costs and savings from school closures which included the increased costs to ACTION of increased student bus travel [ACT Treasury 1990; Perkins 1990]. These increased costs were offset against the estimated savings from closing schools.

The actual costing of additional bus services was the subject of much dispute. The issues in the debate concerned the estimates of the proportion of the students displaced from existing schools who would require bus transport to other schools. Also at issue was the number of extra bus services that would be required and how they should be costed.

A key issue in the findings of the two studies was application of the 1985 modal split to the pattern of student travel following school consolidation in the Treasury study. It assumed that the same proportion of students would travel by bus on intra-district trips as before school consolidation. However, this assumption was challenged because the 6 districts defined for the study were very large and it was likely that more students would have to travel by bus to access another school in the same district even if there was very little change to the inter-district modal split.

The SOS study assumed a significantly higher modal split for intra-district travel by primary school students than that used by the Treasury study. It assumed a 25 per cent modal split for bus travel compared to 8 to 17 per cent for different districts in the Treasury study. A survey of students at one primary school indicated a much larger modal split (40 per cent) than even that assumed in the SOS study.

The modal split for high school student travel in the SOS study was also significantly higher than that of the Treasury study, generally being 2 to 3 times higher for intra-district

travel. The modal split for the SOS study was based on a survey questionnaire of students in the three high schools proposed for closure.

As a result of these differences in approach, the two studies came to much different conclusions about the projected increase in student bus travel and the requirements for additional bus services and buses.

A summary of the two school bus travel studies undertaken in 1990 is provided in Appendix C.

### **Traffic safety measures**

Traffic flow arrangements in Canberra suburbs are designed to minimize contact between pedestrians and motor transport, and particularly to ensure safe pedestrian transit to neighbourhood schools. School closures will mean changes in how students get to school, either the route taken or the mode of transport used. If students continue to walk or cycle but need to take a different route, then it is most likely that some changes to traffic facilities will be required to provide safe routes to schools. The need may arise as the trips become longer (due to larger catchment areas) and/or they require crossing main roads.

There will be one-off costs to install traffic management facilities to provide accessible and safe new routes used by students who continue to walk and cycle. These facilities may include new walk/cycle routes and signalised or grade separated crossings. Some of these costs proved to be very substantial when schools were closed at the end of 1990.

These additional costs have not been taken into account in Government estimates of the savings from Towards 2020. The Minister for the Territory and Municipal Services has stated in response to questions from the Estimates Committee of the Legislative Assembly that the Department has not determined what additional traffic calming and safety measures will be needed to ensure the safety of young children walking and cycling longer distances to schools outside their neighbourhood. As a result, no additional funding has been budgeted to provide these measures.

### **Building maintenance and security costs**

Building maintenance and security will remain a whole of government cost even when schools are closed. These ongoing costs are not accounted for in the Government's estimates of savings from the closure and amalgamation of school.

When schools are closed, responsibility for the maintenance and security of the closed buildings and grounds will be transferred to the Department of Territory and Municipal Services. Ongoing maintenance and security costs will be incurred until such a time as the buildings are rented or sold. Indeed, these costs could well increase if the buildings remain vacant for a considerable period.

These costs should also be subtracted from estimates of gross savings from Towards 2020.

### **Sale of school sites**

The only real prospect for significant savings from closing schools comes from the sale of the land and buildings. Sale of school sites would generate substantial additional revenue for the Government. However, there are costs to the community involved in the sale of school sites. For example, it leads to a reduction of green space and recreation areas in

local communities (see next section). It also means that school buildings are not available to meet future needs when the demographic cycle turns and a new generation of families moves into older suburbs.

## **Conclusion**

Thus, a range of one-off and ongoing costs will be incurred by the Department of Education and Training and the Department of the Territory and Municipal Services as a result of school closures and amalgamations. They will significantly reduce the the Government's estimates of the savings from Towards 2020.

These reduced savings must also be weighed against other costs individuals and the broader community. These costs are discussed in the following section.

## **4. Costs are Transferred to Families and the Community**

The savings to government from closing schools are achieved to some extent by transferring the costs to families and the community in general. They include a range of one-off and ongoing costs.

### **Financial and other costs to families**

Families will face increased financial and time costs to send their children to schools further away from home. Additional costs will be incurred by parents for bus fares and private car transport for children attending more distant schools. For a family with 2 children, bus fares will be in excess of \$500 pa. Car transport would cost a similar amount, assuming that children can be dropped and collected on the way to and from work. If special trips have to be made, the cost could rise to \$1000 pa.

These additional financial costs will constitute a major burden for the least well-off families. But, they are also likely to be a very significant burden even for middle-income families facing other large expenditure items such as house mortgage payments.

There are also more intangible costs children and escorting adults of additional travel time and effort, due to having to walk, bicycle or bus to more distant schools. This additional travel time and effort should also be included in any detailed cost-benefit study of school closures.

### **Traffic safety issues**

Another potential cost to individuals and the community is increased traffic accidents involving school children and adults travelling to and from school. In particular, children walking or cycling to and from schools outside their suburb will likely have to cross major roads because of the nature of urban planning in Canberra. Hence traffic accidents involving children could be expected to rise.

### **Environmental and other impacts**

Increased resort to road transport to and from school is also likely to give rise to other costs to the community. These include environmental costs such as increased air pollution, greenhouse gas emissions and noise. There are also health costs such as increased obesity for children and adults who no longer walk or cycle regularly to and from school because they have to use road transport in order to attend another school outside their suburb.

### **Employment effects**

There also may be effects on local employment opportunities. For example, family day care/after school care employment and services are frequently associated with local schools. However, the loss of these opportunities in one area may be offset by growth in the area around the receiving schools. Nevertheless, such factors should be considered in a cost-benefit study of school closures.

### **Impact on property values**

The sale value of a school site should be balanced against changes in the value of residential and commercial property in the neighbourhood of the closed school.

School closures are likely to reduce property values in the affected suburb. A fall in value may occur for residential properties because there is no longer a nearby school or for local shopping centres because there are fewer customers.

In general, residential location close to a school increases residential property values. There is much research evidence to indicate that house values are influenced by the whether or not a school exists in a neighbourhood and by differences in the demand for various schools, among other factors of course [Cheshire & Sheppard 2004; Downes & Zabel 2002; Figlio & Lucas 2004; Gibbons & Machin 2003, 2006; Kane et.al. 2003, 2005]. This premium is lost with the closure of schools.

There may be similar one-off implications for commercial property values, such as shopping centres serving the local neighbourhood, involving both gains and losses. The value of some commercial operations may be affected by the loss of derived demand from closure of the school. However, if the site is re-zoned, some may benefit from equivalent or changes in derived demand consequent upon changes in land use for the school site. Obviously, the latter case involves setting immediate losses against possible future gains.

A second one-off impact on property values may arise from the re-zoning of land. If the new use of a school premises causes the values of adjacent properties to fall then that loss of value needs to be identified and included in any assessment of the costs and benefits of school closures.

Re-zoning of the school site for another purpose may increase the value of the land significantly but the effects on adjacent property values are likely to be more severe than if the site is used for a currently permitted use. Say a school is worth \$1 million as a school site but \$10 million if it were re-zoned for residential use. The government would presumably claim \$9 million as a benefit from closing the school. But, this is not the net benefit. If re-zoning lowers land values in the rest of the suburb then this should also be included as a one-off cost to the community. The general point is that the economic rationale for zoning in the first place arises from externalities of land use on adjacent land owners. It is to be noted also that changes in land values following re-zoning may have ongoing implications for government revenue from rates based on land valuation.

A related point is that the conversion of a school site to residential use may affect land release elsewhere in Canberra with consequent implications for government revenue.

## **Social impact**

Many of the effects on local communities can be considered from a social capital perspective. The development of social capital can generate a range of benefits [Productivity Commission 2003]. Closing off ways to develop social capital can be considered as a loss to the community.

School amalgamation policies are often intended to save public funds and/or enhance educational opportunities for children. However, the closure of a local school can diminish the sense of community that develops around such schools, which is not so easily replicated in larger schools where parents and children are drawn from a larger 'catchment'. [Productivity Commission 2003: 61]

Many parents seem to want their children to grow up with other children in the local neighbourhood. They seem to value the sense of community that is developed through

friendships and parent interaction. This sense of community is undermined by the loss of the local school.

The public school is often the only public facility in a local neighbourhood. As such, it serves as a public resource for families and community members which contributes to community well-being in a variety of ways.

Schools are not just places to teach children, but can be used as learning centres for the local community. By keeping schools open during non-traditional school hours, the school can provide access to facilities and educational resources to support life-long learning opportunities for community members. They can be used by other government agencies and community organisations to provide a variety of learning activities and services to the local community.

Neighbourhood pre-schools and primary schools also play a critical role in developing and sustaining social support networks between families in local communities. Very often friendship groups for children and for parents are formed in the local pre-school and primary school and are developed into broader social networks that form essential social capital in these communities.

These social networks provide tangible assistance, care and support that may reduce psychic and physical stress. They often avert the need for costly government intervention services.

Schools can serve as a 'hub' for the delivery of a range of government services in the local community. They provide a base for information about and delivery of a range of health, welfare and social services by community and government agencies to students and their families. These services include family services, health clinics, youth service programs and childcare. Increasingly in many countries, government school sites are used to support integrated service provision for student and family welfare.

The neighbourhood school also provides public space for recreational and leisure activities in the community. It can also serve as a meeting place for the local community. This resource can be lost by the sale of school buildings and grounds. This leads to a reduction of green space and recreation areas in local communities. It means that school buildings are not available to meet future needs when the demographic cycle turns and a new generation of families moves into older suburbs.

The significance of neighbourhood schools for local communities is exemplified in the role played by local primary schools as community support and activity centres when bushfires ravaged several Canberra suburbs in 2003. Several primary schools became key centres for distraught residents. If these schools had not existed, there would not have been any public facility available in these suburbs for the community to gather in to support each other, organize activities and rebuild their local community.

Other aspects of social capital loss could include the impact of any loss of local shops and other services arising from the closure of schools. Many of these in Canberra depend on the trade created by a primary school located near the local shops/services. For example, the loss of local shops and services can have a particular impact on quality of life of the elderly in the area.

While some of these aspects of the social capital created by schools may be continued by attendance at another school, the greater distance and cost of travel may reduce the extent to which they are continued in communities directly affected by school closures.

## **Failure to provide a social cost-benefit analysis**

The lack of government consideration of the impact of Towards 2020 on families and the community reflects a failure to employ social cost-benefit analysis in the planning for Towards 2020. Cost-benefit analysis is a useful tool for analyzing the broader impact of major policy proposals such as school closures. It provides a systematic means to enumerate the costs and benefits and estimate the net benefit/costs so as to inform public discussion of the proposal and government decision-making.

The simple financial analysis of the impact of school closures on the budget of the Department of Education is insufficient. It ignores financial costs and benefits incurred by other government agencies and it ignores the impact on community welfare, that is, students, students' families, the general school community and others in the community.

The ACT Government has failed to do a cost-benefit study of the Towards 2020 Plan despite its own policy in support of such analyses of major policy initiatives and despite the requirement of the Education Act to assess the impact of school closures proposals.

Since it was first elected, the Stanhope Government as consistently supported the use of cost-benefit analysis to assess major policy proposals and new investment projects. For example, in making the Government's response to the Estimates Committee report on the 2002-03 ACT Budget, the then Treasurer stated:

The committee recommended that it should be standard government practice to undertake a rigorous and independent cost/benefit analysis for significant projects. Arrangements for this are already under way. The Department of Treasury is already developing a standard process for preparing financial and economic analyses of major projects. A major project analysis section has been created in Treasury to work with agencies to improve the quality of financial and economic information provided to government. [Hansard, 27 August 2002, p.2793]

While this response was made in the context of major infrastructure projects, the principle of cost-benefit analysis was to be generally applied to major policy initiatives.

In July, 2002, a report by the ACT Auditor-General on the costs and benefits of V8 car races in Canberra cited a formal response by the ACT Treasury in support of the principle of undertaking rigorous cost-benefit analysis:

[The Department of Treasury] has reviewed the draft report and supports the approach to cost benefit analysis taken by the audit. The approach conforms to good academic standards and professional practice. [The Department of Treasury] agrees on the importance of rigorous and independent cost benefit analysis as a tool in providing good advice to decision makers. This very point is often made by officers of this department in discussions with other agencies. [ACT Auditor-General's Office 2002: 10]

The Auditor-General commended Treasury's efforts to educate Territory agencies on the importance of rigorous cost-benefit analysis [p.10].

The Treasury policy in support of cost-benefit analysis is well documented. For example, in March 2005, Mr Roger Broughton, Executive Director, Investment and Economics

Division of the ACT Treasury told a National Institute for Governance seminar about the importance of conducting cost-benefit analyses to inform government policy formulation [see [http://governance.canberra.edu.au/our\\_work/recent\\_events/NIG\\_seminar-summary\\_March05.doc](http://governance.canberra.edu.au/our_work/recent_events/NIG_seminar-summary_March05.doc)].

Indeed, it is a key function of Mr. Broughton's division of the Treasury to "provide financial and economic analysis of policy proposals" and to "assist agencies to improve the quality of financial and economic analysis" [see <http://www.treasury.act.gov.au/about/organisation/fig.shtml> ].

The Chief Minister is an advocate of the use of cost-benefit analysis to inform government decision making.

While Leader of the Opposition, Mr. Stanhope often lectured the then Government about the need for cost-benefit analysis of major policy initiatives. For example, he and Mr. Corbell were particularly critical of the lack of a cost-benefit study on the proposed ACTEW/AGL joint venture [Hansard, 9 March 2000, pp.764, 824].

As leader of the Government, the Chief Minister has repeatedly expressed the need for proper cost-benefit analysis to be undertaken on major policy initiatives. Examples include options for managing the Cotter water catchment [Hansard, 9 March 2005, p.753], the Government's overall water strategy [Hansard, 12 February 2004, p.304], the Summernats, and V8 car races in Canberra. Last year he requested his Department to undertake a detailed cost-benefit analysis of the proposal to promote Canberra to prospective new residents [Baggoley 2005].

Only last May, the Chief Minister told the Legislative Assembly that the Government was undertaking cost-benefit analyses of a range initiatives proposed for inclusion in the 2006-07 ACT Budget.

The cabinet is giving detailed and the most rigorous assessment of each of the government's priorities. In that context it is relying on detailed briefings and advice from across our public service, as one does, on a range of expenditure initiatives and other initiatives that have been developed.

On each significant work, a cost-benefit analysis, case studies and business cases have been developed on a range of new policy initiatives and proposals on efficiencies... [Hansard, 3 May 2006, p.1111]

Towards 2020 was announced as a Budget proposal. However, a cost-benefit study was not been carried out on the Plan, despite the Chief Minister's commitment to rigorous cost-benefit studies of the Budget initiatives. This failure seems to be a major contradiction in government policy.

How is this contradiction to be explained?

The answer can only be that a comprehensive cost-benefit study would not have produced the answer wanted by the Government. It suggests that the Government had already made up its mind to support the closure of 39 schools and the partial closure of 5 other schools and it was not prepared to risk subjecting this decision to a rigorous assessment.

A detailed cost-benefit analysis of Towards 2020 should be carried out before any decision is made to close or amalgamate schools. It is not possible to ascertain whether the overall

benefits of school closures outweigh the costs. Such a study should also incorporate an analysis of the incidence of the costs and benefits of school closures.

Cost-benefit analysis has long been criticized for ignoring social equity. Conventional cost-benefit analysis focuses on efficiency in providing policy makers with an indication of the magnitude of net benefits associated with a particular project or policy, irrespective to the distribution of the benefits and losses. This is a weakness because decision makers also need to know the identity of groups which may gain or lose as a result of a decision, and the nature and size of those gains or losses. This can be a matter of significant public concern and importance.

Traditional cost-benefit analysis is also criticized for a 'built-in' bias against the impact on low income groups. This is because it assumes that the marginal utility of income is similar for all persons and groups in society. This assumption is likely to mean that costs and benefits which accrue to lower income groups are likely to be underestimated in any cost-benefit analysis.

The response to such criticisms has been to develop social cost-benefit analysis [Department of Finance 1991; Perkins 1994]. Social cost-benefit analysis involves investigating the incidence of costs and benefits as well. In principle, this involves identifying the costs and benefits for different groups in a society and, where possible, the size of the gains and losses. This can be done simply by the construction of a distributional incidence chart. At the very least, the display of the incidence of the costs and benefits provides decision makers with a useful indicator of the equity implications of a policy or project.

At a minimum, the analysis should identify gross imbalances in the distribution of benefits and costs, for example, whether there are imbalances between benefits and costs are present for those segments of the population which are most vulnerable.

Social cost-benefit analysis can also explicitly address the problem of the structural bias against low income groups and individuals implicit in traditional cost-benefit analysis. This can be done by assigning differential weights to the income changes which accrue to different social groups. In this way, social cost-benefit analysis incorporates the idea that the marginal utility of income of a person/group on low incomes is greater than those on high incomes. It can provide special weighting for certain issues of equity, such as imbalanced impacts on readily identifiable and disadvantaged social groups.

## 5. Towards 2020 is Inequitable

The Minister for Education has stated that one of the objectives of Towards 2020 is to better direct resources to meet educational need.

If we want to distribute our education resources fairly, we need to distribute them where there's educational need, where there is socio-economic disadvantage. That's where we should be targeting our resources. [Barr 2006a]

...what the Government is aiming to do as part of the *Towards 2020* proposal is direct resources where there is educational and socio-economic need, rather than simply to a school because they have a small enrolment. [Barr 2006b]

We believe that scarce resources should be directed on the basis of educational need, not on the basis of geography alone. [Minister for Education, Hansard, 22 August 2006]

This claim that priority is being given to address socio-economic need is undercut by evidence that those in need are bearing most of the burden of the proposed changes. The impact of school closures falls most heavily on low income families, Indigenous families and families of students with disabilities. It is children from these families for whom early educational experiences are so critical, and for whom small schools provide a better educational environment.

Insufficient consideration has been given to families of equity targeted groups in Towards 2020. The school closure plan completely ignores the needs of low income families in Canberra. The needs of low income families, Indigenous families and families for students with disabilities (SWD) is not even included in the list of factors on the Towards 2020 website that were considered in developing the plan.

### Low-income families

Many of the schools listed for closure serve the least well-off communities in Canberra. Nearly half of all primary schools in Canberra with disadvantage factors of over 40% are proposed for full or part closure.<sup>1</sup> Of the 20 primary schools listed for full or part closure, 10 have a relatively high proportion of their students from disadvantaged family backgrounds (Figure 1).

Four of the 5 most disadvantaged schools in Canberra are on the list for full or part closure. Each of these schools has a very high disadvantage factor, as calculated by the Department of Education: Narrabundah – 79%; Charnwood – 75%; Holt – 63%; and Higgins – 59%. Other schools with high disadvantage factors that are on the closure list include Gilmore (47%), Southern Cross (47%) and Mt. Neighbour (43%).

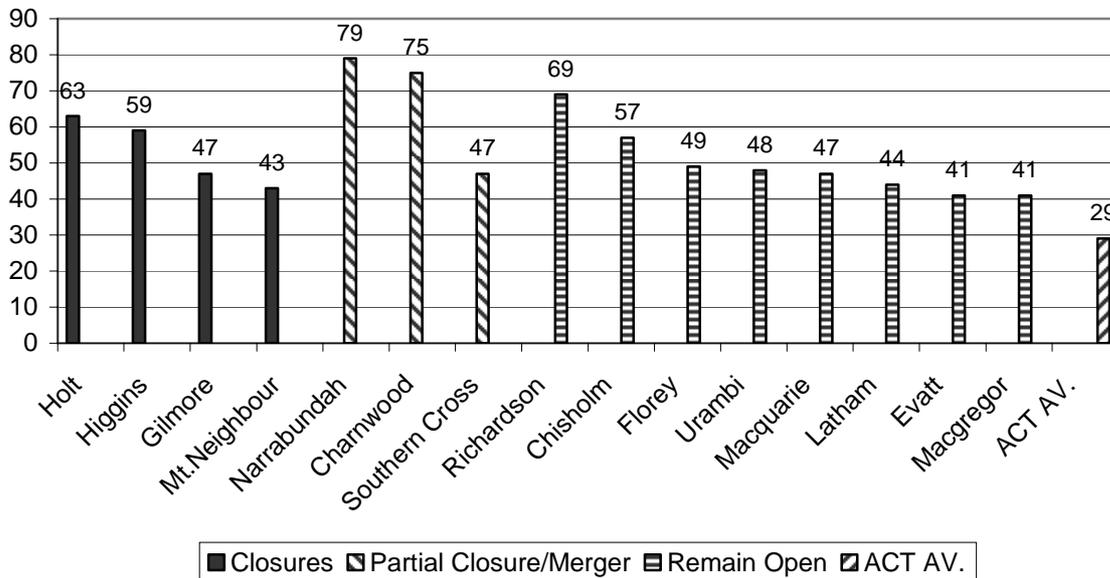
Three of these are proposed for part closure by being reduced to P-3/4 schools. Another two are being forced to close to make way for a new super-school in NW Belconnen of over 1000 students. Two others face outright closure.

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<sup>1</sup> The disadvantage factors were calculated by the Department of Education and Training from the 2001 ABS Index of Relative Socio-Economic Disadvantage (IRSED) for the purpose of working out which schools would be included in the Schools Equity Fund for 2004-06 [Department of Education and Training 2003]. These are the latest available estimates.

Kambah HS will also close. It has a disadvantage factor of 40% and is one of the two most disadvantaged high schools in Canberra.

**Figure 1: Primary Schools With High Disadvantage Factor (%)**



Source: ACT Department of Education and Training 2003

It is all very well for the Minister to claim that that 3 of the schools with high disadvantage factors will remain open as P-3/4 schools, but these schools will remain under threat in the longer term. Furthermore, parents of children in Years 4/5-6 will lose their local schooling options for those year levels. For parents of children at these Year levels, the school is being closed and they will incur significant additional costs by being forced to attend another, more distant, school.

More schools serving low income communities would close than schools that largely serve well-off communities. Seven of the 15 stand-alone primary schools in Canberra with disadvantage factors over 40% are listed for full or part closure. In contrast, only 5 of the 23 least disadvantaged schools (disadvantage factor of 20% or less) are proposed for closure or part closure.

About 1500 or more students from low income families could be displaced over the next three years if the Towards 2020 plan goes ahead. There are 1200-1300 students currently enrolled in 8 schools with high disadvantage factors that are listed for possible full or part closure. While the other 15 schools listed for full or part closure have average or low disadvantage factors, they also have families on low incomes whose children will be displaced if their school closes.

It also makes a mockery of Government rhetoric supporting improved equity and social justice. It demonstrates the lack of commitment of the Stanhope Government to its own Social Plan, released with much fanfare and hype only two years ago. In his speech releasing the Social Plan, the Chief Minister said that ‘we cannot pretend that we have no

poverty' in Canberra. Yet, his school closure plan fails to consider the needs of families in poverty and on low incomes.

The reality is that many families in Canberra will not be able to afford the additional bus fares, petrol and other costs involved in getting their children to a more distant school. They will lose easy walking access to a school and suffer the break-up of local support networks that are based around the neighbourhood school.

The availability of transition funding under Towards 2020 is not adequate for low income families who will be forced to attend a more distant school. It is only transition funding and will not be available long term. Families in hardship with children just about to start pre-school face substantially increased transport and other costs for another eight years because their local pre-school and primary school will close.

## **Indigenous families**

Indigenous students and their families will bear a disproportionate burden of the costs and disruption from the Government's school closure plan. Most of the schools with significant Indigenous enrolments are on the list for full or partial closure (Figure 2).

Indigenous students comprise about 2.5% of total enrolments in the ACT. However, six of the seven primary schools in Canberra with Indigenous enrolments of more than 5% of their total enrolments are proposed for closure or partial closure. In total, only 10 schools in Canberra have more than 5% of their total enrolments comprised of Indigenous students and 7 of these schools are on the list for full or partial closure.

Indigenous students comprise over 40% of enrolments at Narrabundah PS, yet under the Government's plan it will lose its unique identity and autonomy. It is proposed either to become only a P-3 school or to be merged with a school nearly 3km away with a totally different student profile and school culture.

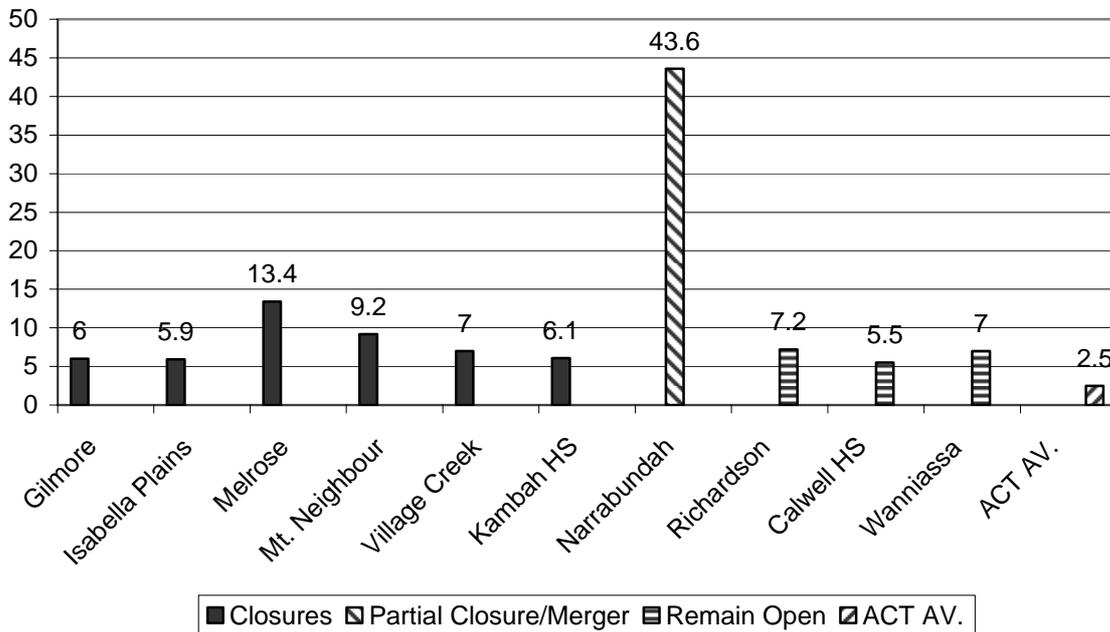
The other two primary schools with the highest proportion of Indigenous students in Canberra (Melrose – 13% and Mt. Neighbour – 9%) are proposed for full closure. Other primary schools to be close which have a high proportion of Indigenous enrolments are Gilmore, Isabella Plains and Village Creek.

Kambah HS, which has the highest proportion of Indigenous enrolments of all stand-alone high schools, is also proposed for closure.

Indigenous students and their families will suffer disproportionately from the direct impacts of school closures, with reduced access to a local school, higher transport costs and higher financial burdens. These extra costs will be a massive burden for many Indigenous families – over one-third of Indigenous children in the ACT live in households without any employed person. The latest Department of Education Report to the Legislative Assembly on Performance In Indigenous Education [2005] states that Indigenous people continue to experience disadvantage and do not achieve educational outcomes equal to those of the rest of the student population.

Reduced access to a local school, longer distances to travel to school and higher transport costs could exacerbate student absenteeism, which will affect student learning. Indigenous learning outcomes could be set back, after much progress has been made in recent years.

**Figure 2: Canberra Schools With More Than 5% Indigenous Students 2006**



**Note:** Indigenous enrolments by school are only available for the 37 schools with 10 or more Indigenous students. Wanniasa is a combined primary/high school. Jervis Bay is excluded. The figures were supplied by the Minister for Education.

Towards 2020 Plan stands as an indictment of the Stanhope Government on Indigenous policy. The Stanhope Government launched the Canberra Plan with loud proclamations of its commitment to equity and inclusion and to promote equitable outcomes for Indigenous people. Towards 2020 makes an absolute mockery of these commitments. It effectively discriminates against Indigenous parents and students by targeting the schools that serve them for closure or merger.

The Government says that its Towards 2020 plan will improve educational opportunities, but how uprooting Indigenous students out of their established school community and forcing them to transfer elsewhere will help improve their schooling defies understanding. All the research evidence shows that students from disadvantaged backgrounds do better in small schools and that their results are poorer in larger schools.

### **Families of students with disabilities**

Students with disabilities (SWD) and their families will also be significantly affected by the school closure plan. A disproportionate burden is proposed for these students and their families. Nearly 25 per cent of all SWD enrolled in mainstream schools will be disrupted by the proposed closures and partial closures. In contrast, about 11 per cent of all students in ACT government schools will be displaced if Towards 2020 is fully implemented.

Over half of the primary schools proposed for full closure (8 of 15) and four of the five schools proposed for partial closure (4) have 5% or more of their enrolments comprised of SWD. SWD comprise a large proportion of students at Narrabundah (12.8%); Rivett (18.3%), Southern Cross (15.5%); Village Creek (22.5%); Weston Creek (13.6%); and

Yarralumla (11.3%). The average proportion of SWD students in all ACT government schools is 4.5 per cent.

Many schools with a significant proportion of their enrolments comprised of SWD are proposed for full or partial closure. Over half of all primary schools with 10% or more of their enrolments comprised of SWD are proposed for full or partial closure (7 of 12). Half of all primary schools with 5% or more of their enrolments comprised of SWD are proposed for full or partial closure (12 of 24 schools).

The two high schools with the largest proportion of enrolments comprised of SWD are proposed for closure (Kambah – 13.2%; Melba – 8.6%). The college with the highest proportion of enrolments comprised of SWD is proposed for closure (Dickson 5.0%).

### Compound effects on target equity groups

Many of the schools proposed for full or partial closure have a large proportion of their enrolments comprised of students from targeted equity groups – low SES, Indigenous students and students with disabilities. Eight of 19 primary schools have a large proportion of their enrolment comprised of students from low SES, Indigenous and SWD families. The two high schools with the largest equity-targeted enrolments are proposed for closure.

Table 2: Schools Proposed For Closure or Partial Closure: Equity-targeted Enrolments

School	Disadv. Factor %	Ind. Proportion %	SWD Proportion %
Narrabundah PS	79	43.6	12.8
Charnwood PS	75	Na	4.7
Gilmore PS	47	6.0	4.1
Southern Cross PS	47	Na	15.5
Mt. Neighbour PS	43	9.2	6.9
Village Creek PS	36	7.0	22.5
Isabella Plains PS	34	5.9	3.5
Rivett PS	33	Na	18.3
Melrose PS	28	13.4	9.8
Kambah HS	40	6.1	13.2
Melba HS	33	3.1	8.6
<b>Average ACT</b>	<b>PS 29 HS 31</b>	<b>2.5</b>	<b>4.5</b>

## **6. The Enrolment Shift to Private Schools is More Likely to Increase**

The Chief Minister has stated that Towards 2020 is also directed at arresting the loss of students from government schools to the non-government sector.

We want to again make government schools the schools of first choice in this town. [ACT Treasury 2006a: 25]

He has argued that the appearance of government schools is a factor in the private school drift and that government school infrastructure has to be improved.

We're spreading money so thinly that we're not maintaining the physical infrastructure... When you measure [public schools] against the appearance of non-government schools, there's no comparison, and of course that's something that's taken into account when parents are looking at schools. [Canberra Times, 20 April 2006]

The Minister for Education has stated on several occasions that the Government will not let the public education system become the minority system in the ACT. For example:

Without reform, public education in the ACT will become the choice for a minority of students within a decade. We face the risk of it becoming nothing more than a safety net for those who cannot afford private education. [Hansard, 22 August 2006].

The Government also claims that greater diversity in school structures will help arrest the drift to the private system by giving parents more choice in the government school system.

These claims are misplaced because the state of the physical infrastructure and the diversity of school configurations or structures in the government school sector are not significant factors in the shift of enrolments to the private sector. At the very least, the Government has failed to substantiate its claims that these are relevant factors in the choices made by parents and students.

Rather than arresting the shift of enrolments to private schools, Towards 2020 appears to be more designed to increase the shift by removing a significant feature of the government school system – the neighbourhood school.

### **Factors influencing choice of private schools**

The general evidence from Australian research on the choice of private or public school is that the shift in enrolments to the private sector is being driven by a range of factors other than those identified by the Government [Beavis 2004].

This research shows that family occupational status and income is associated with choice of private or public schools. Families having high occupational status more likely to choose a private school compared with those with lower levels of occupational status. Those with higher family incomes were more likely to send their children to a private school. The proportion of families with an annual income of \$ 100 000 or more makes up 40 per cent of the families in Independent schools compared with 21.6 per cent of Catholic school families and 11 per cent of Government school families. Of all families in Government schools, just over 20 per cent have an income less than \$ 25 000 compared with 5 per cent in Independent schools.

The most common reasons given for changing from a Government school included the view that there is better discipline in private schools, the view that there is better education or better teachers (paid more or properly screened) in private schools, the view that there are smaller classes or there is more individual attention given to students in private schools. There was also some evidence of religious views influencing these opinions.

The strongest effect on the selection of a private school was the importance parents attached to the perception of the school having traditional values to do with discipline, religious or moral values and the traditions of the school itself. The wearing of a school uniform and the traditions of the school are also important.

It is interesting to note that the findings of this research on the main factors influencing choice of private school are similar that of a study conducted in the ACT in the mid-1980s [ACT Schools Authority 1985].

The demand for different school structures does not appear to be a factor in the choice of private schools. In any case, the non-government school sector has similar school structures to that of the government sector, with the exception that K-10 structures are probably more prevalent in the private system.

The physical infrastructure of schools also does not appear to be an important consideration in the choice of private or public schools. Indeed, it is interesting to note that some of the more popular schools in the government school system in the ACT have ageing infrastructure. This seems to suggest that parents are more concerned about educational and other factors in choosing a school for their children.

## **Loss of choice of small schools**

Far from improving choice of schools in the government school system, as the Minister asserts, the school closure proposals are reducing choice in the government school system. The removal of choice of a neighbourhood school and small schools from the public system may cause more families to move to the private sector. Many parents want to send their children to a small school. Yet, if the Government has its way, small schools will not be available in the government system and parents will have to choose private schools. This happened in Victoria in the mid-1990s when the Kennett Government cut a swathe through its government schools.

The Government's policy on small schools seems contradictory. It is proposing to abolish or severely reduce the option to attend a small school in the government sector, yet small schools in the private sector will continue to be supported by ACT Government funding. The Government has made a case on educational and financial grounds to reduce the number of small schools in the government sector, but has indicated that no change will be made to ACT Government funding of private schools. It has refused outright to set minimum enrolment levels for non-government schools but wants to implement de facto minimum levels for government schools.

## **7. The Role of the Neighbourhood School in Public Education is Ignored**

Towards 2020 fails to recognise the role of the neighbourhood school in public education. Implementation of Towards 2020 would virtually eliminate the neighbourhood school as a feature of the public education system. It would eliminate a feature that distinguishes public education from private education.

School closures inevitably reduce access to government schools. Up to nearly 4000 children will have to travel to a more distant school if Towards 2020 is fully implemented. It seems that one of the key principles of the ACT Education Act - a specific commitment to ensuring reasonable access to government schools for all students - has effectively been abandoned.

### **Public education and the neighbourhood school**

Public education is not just a matter of public funding, as many private schools receive the vast majority of their funding from public sources. Public education is also about providing universality and equity in education. It is also about building strong communities within and around neighbourhood schools.

The neighbourhood school is central to the purpose of public education, which is to enable all children to attend school without discrimination and without regard to family financial circumstances. Achievement of this goal is aided by ready physical access to schools in each neighbourhood within a reasonable and safe walking distance for all young children, especially those from disadvantaged backgrounds.

The neighbourhood school has a key role to play in achieving equity in education. It provides ready access to a school for all comers, especially the least well-off in the community.

The network of neighbourhood schools makes regular attendance at school less dependent on family capacity to provide or pay for transport and on safety considerations. If this network is broken up, attendance at school becomes more subject to financial and safety considerations. It is the children of families who can least afford to bear the increased costs whose attendance is most likely to suffer.

Lower attendance at schools is generally reflected in lower learning outcomes. Reduced access to a local school may exacerbate the large gap in education outcomes that already exists between the highest and lowest achieving students in the ACT.

The higher financial costs incurred by attending more distant schools also cuts into family resources that are available to support children's learning by the purchase of books, toys, and holidays, etc.

The neighbourhood school also supports parent participation in schooling, a significant factor in student learning, especially in the early years of schooling. Ready access to a local school ensures that parent participation is not dependent on parent financial capacity to pay for private or public transport.

It means that parents can easily help out in the classroom, help out in the canteen and attend school concerts and sporting events. It also makes for easy and regular direct communication between parents and teachers and for better mutual understanding.

The neighbourhood pre-school provides similar benefits. Pre-school education is an important stage in early childhood learning which should be readily available for all families and not be dependent on capacity to pay for transport. Parent participation is also critical to the operation of pre-schools.

The local pre-school provides an important linkage to other forms of early childhood learning. For example, playgroups provide opportunities for child socialization and informal learning through play for children under school age. Many of these groups are located in neighbourhood pre-schools so that they are within walking distance for families.

Schools are not just places to teach children, but can be used as learning centres for the local community. By keeping schools open during non-traditional school hours, the school can provide access to facilities and educational resources to support life-long learning opportunities for community members. They can be used by other government agencies and community organisations to provide a variety of learning activities and services to the local community.

Neighbourhood pre-schools and primary schools also play a critical role in developing and sustaining social support networks between families in local communities. Very often friendship groups for children and for parents are formed in the local pre-school and primary school and are developed into broader social networks that form essential social capital in these communities.

These social networks provide tangible assistance, care and support that may reduce psychic and physical stress. They often avert the need for costly government intervention services.

The public school is often the only public facility in a local neighbourhood. As such, it serves as a public resource for families and community members which contributes to community well-being in a variety of ways.

Schools can serve as a 'hub' for the delivery of a range of government services in the local community. They provide a base for information about and delivery of a range of health, welfare and social services by community and government agencies to students and their families. These services include family services, health clinics, youth service programs and childcare. Increasingly in many countries, government school sites are used to support integrated service provision for student and family welfare.

The neighbourhood school also provides public space for recreational and leisure activities in the community. It can also serve as a meeting place for the local community.

The significance of neighbourhood schools for local communities is exemplified in the role played by local primary schools as community support and activity centres when bushfires ravaged several Canberra suburbs in 2003. Several primary schools became key centres for distraught residents, especially Duffy PS. If these schools had not existed, there would not

have been any public facility available in these suburbs for the community to gather in to support each other, organize activities and rebuild their local community.

All these benefits and possibilities presented by neighbourhood pre-schools and primary schools should not be surrendered lightly and without question. Those who will bear the highest burden from their loss are those who can least afford it. The wholesale closure of neighbourhood schools will diminish public education, exacerbate inequity in education, fracture communities, undermine the delivery of community services and impair the formation of social capital.

## **Has the public deserted the neighbourhood school?**

The Minister for Education has argued that large numbers of families have deserted the neighbourhood school.

...the majority of students now do not walk to school. Approaching 50 per cent of students in our public system in fact do not even attend their local school and go past often eight or ten other government schools to attend a particular school that their parents have chosen or that they have chosen. So I think it is already the case that parents and students are making the choice not to attend local schools. [Hansard, 16 August 2006]

The Minister has also argued that the neighbourhood school is a relic of the sixties and seventies and that it does not now reflect the modern day realities of Canberra and the way in which parents and students are making choices about which school to attend [Hansard, 16 August 2006].

It is apparent from enrolment data on ACT government schools that the Minister for Education has misled the public about the extent to which students attend a government school other than their local school. The fact is that the large majority of families continue to support their local school. In 2006, 64 per cent of primary school students are attending their local neighbourhood school [Minister for Education and Training, Answer to Question 1035, 28 April 2006]. This figure refutes the claim families have deserted the neighbourhood school and that this concept is an outmoded relic of the 1960s and 1970s.

It is also relevant to note that in the secondary sector, 62 per cent of students attend their local high school and 63 per cent of college students attend their local college. These figures are similar to those of ten years ago; the high school figure is slightly down on that of 1996, while that for colleges has increased slightly [MACGS 1996].<sup>2</sup>

Furthermore, only about half of the primary schools proposed for full closure retain less than 50 per cent of the resident PEA students. Several primary schools proposed for closure retain an above average proportion of resident PEA students: for example, Gilmore (66%), Giralang (70%) and Holt (67%). Several of the schools that retain less than 50% of the resident PEA students meet particular needs of the local community in that they have a large proportion of low SES, Indigenous and SWD students: for example, Melrose, Mt. Neighbour, Rivett and Village Creek. Nearly all the schools proposed for part closure and which retain less than 50% of the resident PEA students also serve particular needs of the local community.

Thus, contrary to the claims of the ACT Government, the neighbourhood school still serves an important role in the local community.

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<sup>2</sup> The relevant primary school figures for 1996 are not published.

## **8. Excess Space in Schools is an Opportunity**

Declining and expanding enrolments in schools are part of the cycle of population renewal in urban areas. School enrolments typically exhibit a rapid expansion in new suburban areas, stabilise after a period and, for some, decline to much lower levels for extended periods as the population profile changes. Urban renewal in older urban areas can bring a boost to schools in these areas in terms of stable enrolment patterns.

The planning of schools needs to take into account changes in the population profile of different parts of cities. School planning is inevitably linked to proper urban planning to cope with changing demography and enhancing community facilities. School planning should continue to be a big aspect of urban planning in the ACT.

For many, population change which results in declining enrolments for some schools is easily managed by closing schools. But, this is a simplistic solution which denies the need to maintain and provide different community facilities as urban populations change. It denies the need to ensure continuing and reasonable access to schools for all. It ignores the possibility of further population changes in the future and urban renewal programs. Resort to school closure is a reflection of the failure of the planning process.

Save Our Schools is opposed to school closures as a general, automatically applied solution to the problem of declining enrolments and emergence of excess space in some schools. Instead, it advocates a clear, systematic and rational approach to the problem which sets out the basis on which evaluation of different options, including school closures, can proceed.

This does not mean that all school closures should be opposed as a matter of principle. There are circumstances in which school closures may take place. For example, in circumstances where the decline in enrolments is so severe that a school no longer plays a central role in the life of a community, closure may occur. In other circumstances, the local community may decide that its own interests and future interests are not compromised by closing a school because of readily accessible schools nearby. Moreover, the issue of immediate geographical access becomes less of a critical element in the latter years of schooling.

However, such examples are likely to be the exception rather than the rule. More often, a broad systematic approach will be required to address the problem of declining enrolments. This approach should incorporate a range of community interests, apart from education, clear criteria and detailed evaluation procedures and analysis. Its objective should be to develop alternative and effective solutions with community support.

To this end, Save Our Schools proposes an alternative plan for dealing with excess space in government schools which is outlined in this paper. The plan is based on a recognition of the principles and goals of public education and the role of the neighbourhood school in the provision of public education. It recognises that the principle of parent consultation and participation in decision-making is fundamental to developing an agreed approach. It recognises also that a range of factors, apart from the obvious influence of demographic change in communities, has an impact on the pattern of enrolments in government schools.

## **A hierarchy of options for use of excess space**

Before closing schools, it is essential to ensure that all other possibilities have been explored, that measures are taken to minimise the consequence and, above all, that solutions for reusing the accommodation have been planned or at least envisaged. In most instances, closing a school should be seen as a last resort, acceptable only if there are no other means of using it as a resource. Clearly, this has not been done in the case of Towards 2020.

This approach is desirable for two reasons. First, it is directed at ensuring most effective use of designated excess capacity for the community as a whole. Designated excess capacity is a community resource available to meet community needs, having regard to cost. Consequently, these resources should not be considered solely in terms of their impact on the education budget because they can be used to meet community needs administered by other government departments.

A second reason for evaluating all other possibilities is to provide an open approach to assure the community that all options are considered. It provides a process that will engender community confidence that everything possible has been considered fully and objectively.

A suggested classification of options for reuse is:

- educational uses;
- community uses; and
- compatible private uses.

### **Education uses**

In assessing options for use of space designated as excess capacity, the first option should be to determine its educational value for the existing school or for other educational purposes. Improving and diversifying educational provision is a legitimate way of reducing surplus and implementing innovative educational ideas.

Surplus space also provides the opportunity to better address special education needs and improve educational choices. It also enables more flexible and responsive approaches to timetabling and student and course management.

Designated excess space in schools provides the potential to improve on the quality of learning with additional facilities. Extra space in schools provides the opportunity to extend arts and music rooms, audio-visual facilities, libraries and other resource centres. It also provides the possibility to permanently set up facilities which reduce the time spent setting up and closing down when the space has to be used for other purposes as well. For example, many schools have taken the opportunity of the additional space to set up an extra permanent science room, thus saving classroom and teacher time in setting up and thereby facilitating continuing science programs and experiments over several classes.

It should also be considered that as purpose-built education facilities, schools' excess capacity can be evaluated for other education purposes. These could include adult education, training, field study centres, resource centres, skill centres, drama and arts centres, teacher centres, etc.

These extended educational uses of designated excess capacity in schools are now commonplace in many other countries. In many countries, local government authorities have viewed excess capacity as an education opportunity, either for children of the neighbourhood or for older members of those neighbourhoods and other communities which do not have access to such facilities and programs. Many U.S. school communities, for example, now require public schools to fulfil the vision of the "lighted school house", open over long hours to provide a range of educational programs for the entire community and including prenatal and parenting courses, preschool programs, day-care programs, after-school programs, evening and weekend classes and special programs for senior citizens.

Such successful programs could be considered as central ingredients to making better educational use of surplus facilities and meeting essential community needs and demands.

### **Community uses**

It is important to consider also other than educational needs and to evaluate the needs of public agencies, voluntary groups, associations, trades, small business as well as non-organised groups in the community requiring accommodation for their activities. Apart from satisfying educational needs of the community, surplus school accommodation may be adaptable to social needs, for example, establishment of a health centre, social meeting places, a youth club, a club for the elderly, a centre for unemployed people to meet, social museums, etc. Overseas practice confirms the variety of uses to which school sites can be put in order to meet local community needs.

In many cases, public agencies, voluntary groups or associations requiring accommodation for their activities are unaware of the opportunities offered by surplus space in schools. It may even be necessary in some circumstances to employ people to work with a community to ensure their needs are fully appreciated.

### **Private Sector uses**

Where "surplus" school premises (whether whole schools or parts of the schools) cannot be beneficially used for other educational purposes or community purposes, the premises could be made available to the private sector on lease.

Where investigations have been undertaken with proper care, and sites identified for leasing to the private sector, it should be possible to enter into leases of up to, say five years, with reasonable confidence.

Guidelines as to suitable arrangements and private sector uses include the following:

- the area leased can be the whole school or part of a school (where part is still needed for schooling purposes);
- the lease can be to one firm as tenant or to several;
- uses must be compatible with the adjoining school use (where part of the school remains open) and with neighbourhood amenity, in such terms as traffic volume, noise generated, etc.

## **9. An Alternative Vision: Community Schools**

School/community links can play a significant role in achieving better learning outcomes, in the re-vitalisation and development of the school system and schools, in supporting the well-being of families, in the development of mutually supportive communities and, indeed, in developing active and informed citizen participation in community affairs. This section attempts to articulate a vision of a school system centred in networks of school/community links and to suggest ways in which school/community links could be strengthened in the ACT government school system.

The concept of a community schools seeks to draw communities together in support of learning. Local families and community members and organisations join as partners in supporting childrens' learning development and growth and in providing support networks for families. It also seeks to provide a network of integrated community services based around schools for the support of students and their families. Finally, it offers a co-operative approach based on direct involvement and participation in decision-making. It combines a role for government and community working together in the interest of better learning outcomes for all students.

Community involvement offers a way of combining the benefits of local provision and choice with a concern for equity in outcomes and delivering services to meet all needs. It offers a way of reducing the costs of inefficiency and ineffectiveness often observed with centralised government provision without compromising the goals of fairness and equity in provision which is often incurred through market provision.

Strengthening school/community links in the ACT has much to offer in terms of the special contribution they can make to student development and learning, learning in the community and the development of the local community and its support networks for families and children. More extensive school/community links would serve to complement core government programs in the areas of education, community services and social welfare and better adapt them to meet the different needs of local communities.

Community schools should form the basis for the future organisation of schools in the ACT. The ACT Government should establish a comprehensive policy framework to support the development of community schools.

### **What are community schools?**

Community schools extend the concept of public education beyond the traditional K-12 program. At the heart of the community school concept is a simple idea: schools are not just places to teach children, but learning centers for the entire community because learning is lifelong. They also serve as a as a 'hub' for a range of community based services. They provide key facilities in their communities.

Community schools are based on reciprocal linkages between the school and its community. The community can provide support for schools in various ways and schools can provide support for the community. The school is part of the community and the community is part of the school.

The concept of the community school extends the traditional view of a school in several new directions:

- Education and learning take on a broader meaning than just the formal learning of students in school. In a community school, student learning is everyone's business, albeit with different roles for participants in that learning. Community schools utilise community resources for student learning and students can use the community as a source of learning. Schools also provide various types of learning activities and programs for the whole community.
- The school can be used as a base for the provision of a wide range of community and welfare services to meet the needs of students and their families and other community members.
- A community school is not just a site where teachers and students work together. Many different organisations and people are involved in using school facilities.
- The community school is open more often than the traditional school in order to provide a broader range of services. In many cases, it is open all year round, day and night in order to provide facilities and programs.

Community support for schools includes:

- parent involvement/participation;
- business support;
- community organisations;
- cultural organisations;
- sporting organisations;
- educational organisations;
- other government agencies.

These cover a number of areas such as resources for learning, financial support, community based learning, school to work transition, child care, welfare support.

Some aspects of school support for the community are:

- community learning;
- community facilities;
- welfare and other community services by government agencies and other community organisations such as charities, etc.

## **The objectives of community schools**

The goal of school/community links is to form sustainable partnerships to improve the learning and well-being of students, their families and their communities.

Community schools are organised around the basic idea that learning and other aspects of family and community life are interdependent and impact on each other. The learning of young people takes place within a whole community of adults and other young people. It can be enhanced or hindered by what is happening in other spheres of family and community life.

The objectives of community schools are to:

- improve learning opportunities for all children and other members of the community;
- provide a base for the delivery of community and welfare services;
- promote the development of community involvement and citizenship; and
- make best use of key public facilities and resources in the community.

There are several ways in which community schools can enhance learning. These include:

- parent involvement in the learning of students;
- broad community involvement in student learning;
- using the community as a source of learning;
- communities providing resources for schools; and
- providing lifelong learning opportunities for the community.

As one of the few remaining public facilities in local communities, the school can serve as a resource for families and community members and contribute to community well-being in a variety of ways. Community schools can provide a base for general community services such as recreational and leisure activities, community meeting places, information services and child care programs. They also provide a base for information about and delivery of a range of health, welfare and social services by community and government agencies.

Community schools can contribute to community development and citizen participation. Making school improvement and the quality of life of young people issues for the whole community and involving community members actively in seeking solutions is a way of developing the community and empowering its members. It can be seen as part of a process whereby community members collaborate in identifying problems in the community, discuss possible approaches and solutions and develop a plan of action.

Community schools can make better use of public resources through extended use of school buildings and facilities. Community use offers expanded use during the day and for the whole year. This makes more efficient use of the space and facilities and also serves to reduce costs in providing extra facilities elsewhere in the community.

### **Impediments to extending school/community links**

A program to strengthen school/community links has fertile ground on which to grow in the ACT. Schools have long played a central role in ACT local communities. They have been a centrepiece of urban planning and provide public space in communities. There is widespread acceptance of the role of linkages between school and community.

Schools have developed extensive links with the community and various community organisations both in terms of drawing on the community and providing services to the community. Parent and community involvement is a basic tenet of the government school system.

However, more can be done to draw on these strong traditions of community support for schools. At present, school/community links are under-utilised and under-developed. There are some significant impediments restricting the general development of school/community links and parent participation in ACT government schools. The key impediments to the general development of school/community links are:

- inadequate appreciation of the potential benefits of extensive school/community links;
- lack of a systemwide and interagency strategic framework for the development of school/community links; and

- inadequate resources to support the further development of school/community links.

The philosophy of community schools is not generally accepted by decision makers in the ACT government school system. Increasingly, there is resort to market mechanisms to organise the delivery of education. Consequently, there is no comprehensive framework for the integrated delivery of education, welfare and community services based around schools.

A major constraining factor is time and resources and the lack of funding for such projects. There is little flexibility in school staffing arrangements to take on more work in coordinating community resources or providing additional services to the community. As a result, such tasks fall to volunteers, whether teachers, parents or community organisations.

Collaboration between agencies at the local level and families can be improved. Families are generally seen as the objects of programs rather than as contributors to the design and delivery success.

There are also significant problems and gaps in the development of parent participation at both the system and school levels. Despite the founding principles of the ACT system, the promise of developing extensive parent involvement in schooling in the ACT remains only partially fulfilled. There has been a drift away from the original conception of the role of parents in government schools in the ACT. The impediments to parent participation include the following:

- the legislative base for parent participation is weak and there is little systematic support and active promotion of this role;
- there are no detailed policies or guidelines and no action plan at system level on parent participation in schooling;
- the scope of parent participation in the ACT government school system is narrow and often subject to school perceptions of the role of parents whereby parents are still seen as external props, rather than an integral part of the objective of schooling;
- few schools have comprehensive policies or plans to involve parents and families and the nature of support for parent involvement in the learning of their children is at an elementary level;
- training for teachers on parent participation is inadequate and duty statements do not specify developing relationships with parents about students' learning;
- there is an increasing system focus on the role of the principal in managing a school and this is detracting from the role of school boards in developing and making decisions about school education policies and the allocation of funds within the school; and
- many parents do not see they have a constructive and beneficial role to play in schooling and children's learning.

One of the gravest problems is the lack of resources being devoted to the development of home/school links and parent participation in schooling. The general rhetoric acknowledges parental rights and the need for parents to be involved in schools but this has not been supported by the allocation of adequate resources.

## Future directions

The key components of a general program to extend school/community links are:

- A clear vision of the role of school/community links in supporting learning in schools and the community and in providing services and resources to schools and the community.
- A policy and administrative framework to facilitate extension of school/community links.
- A commitment to partnerships and collaboration between administrators, professionals and community members and organisations at all levels.
- An integrated community service system incorporating schooling, health and other social services.
- Assessment of the needs of the school and the local community.
- A pilot program to examine different approaches and gain practical experience and ideas to provide a base for more extended development of school/community links.

Parent participation in schools and student learning can develop through two broad and mutually supportive ways. The first is through policies, programs and activities conducted by school systems and schools. The other is where parent and community organisations play an active role. Government funding and support is important in facilitating both these complementary approaches to developing effective home/school partnerships.

School systems and schools need to be organised to support and encourage parent participation in all its aspects. In the first instance, this involves legislation, policies and guidelines to provide the framework for the work of systems, schools and teachers. But, it also requires other initiatives. These include:

- teacher training;
- dissemination of information;
- school programs and information;
- collaboration and co-ordination;
- parent centres in schools; and
- home/school liaison officers.

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## Appendix A

# The Interaction of School Size and Socio-Economic Status on Student Performance

### School size research

Research on the impact of school size on student outcomes has a long history and has produced a voluminous literature. It has largely focused on the search for an optimal school size for high schools, with relatively few studies of the influence of school size on primary school outcomes.

The discussion of research findings on the relationship between school size and student outcomes is complicated by the lack of agreement over the definition of small and large schools. Different studies employ widely differing definitions. However, some broad approximations about school size categories can be derived from surveys of research results. Howley [2002] suggests that small schools at the primary or elementary school level are those with less than 200 students and a small secondary school has less than 400 students.

The majority of research studies support the idea that students perform better in smaller elementary and middle schools while the results for high schools are mixed [Howley 2002; Hicks & Rusalkina 2004; McMillen 2004; Stevenson 2006]. An overview of the research on school size prepared by the Education Commission of the States [ECS n.d] in the US states that, despite these uncertainties, researchers have reached broad consensus on several key issues:

- Under the right conditions, as schools get smaller they produce stronger student performance as measured by attendance rates, test scores, extracurricular activity participation and graduation rates;
- Smaller schools appear to promote greater levels of parent participation and satisfaction, and increase communication between parents and teachers;
- Teachers in small schools generally feel they are in a better position to make a genuine difference in student learning than do teachers in larger schools;
- There appears to be a particularly strong correlation between smaller school size and improved performance among poor students in urban school districts. These findings provide evidence that smaller schools can also help narrow the achievement gap between white/middle class/affluent students and ethnic minority and poor students;
- Smaller schools provide a safer learning environment for students.

Similar conclusions from a review of studies on school size were made by Caldwell [2005].

There are conflicting findings about the optimal size of schools. Similarly unresolved is the question of when, if ever, a school can be too small [ECS n.d; Lee & Smith 1997; Howley & Howley 2004]. Despite the extensive literature on the relationship between school size and student achievement, there is little research evidence about the lower limits of school size.

A school serving 50 students cannot be judged to be “too small” on the basis of any research known to the authors. [Johnson et.al. 2002]

## **School size, socio-economic status and student achievement**

Until recently, the research on school size has long over-looked the possibility that school size may be associated with different outcomes for students from different backgrounds. This has been rectified in a stream of research studies over the last 10 years. It suggests that the influence of school size on school performance is contingent on socioeconomic status (SES). Several studies have shown that the well-known adverse consequences of poverty for school performance are tied to school size. In brief, as size increases, the mean achievement of a school with less-advantaged students declines and the greater the concentration of less-advantaged students attending a school, the steeper the decline.

This literature stems from a study based on Californian data which demonstrated an interaction between size and SES such that large schools benefited affluent students, whereas small schools benefited students from low socio-economic backgrounds [Friedkin & Necochea 1988].

A replication of the California study in West Virginia found that the direct association of size and student achievement is neither practically nor statistically significant, but, instead socioeconomic status governs the relationship [Howley 1995]. As in the California study, large size benefits affluent students, but afflicts impoverished students and vice versa. Further, as in the California study, the negative effects of size on the achievement of impoverished students are much stronger than the positive effects of size on affluent students.

Following this study, a series of similar state-level studies were conducted in Arkansas, Georgia, Montana, Ohio, and Texas [Bickel & Howley 2000; Howley & Bickel 2000; Bickel et.al. 2001; Johnson et.al. 2002; Howley & Howley 2004]. The overall conclusion was that students from low SES backgrounds have higher achievement in smaller schools and as schools become larger, the negative effects of poverty on student achievement increases.

In short, as schools get larger, average achievement among schools enrolling larger proportions of low socioeconomic-status students suffers...

Smaller schools diminish the achievement disadvantages associated with being poor. Larger schools, by contrast, exaggerate these disadvantages. [Bickel et.al. 2001]

The effect varies from very strong (California, Georgia, Ohio, Texas, and West Virginia) to weak (Montana), although the preponderance of small schools in essentially rural states may account for the latter [Bickel & Howley 2000].

The studies also show that larger schools serve the same function for more affluent communities. Generally, the more affluent the community, the larger the school can be without damaging achievement levels [Howley & Howley 2004]. However, in some cases the benefit of larger schools among affluent communities was comparatively weak and more limited [for example, see Johnson et.al. 2002].

The benefits of small schools for students from low SES backgrounds appear to be particularly important in the middle years of schooling, when students become susceptible to dropping out of school [Howley & Bickel 2000].

These state-level studies also demonstrate an equity effect in that the relationship between SES and achievement is substantially weaker among smaller schools than among larger schools. At all grade levels for a variety of alternative measures of SES, and for quite different sorts of achievement tests (both criterion-referenced and norm-referenced), the amount of variance in school achievement associated with SES is substantially less in smaller schools than in larger schools. In most cases, the magnitude of the relationship among the smaller schools is about half what it is among the larger schools [Bickel & Howley 2000]. In some cases, the correlation between poverty and low student achievement is 10 times stronger in larger schools than small schools [Howley & Bickel 2000]. Smaller schools thus “mitigate” the effect that SES has on student achievement.

A similar state-wide study of South Carolina schools conducted by a different research team found that small middle schools in poor districts and large schools in more affluent districts tend to have a positive impact of school performance.

In general, the hypothesis generated from the literature that smaller scale tends to be more effective in promoting student achievement for low socioeconomic student populations while large scale is better for higher income populations was generally confirmed for middle and high schools in South Carolina. [Miley & Associates 2003: 54]

Similar results have also been reported separately for Maine [Rural and Community Trust 2005a, Coladarci 2006]. For both reading and mathematics, achievement was shown to be increasingly related to poverty as school size increased, and decreasingly related to poverty as school size decreased.

An exception to the above findings is a study of two school districts in Kentucky which found that small school size does not appear to moderate the impact of poverty on school performance [Roeder 2002]. However, a recent study of Kentucky schools on a state wide basis supports the conclusion that small schools tend to produce better outcomes for low income students than large school [Rural and Community Trust 2005b].

A state-wide study of Washington schools using the methodology of the Howley & Bickel team partially replicated the findings of these studies [Abbott et.al. 2002]. It found a tendency for larger schools to be somewhat more beneficial for student achievement in more affluent districts (and, equivalently, for smaller schools to be more beneficial in less affluent districts). However, this tendency was not found to be statistically significant. The study did conclude that small schools appear to have the greatest equity effects, that is, the relationship between SES and achievement was weaker in small schools.

Some recent studies have found similar results in terms of the relationship between school district size and SES background of students in Nebraska, Missouri, Iowa and South Carolina [Johnson 2004a, Johnson 2004b, Johnson 2006, Miley & Associates 2003].

The statewide studies universally used test score data aggregated at the school and district level rather than student level data. A recent US study used national student-level test data for mathematics, reading, science and history in the grade 8 cohort and found similar results to the state school- and district-based studies [Howley & Howley 2004]. In particular, it found that smaller school size confers an achievement advantage on all but the highest-SES students. In every subject, with and without control of prior achievement, the observed means for the lowest SES quartile were higher in smaller than in larger schools.

In each case, the results were statistically significant. However, in contrast to the general findings of the statewide studies, the study suggests that larger school size does not significantly improve performance among affluent students.

The study also confirmed the results of the statewide studies that small school size mediates the otherwise strong association between SES and student achievement. In comparison to the relationships between achievement and SES that prevail among students attending the largest schools, those attending the smallest schools experience a 60 per cent reduction in the influence of SES on mathematics performance, a 39 per cent reduction on reading performance, a 50 per cent reduction for science, and a 45 per cent reduction for history.

Other national and statewide US studies demonstrate that achievement gaps between different sub-groups of students in high schools tend to be greater in larger schools [Lee & Smith 1997; McMillen 2004]. While the Lee & Smith study attributed greater achievement disparities in larger schools to the relatively low performance of less advantaged students in those environments, the McMillen study raises the possibility that these disparities may in some cases be due to the relatively high performance of more-advantaged students in larger schools.

The range of school sizes included in the studies was variable. Some studies compared small and larger schools while others compared schools on a continuum from smaller to larger schools. Most of the studies included schools of less than 100 students, but in some the minimum size of schools was about 200.

## **Assessment of methodology**

All school-level studies use school level data to demonstrate the interaction between school size, SES background and student achievement. The interaction is shown by regressing achievement on SES, school size, and the mathematical product of SES and school size, and then testing the product term for statistical significance. If the slope associated with this term is statistically significant - which researchers have been reporting with remarkable consistency - there is an interaction between SES and school size.

One of the major problems in statistical studies of factors influencing student achievement is controlling for the variety of influences. Variables excluded from testing for a statistical relationship may exert a hidden influence on the findings. For example, differences in student/teacher ratios and teacher quality between schools may account for significant differences in school results. If significant factors are ignored, any resulting relationship between school size and student achievement may be misleading.

Several, but not all, of the studies of the interaction between school size, SES background and student achievement have adjusted for a range of other factors that influence student achievement. Several statewide studies took into account the different racial and ethnic background of students, differences in class size and student/teacher ratios. The inclusion of these factors did not significantly alter the results [Bickel & Howley 2000; Howley & Bickel 2000]. Bickel et.al [2001] confirmed the general findings while controlling for ethnicity, language, size, expenditure per student, and curricular composition factors including special education programs.

The methodology used in these studies has largely withstood rigorous assessment. A particular feature of the literature is that the findings have proved robust for different technical specifications of the modeling procedures used for the statistical analysis, which is a rare degree of consistency in educational research [Bickel et.al. 2001]. Also, there is no evidence that the ameliorative role of smaller schools in the SES-achievement relationship is the result of less variability in either student SES or student achievement among smaller schools than among larger schools [Coladarci 2006].

Another possible source of statistical bias is the greater volatility of school achievement scores from one year to the next for smaller schools compared to larger schools. It is possible that the lower SES-achievement correlation among smaller schools is an artifact of the demonstrated lower reliability of school achievement scores for such schools. Coladarci [2006] tested for such an artifact in his study of school data for Maine by repeating the analysis for successively less volatile collections of schools for both reading and mathematics. The hypothesis was that if the poverty-size interaction is a statistical artifact due to the lower reliability of school-level achievement among smaller schools, then this interaction should attenuate with successively less volatile collections of schools and be negligible for schools having the least volatility.

The study found that, for reading, the interaction between poverty and school size was not systematically smaller for less volatile schools and that the pattern of results was similar for all schools and the group of least volatile schools. However, there was evidence of a statistical artefact in the results for mathematics in that poor reliability of school score results in smaller schools appears to be a plausible explanation of the reduced impact of poverty on school results for these schools. As there was no less volatility in reading scores compared to mathematics, the author was unable to explain the greater robustness of the poverty/school size interaction for reading. Nevertheless, the author concludes that results are insufficient to support the statistical-artifact hypothesis with respect to mathematics achievement because of potential problems in his study such as the under-representation of small schools in the group of least volatile schools.

In short, the celebrated interaction of poverty and school size has survived a sincere attempt to empirically cast doubt on it. Consequently, we can have greater confidence in this interaction than was warranted before. [Coladarci 2006: 16]

## **Policy implications**

The research findings on the interaction of school size and socio-economic status with school achievement clearly demonstrate that small school size facilitates higher academic achievement for students from low SES backgrounds. Small school size is unambiguously good for students from low SES backgrounds and communities with relatively high levels of disadvantage. Large schools do academic harm to students from low SES backgrounds.

The studies offer no support for government proposals to close small schools, especially those serving communities with significant levels of socio-economic disadvantage. The following conclusion from one study is representative:

Findings from this study obviously offer no support for arrangements that work to increase the size of already small schools, especially those that serve impoverished communities (the common proposal in rural areas)...In light of the findings from this and other studies, concern for achievement and for reducing achievement gaps means that educators and policy makers must search for ways to meet these challenges without closing schools that are already appropriately small. [Howley & Howley 2004: 27]

Indeed, increasing school size may produce educational effects that are the opposite of those that policymakers claim they intend in closing smaller schools [Howley 1995]. Widespread school consolidation, without regard to student background, is likely to increase inequity in schooling outcomes and degrade academic accomplishments [Johnson et.al. 2002].

The research findings also challenge the widespread belief that large schools are less costly to operate than small schools. A significant shortcoming of studies of the cost efficiency of small and large schools is that they are almost universally conducted in terms of cost per student rather than the cost to achieve a given outcome or threshold achievement.

It is clear that school costs should be looked at in conjunction with outputs and school size in both theoretical analyses and empirical studies. How well students do in school, and not simply the size of the student body, obviously affects the cost of educating students. Students who take more than four years to graduate, for example, will cost more than those taking only four years to graduate. A greater number of students taking more than four years to graduate raises a school's cost per graduate. [Steifel et.al. 1998: i]<sup>3</sup>

Not only do studies of the financial efficiency of large schools largely ignore the impact of size on educational outcomes, they also ignore the impact on educational equity.

As with much contemporary educational research, equity questions are usually dismissed as irrelevant to the school size discussion, at least when fiscal efficiency is at stake. [Bickel et.al. 2001]

Financial savings from the closure and consolidation of small school are likely to be over-estimated if the impact of consolidation on educational outcomes for students from low SES backgrounds and the achievement gap between low SES and high SES students are not taken into account.

...we advise that education decision makers refrain from adopting policies that enforce widespread consolidations and school closures. The belief that smaller schools and districts are more expensive to operate is generally given as the reason for consolidation and closure, yet the existing literature suggests (a) money is not saved and (b) educational outcomes are likely to be harmed. Smaller schools and districts may be *somewhat* more expensive to operate than larger districts and schools, but that marginally greater expense seems, on the basis of this study and others like it, to be required to improve the adequacy and equity of educational *outcomes*—measured as student achievement on state-mandated tests. Very large districts and schools, however, are both ineffective (they exhibit poor educational outcomes) *and* inefficient (they are more costly). [Johnson et.al. 2002]

The policy implication of research on the interaction of school size, socio-economic status and school achievement is that government policies should strengthen the benefits of smaller schools, rather than seek to consolidate small schools.

If improving student achievement and narrowing the achievement gap between children from the most affluent and the least affluent communities is a policy goal, governments should consider adopting policies favouring smaller schools, especially in the least affluent communities [Howley & Bickel 2000: 11].

A key practical policy recommendation arising from these research studies is that small schools should be maintained in low SES communities [Howley 2002; Howley & Howley 2004]. The most impoverished communities should be served by the smallest schools. Small schools should be sustained and built in areas of low SES status and areas of mixed class composition.

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<sup>3</sup> This study of New York high schools demonstrated that though smaller schools have somewhat higher costs per student, their much higher graduation rates and lower dropout rates produced among the lowest cost per graduate in the entire New York City system.

However, appropriate and adequate support should be provided to these schools because while small schools improve the odds of success in disadvantaged communities they do not guarantee it. Operating smaller schools in impoverished communities is good policy, but it is not a “magic bullet.”

A further implication is that governments should avoid building or consolidating schools into mega-schools [Howley 2002].

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## Appendix B

### Main Findings of Curriculum Review in Belconnen High Schools

The review of curriculum was undertaken for Belconnen High School, Canberra High School, Ginninderra District High School (GDHS) and Melba High School.

#### Overview

- The four schools have a similar curriculum structure that delivers the 8 Key Learning Areas (KLAs) and offers electives in the Years 9 and 10
- Canberra, Belconnen and Melba organize English, Mathematics, Science and SOSE (Melba only) classes for different levels of ability while GDHS does this only in Mathematics
- Canberra, Belconnen and Melba offer advanced classes in several KLAs; Belconnen offers a special program for high ability students, especially in Year 10, while Canberra and GDHS provides credit for participation in elite programs outside the school
- Canberra, Belconnen and Melba offer a larger range of electives in Years 9 and 10, but only GDHS provides electives in science
- All schools incorporate IT learning across curriculum programs
- Each school offers a variety of extra-curricular activities, such as debating and participation in various competitions
- Each school provides student support services such as counselling, careers advice and work experience
- GDHS, Belconnen and Melba have programs and support units for students with special needs
- Each school has some unique programs and/or services
- Each school has a similar IT, Library and Technology facilities

#### Curriculum structure

The curriculum structure is broadly similar for GDHS, Canberra, Belconnen and Melba:

- Year 7 in each school must study each of the 8 KLAs;
- Each school requires all students in Years 8-10 to study in 7 KLAs;
- Each school has a variety of electives in Years 9 and 10;
- Canberra, Belconnen and Melba introduce some electives in Year 8 while GDHS introduces most electives in Year 9.

#### KLA curriculum

##### Arts

- Each school provides Art, Drama, Media and Music. Band is an on-line program at GDHS
- Each school provides opportunities for participation in drama and musical performances
- Canberra, Belconnen and Melba offer more electives in Arts in Years 9 and 10

## English

- Each school provides a similar English course
- Canberra, Belconnen and Melba have English organize English classes by ability level
- Each school provides English as a Second Language classes

## Mathematics

- Each school provides a similar Mathematics course
- Each school organizes Mathematics classes by ability level
- Each school provides opportunities for participation in mathematics competitions
- Canberra, Belconnen and Melba offer advanced mathematics electives for high ability students

## Science

- GDHS, Canberra and Belconnen provide common Science classes for Year 7
- Canberra, Belconnen and Melba organize Science classes by ability level at different stages after Year 7, but each of these schools stream Science classes in Years 9 and 10
- GDHS provides electives in Science for Years 8-10

## SOSE

- Year 7 students at GDHS, Canberra and Belconnen study one combined SOSE unit
- GDHS and Canberra offer SOSE electives from Years 8-10; Belconnen and Melba offer SOSE electives in Years 9 and 10
- Canberra, Belconnen and Melba offer more electives in Years 9 and 10

## Health/PE

- In each school, all students in Years 7 & 8 study same course
- Each school offers electives in Years 9 and 10, but Canberra, Belconnen and Melba offer a greater number than GDHS
- Each school participates in inter-school competitions

## Information technology

- Each school incorporates IT learning in their curriculum program;
- Each school provides specific IT electives in Years 9 and 10

## LOTE

- Canberra and Belconnen offer 3 languages other than English, GDHS offers 2 and Melba offers 1
- Each school offers a variety of language and cultural experiences associated with LOTE

## Home science/technology

- Each school offers a variety of Home Science and Technology units
- Canberra, Belconnen and Melba appear to offer a greater number of electives

## Special programs

### Similar programs

- Each school provides special learning assistance in small classes for students who are significantly behind their peers
- Each school offers debating and public speaking experience
- Each school has one or more school bands
- Each school provides student welfare/counseling services
- Each school provides careers advice and work experience opportunities
- Each school provides road ready/pre-driver education

### GDHS

- Credit for participation in elite programs outside the school
- The Ginninderra Alternative Program (GAP) provides a flexible education program for 15-18 year olds who have not completed their Year 10 Certificate for various reasons (such as difficult family circumstances, disability, personal situations, learning difficulties or ill-health)
- A Schools as Communities outreach worker who provides: links for parents to help with children's learning in the school; links to health and community services, help with parenting; and transport to services
- Restorative justice and peer support programs
- Breakfast program
- Special Indigenous education program across the curriculum and activities involving Indigenous culture
- Agriculture program, involving Angora goats, poultry, viticulture and a Heritage Museum

### Canberra

- Advanced classes in several KLAs
- Advanced mathematics and science electives for high ability students in Year 10
- Credit for participation in elite programs outside the school
- Special music program operated by the Canberra School of Music

### Belconnen

- Advanced classes in several KLAs
- Advanced mathematics/science elective for high ability students in Year 10
- Independent Learning Program for highly motivated Year 10 students to pursue studies not available in the standard curriculum or to a greater depth than is usually available
- A care and respect program to support the social and emotional needs of students for Years 7-10 and in which all students participate
- An intensive literacy improvement program for students with low literacy skills
- A Hearing Impaired Unit and an Autism Support Unit

### Melba

- A Fast Paced Program across all KLAs for high ability students in Years 7 and 8 and advanced classes for Year 9 and 10 in four KLAs

- Melba has a program with local artists providing instruction for students and teachers
- BelNorth Cyber School that links schools in the Melba High cluster in shared activities and projects
- Melba has a Learning Centre for students with special educational needs, including students with mild learning disabilities

**Source**

The details of the curriculum at each school were obtained from school websites. Some apparent differences in detail between schools may be due to omissions from websites. A complete statement of the curriculum structure at Melba HS is not available on-line.

## Appendix C

### School Bus Cost Studies 1990

#### Treasury study

*Denis Johnston & Associates 1990. An analysis of the implications of a policy of consolidation of schools on bussing requirements in the ACT. Consultant report prepared for the ACT Treasury, July.*

The ACT Treasury study was commissioned to advise on the likely cost implications of the school consolidation proposal. The major tasks undertaken in the study were:

- Determination of existing bus requirements for student travel;
- Estimation of changes in demand for school bus services following school consolidation;
- Estimation of new school bus service requirements;
- Estimation of updated unit cost rates relating to school bus services for calculation of additional operating and capital costs; and
- Comment on the appropriateness of the current school bus cost re-imburement formula.

The study was conducted in two parts:

- Schools which have dedicated school “specials”;
- Schools which rely on the fixed route bus service.

For the first type of bus service, the study determined the operational changes that would be needed to service the new pattern of student travel and the resource implications of those changes. In the case of second type of service, the study examined the ability of the existing network to facilitate new patterns of travel.

The increase in demand for student bus travel was estimated on the basis of existing patronage levels, the existing modal split of student travel (that is, the proportion of students using public transport and other means of transport), and an adjustment to the existing mix of short and long trips.

The modal split used was based on a survey of student travel in 1985 conducted as part of the Canberra Joint Public Transport Study. It was estimated separately for primary and secondary school students in each of the 6 major districts of Canberra and for intra-district and inter-district trip type in each case. There was considerable variation in the proportion of students using bus services according to district of residence, primary and secondary school students and whether it was for intra-district or inter-district travel.

The proportion of students travelling intra-district and inter-district was used as a proxy for trip length. The adjustment to the existing mix of short and long trips was based on judgments about the extent to which trip lengths were likely to change, given the location of the closing school relative to the location of the likely alternative school(s). These adjustments are not made explicit in the study.

The study estimated a significant percentage increase in student bus travel but the actual numbers involved was small. It estimated an increase of 192 bus passengers for the 18 primary schools proposed for closure and 39 students from the 3 high schools to be closed. However, it also estimated an increase in the length of trips undertaken.

In essence, the study found that additional bus service costs are incurred with the closure of schools provided with dedicated bus services, but not for other schools.

The study did not analyse the school bus re-imburement formula in any detail. It noted that it appeared to be based on average costs which would not necessarily reflect the true cost of providing these services.

### **Dedicated school bus services**

Nine of the schools proposed for closure had dedicated school “specials”. The study found that a total of 24 ACTION school bus runs would be affected by the proposed school consolidations. This involved assessing the changes needed to a route so as to serve the receiving school whilst incorporating service to the neighbourhood in which a school was being closed.

It concluded that four additional buses and drivers would be needed morning and afternoon to serve the 24 routes. All of these were for primary school routes. The need for additional resources was found to be driven by the pattern of service required rather than increased demand for services.

The study estimated that the additional annual cost to ACTION to make the school run changes for primary schools would be \$277,151 and \$6,228 for high schools. These increased costs would be offset to some extent by increased revenue from passengers, with \$21,120 from primary school students and \$4,290 for high school students. The annual net cost to ACTION was therefore \$257,969 (\$256,031 + \$1,938).

### **Schools without dedicated services**

The study concluded that the network of fixed route services was capable of serving other schools proposed for closure with only minor modifications which do not have any cost implications.

### **SOS Canberra study**

*Upali Vandebona 1990. Forecasting additional school bus service requirements for planned closure of schools in Canberra. Report prepared for Save Our Schools Canberra. Department of Transport Engineering, University of New South Wales, July.*

The study was commissioned to:

- Estimate the number of students who would use school bus services as a result of school closures;
- Determine the busing requirements for these students assuming existing patterns of usage and provision of school bus services;
- Calculate the recurrent and capital costs of providing additional bus services;
- Determine the impact on existing bus services of students travelling greater distances to school; and
- Provide advice on the adequacy of the current school bus service cost re-imburement formula as a means of attributing the cost of resources provided.

The study examined different scenarios of 18 primary schools closing. It assumed a modal split of 25 per cent using bus transport. The study took into account existing out-of-area ratios for the consolidated school and estimated the new out-of-area ratios likely to arise from school consolidation. The study also used the experience from a previous round of school closures in 1988 to estimate the potential modal split and the school bus service pattern.

The study estimated that the number of primary school students displaced because of school closures would range from 4158 to 4768, depending on the school closure scenario. It found that 22 to 26 new bus services would be required in the morning and afternoon to service the increased demand for the consolidated primary schools, depending on the closure scenario. These services would therefore require an additional 11 to 13 buses and drivers.

These estimates were based on the assumption that all students from the closed school would move to the nearest available primary school. The study also made estimates based students attending schools other than the closest one to the closed school. These estimates were based on the attractiveness of different schools according to factors such as availability of after-school care, school band, a language other than English and existing bus routes. In these cases, the additional bus route would have to be extended and the operating duration of the service would increase.

A similar analysis was undertaken for the 3 high schools proposed for closure. The study estimated that an additional 11 buses for 22 additional services would be required to meet the increase in demand for student bus travel.

This analysis was based on a survey of students at the 3 high schools proposed for closure. The survey showed that many more high school students would have to use public transport to access another high school.

The study did not comment on the school bus re-imburement formula.