



yellow school bus
COMMISSION

Report and Recommendations



September 2008

Contents

Foreword	1	4. Improving school transport	27
Executive summary	2	4.1 Different requirements for primary and secondary pupils	27
Current school transport policy and car dependency	2	4.1.1 Availability	27
The work of The Yellow School Bus Commission	2	4.1.2 Affordability	28
The need for a new approach	3	4.2 Primary age considerations: safety and peace of mind	28
Substantial benefits	3	4.3 Secondary age considerations	30
Summary of findings and recommendations	4	4.4 Prioritising resources: results of the cost benefit analysis	31
		4.5 Summary	32
The Yellow School Bus Commission	6	5. Service delivery	33
Who are the members of The Yellow School Bus Commission?	6	5.1 Funding the rollout of improved school transport	33
Advisors to the Commission	7	5.1.1 Yellow school buses for primary schools	33
Acknowledgements	7	5.1.2 A mixed approach for secondary age pupils	34
1. Introduction	8	5.2 Ensuring efficiency	35
2. The journey to school	9	5.2.1 Incentives for schools	35
2.1 Mode of travel to school	9	5.3 Raising standards	36
2.1.1 Travel by car	9	5.3.1 Encouraging operator investment	36
2.1.2 Walking and cycling	9	5.3.2 Providing an appropriate fleet	36
2.1.3 Travel by bus	10	5.4 Further funding opportunities	37
2.2 Who gets free school transport?	10	5.4.1 Bus Service Operators Grant	37
2.2.1 Education and inspections Act 2006 and low-income families	11	5.4.2 Revised charging arrangements	37
2.2.2 Policy in Scotland and Wales	11	5.4.3 Potential for business sponsorship	38
2.2.3 Independent sector	11	5.5 Procurement	39
2.3 Changes in education policy impacting on school transport	12	5.5.1 Procurement models	39
2.3.1 Parental preference	12	5.5.2 Combined entitled, non-entitled and SEN provision	39
2.3.2 Specialist schools provision	12	5.5.3 Working in partnership	39
2.3.3 14-19 year education reforms and Scottish 16+ Learning Choice provisions	12	5.5.4 Maximising use of resources	40
2.3.4 The draft Learner Travel (Wales) Measure 2008	12	5.5.5 Stimulating competition	40
2.3.5 Development of extended schools policies	12	5.6 London	41
2.3.6 PFI schools	13	5.7 Further measures to encourage walking and cycling	41
2.3.7 Pathfinder initiatives	13	5.8 Impacts on existing bus networks	42
2.4 Local authority school transport strategies & plans	13	5.9 Summary	43
2.4.1 Sustainable School Travel Strategies	13	6. Implementation: a toolkit for success	44
2.4.2 School Travel Plans	13	6.1 A menu for implementation: primary schools	44
2.5 Reasons for increasing car use on the journey to school	14	6.2 A menu for implementation: secondary schools	46
2.5.1 Car ownership	14	Annex A: Summary of cost benefit analysis	48
2.5.2 Parental perception of safety on journeys to and from school	14	A.1 Core assumptions used in the modelling	48
2.5.3 Busy roads	14	A.2 Elements of cost benefit modelling	49
2.5.4 School bus safety	15	A.3 Results of cost benefit modelling	50
2.5.5 Young people's concerns	15	A.3.1 Primary school results	50
2.5.6 Parental preference	15	A.3.2 Secondary school results (one- to five-mile catchment)	51
2.6 Why there is a need for a new approach	16	A.3.3 Secondary school results (two- to five-mile catchment)	53
2.6.1 Child health	16	A.4 Costs and benefits for an individual school	54
2.6.2 Child independence	16	A.5 Practical issues	55
2.6.3 Environmental concerns	16	A.5.1 Cost of vehicle provision	55
2.6.4 Spending on school transport	16	A.5.2 Vehicle capacity and accessibility	55
2.7 Summary	17	A.5.3 Vehicle occupancy	55
2.7.1 Considerations in the design and delivery of a new approach	17	A.5.4 Clustering of schools	55
3. The Commission's review	18	A.5.5 Staggered hours	56
3.1 Yellow school bus operations in England, Scotland & Wales	18	A.5.6 Double running	56
3.1.1 Site visits and meetings	19	A.5.7 Late buses	56
3.2 Yellow school bus operations in the USA	22	Annex B: Yellow school bus service standards	57
3.3 Previous reports on dedicated school transport	23	Notes	58
3.4 Questionnaire and exhibition bus tour	23		
3.5 Bringing together the experts	26		
3.6 Summary	26		

Foreword



Nothing can be more important than the wellbeing and safety of our children. That is as true on the way to and from school, as it is in school itself. These are, after all, young commuters. And yet, this is an area of public policy which, over many generations, has been left to “make and mend”.

All of us are familiar with the phrase “if it ain’t broke don’t fix it”, and the Commission was mindful of this in approaching this thorny and extremely broad area of public policy. We do after all, manage. But do we do it as well as we can? Are we really taking on board the major strands of public policy on reducing congestion, reducing energy usage, taking account of climate change and pollution? What about the comfort and safety of youngsters, and their readiness to learn? In addition, are we preparing youngsters to be the public transport travellers of the future?

Are we encouraging them to know that high quality, comfortable public transport will be a real alternative to them using their own car for some of the journeys they make in their future life? The Government have been able to achieve nothing short of a revolution in freedom of movement and enjoyment of new experiences following changes to concessionary fares for those over the age of 60. We are talking about a different policy area in this report, and so very different policy prescriptions; but it would be wonderful if we could achieve a revolution in transport for youngsters as well. Are we taking into account the changes in education; the extended school day; the collaboration of schools and colleges in relation to the post-14 Diploma; and the greater preference available to parents and students in relation to which school to attend and how to facilitate getting there?

These and many other questions were uppermost in the mind of the Commission, comprised of representatives from four major political parties as well as expert transport professionals. We therefore set ourselves the task of generating a way forward based on extensive research which would encourage walking, cycling and the use of transport, focusing on how dedicated school transport can make a substantial contribution and how affordability (outside London, within which transport is free) can encourage the use of public transport by young people through to the age of 18.

Quality, reliability and of course, viability (in terms of affordability) is crucial. This is why the Commission accepts that there needs to be a menu of options for both purchasers and providers of public transport. It would have to fit the needs of the area, within a framework that achieved overall objectives whilst at the same time being responsible to local circumstances and needs.

We are grateful to all those who have given evidence, provided information and taken part in surveys including those who visited the exhibition bus around the country. We are also grateful to the University of Aberdeen for providing research facilities and assisting us with the evaluation of data from here and across the world; and to FirstGroup for their sponsorship and willingness to ensure that the Commission could be truly independent - recognising that all those in the bus industry and producers have a great deal to gain from offering a first class and appropriate service to young people as part of their school life and preparation for adulthood.

I would personally like to thank my fellow Commissioners for the enormous amount of time and commitment they have given to this project, as well as the secretariat for their patience and dedication in meeting our demands.

Our hope is that government - nationally and locally - will feel able to take forward the recommendations in this report and to develop a long-term programme which will contribute to the broader economic, educational and environmental agenda.

We wish to thank the Departments for Transport; Children, Schools and Families; and Communities and Local Government for their co-operation and willingness to present evidence and offer information and statistical data.

Taken together with the cross-party House of Commons Select Committee investigation, it is our belief that it will be possible to make genuine progress in providing a 21st century solution to a 21st century challenge.

A handwritten signature in black ink that reads "David Blunkett".

The Rt. Hon. David Blunkett MP
Chair of the Yellow School Bus Commission

Executive summary

The 'school run' impacts on us all. While it clearly affects parents, pupils and teachers, every road user knows how much easier their journey is during school holidays. But the impact goes well beyond increased travelling time. The effect of school traffic on the economy, the environment and the health of the nation should not be underestimated. As children don't drive and their daily movements are known, why should 'the school run' have such a massive impact? Surely, public transport should cater for such mass movements.

Current school transport policy and car dependency

Congestion is a recognised drain on the economy, yet current school transport policy fails to discourage car use for the school run. Because we have 'managed' in the past, and because funding for school transport has been seen as a lesser issue in terms of both economic and social policy (and ignored almost entirely in terms of educational impact) it has not been regarded as a priority.

Current policy results in many parents driving their children to school. Free transport is generally only available to children under eight years old who live more than two miles (or more than three miles for over-eights) from their respective catchment schools. These entitlement rules (dating from 1944) are out of step with today's lifestyles and evolving changes to education. In addition, the 14-19 education reforms are likely to significantly increase demand for education-related trips during the school day over the next few years.

Children who fail to qualify for free transport are often driven to school because parents see no acceptable alternative. This is particularly true for the parents of primary pupils, who may regard the public bus network as inappropriate for young, unaccompanied children. For parents of secondary age pupils there are concerns about bullying on existing bus services.

The facts speak for themselves.

- **Around 41% of primary pupils get to school by car. Two decades ago only 22% travelled to school by car.¹**
- **More than twice the number of secondary pupils are driven to school (21%) compared with 20 years ago.²**
- **Of pupils living between one and three miles from school, approximately two-thirds of primary pupils and one-quarter of secondary pupils are driven to school by car.³**
- **The average length of the trip to school has increased from 1.3 to 1.5 miles for primary and from 2.9 to 3.4 miles for secondary pupils over the last 10 years.⁴**
- **At the peak time of 8:50am on weekdays in term time, the school run generates approximately 20% of all car trips by urban residents.⁵ On some major roads journey times can increase by over 150%.⁶**
- **The public sector spends £912 million on school transport, representing just 0.5% of local authority spending⁷ and only 4% of central and local government transport expenditure.⁸**

The effect on the environment is substantial. Even accounting for lift-sharing, the school run contributes around one million extra cars on the roads at peak times and a further 1.2 million cars driving extra distances for school drop-offs on the way to work. The impact on the environment of this is significant with about one million tonnes of CO₂ emitted each year.

The work of the Yellow School Bus Commission

The Yellow School Bus Commission was established to examine and quantify the costs and benefits of a nationwide network (across England, Scotland and Wales) of dedicated home-to-school transport.

In order to fully understand school transport needs and any current successful initiatives, the Commission has undertaken a comprehensive nationwide study of school transport. The Commission reviewed current yellow school bus programmes in England, Scotland and Wales, as well as what is arguably the most successful model in action: the American school bus model.

Yellow school bus operations are not just about buses painted yellow. They represent a standard of quality and safety and generally include the following common features:

- dedicated and vetted drivers fully trained in both bus operation and child supervision
- a guaranteed seat for every pupil with three-point, all-age seat belts
- familiarisation and safety training for pupils
- on-board registers for younger pupils, giving reassurance to parents
- measures to support good behaviour ranging from CCTV to use of prefects and codes of conduct
- dedicated single-deck vehicles designed primarily for the carriage of school children and with yellow livery in line with US practice.

The Commission has examined closely the merits of yellow school bus operations and their strong focus on safety and parental reassurance. In addition, the Commission reviewed previous reports, received evidence, visited initiatives and consulted with operators, authorities and other personnel involved in education. The Commission also met with pupils and parents to seek their views on the issue.

Despite the different circumstances there is much to be learned from the American model. Some organisations and local authorities are already successfully emulating many elements of the yellow school bus approach as outlined in this report. Although currently limited in number and scope, they often achieve impressive modal shift.



By adopting best practice from Great Britain and the US, we aim to develop an implementation menu for those procuring and delivering services and to achieve one of the best school transport systems in the world.

The need for a new approach

In order to achieve its goal of reducing school run impact, the Commission has concluded that we must both improve quality of service and widen access to school transport so it becomes a readily acceptable alternative to driving children to school. Safety, sustainable travel and reassurance to parents are crucial. The Commission strongly believes that walking and cycling should be encouraged and promoted within sensible distances.

Because of safety fears, only 5% of all primary pupils nationwide travel to school by bus. It is essential to provide a new approach that is sufficiently attractive to both parents and pupils to generate significant modal shift. The Commission recommends that significant modal shift can be achieved for this age group through dedicated yellow school bus services for distances over one mile.

Secondary age pupils also deserve an attractive home-to-school service offer. A more flexible approach can be taken with this older age group. 60% of secondary pupils already use bus services to school for distances over two miles, with 44% using the public bus network and 15% using dedicated home-to-school services. Expanding and improving public bus services for school transport offers the best potential solution. The initiative should incorporate measures to tackle behavioural issues, in line with other Government policies such as the Home Office's Respect campaign.

For some secondary schools where overcrowding, school location and behavioural issues create particular problems on public buses, there is a very strong argument for dedicated school transport such as yellow school buses.

With the expansion of dedicated school transport, it should also be easier to cater for special needs pupils attending mainstream schools.

Substantial benefits

Nationwide (England, Scotland and Wales) rollout of yellow school buses for primary age pupils would:

- offer children and parents a safe and attractive option for commuting to and from school
- reduce local traffic congestion
- benefit the environment
- improve safety and wellbeing.

A thorough cost benefit analysis of a nationwide rollout of yellow school buses to primary schools has quantified potential savings. It is estimated that the rollout would reduce car journeys to primary school by 20%, removing up to 3% of all car traffic on the roads between 08:45 and 09:00. The estimated reduction of up to 130 million car journeys per year equates to 55,000 tonnes of CO₂ emissions per annum. Bus use would increase from 5% to 15.5% for primary pupils, with over 80% of this uplift originating from current car users.

Parents could, en masse, save a total of around £362 million per annum. Within this figure, the specific savings in vehicle operating costs for those previously driving their children to school totals £92 million which more than justifies the additional bus fares incurred of £82 million per annum.

Reduced congestion would save other road users £88 million per annum. Further benefits include reductions in accident costs, reduced truancy rates and job creation in the bus industry, altogether valued at £70 million per annum, although there is a cost to the Treasury of £57.6 million per annum in lost tax and duty as a result of less driving on the school run.

In addition there are many non-monetary benefits including greater choice of school and equity of travel options. Schools report anecdotally that children who travel on dedicated bus services arrive more alert and ready to learn. Residents near schools will benefit from reduced traffic around the school gate. Businesses will see improved availability of part-time staff and there will be new weekday job opportunities that align with school term times.

The combined benefits of a fully implemented rollout of yellow school buses for primary age children totals more than £460 million per annum. The Commission believes that funding the additional costs (operational costs, less passenger fare revenue and local authority school transport expenditure transferred from some existing school transport services) of £154 million per annum for a nationwide rollout is a worthwhile investment for central government. The Commission recognises that implementation should be phased and that best practice and efficiency are vital.

Whilst a comprehensive yellow school bus system for secondary school transport has been considered, the Commission believes that this can be achieved at a lower additional cost (estimated between £50 million and £100 million per annum) and with a more flexible approach supported by incentives to schools, operators and improved procurement.

The Commission advocates continuous, local development and enhancement of dedicated and public bus services that improves services to young people, fosters respect amongst users and encourages a culture of public transport use. However, where there is specific demand for dedicated services and/or where poor behaviour is a problem, dedicated yellow school bus initiatives for secondary age pupils offer tangible advantages. This combined approach for secondary pupils offers benefits estimated at between £91 million and £194 million per annum.

Acceptable fare levels will not generate all the required funding but given the clear safety and decongestion benefits, there is a strong case for a contribution to dedicated school transport services from the public purse. Provision of the Bus Service Operators Grant (BSOG - a rebate of fuel duty not currently available to dedicated school buses) is one available option. Other incentives for operators and authorities to meet new quality standards should also be developed. Following the ideas emerging from the Pathfinder initiative, alternative charging mechanisms for school transport services should be explored. Local authorities can also consider new supplementary funding opportunities such as local business sponsorship.

The Yellow School Bus Commission stands by the recommendations in this report. The Commission urges decision makers across the entire political spectrum and throughout the transport industry to implement these proposals in partnership and deliver a safe, dedicated school transport system.

Summary of findings and recommendations

The following summarises the findings and recommendations of the Yellow School Bus Commission.

Findings	Recommendations
<p>1 Over 85% of primary pupils who walk to school live less than one mile from the school they attend, but more than 80% of those driven live further than one mile from their schools.</p> <p>Secondary age children are much less likely to walk journeys of more than two miles.</p>	<p>All schools should continue to promote walking and cycling for pupils living within one mile from primary school and two miles from secondary school (see Section 4.1, page 27).</p>
<p>2 Parents of primary pupils are unwilling to let their children make their way to school alone even for short distances, principally because of safety and security concerns.</p> <p>A package that incorporates yellow school buses, dedicated drivers and other parental reassurance measures is particularly appropriate for this age group.</p>	<p>Yellow school bus services should be offered for all primary school children living over one mile from school. Such buses should feature dedicated drivers and a range of other optional elements such as CCTV, registers and voluntary or employed escorts (see Section 4.2, page 29).</p>
<p>3 Secondary age pupils already use public buses in many locations.</p> <p>There are opportunities to build upon the use of the public bus network for secondary school transport.</p>	<p>Improve secondary school bus services by increasing existing bus provision, raising quality standards, enhancing driver training, and using technology to promote good on-board behaviour (see Section 4.3, page 30).</p>
<p>4 Availability and issues of poor behaviour mean that dedicated school buses for secondary school pupils are necessary in some places.</p>	<p>Consider providing yellow school bus services for distances greater than two miles to secondary schools, where there are special circumstances such as poor existing bus services and use, serious challenging behaviour of pupils on the public bus network or the potential to link services with suitable primary school provision (see Section 4.3, page 31).</p>
<p>5 A full and immediate introduction of yellow school buses for primary age pupils would be logistically challenging.</p> <p>Any introduction should be staged, encouraging partnership between schools, authorities and operators and raising efficiency.</p>	<p>Undertake a phased and properly coordinated expansion of yellow school bus services for primary age pupils over the next five years, with a final annual investment of £154 million revenue per annum at steady state (see Section 5.1, page 33).</p>
<p>6 The benefits of a full rollout of dedicated yellow school buses for secondary age pupils are less than those for a primary school operation.</p> <p>Using an appropriate mix of public bus services and dedicated school transport will reduce costs and maintain the majority of the benefits.</p>	<p>Provide additional funding of up to £100 million for the increased availability and quality of school transport for secondary age pupils. Initially, this will use existing public services where available. Dedicated yellow school buses should be considered where issues of behaviour are particularly acute or the public service cannot cater for the demand (see Section 5.1.2, page 34).</p>
<p>7 The implementation of staggered school hours is key to delivering efficiency.</p> <p>The School Travel Plan process could facilitate the phased introduction of yellow school buses.</p>	<p>A financial incentive should be given to schools that stagger their hours. The Commission recommends that within a more flexible approach to existing capital grants, annual revenue funding of up to £10,000 per school should be available via Travel Plans for new primary yellow school bus services (see Section 5.2.1, page 35).</p>
<p>8 Due to the high capital costs involved, long-term investment should be encouraged.</p>	<p>The Commission appreciates that the purchase of dedicated vehicles demands significant operator investment. In order to reduce risk and uncertainty, long contracts of up to ten years should be introduced to encourage investment in school buses (see Section 5.3.1, page 36).</p>
<p>9 High capacity vehicles help to ensure efficiency and single-deck vehicles allow better supervision.</p> <p>Other categories of vehicle may be used to cater for differing circumstances and assist in the further integration of special educational needs pupils into mainstream school transport services.</p>	<p>In consultation with schools, parents and operators, local authorities should consider the appropriate mix of vehicles to meet needs. Cost effectiveness, quality and local circumstances such as integration with public service requirements in rural areas should be considered. Provision should also enable expansion in the number of mobility-impaired pupils travelling with their peers (see Section 5.3.2, page 36).</p>



Findings

Recommendations

10 Bus Service Operators Grant (a rebate on fuel duty) is currently unavailable to dedicated school bus services.

Bus Service Operators Grant should be made available to operators and authorities who meet new quality standards matching those of yellow school buses, as part of the proposed funding requirement in Recommendations 5 and 6 (see Section 5.4.1, page 37).

11 Parents recognise the benefits of yellow school buses and in a number of cases are already willing to contribute through fares. Under the Government's recent Pathfinder programme, local authorities were reluctant to introduce a potentially unpopular charging programme.

Consider revising entitlement arrangements supported by improved funding, as originally proposed under the Pathfinder programme (see Section 5.4.2, page 37).

12 Businesses show interest in reducing congestion and freeing their employees from school run duties. There may be some potential to explore financial support for services linked to both promotional and corporate social responsibility programmes.

The Commission considers that (subject to local consultation) local authorities and schools should explore private sector business sponsorship as an additional support mechanism for local yellow school bus operations (see Section 5.4.3, page 38).

13 The best public sector procurement mechanisms are those where socially necessary transport and education services are managed by the same authority (and particularly within the same department). Responsibilities for education and transport in Passenger Transport Executives areas lie with different authorities.

Integrated Transport Units offer the best mechanism for procurement. Where this is not possible due to local government structure, the partnership and understanding between district council and transport authority should be developed to realise and share the subsequent benefits (see Section 5.5.1, page 39).

14 Planning entitled and non-entitled school transport together enables greater efficiency. The travel requirements of many pupils with special educational needs could be integrated with mainstream transport.

Entitled and non-entitled school transport should be procured together, alongside the requirements for pupils with special educational needs attending mainstream schools (see Section 5.5.2, page 39).

15 The public bus network is often the best solution for secondary age pupils, but some services will need additional capacity. There is an opportunity to improve relationships and develop respect between staff and users, particularly as school pupils are potential public transport customers of the future.

Operators and authorities should work in partnership to secure higher quality in service, vehicle standards and driver training for all public bus routes serving schools (see Section 5.5.3, page 39).

16 Inter-peak school work can increase utilisation of dedicated vehicles.

School bus contracts should include regular inter-peak school work, whilst other off-peak work carrying school children should also be sought (see Section 5.5.4, page 40).

17 London's unique, regulated market with its high overall public transport usage and free fares for school children is effective for secondary age pupils and has resulted in primary age use above the national average. At present, London deals inadequately with the travel requirements of those children too young to travel unaccompanied, pupils with special educational needs and the wide catchment areas of the independent sector.

Transport for London should consider future provision for primary age children, independent schools and those with special educational needs. There is potential for integrated dedicated services (ideally meeting yellow school bus standards) to achieve modal shift, and where possible, to reduce borough expenditure, particularly on special educational needs transport (see Section 5.6, page 41).

18 Changes in school transport provision should actively avoid damaging the recent growth in walking and cycling.

The rollout of improved school transport should be conducted in parallel with continued (and perhaps expanded) capital funding for initiatives to improve walking and cycling, coupled with targets to maintain and improve share of all sustainable modes (see Section 5.7, page 41).

The Yellow School Bus Commission

Who are the members of the Yellow School Bus Commission?

The Commission comprises six members bringing expertise from the public transport, local authority and government sectors.



The Rt. Hon. David Blunkett MP (Chair)

As Labour Member of Parliament for Sheffield Brightside, David is best known for holding several senior Cabinet positions including Secretary of State for Work and Pensions, Home Secretary and Secretary of State for Education and Employment. David brings a wealth of senior government experience to the Commission.



Garth Goddard

Recently retired as Programme Director for the North West Centre for Excellence national transport efficiency project, Garth has significant local government experience at officer level. For eight years he was Head of Cheshire County Council's Transport Coordination Service and is also a former advisor to the Shires' Public Transport Consortium.



Baroness Ros Scott of Needham Market

As Liberal Democrat front bench spokesperson for the Department of Communities and Local Government and former member of the Commission for Integrated Transport, Ros brings extensive knowledge and experience on transport and rural matters. Previously Leader of Suffolk County Council, Ros was Chair of the Local Government Association's Transport Committee.



Patrick Harvie MSP

As Green Party representative for the Glasgow region since 2003 and Convener of the Transport, Infrastructure and Climate Change Committee of the Scottish Parliament, Patrick brings detailed knowledge of climate issues and the Scottish parliamentary and transport policy framework. He is a member and supporter of a wide range of organisations including Friends of the Earth and the Equality Network.



John Burch

In his position as Deputy Director of Operations at the Confederation of Passenger Transport UK (CPT), John is the Commission's representative of the bus and coach industry. He sits on the CPT School Transport Committee and the Department for Transport's School Transport Experts Panel. Having worked for a number of bus companies throughout his career he brings comprehensive experience on the operational aspects of school transport.



Lt. Col. Tex Pemberton OBE

Following a distinguished military career, Tex became a member of West Sussex County Council in 1997, and gained significant senior local authority transport experience, with Cabinet responsibility from 2001. He has been Conservative Cabinet Member for Highways and Transport until April 2008, but has recently chosen to return to the backbenches. Tex was chairman of the partnership steering group that developed the highly successful Fastway bus network serving Crawley and Gatwick Airport. He is also Chairman of the Sussex Safer Roads Partnership. In 2005 he was recognised with a National Transport Award for 'an outstanding contribution to transport'.

Advisors to the Commission

FirstGroup plc

The Commission benefits from secretariat and administrative support provided by FirstGroup plc. First does not sit on the Commission. Both the Commissioners and First are committed to ensure that the independence of the Yellow School Bus Commission is assured.



University of Aberdeen

The Commission has been supported throughout by the University of Aberdeen's Centre for Transport Research in evidence and data analysis, cost benefit modelling and review. The team was led by Professor John Nelson while evidence review and cost benefit analysis was conducted by Dr. Steve Wright.



West Sussex County Council

We offer special thanks to Ian Gwenlan of West Sussex County Council and ATCO Education Sub-committee Chair, for his input into vehicle standards.



Acknowledgements

The Commission would like to thank the many people who have written, provided evidence, and assisted with site visits, meetings and seminars. Those the Commission met include:

- Anne Begg MP
- Association of Transport Co-ordinating Officers
- Bill Pascrell III
- Caldicot School, Monmouthshire
- Catholic Education Service of England & Wales
- The Confederation of British Industry
- Cheshire County Council
- Convention of Scottish Local Authorities
- Confederation of Passenger Transport
- CT Plus
- Department for Children, Schools and Families
- Department for Transport
- Durell Lynn
- Fife Constabulary
- First Student UK
- First Student US Inc
- Flintshire Council
- Franklin Lakes Middle School, New Jersey, USA
- Franklin Lakes School District, New Jersey, USA
- Gledhow Primary School
- Greater Manchester Public Transport Executive
- The Green Bus
- Independent Schools Council
- Kempshott Infant & Junior School, Basingstoke
- Local Government Association
- Lord Peter Snape
- Lynda Waltho MP
- Lynn Merrifield
- Magna Carta School
- Maureen Picard
- Merlin Group
- Monmouthshire Council
- National Assembly for Wales
- Newport Borough Transport
- Norfolk County Council
- Northampton School for Girls
- Nottinghamshire County Council
- Pat Harris of Belt Up School Kids (BUSK)
- Reynolds Diplomat Coaches
- Robert Gordon's College
- Robin Leeds
- Runnymede Borough Council
- Runnymede Business Partnership
- Savannah-Chatham County Public Schools
- Senator Bill Pascrell
- The State of New Jersey
- St Joseph's RC School, Newport
- St Richard Gwyn RC High School, Flint
- St Theresa's RC School, Leeds
- Surrey County Council
- Sustrans
- The Sutton Trust
- Tellings Golden Miller
- Transport for London
- Thomas Built Buses
- Transdev
- Transport Wales
- UK Commission for Integrated Transport
- West Midlands PTA & PTE/Centro
- West Yorkshire PTA & PTE/Metro
- The Wilfreda Group
- The Wright Group
- Wymondham School, Norfolk

1. Introduction

The 'school run' impacts on us all. Whilst this is obvious for parents, pupils and teachers, it increasingly affects the rest of society. Ask anyone who travels by bus or car during school term time and they will know how much easier and quicker journeys are during the school holidays. Even for those who do not travel during the school rush hours, the cost to the economy, the environment and health of the nation caused by congested school traffic should not be underestimated.



This report considers school transport in England, Scotland and Wales. It aims to unravel the issues that surround school transport and its significant impact on our transport networks. It looks at policy as well as travel habits and perceptions of parents that result in many children being driven to school. It explores the differences between primary and secondary age, rural and urban areas, and the issues presented by parental preference and choice. Differences exist between policy in England, and the devolved governments in Scotland and Wales. Together, these factors create the challenge of school transport in 2008.

The key challenge is to provide an attractive, sustainable alternative to the private car for pupils living too close to school to qualify for free transport, but too far away to walk or cycle.

The Commission has reviewed the most well-known school transport system in the world: North American yellow school buses. We have also considered opinions from experts, pupils, parents and the wider public and reviewed some of the best practice emerging in Great Britain.

Using this knowledge, the Commission makes a number of recommendations to improve the school transport system ensuring its fitness for now and the future.



Recognising the different administrative frameworks of the devolved administrations the Commission encourages the Scottish Government and the Welsh Assembly Government to consider how the recommendations would best be met within their own jurisdictions. We also consider how to fund these proposals. On behalf of the Commission, the University of Aberdeen has undertaken a detailed cost benefit analysis of the recommendations to provide a thorough financial basis for our proposals.

To achieve our goal, schools, bus operators and local transport and education authorities need to work together to increase the availability and attractiveness of bus services to a wider range of pupils.

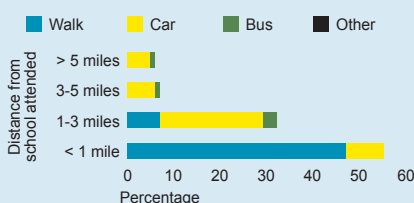
Recommendations are made throughout the main body of each Section, with an overall menu for implementation, provided in Section 6, offering a toolkit approach to deliver improved school transport.



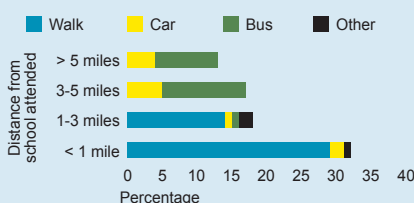
2. The journey to school

This Section reviews the current means by which pupils travel to school and how this is changing over time. It examines the reasons why increasing numbers of parents choose to drive their children to school and highlights the need to alter this trend.

Travel to primary school by mode and distance



Travel to secondary school by mode and distance



2.1 Mode of travel to school

One of the key factors influencing the mode of travel to school is the distance between home and school. The average distance to school is 1.5 miles for children aged 5-10 and 3.4 miles for pupils aged 11-16.¹

There are understandable differences between primary and secondary pupils as older pupils are more likely to make independent journeys to school.

For primary pupils, the main modes are walking for distances less than one mile, and private car for distances over one mile. Secondary pupils again predominantly walk distances under one mile but exhibit an almost even split between walking, car and bus for medium distances between one and three miles. Most use buses for distances over three miles.

Although the above statistics reveal there are still more pupils walking to both primary and secondary school than travelling by any other single mode, the trends over the last 20 years, which reveal a doubling of car use for travel to school, suggest this preference may not continue for much longer.

2.1.1 Travel by car

Currently around 41% of primary school journeys are made by car, whereas 20 years ago only 22% were by car.² For secondary pupils 21% are driven to school, more than twice the proportion driven 20 years ago.³

Of pupils living between one and three miles from school, approximately two thirds of primary pupils and one quarter of secondary pupils arrive at school by car.⁴

The effect on the road network is significant. Since trips to school cluster around the same time each day, they have a major impact on congestion levels. At the peak time of 8:50am on weekdays during term time, approximately one in five car trips by urban residents is generated by the school run.⁵ On some major roads journey times can increase by up to 158%.⁶

Even accounting for lift sharing the school run contributes around one million extra cars on the roads at peak times and a further two million cars driving extra distances for school drop-offs on the way to work. The impact of this on the environment is significant with about one million tonnes of extra CO₂ emitted each year.⁷

2.1.2 Walking and cycling

In total, around 52% of primary pupils currently walk to school⁸; an increase from an all-time low value of 49% in 2004.⁹ In 1985-86, 67% of primary pupils walked to school.¹⁰

The increase in the last three years is largely due to the success of government initiatives to promote sustainable travel to school through School Travel Plans, safe routes, walking and cycling. For example a number of schools have introduced 'walking bus' initiatives in which children walk together to and from school, picking up or dropping off en route under the supervision of responsible adults. Furthermore, the Department of Health has recognised the role a cycling programme can play in contributing to the government's obesity strategy. In January 2007, Ruth Kelly, Secretary of State for Transport, announced an increase of £110 million in Cycling England's budget over the next three years which makes available a total of £140 million for cycling.¹¹

1 million

The number of extra cars on the road at peak times because of school runs.

1 million

The amount in tonnes of CO₂ cars on the school run emit each year.



Initiatives to improve walking and cycling have been positive. The vast majority of walking and cycling trips are made by those pupils living less than one mile from the school they attend. Of pupils living less than one mile from school, the majority of both primary and secondary pupils walk to school (85% of primary and 90% of secondary).¹² However, since more than half of all pupils live over a mile from school, the impact of these walking and cycling initiatives is limited.



2.2 Who gets free school transport?

When we talk about the provision of school buses, we are usually describing services provided by local authorities under central government statute. Statutory school transport entitlement largely falls into two categories: those entitled to free transport, and discretionary provision. The latter is diminishing under the pressure of changing educational policy and tighter local authority finances.



Transport for entitled pupils is primarily provided by transport authorities through:

- dedicated bus and coach services
- bulk purchase of scholar tickets on commercial and supported bus and train services.

Public transport for non-entitled children is currently provided through:

- commercial bus services and taxi operators who provide services at full or discounted rates
- local authorities who sell surplus bus passes to non-entitled children to travel on school buses operated for entitled pupils
- local authority supported local bus services on 'socially necessary' routes
- the use of local authority discretionary powers to provide area-wide concessionary fares on public transport (mostly in urban areas)
- a limited number of dedicated school bus operations variously based on the 'yellow school bus' model.

2.1.3 Travel by bus

Only about 5% of primary pupils travel to school by bus and about half of these use dedicated school buses.¹³

Secondary age children are far more likely than primary age children to travel by bus to school, as they are more capable of independent travel and must often travel longer distances to their schools. The proportion of secondary pupils using local buses is around 24% and about 7% on dedicated school buses.¹⁴

The trends in bus travel have not changed significantly in the last 20 years although there has been a slight decrease in dedicated bus usage from 9% in 1985 to 7% in 2006.¹⁵ This decrease may be partly due to the reduction in discretionary free travel offered by local authorities to pupils not entitled to statutory free travel (see Section 2.2).

The overwhelming majority of dedicated buses are provided as part of local authorities' statutory transport provision (detailed in Section 2.2). There are a small number of other dedicated bus services for school pupils around the country, such as the yellow school bus pilot initiatives (described in Section 3.1), that have been introduced in some areas. The Commission has visited many of these pilot initiatives (also described in Section 3.1).

Current entitlement to free school transport enables eligible pupils of compulsory school age to attend the local catchment school. Pupils are eligible if they live beyond reasonable walking distance along a safe route. However, the statutory walking distance of three miles for the over-eights and two miles for under-eights¹⁶ was originally defined in legislation in 1944, a time when it was rare for both parents to be employed and car ownership and traffic levels were significantly lower.

If requested, local authorities are obliged to consider the risk of a defined walking route. If it is assessed as unsafe by the authority (for example if there is no footpath alongside a busy road, and there is no safe alternative route) then free school transport must be offered. However, this safety assessment assumes that all children up to the age of 16 are accompanied by an adult.

The same rules on safe walking distance generally apply to those pupils with a statement of Special Educational Needs (SEN) although the distance applies to the nearest school appropriate to their requirements. Where a child's disability means that walking distance is not relevant, transport is provided regardless of distance. Many children with Special Educational Needs now attend units within mainstream schools. However their transport provision is not always coordinated.

In some cases, pupils not entitled to statutory school transport may still be offered free or subsidised travel since legislation gives local education and transport authorities considerable discretion on whether to offer transport alternatives. However, discretionary provision has decreased steadily and now accounts for minimal local authority spending on home-to-school transport. There has also been a steady withdrawal of funding for transport to denominational and single-sex schools.

Although surplus seats on school buses may be sold to non-eligible pupils, many local authorities focus solely on offering transport for eligible pupils. Those who live within the statutory distances, or who choose to attend different schools are expected to make their own arrangements to get to school.

Nevertheless, many bus services procured under contract by local authorities are provided mainly for fare-paying school children but also serve as socially necessary bus services. In such cases the local authority addresses an important local need which would otherwise not be met.

41%

of primary pupils travel to school by car, compared to 22% two decades ago.

5%

The amount of primary pupils currently travelling to school by bus.



2.2.1 Education and Inspections Act 2006 and low-income families

The Education and Inspections Act 2006, applicable to England, introduced assistance for low-income families exercising parental preference. It:

- reduces to two miles the statutory walking distance for all primary school pupils entitled to free school meals as from 1st September 2007
- entitles secondary pupils eligible for free school meals to free transport, if attending one of their three nearest suitable schools between two and six miles from home, as from September 2008
- entitles secondary pupils eligible for free school meals to free transport, if attending a school between two and 15 miles away chosen by their parents on the grounds of religion or belief.

Although it does help low-income families, the legislation fails to offer an attractive, sustainable alternative to the private car for home-to-school transport for non-entitled pupils living too far from school to walk or cycle, or for those not deemed low-income who do not attend their nearest school.

2.2.2 Policy in Scotland and Wales

The 1944 Act's statutory walking distances and availability for school transport apply throughout the United Kingdom, albeit they are covered by different legislation in Scotland.

Extended rights to free transport for low-income groups introduced in the Education and Inspections Act 2006 apply only to English local authorities.

In Scotland, free travel is available to pupils who live beyond the statutory walking distance, defined as two miles for any pupil less than eight years of age and three miles for other pupils under the Education (Scotland) Act 1980.

In Wales, the draft Learner Travel (Wales) Measure 2008 has been laid before the Welsh Assembly to provide free transport for primary school children living two miles or more from the nearest suitable school. In addition, recent guidance from the Welsh Assembly Government recommends single-deck vehicles and individual seats for all children.

2.2.3 Independent sector

There is no requirement for local authorities to provide any form of transport to pupils attending independent schools regardless of income. This pupil group represents 7.3% of the school population in England aged 11-15 and 4.6% of the 5-10 age group.¹⁷

In some locations, more than 20% of children attend independent schools.¹⁸ Due to the wide catchment areas of independent schools, pupils often travel long distances and walking to school is impossible. In some cases independent schools have worked with operators to develop services to meet their demands (see case study examples in Section 3). Occasionally, local authorities offer local bus services to meet the need. However, where the public transport network is unsuitable, the private car is the only option.

“ We tried to get school transport for [our daughter] in year 7. After [the local authority] came to measure a dark, unmade alley with no lighting we were told she could not have school transport as we lived 0.03 of a mile too close. The child who lives three doors away was entitled.

If they measured the school route along roads which the bus would have driven we were 3.042 miles but they do not measure this way. We offered to pay for a place but no luck. We may have used the normal bus but there is no early bus from our village with only 5 buses per day out of the village, evenly spaced once hourly for shoppers between 10.00am and 2.00pm.”

Parents' online survey: parent from Colchester with a secondary age daughter.





55%

of secondary pupils do not attend schools closest to home.

2.3 Changes in education policy impacting on school transport

2.3.1 Parental preference

A central focus of current education policy (particularly in England and Wales) is to expand parental choice of where their children go to school. While parental preference is also available in Scotland, there is no Specialised Schools Programme that encourages such choice. Other policies including reducing class sizes also prevail in Scotland.¹⁹

In England and Wales 55% of secondary pupils and increasing numbers of primary pupils now attend a school other than that nearest to their home.²⁰ As a result, many pupils are travelling greater distances, yet there is no additional transport provision to support the policy. In fact, by choosing a school that is not closest to home, those pupils who were previously entitled to free transport will lose that entitlement unless they are from a low-income family.

2.3.2 Specialist schools provision

Specialist schools are an important part of the government's plans to raise standards in secondary education. In partnership with private sector sponsors and supported by additional government funding, the Specialist Schools Programme (SSP) helps schools to develop distinct identities and specialisms.

Specialist schools work with named partner schools for the benefit of pupils outside their own school roll and with other groups in the wider community. The programme helps to create a diverse network of secondary provision by sharing good practice and expertise.

The SSP has become increasingly popular and successful since its inception in 1994. There are currently 2,695 designated specialist schools, representing around 85% of all secondary schools in England. Over 2.5 million pupils are now taught in specialist schools - more than half of all secondary pupils.

2.3.3 14-19 year education reforms and Scottish 16+ Learning Choice provisions

The 14-19 reforms now being introduced in England and Wales are designed to encourage more young people to achieve qualifications and progress into further and higher education or employment. In doing so, pupils may often be required to share resources, attending several different establishments (perhaps more than one in a single day) as part of their course.²¹

This will inevitably impact on school transport services. Local authorities must ensure that neither undue costs nor inadequacy of transport services prevent pupils from participating.

The Department for Children, Schools and Families (DCSF) has recently made available up to £23 million to assist in 14-19 transport provision but this funding only targets rural areas.

In Scotland the 16+ Learning Choice provisions, which are also designed to offer attractive learning opportunities beyond leaving school, will also place extra demands on transport requirements.

2.3.4 The draft Learner Travel (Wales) Measure 2008:

The Welsh Assembly has proposed The Learner Travel Measure to replace the laws for travel of 'learners' in Wales as set out in the Education Act 1996. The introduction of the measure will also provide regulation for the travel of nursery children and pupils in education and training aged 16-19.

The measure will increase the entitlement for free transport for primary school children if they live two or more miles from their school. It will also entitle secondary children to free transport if they live three or more miles from their nearest suitable school. The measure gives local authorities the power to change school start and finish times if doing so will increase the environmental sustainability of the transport provision, making it more efficient and effective.

The Learner Travel Measure will require Welsh Ministers to make a code of conduct in relation to travel to and from places of learning. It also places a duty on head teachers to put into place disciplinary measures which require pupils to comply with the travel behaviour code.

The Welsh Assembly has provided further best practice guidance for local authorities on Home to School Transport provision. Specifically, the guidance encourages checks on drivers, and consideration to the usage of CCTV. The guidance discourages the use of double-deck buses and three for two seating concessions.

The new measure and best practice guidance will come into effect from the beginning of the 2009-2010 academic year.

2.3.5 Development of extended schools policies

The 2003 'Every Child Matters' White Paper provided the springboard for the development of extended schools policies²², which aim to raise standards of educational achievement. Following the frameworks set out in the Children Act 2004 over 5,000 schools now offer the full range of extended services, and almost half of all schools are working towards doing so. Extended schools offer a variety of services including study support, 8am to 6pm wrap-around childcare in primary schools, health services, parental support, adult learning and community activities.

“ The school my children attend is, as the crow flies, no further from their catchment senior school. If they went to this school they would be entitled to a free bus service. As my eldest child decided to go to school in the other direction (with three siblings following) [the County Council] now save a considerable sum because I have to take them myself. There is a bus service to their school but as I live 0.5 miles too far away from the cut off point we are not allowed to use it. Along with six other families from my village I 'follow' this bus to school there and back everyday – a ridiculous situation. But (and this is a real sore point) if they were accepted at a faith school of their choice the County are willing to pay. What is the point of allowing choice when you are penalised if you do so? ”

Parent of an 11 year old boy, Thurstable Secondary School, Tiptree, Essex.

In Scotland the Children Services (Scotland) Bill will amend the Children (Scotland) Act 1995. The Getting it Right for Every Child Programme (June 2006) will be supported by amendments contained in the Children Services (Scotland) Bill with similar objectives to improve provision.

2.3.6 PFI schools

Private Finance Initiative (PFI) is a form of public-private partnership that facilitates the development of new, rebuilt or refurbished schools. The PFI provider takes responsibility not only for providing the premises but also for some or all of the facilities' management.

Scotland has also used PFI to fund rebuilding of schools. However the Scottish Government propose to replace PFI/PPP with a non-profit making structure called the Scottish Futures Trust. The funding for projects will be derived through the selling of municipal bonds through the existing bond-issuing powers of local councils.

The rise of PFI schools raises the pressure on school transport services by requiring temporary bus operations at alternative sites during construction as well as new transport services to relocated school provisions.

The rise also precipitates increased demand from pupils travelling further to schools with improved facilities.

2.3.7 Pathfinder initiatives

Prior to the Education and Inspections Act 2006, school transport entitlement had been largely unchanged since 1944. In addition to extending rights to free transport for low-income groups in England, the 2006 Act included a new general duty on English local authorities to assess travel needs and promote sustainable travel.

Under the Education and Inspection Act 2006, English authorities were invited to develop proposals to pilot revised entitlement arrangements as part of proposed Pathfinder projects. These offered the possibility of piloting initiatives to increase transport availability for up to three schools per project, by reducing expected walking distances, and abandoning standard free entitlements, to be replaced with a modest charge for school transport being applied to most users.

The objective was to increase school transport usage and reduce the number of parents driving children to school, effectively providing a test bed for more radical reforms of entitlement and greater equity. Initiatives needed to demonstrate that there was a comprehensive, workable strategy to improve health and the environment, rather than simply expanding bus usage.

They could also take into consideration:

- other emerging educational policies and initiatives
- specific problems facing rural authorities
- trials of innovative purchasing arrangements, particularly in collaboration with other forms of publicly funded transport provision
- use of technology in route planning, fare collection and initiative management
- wider use of staggered school opening hours
- new approaches to transport safety issues.

Pathfinder initiatives would potentially have been funded for operation from 2009, with funding agreed up until at least 2012.

DCSF indicated its intention to fund up to 20 Pathfinder local authorities with the prospect of further appointments over the next few years. However, of the 23 bids received and evaluated by independent consultants, 14 were rejected due to narrow focus or lack of innovation. The remaining bids were subsequently rejected because none proposed alternatives to the existing statutory framework. An evaluation report by the DCSF is in preparation at the time of writing.

2.4 Local authority school transport strategies & plans

2.4.1 Sustainable School Travel Strategies

Local authorities have a duty to publish Sustainable School Travel Strategies²³ each academic year and must include:

- an assessment of children and young people's transport needs
- an audit of sustainable travel modes (walking, cycling, bus use, and where appropriate existing car shares) and infrastructure used when travelling to, from or between schools/institutions
- consideration of personal safety, security and other factors that influence travel choice, such as poor behaviour and bullying to and from school
- a strategy for developing effective sustainable travel and transport infrastructure that meet young people's needs.

A government fund of £4 million per annum is provided to help local authorities fulfil this duty.

2.4.2 School Travel Plans

A School Travel Plan (STP) outlines practical steps for improving children's safety on the journey to and from school. It is intended to benefit pupils, parents and the community by identifying healthy and sustainable transport options and by reducing congestion on the road at peak times.

All schools should have high quality travel plans by March 2010. Schools with approved STPs are eligible for capital grants of up to £5,000 per primary school and £10,000 per secondary school. The capital grant can be spent on initiatives that will support STPs, such as new bike racks or other equipment.

However, the lack of revenue support means that it will be difficult to sustain initiatives such as bus services that need ongoing expenditure. The main beneficiaries are therefore those who live close to school and do not require bus services. However, the issue of increasing use of the private car for journeys over one mile still prevails as walking and cycling are far less realistic for longer journeys.

The Commission recognises the work done to encourage walking and cycling to school. Currently over 14,000 schools have STPs and it is estimated that by implementing them, 60-90% of these schools will reduce car use.²⁴

2.5 Reasons for increasing car use on the journey to school

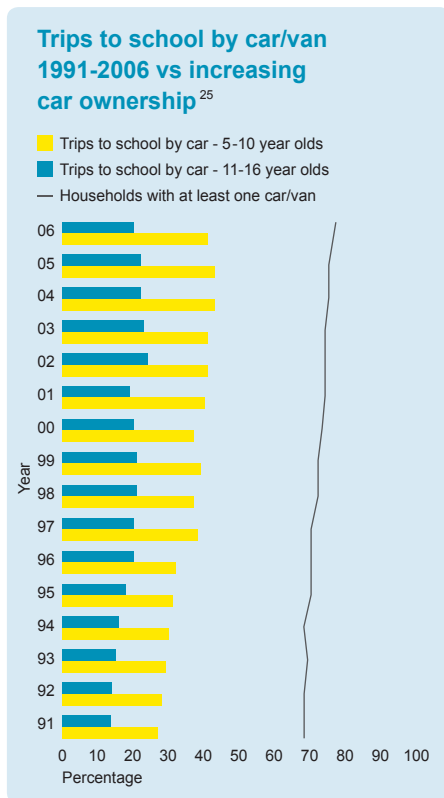
As highlighted in Section 2.1 the proportion of pupils being driven to both primary and secondary schools has almost doubled over the past 20 years.

The reasons for these changes may include:

- increasing car ownership
- safety concerns
- policy changes, eg increased parental preference of schools attended and establishment of specialist schools
- growth in the rural share population (rural dwellers travel further than their urban counterparts)
- closure of rural schools.

2.5.1 Car ownership

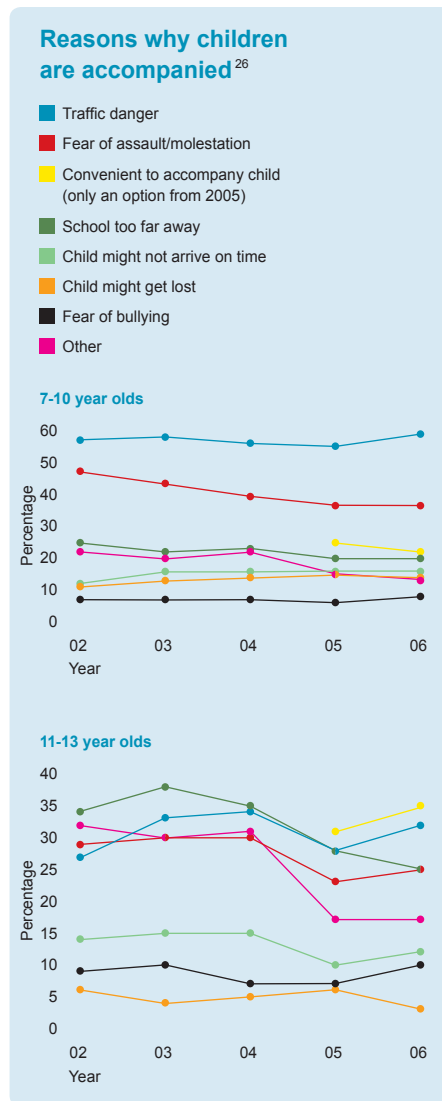
Between 1995 and 2006 the proportion of households without a vehicle fell from 30% to 23%²⁵ despite increasing numbers of households and decreasing household size. National road traffic forecasts predict car ownership levels to continue increasing until 2031 (46% increase from 1996 levels).



2.5.2 Parental perception of safety on journeys to and from school

Parents of primary children are particularly concerned about two aspects of safety when it comes to allowing their children to travel to school independently: road safety and 'stranger danger'.

The National Travel Survey 2006 reveals that 85% of 7-10 year olds were usually accompanied to school by an adult. Fear of assault or molestation (36%) is the second most common reason given for accompanying the child after traffic danger (56%).²⁶



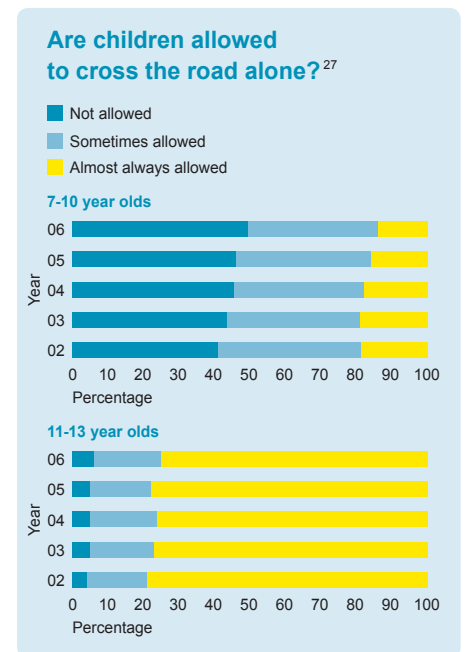
As the graphs demonstrate, traffic danger remains the key concern of parents of primary age children and a significant concern for many parents who accompany their secondary age children to school.

Parents either accompany their children on foot or by car, placing a considerable additional demand on their time and limiting employment opportunities. Ordinary public buses, even those primarily carrying school pupils, are an unacceptable alternative for the majority of parents of primary age children.

2.5.3 Busy roads

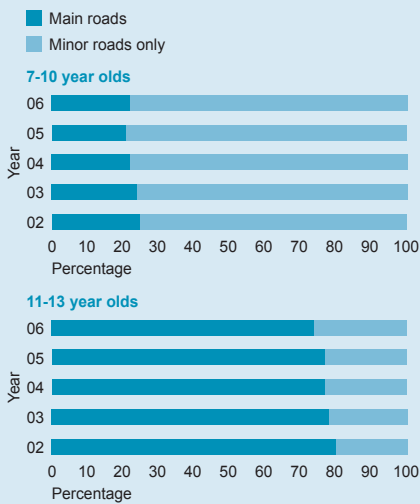
According to the National Travel Survey 2006²⁷, the incidence of parents allowing children to cross the road alone has decreased quite significantly since 2002. In 2006, 51% of 7-10 year olds were allowed to cross minor roads alone and only 22% of those were allowed to cross main roads alone.

Most 11-13 year olds are allowed more freedom but still only 75% are allowed to cross the roads alone all the time; this has decreased since the 2002 figure of 79%. 26% of those allowed to cross the road all the time were only permitted to do so on minor roads.



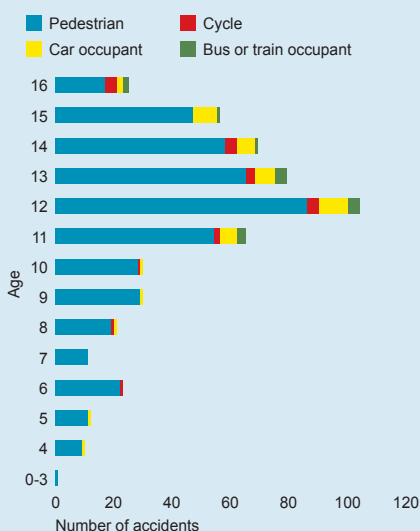


Children allowed to cross the road alone²⁸

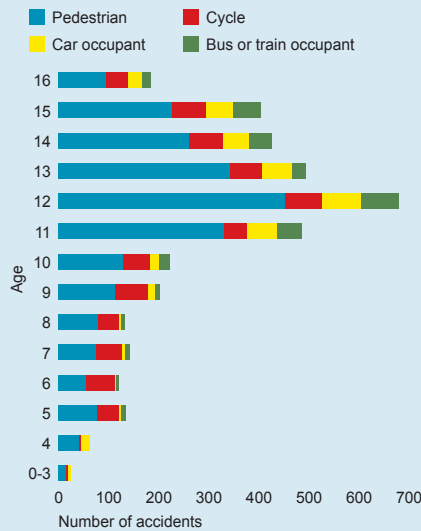


Death on the road is the second biggest killer of 5-14 year olds after cancer and other types of tumour.²⁸ Traffic is the biggest 'accidental' killer of children in the UK. Children travelling to or from school are most at risk while walking or cycling. The UK has one of the worst rates of child pedestrian deaths in Western Europe. In 2006, 547 children on journeys to or from school were killed or seriously injured and 4,385 slight injuries were reported in the UK.²⁹ Of those killed or seriously injured, 85% were pedestrians while approximately 8% were cyclists. Congestion and careless parking also pose significant safety hazards around school gates.

Killed or Seriously Injured (KSI) statistics²⁹



Other accidents (non-KSI)²⁹



2.5.4 School bus safety

Buses are the safest form of transport on our roads.³⁰ However, parental concern continues over safety issues on school buses and other public transport, despite the increasing investment in school transport services. Fears often relate to seat belts, overcrowding, supervision and use of old vehicles.

Bad behaviour and vandalism on buses is another key reason why parents are sometimes reluctant to let their children travel independently on buses. This anti-social behaviour is also an issue on some local authority contracted services and is often cited as the cause of rising tender costs because of inevitable driver turnover and vehicle repairs.

2.5.5 Young people's concerns

Young people too are concerned about public transport. Recent surveys of young people conducted by the UK Youth Parliament cited concerns regarding reliability, cost of travel and customer service, and in particular, driver attitudes. These worries were recently echoed by the National Youth Agency in their recent report into young people's bus travel.

The UK Youth Parliament has called for improved reliability, availability and customer service, including specific training for customer-facing staff such as drivers. It also seeks a national, standardised young people's travel pass to improve consistency in young people's concessionary fares.³¹

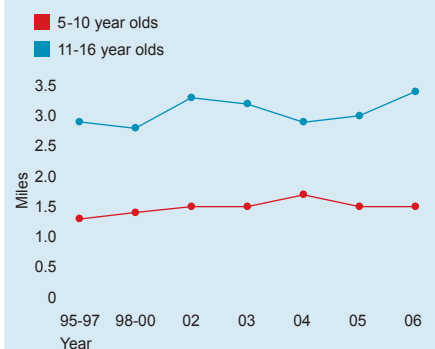
The National Youth Agency also recognises the benefits of encouraging greater bus use. However they believe that local authorities need to take a more proactive and joined-up approach to young people's travel requirements and travel planning and should furthermore develop internal and external partnerships. They too recognise that a standard approach to young people's fare concessions needs to be considered.³²

2.5.6 Parental preference

As mentioned in Section 2.4 increasing parental preference and an increase in specialist schools mean that pupils travel greater distances to attend the school of their choice. Between 1995/1997 and 2006 the average length of the trip to school increased from 1.3 to 1.5 miles for children aged 5-10 and from 2.9 to 3.4 miles for pupils aged 11-16.³³

These longer distances make walking or cycling less likely, and exercising choice of school results in the loss of free bus travel for distances over 3 miles except for low-income families. All of these contribute to the increasing use of cars for the school journey.

Average length of journey³³



4%

The amount of total central and local government transport expenditure is spent on school transport.

2.6 Why there is a need for a new approach

The national School Travel Advisory Group (STAG) have recommended that by 2010 walking, cycling and bus use for the journey to school should return to the 1980s levels, when approximately 80% of primary and 90% of secondary pupils walked, cycled or took the bus to school.

Section 2.5 indicates why it will be difficult to achieve this target under current home-to-school transport provision and initiatives. A radical new approach is needed: it must offer a real alternative to the car for the increasing number of longer journeys.

In addition to reducing traffic congestion there are several other compelling reasons for providing a viable alternative to the car. These include, but are not limited to, child health, child independence, environmental concerns and spending on school transport.

2.6.1 Child health

Children use cars far more than they used to and many may perceive the car as an essential ingredient in their activities. Parental concerns about safety compound this perception. However, children's high car usage has serious implications for their health, particularly in later life. It seems likely that children who are dependent on the car in childhood are likely to carry their dependency into adulthood.

2.6.2 Child independence

Children have suffered a loss of freedom and independence in recent years, linked to the growth in private car ownership. In 1985/86, 21% of children aged 5-10 travelled alone to school. By 2005 this had dropped to 6%³⁴, as so many pupils are now transported in private cars.

Concerns are increasing that the development of today's 'cotton-wool kids' is hampered. Allowing children to travel to school independently has positive effects on children's cognitive and behavioural development. Parents are often more willing to let their children travel independently at an earlier age on a dedicated school vehicle than on a public bus.

2.6.3 Environmental concerns

According to a 2007 DEFRA Survey³⁵, 'environment and pollution' was the fourth most important issue after crime, health and education that adults in England felt the government should address. In 2007, nearly one-fifth (19%) of adults felt that environment and pollution issues were important.

It is estimated that 17% of the total school carbon emissions can be attributed to school travel and transport.³⁶ As buses emit less carbon dioxide per passenger kilometre than cars, they can play a positive role in reducing the emissions produced by education. The school run contributes around one million extra cars on the roads at peak times and a further 1.2 million cars driving extra distances for school drop-offs on the way to work. The impact on the environment of this is significant with about one million tonnes of extra CO₂ emitted each year.³⁷

The Stern Review on the Economics of Climate Change released in 2006 was not the first economic report on global warming, but it is the largest and most widely known and discussed report of its kind. Its main conclusions are that 1% of global gross domestic product (GDP) per annum must be invested in order to avoid the worst effects of climate change, and that failure to do so could risk global GDP being up to 20% lower than it otherwise might be.

Stern's report suggests that climate change threatens the greatest and widest-ranging market failure ever seen and it prescribes measures such as environmental taxes to minimise the economic and social consequences. Reducing car use and switching to sustainable transport is pivotal in reducing the impact of transport on climate change.

2.6.4 Spending on school transport

Local authorities spend large sums of money each year providing free transport for just 10% of the pupil population. This expenditure in England has risen faster than inflation in recent years, reaching £912 million last year.³⁸

Approximately half is spent on transport to special schools, with the remaining £450 million paying for free transport for mainstream pupils. Two-thirds of this funding goes to secondary schools and one-third to primary schools.

Despite the significant sums spent, only 5% of primary and about 30% of secondary school children travel to school by bus. DfES research³⁹ suggests that nearly two-thirds of pupils arriving at school by bus or taxi have their fares paid by their families, not their local authority.

This raises concerns about the equity of school transport spending, as some parents incur transport expenditure because they live just within statutory walking distances, while neighbours' children living just over the limit, are offered free provision.

Furthermore, the existing free transport provision, which is available only to pupils attending their closest schools (many do not), appears not to synchronise with other education policies that encourage parental preference, such as specialist schools, the 14-19 education reforms, and extended school provision. These policies often demand resource sharing, attendance at schools further from home and/or transport outside routine school start and finish times. Apart from a very small increase in rural areas, no extra transport funding has been made available to pay for these additional travel requirements. The consequential shortfall in transport funding will inevitably limit uptake of the policies to those who can access the new provision without transport assistance.

In England free transport to mainstream education represents just 0.5%⁴⁰ of local authority spending and 4%⁴¹ of central and local government transport expenditure. This limited expenditure must be considered against the impact of the 'school run' on the transport network and the environmental, economic and social consequences.

£912 million

The amount of money spent by local authorities for free transport for only 10% of the pupil population – approximately half of which is spent on transport for special educational needs pupils.

2.7 Summary

Despite the success of recent walking and cycling initiatives for short distance school journeys, many parents will continue to drive children to school if no safe and secure alternative is offered. In addition, parental choice of schools means that still more parents are likely to end up taking their children to school themselves by car.

The current home-to-school transport provision and initiatives fail to tackle the problem. Therefore a radical new approach is required, offering a real alternative to the car for the increasing number of longer journeys.

The Yellow School Bus Commission was established to examine what this new approach to dedicated home-to-school transport might look like and to quantify the costs and benefits on a nationwide basis, learning lessons from the North American yellow school bus model.

The Commission sought to answer the following key questions:

1. What might such a bus-based alternative entail?
2. If such an alternative were provided would it be adequately utilised by car users?
3. What would it cost?
4. What would the benefits be?
5. How could it be paid for?
6. How should it be delivered?



2.7.1 Considerations in the design and delivery of a new approach

- Any expansion of school transport should accommodate the significant numbers who live beyond walking distance from school and are currently driven to school.
- Congestion and environmental benefits of wider school transport availability.
- Improving the quality of school transport.
- Raising behaviour standards on board bus services.
- The benefits of dedicated school transport in offering independence to primary age pupils travelling to school without parental supervision.
- The travel patterns of independent sector schools alongside state schools.
- The development of any expansion of school transport as part of School Travel Plans.
- The need for better guidance and full funding for Pathfinder transport initiatives.
- Increasing demands on the road network caused by parental choice of school.
- Aligning offers of parental choice with access to transport.
- Additional travel requirements (not just in rural areas) arising from the 14-19 education reforms.
- The transport implications of the extended school day.



3. The Commission's review

In recognising the pressing need for action to address school travel issues, the Commission has examined yellow school bus initiatives and other high quality, dedicated school transport services.

Yellow school buses are operated extensively in North America and they are increasingly being piloted in England, Scotland and Wales to address many of the issues described in Section 2.

This Section considers the operation of yellow school buses in both Britain and the US. It takes account of previous reports on dedicated school transport, documentary evidence, the views of the transport and education sectors and information gathered from questionnaires during an Exhibition Bus tour around England, Scotland and Wales.



3.1 Yellow school bus operations in England, Scotland & Wales

Yellow school bus operations comprise far more than just yellow coloured buses. The concept generally features:

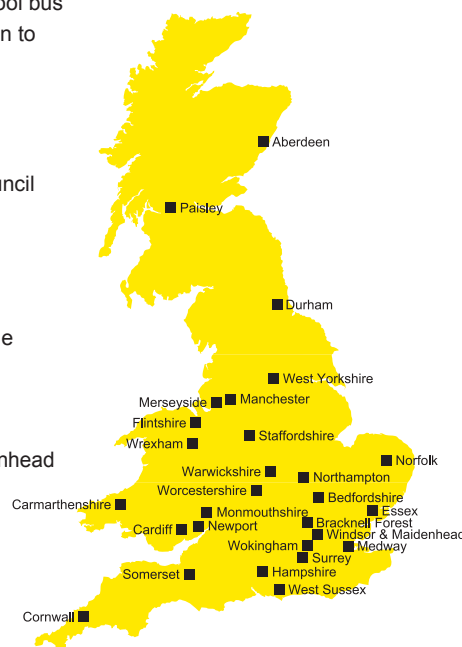
- dedicated and vetted drivers, fully trained in both bus operation and child supervision
- a guaranteed seat for every pupil with three-point, all-age seat belts
- familiarisation and safety training for pupils
- registers for younger pupils, giving reassurance to parents
- measures to support good behaviour such as CCTV and Codes of Conduct
- dedicated, single-deck vehicles designed primarily for the carriage of school children and with yellow livery in line with US practice.

The features focus in particular on the safety concerns described in Section 2.5.

Nationwide there are a number of dedicated school bus operations that demonstrate the features common to most American school buses.

They are located in:

- Aberdeen
- Bedfordshire
- Bracknell Forest
- Cardiff
- Carmarthenshire
- Cornwall
- Durham
- Essex
- Flintshire
- Hampshire
- Manchester
- Medway
- Merseyside
- Monmouthshire
- Newport
- Norfolk
- Norfolk County Council
- Northampton
- Paisley
- Staffordshire
- Somerset
- Surrey - Runnymede
- Warwickshire
- West Sussex
- West Yorkshire
- Windsor and Maidenhead
- Wokingham
- Worcestershire
- Wrexham



Other operations embrace many of the American concepts, but do not use yellow buses at all. These services often stress the environmental benefits of dedicated transport, for example RidePegasus! in Surrey and The Green Bus in Birmingham.

Of the dedicated yellow school buses already operated in England, Scotland and Wales, only some of the vehicles are American in origin. Each operation is different, but their introduction normally arises from authorities or operators working to improve quality and availability with a bespoke, quality school transport service.

3.1.1 Site visits and meetings

The Yellow School Bus Commission undertook a series of visits and meetings with public and private sector organisations involved in the provision of dedicated school transport initiatives. This research enabled the Commission to identify best practice and to benefit from the relevant experience of others.

The Commission visited a number of locations around the country as shown below:

- Bishop Luffa School, Chichester, West Sussex CC
- Cheshire CC
- St Richard Gwyn School, Flintshire Council
- Green Transport Company, Birmingham
- Kempshott Infant & Junior School, Basingstoke: Hampshire CC
- Magna Carta School, Egham, Runnymede BC, Surrey
- Caldicot School, Monmouthshire Council (with BUSK)
- MyBus, St Theresa's RC School and WYPTA/Metro, West Yorkshire
- Newport Borough Transport, Newport, Wales
- Wymondham School and Norfolk CC
- Northampton School for Girls, Northampton
- RidePegasus! Surrey CC
- Robert Gordon's College, Aberdeen (with Anne Begg MP)
- St Joseph's RC High School, Newport, Wales (with BUSK)
- Transport for London
- West Midlands PTA/Centro (with Lord Snape and Lynda Waltho MP)



Case study

The case studies throughout our report illustrate the many important features of yellow bus provision identified during site visits. They illustrate the diverse nature of the operating environment and models of delivery.



Robert Gordon's College, Aberdeen

Robert Gordon's College is an independent school situated in the centre of Aberdeen for children aged 4-18. Parents dropping off children added to traffic and created safety hazards at the busy school gate.

Because the school draws from a wide geographical area, some parents can avoid driving into the city by meeting the bus at designated Kiss & Ride points along the route.

The oil industry in Aberdeen employs many people from Australia, Malaysia, the US and other nations. They are familiar with the yellow bus concept and the College actively promotes the service as an attractive feature of their junior school package.

The service tends to be used more by the younger pupils. Many older pupils prefer travelling on local service buses as they tend to have more after-school activities and like to visit the city centre after school.

Case studies

West Sussex County Council

In 1995, West Sussex established one of the first yellow school bus operations in England. West Sussex County Council operates a fleet of nine American Bluebird vehicles on a network of routes.

Staggered hours at a major school in the area (pupils start at 08:00 in the morning and finish at 14:30) enables more effective use of the fleet: buses can 'double run' to provide home-to-school transport to other schools during the same day. Using the vehicles for the swimming programme and for educational visits also boosts vehicle usage.

Both school and parents prefer the yellow school bus option to other school transport as they see the better pupil behaviour on the single-deck vehicles driven by the same drivers each day.

West Sussex uses their dedicated buses alongside other contracted services and the public network to fulfil its home-to-school requirements. Students are also encouraged to apply for the County's '3 in 1' pass for discounts on other bus services and in shops.

Norfolk County Council

The 25 yellow school buses owned and operated by Norfolk County Council are one element in a strategy that also makes use of contracted vehicles, local public buses and smaller contracted vehicles to serve the 450 schools within this predominantly rural area.

Their dedicated fleet provide home-to-school transport to eligible primary and secondary students and, space permitting, to non-statutory students. The fleet is also used to support the extended schools agenda and associated extra-curricular activities.

The Council is committed to safer travel and a County Council Training Scheme launched for safe travel that supports the use of seat belts and CCTV. Other initiatives include bus prefects. These are unpaid but receive incentives such as free travel passes.

When the Commission started to explore these initiatives, it expected methods of delivery to be broadly similar. However it soon became apparent that models varied considerably. Some initiatives specifically target non-entitled children and the school run, while a number of local authorities have introduced yellow school buses to improve their statutory school transport provision.

The Commission met many young people who use school transport including dedicated yellow school buses. Users welcome the provision of better quality vehicles, a guaranteed seat, a pick-up close to home and having a known, dedicated driver.

Safety is a major concern for both parents and children. Parents want reassurance that their primary age children will arrive safely and be cared for. They also feel it unrealistic to expect primary age children to walk more than a mile or travel unsupervised on the public bus network. At secondary school level, concerns over bullying and truancy come into play. Both issues can be addressed by raising the quality of provision.

Quality of service is important to parents and children alike. A guaranteed safety belted seat and dedicated, fully trained drivers were seen as essential.

Discussions with young people showed that when quality is high, users prefer to travel by bus rather than in their parents' cars. They can travel with friends, develop and exercise their independence, build confidence and enjoy social interaction ahead of the school day so they are more prepared to start work on arrival.

Dedicated school transport also helps remove social divisions:

- passes for both free and paid transport can be identical
- prejudice arising from being seen to arrive at school in either a brand new or older car can be avoided
- access to after-school clubs and activities may be facilitated (as demonstrated in Northampton).

Providing a positive, quality school transport experience demonstrates respect for young people and helps to develop a 'bus culture' that will encourage use of public transport as children mature into adulthood.

Consultation with schools revealed that in some locations yellow school bus initiatives have improved attendance and punctuality.

Providers of yellow school bus services confirmed that behaviour on many of their vehicles was significantly better than on previous services. This may be linked to the wider package and dedicated drivers. Codes of conduct, registers, CCTV, bus prefects and informal roles by sixth formers were all felt to be beneficial.



“ Yellow buses give parents peace of mind, as the buses are Northampton School for Girls controlled buses. I know that we can monitor what is happening on the buses and that the students will travel to school safely and happily because they are effectively in the school environment the minute they get on the bus. Easy, safe travel to school encourages good attendance and helps to raise standards. ”

Penny Westwood, Head teacher of Northampton School for Girls.



Local authority representatives stated that effective partnership and proper coordination between parents, schools, the local authority and businesses are major ingredients of success. In addition, yellow school bus policies can complement walking and cycling initiatives.

Many initiatives are designed to cater for non-entitled travel, as described in Section 2.2.

Where it has been measured, the effect on modal shift is clear:

- 64% of primary pupils and 15% of secondary pupils on MyBus services previously travelled to school by car¹
- at Standish Community High School pupil surveys revealed that of the 223 pupils travelling on four yellow school buses, 54% would otherwise arrive by car²
- in Surrey's RidePegasus! initiative, 828 primary school children are registered for the yellow school bus; of these over 75% previously went to school by car³
- GMPTE yellow bus services to secondary schools found that 30% of current users previously travelled to school by car while 65% of current users previously travelled to school by school or service buses.

This evidence generally confirms that in practice, greater modal shift can be achieved for services to primary schools than for those serving secondary schools. Secondary services tend to attract the majority of users from existing bus services. In part this is due to the larger numbers of secondary pupils previously using bus services for longer journeys to school. However the example from Standish Community High School demonstrates that in areas without school buses, the introduction of yellow buses stimulates much better shift from car use.

In summary the visits highlighted that parents, schools and young people favoured high quality, well-structured school bus initiatives that build upon best practice. However, funding often remains a key issue for any expansion of school transport provision or the rollout of qualitative improvements. Funding demands focus attention on operational efficiencies derived from staggered school hours, wide variations in fares and examples of innovative funding streams via business sponsorship.

“ The reason why the American-style yellow bus concept has been adopted is that, frankly, it works. It's recognisable to everyone, and synonymous with safety, quality and reliability. ”

Tim Williams, Chief Executive Officer, Runnymede Borough Council.

Case study

West Yorkshire MyBus

With 150 dedicated vehicles conveying 9,000 school children throughout West Yorkshire each day, MyBus is the most extensive yellow school bus initiative in England. West Yorkshire PTE manages the initiative (which is free to eligible pupils) on behalf of the local authorities.

The service design has three key elements:

1. The transfer to the service of an existing contracted school service (usually to a secondary school), including procurement of a bespoke vehicle and introduction of a number of quality features designed to achieve a small increase in patronage.
2. A second home-to-school run, usually for primary school children previously travelling by car, linked to the initial secondary school service. There are now 206 services to 78 primary and 52 secondary schools. 56 of these services are linked services between secondary and primary.
3. A safe and reliable vehicle for young people during the school day, evenings and weekends for educational, leisure and sporting excursions.

The services are operated by a number of transport contractors to the highest possible standards of safety and service quality. The initiative has been a great success with an average of 68% of MyBus users of primary school age having been previously conveyed to and from school by car. Without the need for school runs, the children's parents save on average 54 minutes and drive 30km less every week.

23.5
million

The number of students transported by school bus every day in the USA.

55%

of children in the USA travel to and from school by Yellow School Bus.

Case study

Rochelle Park, New Jersey, USA

In the USA, safety of school transport is paramount.

Rochelle Park runs 130 vehicles. The 54 seat school buses have a high floor to give clearance from the impact of the majority of traffic accidents. The fuel tank is fully caged and protected. All windows drop except the middle two sets, which push out as emergency exits in addition to the roof-hatch emergency exits.

While the majority are full-size buses, there are also a number of smaller 'vans' designed primarily for smaller movements of children with special needs.

All vehicles are fitted with red and amber warning lights front and back and a stop arm telling other drivers not to pass while the vehicle is stationary. They are fitted with internal CCTV recording any behavioural incidents that may occur.

The philosophy of John Berardi, Technician-in-Charge at Rochelle Park is that the buses "should be as safe as airplanes". A 90-day safety inspection, coupled with daily comprehensive driver walk-round checks using electronic equipment identifies and reports any defects as well as providing quantifiable statistics and trends. This process is designed to ensure that the vehicle is 100% safe. No school vehicle is depreciated over more than 12 years.

Safety statistics are displayed at the depot showing time since the last staff injury or collision. When the site was visited by David Blunkett no incident had occurred for more than 200 days.

Louis Morris, a father of four who had driven school buses for 15 years explained that he felt it was his duty to ensure the safety of the children. Although behaviour on his bus was very rarely an issue he would stop the bus should a problem arise and calm things down. As he says "Children will be children... If you establish who you are and what you expect, you should be okay."

3.2 Yellow school bus operations in the USA

In the USA, the yellow school bus is the de facto mode of home-to-school transport with 55.3% of children using them to get to and from school.⁴ Two Commissioners reviewed different styles of school bus operations in New Jersey and Georgia as a comparison to provision in England, Scotland and Wales. North American yellow school buses are purpose-built vehicles, engineered to satisfy federal, state and local specifications. In the USA alone, more than 450,000 vehicles transport around 23.5 million students every day.⁵

The yellow school bus is designed to ensure the safety of the students. Apart from the highly visible colour, the vehicles have a high floor above the line of accidents and are specially constructed for maximum strength. Passive measures add further protection. Seats are positioned close together and are fully padded with no exposed hard metal or plastic parts. This practice, known as 'compartmentalization', ensures that in the case of a sudden stop the child's safety does not depend solely on a fastened seat belt. Nevertheless it remains important for seat belts to be used by children at all times.



The vehicles are also fitted with high-level red and amber warning lights to warn other drivers when the vehicle is stationary.

A soft crossing arm is also installed which projects in front of the bus to guide children across the road in the line of sight of the driver. They are also fitted with a stop arm, deployed whenever the bus is picking up or setting down children, requiring other road users not to pass.

The design of US school buses is heavily focused on safety for its school-age pupils. They require no variable destination displays and only a proportion of the fleet needs to be accessible. Coupled with volume from a standard set of design requirements, this can lead to vehicle capital costs being less than a third of some UK school buses.

The vehicle is just one element of a wider package. The services are part of a system, designed to meet the needs and welfare of children of all ages. It is classless and forms a part of the school system itself.

The package includes a number of features:

- **Service planning** – The local education board and school districts take responsibility for the design and implementation of the service. Routes are based on the geographical location of the students, often using routing software to ensure close to door-to-door pick-ups and drop-offs. This, coupled with road safety legislation, offers students and parents both convenience and safety as the risk of getting to and from bus stops is minimised.
- **Drivers** – Drivers are all carefully vetted and drive the same route each day, encouraging a professional rapport with their passengers. Specialist training covers child supervision for all ages and how to effectively deal with issues such as bullying and antisocial behaviour.
- **School involvement** – The school cooperates to ensure that the service integrates with its timetable and transport services are seen as a reflection of school quality and character.
- **Procedures** – Pupil safety and welfare is always the priority. Vehicles are fully maintained and drivers check their vehicle's fitness for operation before the journey begins and after each run to ensure students are safely off the bus.

86%

of parents would be willing to send their children to school on a dedicated school bus.

3.3 Previous reports on dedicated school transport

The Commission considered a number of reports on dedicated school transport. These included:

- Obtaining best value for public subsidy for the bus industry, Commission for Integrated Transport, May 2002.
- Evaluation of First yellow bus pilot schemes, Steer Davies Gleave for DfT, Oct 2003.
- School transport, House of Commons Transport Committee, April 2004.
- No more school run, The Sutton Trust, June 2005.

These reports are now several years old, and pre-date recent legislative changes, environmental concerns and rising oil prices. Nevertheless they have proved useful in providing background information and flagging key issues in home-to-school transport.

The Commission has also reviewed a number of reports on local initiatives:

- Assessing demand for yellow school bus services in Greater Norwich, RGU and University of Aberdeen, May 2005.
- Assessment of the potential for deployment of yellow school buses in Shropshire, Shropshire County Council, Jan 2006.
- Swansea yellow school bus project report, Wales Transport Research Centre, May 2006.
- Draft MyBus Evaluation report, WYPTE/Metro, Summer 2008.

These documents highlight many differences in operational issues, costs of provision, sensitivity to fares and parental attitudes.

A survey conducted by raisingkids.co.uk in 2007 of approximately 1,500 parents showed clear support for dedicated school transport, with 86% willing to send their children to school on yellow school buses.



3.4 Questionnaire and exhibition bus tour

Over the last year the Commission has sought opinion from the wider public on their views about yellow school buses and other dedicated transport.

A website was set up which incorporated an online survey for parents, pupils and the wider public. The Commission also contacted and visited a number of schools to seek their views.

In addition, the Commission arranged for an original American-built yellow school bus, converted into a mobile exhibition vehicle, to tour England, Scotland and Wales. The Exhibition Bus gave the general public the chance to have their say about the future of home-to-school transport. Surveys were available on board the bus for people to complete.

Many people visited the Exhibition Bus on its tour between December 2007 and February 2008, which visited the locations shown on the above map.

Feedback from parents, pupils and the wider public via the Exhibition Bus initiative has been very positive, revealing that most respondents favour dedicated home-to-school transport.

Questionnaire responses from 1,400 respondents are summarised below:

Wider public questionnaire responses

- I'm unable to catch a bus for the school run because it's full: frequently 20%, sometimes 50%.
- I'm unable to get a seat on a bus during school run: 24% frequently, 55% sometimes.
- I'm more likely to travel by local bus if pupils were not on board: 48%.
- My car journey time at peak hours is noticeably affected by school run: 83%.
- I estimate that journey time reduces from 31 to 22.5 minutes in school holidays.

Parents' questionnaire responses

- Of those children travelling between one and three miles 40% do not attend closest school.
- Almost 25% of those using the school bus in the morning are driven home in the afternoon (after school activities may contribute to this).
- 50% of those who drive drop children off on the way to work.
- 30% of those who drive do so solely for the school run.
- About 55% would definitely or probably use yellow school buses. Most would be prepared to pay £1 per day, whilst 15% are prepared to pay £2 or more.

Pupils' questionnaire responses

- Around 50% of primary pupils driven to and from school are solely on a school run trip.
- In total, almost a quarter of secondary age pupils said they never use public transport.
- Secondary age pupils who use public transport to get to school are twice as likely to be regular bus users for non-school trips as those who are driven to school.
- 44% of pupils currently driven to school would use a yellow school bus if it were introduced to their school and a further 38% claimed they might.

The number of responses received in each category of the Yellow School Bus Commission surveys is relatively low and interpretation must therefore be cautious. However the sample offers a reasonable representation of the national home-to-school transport picture with

regard to distance from school and mode of travel. The figures may therefore be useful indicators of opinion amongst the parent, pupil and wider public population.

Our survey respondents rated the following top ten most important features of yellow school bus services:

Top features for primary school buses	Top features for secondary school buses
<ol style="list-style-type: none"> 1. All seats have seat belts. 2. You have your own seat and don't ever stand. 3. It picks you up near your home. 4. Lots of space for bags and sports kit. 5. Drivers are trained to deal with bullying. 6. It's only pupils from my school on the bus. 7. The bus is of good quality. 8. The bus has an environmentally friendly engine. 9. You travel to school with friends. 10. The bus has CD / DVD player. 	<ol style="list-style-type: none"> 1. It picks you up near your home. 2. The bus is of good quality. 3. You have your own seat and don't ever stand. 4. All seats have seat belts. 5. The cost of using the bus. 6. Lots of space for bags and sports kit. 7. Drivers are trained to deal with bullying. 8. It's only pupils from my school on the bus. 9. The bus has an environmentally friendly engine. 10. You have more independence as you do not need to rely on a lift from parents.

The lists above show that features relating to quality, guaranteed seats, safety and convenience all rated highly.

The following quotations demonstrate some of the more specific points raised by parents, users and the wider public:

The benefits to parents and the general public

A safe alternative to the private car

“The yellow school bus would give myself and other parents peace of mind as we would know our children are safe. We would also wish the bus pass entitlement to be given to every child. It would help working parents with their school run problems of too many cars on the road and if one child goes to one school and another to another one so they could arrive [safe] and on time.”

“It would be a lot less worry and easier for parents knowing their children were being taken and brought back by bus. It would also keep a lot of cars off the road.”

On-board safety and discipline on the public network

“I think it's about time [they were] putting school buses on. We have needed this for some time. Not only that, it will make local travel by bus a lot more enjoyable for passengers going to and from work, and the elderly people... the school children make travelling a nightmare, with the noise and bad language.”

Time savings for parents and easier access to work

“I think the yellow buses are an excellent idea when you have children at different schools and you are unable to be in more than one place at the same time... I have children at three different schools but only one school uses the yellow bus scheme.”

“The flexibility for both my husband and I to go to work knowing [my child] is safe going to school.”

“Brilliant to take children to school and allow parents access to work.”

Reliability of existing yellow school bus initiatives

“It has been very reliable and as I work full time I know that they have arrived at school safely and on time.”

The benefits to pupils and their safety and security

A secure environment for children to travel

“There has been the same driver from the start and she knows all the pupils and will wait a few extra minutes if they are not on the bus on time. She is friendly and trustworthy and all the pupils like her.”

“The drivers are helpful and reliable. A lost bag was found, safely kept and returned to the right owner. The bus is also a safe social space.”

“My daughter uses one of the buses and they are an excellent idea. It is good to know she is safe and she is on the same bus everyday with a friendly bus driver and her friends.”

Enabling childhood independence

“The bus service has allowed my daughter to be independent, to ensure she takes responsibility for getting to school on time.”

Safety concerns on current school transport provision

“Present school transport does not seem to be properly supervised and buses appear dilapidated - therefore safety concerns for many parents.”

Safety and environmental benefits

“Great idea - has always run well for USA and I think it would be an enormous improvement for the environment and for the safety of school children to have less cars around schools.”

“Motorists are more aware of yellow school buses and drive more carefully at stops and school entrances.”

General appeal of concept

“My cousin uses them since he moved to Canada & he says it's absolutely ace!”



The public however also recognised the need for such a system to work with other transport measures, particularly walking and cycling. Examples of their comments include:

A holistic approach to school travel

“A more thought-through and rounded approach is needed that encourages safe walking wherever practical, then other options, school buses, service buses, but also puts better safety measures around school gates, including enforcement of parking restrictions.”

The need for more 'walking buses'

“I used to walk my children to school. More 'walking buses' could be organised. Parents of particularly older children should encourage them to walk to school.”

School buses are a good idea for those too far to walk

“I think that the yellow school buses are an excellent idea and, if we lived too far away from the school for the children to walk, I would certainly use one and would be happy to pay for it. However, living within walking distance of school, I prefer the children to get the daily exercise of a walk to and from school.”

Availability for other uses

“It would be good if they were for hire after school hours or holidays.”

3.5 Bringing together the experts

With the support of the University of Aberdeen and the Confederation of Passenger Transport UK, the Commission conducted a seminar attended by a wide range of specialists including operators, education and transport experts, industry groups and key stakeholders. The seminar was held to capture expert views on the challenge facing school transport in 2008 and the opportunity for dedicated school transport.

Participants raised the need to consider a number of major issues, including:

- legal implications regarding the safe carriage of children
- the balance between behaviour and quality
- the potential role of business sponsorship as part of localised corporate social responsibility
- the existing home-to-school transport system
- provision for wheelchair-bound children
- the consequences of change to school transport for existing public transport provision
- the accuracy of current perceptions of school buses (not all school transport vehicles are old)
- will segregating school transport from regular buses change perceptions?
(eg as often achieved by Park & Ride services)
- the need for clear communication between transport and education departments
- determination of ultimate responsibility for dedicated transport services
- free choice of school should mean transport to get there is free
- all initiatives to be considered in the context of School Travel Plans
- local authorities are currently removing discretionary transport for denominational schools
- using technology to encourage uptake
- long contracts (up to ten years) encourage investment
- increasing parental choice without government funding for transport puts education authorities in an impossible position
- low prices have led to low quality
- 2006 Equality Act (Section 5.1) specifically excludes school transport.

These issues are considered in the development of the Commission's recommendations later in the report.

3.6 Summary

The Commission has conducted an extensive evidence-gathering exercise including discussions with pupils, parents, schools, operators, education experts, government departments and the wider public.

Parents and pupils are enthusiastic about high quality, dedicated school transport. They want better quality vehicles and measures to address safety and behaviour. Initiatives already in place have been welcomed and where targeted, can achieve modal shift. However it is recognised that there are currently only limited examples and expansion is difficult due to low availability of funding.

Based on the findings from the Commission's review, future provision should:

- build upon existing best practice in addressing safety concerns and modal shift
- offer a positive experience to encourage future public transport use
- recognise the position of future yellow school buses within wider school travel initiatives and carefully consider the potential impact on the wider road network.

To achieve this we must however revisit existing travel behaviour and current policy. The current requirement to provide bus transport only to eligible pupils takes no account of the actual travel behaviour of those living too far from school to walk or cycle. Current policy often does little to address the impact of the school run on the road network and parents' lives.

Safety, quality and wider availability are central ingredients of any plan to improve school transport and reduce car usage. Furthermore, any journey to school by bus should offer a positive experience that will encourage future use of public transport. Wider concerns regarding the environment, increased energy usage and its associated costs also have influence.

The Commission finds that there is significant interest in the development of dedicated school transport as part of a broader school travel package. Considerations include walking and cycling, existing transport networks and the wider impacts for operators, authorities and government funding.





4. Improving school transport

As identified in Section 2 and reinforced through the evidence gathering in Section 3, the main issues relating to the current arrangements for home-to-school transport include quality and availability of service, reliability of operations, fairness, equity and choice for parents, as well as costs to local authorities. In addition safety and security, particularly for primary pupils is important, whilst for secondary pupils on-board behaviour is of concern. However, arguably the biggest concern and primary motivation for a new approach relates to congestion problems and the increasing environmental and health problems associated with increased car use, not just for those travelling by car but for those walking alongside roads congested by traffic.

Its research has shown the Commission that expansion of school transport is likely to generate effects that differ between age groups and areas. The present Section examines these various effects, related factors and the impact on uptake in more detail. Recommendations on the design of an expanded school transport system based on best practice are offered. Finally, estimated costs and benefits are presented.

The Commission recognises that yellow school bus solutions can raise quality to a consistently high standard. Livery and branding may be standardised to promote safety and familiarity. If a standard is to apply it would seem appropriate to continue to use yellow, but authorities, operators, schools and sponsors should have the freedom to add their own branding against the yellow background. It must also be recognised that any operator is at liberty to paint buses yellow: therefore a yellow bus may not always indicate particular quality or safety enhancements.

4.1 Different requirements for primary and secondary pupils

Pupils' school travel patterns differ between primary and secondary school. As described in Section 2.1 and in the cost benefit analysis in Annex A, the majority of primary age children are unlikely to walk more than a mile, while many secondary age children can and do walk up to two miles to and from school. Furthermore, due to the reasons highlighted in Section 2.5 and reaffirmed in the Commission's discussions with parents, primary age children rarely travel unaccompanied on the public bus network.

Twice the percentage of primary pupils are driven to school compared with secondary pupils. Nevertheless, other issues such as bad on-board behaviour, quality, availability and affordability continue to discourage secondary age bus use.



To reduce the number of children driven to school we must therefore consider the factors that would encourage bus travel. For all pupils these include availability and affordability. For the primary age group, safety and parents' peace of mind are critical, while for secondary pupils the attractiveness of the service and behaviour issues are key.

4.1.1 Availability

It is a priority of schools and Government to encourage healthy lifestyles such as walking and cycling to school via safe routes. Over 85% of primary pupils who walk to school live less than one mile from the school they attend but more than 80% of those driven live further than one mile from their schools.

Our cost benefit analysis demonstrates that secondary age children are less likely to walk journeys of more than two miles and the likelihood of these pupils being driven or taking the bus increases substantially with distance.

As a result, any changes involving buses normally should exclude primary pupils who travel less than one mile from school, and secondary age pupils who travel less than two miles, to reduce the risk of mode shift from such sustainable modes.

Recommendation 1

All schools should continue to promote walking and cycling for pupils living within one mile from primary school and two miles from secondary school.

There is also an opportunity to integrate any new school bus services with the travel requirements of children with special educational needs (SEN) who attend mainstream schools but can travel unaccompanied. These pupils will benefit from their increased independence.

4.1.2 Affordability

Parents frequently mentioned affordability as a key element in their decision making, so if we are to encourage mode shift from car then the fare charged is a key element. In assessing an appropriate charge for users not currently entitled to free travel, the following need to be considered.

- Research shows that the average fare paid by paying parents/carers for pupils travelling to school by public transport, bus or taxi was £7.29 a week in 2004.¹ Lower income families are more likely to pay than their wealthier counterparts.
- The DCSF School Travel Pathfinder Prospectus identifies a strong parental preference that home-to-school charges do not exceed £1 per day.²
- Prior to the implementation of RidePegasus! services respondents were asked what they believed to be a fair cost per week for using the service. The average figure suggested was £5.10.³ The fare for the service is now £1.60 per day or £8 per week (plus 50% discount for siblings). Interestingly, this service is oversubscribed. Fares at other yellow school bus operations visited by the Commission typically range between £1 and £1.50 per day, although higher fares (up to £2.80 per day) are in place for several secondary schools with no free transport entitlement.
- The Commission's own surveys of over 300 parents revealed that the majority (70%) of parents felt that a fare of between 50p and £1 per day was appropriate. 15% were prepared to pay £2 or more per day. Only 5% of respondents were not prepared to pay any fare.

In light of the recent dramatic rises in petrol prices, particularly over the last year, parents may be more prepared to pay higher bus fares to avoid driving. As a result higher daily fares of £1.50 to £2 may now be acceptable to the majority of parents.

4.2 Primary age considerations: safety and peace of mind

Pupil safety and parents' peace of mind are key issues with this age group. The effects of these considerations are quantified in the cost benefit analysis.

Parents of primary pupils are not prepared to let their children make their way to school alone, principally because of their safety and security concerns even for short distances.⁴ The Commission's own surveys support these findings.

A package approach, incorporating yellow school buses, following the standards set out in Annex B, is felt to be particularly appropriate for this age group. This is explained in more detail below.

In order to develop parental trust and encourage modal shift, any alternative to the car must offer significant levels of reassurance to parents of primary pupils.

Pick-ups close to home, improved passenger safety and additional supervision on the vehicle are all important factors.

Vehicles must have significant safety measures. Parents understandably view seat belts as desirable.⁵ While bus travel is statistically safe, it is understandable that parents would expect the same level of seat belt safety on buses as in their cars. Primary pupils themselves rated "all seats have seat belts" and "you have your own seat and don't ever stand" as the first and second most important features of yellow school bus services in the Commission's survey (see Section 3.4). Belts should be suitable for all ages (ie with a moveable shoulder clip), or alternatively the seat should include an integral, fold-down booster. As seat belts are not always worn when provided⁶, seats should be free from exposed hard edges, affording protection should the vehicle come to a sudden stop.

Vehicles should be built to protect occupants from injury with appropriate emergency exits, racks to securely stow luggage, and the option of CCTV including a rear view camera. The vehicles should also be light and airy with roof lights and be fitted with a radio or CD player for entertainment. A proposed set of minimum vehicle standards for yellow school bus services is provided in Annex B.



A pool of dedicated drivers should be employed to deliver local services. This resource will contribute to safety in terms of consistent supervision standards. It will also allow drivers to build a professional and courteous rapport with those travelling, providing familiarity, respect and reassurance to users, parents and schools.

All drivers must have enhanced Criminal Records Bureau (CRB) checks to determine their suitability. They should also be suitably trained in:

- normal bus driving requirements (eg Passenger Carrying Vehicle training, cash and pass handling)
- dealing with children (eg managing behaviour, illness or bullying)
- customer care and safety (eg evacuation).

Primary pupils rated "drivers are trained to deal with bullying" as the fifth most important feature of yellow school bus services in the Commission's survey. Minimum standards of driver training are also proposed in Annex B.

For further reassurance, the use of registers to record pupils as they board should be considered. This can reassure parents about the safe carriage of their children and identify when children are not present.

We suggest that GPS tracking and SMS and email text alerts of late running to parents (or older siblings) and schools (see The Green Bus case study, overleaf) are offered to further raise quality. Parents can be reassured that their child is safely on the bus through real-time information via SMS text alerts.

Parents of primary children in particular want to know that the bus will be met if off school grounds. Furthermore, anecdotal evidence from site visits indicates that the provision of escorts on primary school services provide additional parental confidence in the service: this ultimately influences whether or not they choose to let their children use the bus.⁷ A rota of CRB checked parents could also be considered as an alternative to paid escorts.

Suitably trained escorts also provide the opportunity to transport a larger number of pupils with SEN who attend mainstream school sites but need some extra help in getting to and from school. This measure promotes integration with other pupils and could also offer substantial savings in SEN transport spending.

Combining these measures should help to encourage use of school buses by primary school pupils who are currently driven to school.

Beyond peace of mind, the benefits of modal shift to a dedicated school bus and the subsequent reduction in the number of children driven to school will deliver real safety benefits. As described in Section 2.5 bus travel is statistically safer than travelling in a private car. Furthermore, neighbouring homes and businesses benefit from the reduction of traffic from around the school gate in the mornings and evenings.



To limit time on buses to acceptable levels (less than 45 minutes for any pupil) a cut-off distance of five miles from school has been proposed.⁸ This is a general rule and in reality there will be exceptions where it will be possible or even necessary to extend this limit. Only 6% of primary pupils live more than five miles from school. The upper limit becomes more critical when double-runs using the same vehicles are considered. The additional operational and environmental costs of travelling longer distances with few passengers make alternative arrangements for those living in outlying areas more appropriate.

Recommendation 2

Yellow school bus services should be offered for all primary school children living over one mile from school. Such buses should feature dedicated drivers and a range of other optional elements such as CCTV, registers and voluntary or employed escorts.

Case study

Kempshott Infant and Junior School, Basingstoke

A school transport initiative launched in Hampshire in February 2007 has radically reduced school congestion on the roads and around the school gates.

Hampshire County Council has gone beyond the statutory minimum requirements and found funding to deliver improvements in Basingstoke. This area was selected because of the particularly large number of pupils being driven between one and three miles to school and the consequent high levels of congestion suffered at school start and finish times.

Yellow school buses serve a mixture of junior, secondary and independent schools and some school start and finish times have been staggered by 20 minutes to enable the vehicles to be used more effectively. As well as carrying entitled pupils, the project allows non-entitled pupils to travel to and from school on a dedicated school bus for £1 per day. The initiative works alongside measures to increase walking and cycling to school.

Collectively it has been a great success and many children who previously travelled by car are now walking, cycling or travelling to school by bus and there are plans to extend the initiative to other areas. The buses are also available during the day to use on outings and trips.

Not only has the initiative had a positive effect in reducing traffic and congestion around the school, but there has also been the unexpected positive impact on punctual attendance: some pupils who used to be 10-30 minutes late every day now arrive on time.

Case study

The Green Bus

The Green Bus was set up in 2000 after Centro withdrew dedicated school transport from King Edward VI School in Birmingham. This selective grammar school had, at that time, 1000 students. Faced with the prospect of no school transport, the school decided to set up its own operation. A member of staff and one of the students drew up a network of six routes designed to meet their own specific needs.

The success of the initiative soon generated demand for more services to other schools and an 'arm's length' bus company (Green Omnibus Ltd) was set up. The fleet comprises 20 older double-deck vehicles that deliver some of the 26 routes to ten schools, the remainder being sub-contracted to other operators.

Parents purchase an annual pass for each child using the services. This is priced at £475 p.a. Discounts are available for siblings and free travel for those entitled to free school meals. The initiative is a commercially operated network of registered local bus services.

Vehicles may not be new but stringent standards of maintenance and cleanliness are maintained and routes are operated by dedicated drivers to ensure quality standards. The vehicles are tracked and an SMS messaging facility informs users of any delays.

Distinctive identity and marketing set this network apart from other initiatives. A strong visual image supported by a well designed website emphasises the environmental benefits and in the seven years since the routes were set up at King Edward VI School, a 30% modal shift from car to bus has been realised.

4.3 Secondary age considerations

The Commission found that the need for secondary age pupil transport is not uniform across the country, because:

- Around half as many secondary pupils are driven to school as primary pupils despite the significantly longer average journeys. Even so, the greater numbers of pupils attending individual schools generally makes congestion at secondary schools significantly greater than at primary schools.
- Many secondary age pupils already use bus services of some kind. Around 24% currently use public bus services and a further 7% use dedicated home-to-school services.
- There are likely to be negative impacts on existing bus networks in some areas, affecting the existing passengers.
- Parental concerns about their children's mode of travel to school differ at primary and secondary age levels.

During our research, lack of capacity and poor behaviour on public buses and some existing dedicated school buses were recurring issues. Our surveys revealed that the wider public were often unable to get on a bus or find a seat during school run periods. In addition, many would prefer to avoid bus travel at these times and most perceived pupil behaviour on-board as poor.

A more flexible approach is therefore required, offering more secondary age pupils a safe and attractive alternative to the car, particularly for those living beyond two miles from their chosen school. The new approach should include the development of existing and expanded public transport, but not where there are continuing capacity problems or recurrent poor pupil behaviour.

As with any product geared towards teenagers, the image must attract its target market. Some operators (notably The Green Bus in Birmingham) use strong livery and branding, often with an environmental message and technology to encourage use. As with primary age pupils, the use of technology offers real-time information, value and reassurance to users and parents alike, particularly in areas where congestion is common.

A wider role for dedicated school services (including yellow school buses) may be

needed where there is an identified special need due to inadequacy of existing bus services, low bus use levels, extreme bad behaviour of pupils on public bus network and/or the possibility to link services with suitable primary school provision.

Again there is a positive opportunity to integrate any expanded provision with the travel requirements of children with SEN who attend mainstream schools, particularly those who can travel unaccompanied.

Bad behaviour and bullying are a major concern, particularly for secondary age children. When asked in our surveys 55% of the wider public thought that behaviour of pupils on school buses is poor and 48% stated they would be more inclined to travel by local bus if pupils were not on board. While behavioural issues are a concern on many public buses, segregating pupils from the public should not be viewed as the only solution. There are other, more effective and 'softer' measures that can overcome these issues more appropriately, in line with other Government initiatives such as the Respect agenda which targets anti-social behaviour and its causes.

CCTV, codes of conduct, bus prefects and informal roles by sixth formers have all been observed to encourage⁹ good behaviour on school journeys.

Recommendation 3

Improve secondary school bus services by increasing existing bus provision, raising quality standards, enhancing driver training, and using technology to promote good on-board behaviour.

The ultimate sanction in cases of bad behaviour is the threat to lose the right to transport. The threat of losing transport for poor behaviour must be enforceable for those entitled to school transport. A great deal of progress has been made in this field by Monmouthshire Council supported by the organisation Belt Up School Kids (BUSK).

The effects of these proposals regarding secondary age pupils are quantified in the cost benefit analysis.

20%

of all car journeys to primary schools could be removed.

130million

The number of unnecessary car journeys per year that could be removed from our roads with a full rollout of Yellow school buses for primary pupils.

Case study

Monmouthshire Council

In 2006 Monmouthshire Council decided to replace its existing school transport (tendered extensions to the local bus network) with seven dedicated, authority-operated yellow school buses. In addition to the savings arising from off-peak use of these buses, the Council saved £117k p.a. This school bus operation which now comprises ten full-size vehicles is available to entitled children and includes comprehensive provision to Caldicot School.

Apart from reduced costs, the major benefit of the improved operation is its positive impact upon pupil behaviour. The Council had always worked closely with the police to impose sanctions upon those responsible for causing trouble but in the 18 months since the introduction of the yellow school buses there has only been one notable incident.

Working with BUSK, the Council is developing Codes of Conduct that include legally enforceable measures to exclude from school services entitled pupils who continually misbehave.

Recommendation 4

Consider providing yellow school bus services for distances greater than two miles to secondary schools, where there are special circumstances such as poor existing bus services of their levels of use, serious challenging behaviour of pupils on the public bus network or the potential to link services with suitable primary school provision.

4.4 Prioritising resources: results of the cost benefit analysis

To provide an indication of the potential level of benefits, and the associated costs of dedicated school transport, the University of Aberdeen has conducted a thorough cost benefit analysis¹⁰ for a full rollout of yellow school buses to primary schools and secondary schools in England, Scotland and Wales. A summary of the cost benefit analysis can be found in Annex A.

The core assumptions applied in the modelling, derived from the Commission's research and discussed in other parts of this Section, are reproduced below:

- distances considered: greater than 1 mile for primary pupils, greater than 2 miles for secondary pupils and less than 5 miles
- 30% of non-entitled pupils and 75% of entitled pupils transfer to yellow school bus
- operating costs: £42,500 per vehicle per annum
- 60-seat vehicles: 85% occupancy
- 30% of fleet provide double running
- fares: £1 per day.



Whilst the cost benefit analysis assumes a fare of around £1 a day, as discussed in Section 4.1, higher fares of up to £2 could be considered, as the savings to parents are evident. Whilst this has the potential to reduce the overall cost of provision, there is likely to be a trade-off against a reduction in uptake of the service. A careful balance is needed to ensure that new services are perceived to be affordable.

This analysis of a full rollout of yellow school buses for primary schools in England, Scotland and Wales estimates that, with a conservative 30% transfer of pupils living between one and five miles from school, it has the potential to deliver the following substantial benefits:

Benefits of a full rollout of yellow school buses for primary schools in England, Scotland and Wales.

- Over 500,000 primary pupils (12.3% of the school roll) will use yellow school buses.
- Around 350,000 of these users (68%) will mode switch from car to yellow school bus.
- A reduction of more than 20% of all primary school car journeys on the morning school run.
- A reduction of 130 million car journeys p.a. with associated saving in CO₂ emissions estimated to amount to 55,351 tonnes CO₂ p.a.
- Overall bus use will rise substantially from 5% to 15.5% of all primary pupils.
- Parents of primary age children benefit collectively by around £362 million p.a.
- Within this, savings in vehicle operating costs for those previously driving their children to school totals £92 million p.a. which more than justifies the additional bus fares incurred of £82 million p.a.
- Safety benefits to the economy of £33 million p.a.
- Road users benefit from decongestion reduction by around £88 million p.a.
- Further benefits, including environmental benefits, reduced truancy rates and job creation in the bus industry, altogether are valued at £36 million p.a.
- There is a cost to the Treasury of £57.6 million p.a. in lost tax and duty as a result of less driving on the school run.
- With total benefits of £460 million p.a. and an overall additional funding requirement of £154 million this delivers a healthy return on investment of 3:1.

For secondary age pupils the modal shift results of the cost benefit analysis are less compelling, although tangible benefits are still demonstrated. The analysis revealed that a one-mile lower limit for secondary pupils is likely to attract as many walkers as car users to the yellow school bus, which is certainly not a desirable outcome.

As it is more acceptable to expect secondary pupils to walk longer distances than their primary counterparts, and as it was strongly felt that it is unreasonable to expect any child to walk any distance above two miles twice a day, a limit of two miles was considered appropriate for secondary pupils. Based on this the analysis of a full rollout of yellow school buses for secondary schools in England, Scotland and Wales, and with a conservative 30% transfer of pupils living between two and five miles from school, the following benefits are estimated:

Benefits of a full rollout of yellow school buses for secondary schools in England, Scotland and Wales.

- Over 540,000 secondary pupils (11.5% of the school roll) will use yellow school buses.
- Around 125,000 of these users (23%) would mode switch from car to bus.
- A reduction of more than 13% of all secondary school car journeys on the morning school run.
- A reduction of 50 million car journeys p.a. with associated savings in CO₂ emissions estimated to amount to over 24,000 tonnes CO₂ p.a.
- Around 28,000 users (5%) would switch from walk (over two miles) to bus.
- Overall bus use will rise from 31% to 34.9% of all secondary pupils.
- Parents of secondary children benefit collectively by around £140 million p.a.
- Within this, savings in vehicle operating costs for those previously driving their children to school totals £40 million p.a. which is greater than the additional bus fares incurred of £29.6 million p.a.
- Safety benefits of £15 million p.a.
- Education benefits through reductions in truancy estimated at £35 million p.a.
- Road users benefit from decongestion reduction by around £40 million p.a.
- Further benefits, including environmental benefits and job creation in the bus industry are valued at £26 million p.a.
- There is a cost to the Treasury of £25 million p.a. in lost tax and duty as a result of less driving on the school run.
- Total benefits to the UK of £230 million p.a. and an overall additional funding requirement of £98 million p.a. – a return on investment of 2.33:1.

Although any UK-wide implementation must be carefully planned and delivered with a phased and incremental rollout, the adjacent figures give a realistic indication of the likely achievable benefits upon completion.

Substantial improvements to secondary pupils' travel could be achieved in parallel with primary pupil transport. However, because of lower levels of net benefit and the potential impact on existing bus passengers, a more flexible approach is needed. To reduce car journeys to secondary schools, transport for all pupils living over two miles from their school should be developed using spare capacity on existing public services combined with yellow bus services. Compared with the cost of full yellow school bus provision, this could save up to 50%, resulting in an overall additional funding requirement of between £50 million and £100 million per annum.

It may be helpful to offer incentives to operators of existing dedicated school transport services for incorporating yellow bus features. This is discussed in Section 5.

Assuming a range of between 10- 40% of secondary schools being provided with dedicated yellow school bus services:

- Overall benefits of these services are likely to fall in the range between £23 million p.a. and £92 million p.a.
- The additional cost of providing services for pupils in the two to five mile catchment would be between £10 to £40 million p.a.

Benefits associated with greater use of public service provision, would be likely to fall between the range of £68 million to £102 million per annum, based on an investment cost of between £40 million and £60 million per annum and an estimate that the benefit to cost ratio would be slightly lower for education related trips on public service vehicles than for yellow school buses (as many of the truancy and employment benefits would not be realised), albeit some benefits would also be enjoyed by other bus users.

This results in estimated total benefits of between £91 million and £194 million per annum for an investment cost of between £50 million and £100 million per annum.

The ultimate goal is a nationwide network of transport available to all secondary pupils living over two miles from school.

4.5 Summary

The Commission has fully considered the opportunities to reduce the impact of the school run. Based on the result of the cost benefit analysis, the Commission concluded that tackling non-entitled primary school provision will have the greatest effect on congestion and potentially achieve higher levels of modal shift. The substantial estimated benefits of over £460 million p.a. offered by a nationwide rollout available to pupils living over one mile from their school justify the additional £154 million p.a. cost. As a priority, avenues for funding a primary school service should be sought.

To ensure this is effective, primary school services should:

- be offered only to those living between one and five miles from school
- be delivered using yellow school buses, with a strong emphasis on safety, security and parental reassurance
- be operated by route-specific drivers trained in child supervision
- consider use of registers, CCTV and escorts, with children met at agreed stops by designated adults.

Substantial improvements to secondary travel could be achieved in parallel, but a more flexible approach is suggested maximising investment of up to £100 million p.a. and generating the greatest benefits with the least negative impact. Secondary school transport should include:

- the development over the next five years of a transport offer for those children living beyond two miles from school
- improved standards of vehicle, safety and driver training
- service promotion that will appeal to young people
- reduction in the use of double-deck vehicles on school services
- codes of conduct where behavioural problems exist, supported by enforceable mechanism to ensure disruptive pupils can be excluded from school transport services
- yellow school buses where demand or behaviour indicates it is appropriate.



5. Service delivery

This Section discusses how improved school transport services can be procured and delivered cost-effectively without sacrificing availability or quality of service.



5.1 Funding the rollout of improved school transport

5.1.1 Yellow school buses for primary schools

The significantly greater benefits to be realised by tackling non-entitled primary school transport (as opposed to secondary transport) mean that identifying and securing funding streams for a primary school service must take priority.

In order to ensure comprehensive coverage across England, Scotland and Wales, and standards of safety and quality in line with the Commission's recommendations, we feel strongly that central governments in England, Scotland and Wales must provide the necessary funds and a mechanism by which these can be fairly distributed according to need.

The Commission believes that this wider provision is still best procured through the relevant education authority, usually the local council which has responsibility for local transport (for further details on this please refer to Section 5.5). To deliver real improvements to dedicated school transport, vehicle utilisation is of key importance and measures that enable schools to share vehicles must be found. Schools will need to work in partnership to stagger their start and finish times. Incentives to encourage staggered hours are considered in Section 5.2.

Recommendation 5

Undertake a phased and properly coordinated expansion of yellow school bus services for primary age pupils over the next five years, with a final annual investment of £154 million revenue per annum at steady state.

An immediate full introduction of yellow school buses would be logistically challenging. Instead, phased introduction appears more practical.

The following priorities should be considered:

- schools which consult jointly on staggered hours or breakfast/after-school provision
- primary schools that can link services with nearby secondary schools having existing school bus services or identified need
- clusters of schools developing active partnerships between key stakeholders (school, parents, local authority and local businesses)
- schools which secure business sponsorship (see Section 5.4)
- primary schools with particularly high car use for pupils living in the one to five mile radius of the school and which are likely to attract 50% of pupils from that radius.

Such prioritisation will not only ensure a gradual implementation but will also stimulate partnership working and delivery of wider initiatives beneficial to parents or local authority finances. Furthermore, by targeting those schools with business sponsorship there is the opportunity to save on costs.

The cost benefit analysis in Annex A considers the costs of implementation at individual school level.

Effectively, for each primary school, additional funds of around £9,000 per annum are needed from central government for a yellow school bus service (this figure assumes that the service is shared between two neighbouring schools).

Case study

Newport Borough Transport

The key feature of these yellow school bus services is their commercial operation. Revenue is generated by fares and through reimbursement for passes issued to pupils eligible for free travel.

The system succeeds because participating schools have traditionally operated on staggered start and finish times. More recently, adjustments to timetables maximise utilisation of the 17 vehicles which provide home-to-school transport.

As in other areas, school transport provision has benefited from the range of yellow school bus-type features. Behavioural problems arising from the use of double-deck buses on a local bus service network have been overcome with the new 70-seater, single-deck school buses specified in partnership with BUSK and operated by a team of dedicated drivers.

5.1.2 A mixed approach for secondary age pupils

Section 4 identified that substantial improvements to secondary travel could be achieved in parallel with primary provision. However, the lower levels of net benefit, and the greater potential impacts on existing bus networks and passengers, demands a more flexible, targeted approach to secure the greatest benefits with the least negative impact.

Reducing the numbers of secondary pupils that are driven to school depends on the development of transport for all secondary pupils living more than two miles from their school. This could be achieved initially by using existing spare capacity and then adding new services to existing bus provision.

Dedicated school buses have a potential role in meeting secondary school requirements in tandem with other measures for tackling important issues such as safety and behaviour on existing services.

There remain clear opportunities for such services where secondary school bus use is extremely low. Poor uptake may be due to a number of factors.

- The school may be located too far from the public bus network or require multiple changes of bus.
- Rural bus networks may be inadequate.
- School type may deny pupils' eligibility to dedicated home-to-school bus services (for example, pupils attending independent schools have no entitlement to free transport).
- High car ownership levels reduce bus use.
- Extreme bad behaviour of some pupils on existing buses deters the majority of other pupils.

In such instances there is a strong argument for the introduction of yellow school buses for secondary schools.

Further justification for introducing yellow school buses for secondary pupils would be where such resources could be linked with suitable primary school provision, particularly where they are unable to work with a neighbouring primary school or to justify a service of its own. A linked approach has been successfully achieved in the MyBus initiative by WYPTE. Here, secondary trips dovetail with primary trips via staggered hours and double runs.

The cost benefit analysis for secondary schools estimated that an additional £100 million of funding was required for a full rollout to pupils living between two and five miles from school. However this would generate lower modal shift compared to the primary rollout, while at the same time having a potentially negative impact on the existing bus network. A more selective approach to introducing new services is considered appropriate while procedures to improve standards of safety and behaviour are developed.

The funding required for a mixture of improved transport to school (including a proportion of new yellow school bus services) will therefore be substantially less than the £100 million estimated for a full rollout of dedicated yellow school buses. Indeed in some cases new, carefully planned services may even be commercially viable (Annex A.4 defines options for achieving this). However, an intention to attract more secondary school pupils to the public bus network also demands a fair means of reimbursing operators for child fares (assuming the £1 to £2 maximum is applied). It is important to expand services to meet increased demand and provide incentives for operators to raise the quality and safety standards that will attract pupils from car to bus use.

Total funding required to support improved bus services for secondary pupils will increase incrementally as and when new services are approved and new passengers use the public network. However the total new funding required will not exceed the £100 million per annum estimated for a complete rollout of yellow school buses. Furthermore, the development will improve quality and availability of public transport services for all passengers.

Recommendation 6

Provide additional funding of up to £100 million for the increased availability and quality of school transport for secondary age pupils. Initially, this will use existing public services where available. Dedicated yellow school buses should be considered where issues of behaviour are particularly acute or the public service cannot cater for the demand.

5.2 Ensuring efficiency

The Commission recognises that despite the substantial benefits of yellow school buses for primary pupils and the expansion of secondary school transport, the funding requirements are significant.

The recommendations above should largely be met from central government sources distributed equitably across England, Scotland and Wales. It is important to implement measures that promote efficiency and avoid any cost escalation. In order to maximise use of resources, vehicles should serve two or three schools each morning and afternoon. As described in Annex A.5, most schools start and finish at around the same times with primary children arriving at about 8.50am and finishing at around 3.15pm. The majority of secondary schools begin at about 8.30am and end between 3.00pm and 4.00pm.¹ As a result the demand for school transport occurs simultaneously for most schools and also clashes with commuters in the morning.

In England, a school's Board of Governors determines its session times.² The Commission recognises that there is often great resistance to school timetabling changes because of fears of disruption to parents and teachers. However, the changes required are not necessarily significant. For example, if two schools each changed their hours by 20 minutes this could allow 40 extra minutes in which to accommodate a second vehicle journey. The resulting savings would be substantial.

A few areas (such as West Sussex and Newport)³ have staggered school times improving efficiency. Staggered hours are often long-standing arrangements. In West Sussex school bus services serve up to three schools. The local authority has successfully collaborated with schools to ensure that the vehicle sharing frees up more money for front line services. In the USA, staggered school hours are the norm. Buses make two or even three journeys to different schools, dramatically boosting efficiency and reducing costs.

5.2.1 Incentives for schools

The Commission believes that any expansion of school bus services should be undertaken as part of the continued development of School Travel Plans. This will stimulate development of other sustainable options alongside the rollout of further dedicated and integrated school transport.

Additional revenue grants for the introduction of yellow school bus services could be offered to those schools with successful Travel Plans.

Schools should therefore:

- assign responsibility for developing partnerships through the School Travel Plan process to a governor and a staff member
- work in partnership with other schools. Primary schools should form clusters wherever possible and, where dedicated yellow buses are being considered, secondary schools should cooperate with local primaries
- consider modifying hours to enable more efficient use of vehicles and driver resources.

The involvement of local authorities in the development of school proposals will help to ensure efficiency is best achieved through effective use of modified hours and double running. Such resource sharing also makes catering for after-school activities a more viable option.

The cost of provision to each primary school is approximately £9,000 per annum, assuming that the service is shared between two neighbouring schools as described above. Partnership working is crucial to the process. Without it, and without the vehicle sharing and the higher take-up (30% plus) that are thereby achieved, the costs per school could rise to £30,000 per annum.

Schools with approved Travel Plans are currently eligible for capital grants of up to £5,000 per primary school and £10,000 per secondary school. The capital grant may be spent on initiatives that support their Travel Plans, such as new bike racks or other equipment.



The capital funding could be more flexible to include revenue grants (perhaps up to £10,000) to support yellow school bus operations (this would be in addition to the cost arising out of tendering for the dedicated services). This will encourage staggered hours between clustered schools and the transport advantages they bring.

The funding requirement for improvements to secondary school transport provision is lower, but the School Travel Plan mechanism can still promote the development of new initiatives.

Recommendation 7

A financial incentive should be given to schools that stagger their hours. The Commission recommends that within a more flexible approach to existing capital grants, annual revenue funding of up to £10,000 per school should be available via Travel Plans for new primary yellow school bus services.

Case study

RidePegasus! Guildford, Surrey

With the emphasis clearly upon safety and security, the RidePegasus! initiative in Surrey is a high-quality school bus service for primary school children.

Surrey has some of the highest levels of car ownership in the UK, not dissimilar to parts of the USA. Due to intensive economic activity, low unemployment and proximity to London, the demands on the road network are very significant.

RidePegasus! was originally intended to be a large PFI project, but after attracting only limited commercial interest, Surrey County Council decided in 2005 to fund its own initiative. RidePegasus!, a 20-bus project in the Guildford area is now used by a mix of 150 entitled and 678 non-entitled pupils. There is significant demand from parents and a waiting list for the current year.

This innovative initiative operates with very high vehicle specification. Vehicles are all DDA-compliant and have a lower capacity than many yellow school bus initiatives. Each bus has 39 fully-belted coach-style seats of which 37 are forward-facing and suitable for children. They are equipped with CCTV and DVD for entertainment, and with two-way radios so parents can track progress through the County RTP1 system and their home or office computer. Safeguards in the system ensure that at no point in the door-to-door journey are children left unsupervised.

Using fully-accessible low floor vehicles with kneeling suspension has enabled daytime use of two buses during the day on Surrey County Council's Accessbus network which operates from various areas into Guildford, Woking and Epsom. Surrey County Council states that this provides savings compared with previous contractual arrangements. Other vehicles have also been used for rail replacement services and on a Park and Ride service, but some of this work is sporadic and not guaranteed.

5.3 Raising standards

5.3.1 Encouraging operator investment

School transport contracts are currently let for up to five years. Since vehicles are often depreciated over ten or twelve years, there is little incentive for operators (particularly small ones) to invest in new vehicles. Longer contracts of up to ten years would reduce the uncertainty and risks associated with purchasing dedicated vehicles and encourage small operators into the school bus market.

Recommendation 8

The Commission appreciates that the purchase of dedicated vehicles demands significant operator investment. In order to reduce risk and uncertainty, long contracts of up to ten years should be introduced to encourage investment in school buses.

5.3.2 Providing an appropriate fleet

Due to their greater capacity, double-deck vehicles are commonplace for school transport services. However, difficulties in supervising the top deck raise the likelihood of bad behaviour. By contrast, many initiatives visited by the Commission use purpose-built, high capacity single-deck buses and reported significant behavioural benefits compared with their earlier double-deck provision. Yellow school buses proved especially beneficial. To provide an incentive to operators to invest in high capacity single-deck vehicles meeting improved standards of safety, partnerships to encourage investment in better quality fleet should be developed.

High capacity, single-deck buses (like most yellow school buses) offer the best balance between cost-effective delivery and supervision. High seat occupancy is vital. However, in order to achieve the widest provision of dedicated school buses it is recognised that where appropriate, tendering authorities and operators will enter into contract arrangements involving lower capacity and often fully accessible, smaller vehicles to meet various local circumstances.

Local practicalities will generate a degree of variation in the delivery. For example, smaller vehicles may sometimes be appropriate; operators may find purchase costs are greater for smaller contracts; acceptable fare levels may vary across the country or by type of school; levels of uptake of the service and occupancy levels may vary and additional costs may be incurred for escorts or late 'sweeper' buses.

It is also appropriate that a proportion of procured fleet should comprise smaller, fully accessible vehicles which can be used more flexibly, particularly in rural areas. These vehicles will enable operators of existing home-to-school services to tender for contracts for all types of school and community bus services, even where overall demand is low.

This approach reduces investment risks and minimises impact on existing operators who often use the same vehicles in rural areas outside school journey times. Local Authority Integrated Passenger Transport Units could also make use of these vehicles alongside their existing fleets for outpatient transport, social services and youth and community work.

Recommendation 9

In consultation with schools, parents and operators, local authorities should consider the appropriate mix of vehicles to meet needs. Cost effectiveness, quality and local circumstances such as integration with public service requirements in rural areas should be considered. Provision should also enable expansion in the number of mobility-impaired pupils travelling with their peers.

With requirements for any new fleet, in consideration of manufacturing lead times, an adequate duration between tendering and contract start dates will also be desirable, where new vehicles are specified.

5.4 Further funding opportunities

5.4.1 Bus Service Operators Grant

The Commission has considered other mechanisms that could encourage higher standards of school transport delivery.

Bus Service Operators Grant (BSOG) is a common issue for providers of school transport. Previously known as Fuel Duty Rebate, BSOG refunds fuel duty paid by qualifying local bus services. The various eligibility requirements⁴ for BSOG mean that only those school buses also registered as services available to the wider public qualify for it. Buses used exclusively for the transport of children are excluded. Consequently, operational costs are higher, resulting in higher prices when transport authorities tender dedicated school transport services.

The Commission proposes that this anomaly be rectified, although eligibility for school transport BSOG could require that certain quality standards for vehicles, drivers and services, as described in Annex B, are met. Such a move could ultimately provide the incentive for authorities and operators to move towards standardising school transport on single-deck vehicles across England, Scotland and Wales in line with the yellow school bus model.

Recommendation 10

Bus Service Operators Grant should be made available to operators and authorities who meet new quality standards matching those of yellow school buses, as part of the proposed funding requirement in Recommendations 5 and 6.

The cost of providing BSOG to dedicated school transport would be offset by a reduction in the overall net cost of delivering yellow school bus services. It is however important that wider access to BSOG should not occur at the expense of its reduction or withdrawal for other public transport services, as this risks reduction of such provision and may negate the modal shift benefits of improved school transport.

5.4.2 Revised charging arrangements

Parents generally recognise the benefits of using yellow school bus services and are potentially willing to pay towards the service. In some cases, fares have already been enforced due to financial pressures on those local authorities withdrawing funding for denominational or single-sex schools.

The Government's recent Pathfinder programme encouraged trials of different subsidy frameworks for home-to-school travel. One such proposal offered free transport only to those who both meet the distance eligibility criteria and are entitled to free school meals. All other pupils would pay a reasonable fare.

This proposal has been insufficiently trialled in the Pathfinder programme. Authorities appear reluctant to introduce a charging system that may be unpopular (where users are charged for a product that they have previously received free) and perceived as unfair (neighbouring schools may operate different charging structures).

In association with local authorities, central government might take a more proactive role in designating appropriate Pathfinder trial areas in tandem with a rollout of dedicated school buses. Users are more likely to see the product as new and of higher quality, giving a more reasonable environment for testing the change.

Recommendation 11

Consider revising entitlement arrangements supported by improved funding, as originally proposed under the Pathfinder programme.

By applying revised entitlement arrangements (as suggested by the Pathfinder programme) to the proposed yellow bus services to primary schools, government could save around £7.5 million per annum in subsidy payments. This figure represents the additional fare revenue from those previously entitled to free travel, but paying £1 per day under the new arrangements (the estimated savings also assume no resulting loss of patronage due to the £1 daily charge).⁵



This in itself is attractive to government but the main benefit of such action lies in the revision of school transport funding. The existing approach based on funding transport services for entitled students based on those living beyond statutory walking distances (ie less than 10% of pupils) would be replaced with a mechanism for funding high quality, standardised services for a wider pupil population (including those previously offered transport) and all for a reduced cost.

Case study

Runnymede, Surrey

Runnymede's yellow school bus initiative began in 2002 in response to a request from the business community to help reduce heavy congestion problems. It then served two secondary schools.

Currently, seven yellow school buses service four schools and provide 15 routes serving all the main residential areas in the Borough. The buses carry 500 secondary school students in total and most vehicles have waiting lists. It is estimated that the service and associated cycle initiative have removed 250,000 car journeys per annum from the road network.

Partnership is the key to success in this initiative. The school works closely with the Runnymede Borough Council, Surrey Police, First and Runnymede Business Partnership. It is funded equally by fares, development-related funding from planning agreements and business sponsorship. Ten local businesses are involved in the varying levels of sponsorship. Sponsors range from a local taxi firm to Thorpe Park and Proctor & Gamble.

The initiative reduces traffic congestion and is considered a safe and secure way to encourage working parents to adjust their work-life balance.

Supporting the community can help businesses meet their corporate social responsibility objectives. Chris Edge, Managing Director of Thorpe Park stated that most of their customers travel by car. Although the nature of their business makes this hard to reduce, sponsorship of the local school bus service reduces local traffic and benefits the community.

5.4.3 Potential for business sponsorship

Businesses could play an important role in supporting new school transport initiatives. There is potential business interest in reducing congestion and freeing "school run" responsibilities from employees.

Schools often develop links with the local business community to fulfil supply chains, sports sponsorship, governance requirements and work placements. At a national level, corporations such as supermarkets and food producers have embraced school voucher initiatives.

The scale of the funding shortfall per secondary school is limited. Given the right kind of partnerships between schools and the local business community, business sponsorship could enable commercial operation at secondary level. At primary level it may provide the potential to reduce (but not eliminate) the requirement for Government funding.

The Runnymede yellow bus initiative in Surrey illustrates how a successful partnership can work. Runnymede Borough Council has procured funding from the local business community. For £12,500, organisations can sponsor a single vehicle liveried with their company logo. A lower level of sponsorship entitles a business to be associated with the operation in some other way.

Nationally, this is the only known example of a local business community supporting a yellow school bus operation. The Borough Council (which has no education or transport responsibility) has worked with the local business partnership to deliver seven buses to:

- reduce traffic on the road
- deliver modal shift
- relieve parents of school run responsibilities, allowing them to improve their availability and reliability for part-time employment.

Recommendation 12

The Commission considers that (subject to local consultation) local authorities and schools should explore private sector business sponsorship as an additional support mechanism for local yellow school bus operations.



5.5 Procurement

5.5.1 Procurement models

School transport contract procurement is largely undertaken by County Councils, unitary authorities, Passenger Transport Executives (in the large metropolitan areas, though some metropolitan boroughs continue to work independently – see below) and Transport for London (in London only).

Current school transport procurement models require the local authority to specify the service and route in a contract. Operators then bid to run the service based on a price inclusive of operational costs, overheads, vehicle depreciation and a margin. Alternatively, authorities will purchase scholar passes in bulk from commercial (or supported) bus services. In some cases, local authorities operate the school bus services in-house.

The best procurement mechanisms exist where socially necessary transport and education services are managed by the same authority, particularly within the same department.

For County Council and unitary authorities, services are generally procured by Education or Transport departments or via Integrated Passenger Transport Units. Where the same local authority manages education and socially necessary passenger transport this offers:

- the expertise of transport professionals in the planning and procurement of school transport alongside other socially necessary passenger transport services
- opportunities for integrated secondary school and public bus services where behaviour is good and demand is insufficient to sustain both services
- access to dedicated school transport vehicles for social and youth services transport
- visible savings from initiatives such as staggered hours for both departments.

In areas where the education and transport functions are separate (mainly in metropolitan areas) the Commission has observed opposite effects:

- effective co-operation – especially where the PTE acts as an agent for the metropolitan borough councils in planning and procuring transport
- uncoordinated and sometimes conflicting arrangements – where such cooperation does not exist.

The planning of school transport is and should remain the responsibility of the local authority, ideally through an Integrated Transport Unit. Ideally, ongoing development will be continuously managed in partnership with the successful operator and in consultation with the schools, particularly where a service supports more than one school. Opportunities exist to devise the most appropriate method of procurement, including route or resource tendering. Technology can be usefully employed to assist in the efficient planning of services.

Recommendation 13

Integrated Transport Units offer the best mechanism for procurement. Where this is not possible due to local government structure, the partnership and understanding between district council and transport authority should be developed to realise and share the subsequent benefits.

5.5.2 Combined entitled, non-entitled and SEN provision

In many cases, existing entitled transport could be combined with services carrying non-entitled pupils to maximise benefits and efficiency, and ensure shorter journeys and best use of vehicles. Furthermore, the transport of SEN pupils attending mainstream schools may be integrated with new dedicated services, particularly those meeting yellow school bus standards which will offer parents and pupils greater reassurance of safety.

Recommendation 14

Entitled and non-entitled school transport should be procured together, alongside the requirements for pupils with special educational needs attending mainstream schools.

5.5.3 Working in partnership

Whilst the public bus network is in many cases the best solution for secondary age pupils there will be a need to further develop services in terms of capacity and quality.

With an expanded role for public transport to serve secondary school pupils living over two miles from school, authorities will need to work in partnership with operators of commercial bus routes, and supported operations (once the tendering procurement process is complete), to ensure services are capable to convey school children and, where appropriate, to procure scholars' passes.

Authorities are free to consider the use of dedicated services, but partnership working offers the mutual benefits of ensuring cost efficiency of school transport provision by utilising existing services and increasing custom for public transport.

Partnership should also encourage higher quality in services, driver training and vehicles. This should also consider how to improve the relationship and need for mutual respect between staff and users, particularly as school pupils are potential public transport customers of the future (a powerful point made by young people themselves).

Recommendation 15

Operators and authorities should work in partnership to secure higher quality in service, vehicle standards and driver training for all public bus routes serving schools.

Case study

Cheshire County Council

In an effort to challenge high contract prices and to tackle behavioural issues on school buses, Cheshire County Council introduced yellow school buses in the Vale Royal area in 1999.

Both objectives were met effectively and the Council now operates its own fleet of eight dedicated, full size yellow school buses within the wider Community Transport / Social Services provision of 63 minibuses.

Like most authorities, Cheshire recognises the benefits of using regular drivers on school services, but equally understands that there may be concerns about over-familiarity if the same person ends up doing the same job over a protracted period. The Council overcomes this issue by allowing the same driver to work the same journey for no longer than a single term at a time.

5.5.4 Maximising use of resources

As described in Section 5.2, staggered school hours offer the greatest opportunity for procurement efficiency of dedicated school transport. Routes can be planned to cover two or three school journeys in the morning and the evening.

Between school hours, facilities which are heavily used by public vehicles in the evening can be used for the inspection, maintenance and cleaning of school buses. It is also possible to explore the use of dedicated school buses for inter-site transfer, school visits and access to sports facilities, and for certain types of youth work in the evening. Furthermore, in some areas, high capacity, single-deck vehicles (ie with 3+2 seat configurations), are already used for off-peak local bus services carrying the general public. The extent of this work will depend on several factors including the health of the local private hire market, competition levels, demand and suitability of the vehicles for private hire work or local bus services.

Several pilot school bus initiatives (for example those in Greater Manchester) work to encourage use of the yellow school bus vehicles outside home-to-school contract requirements for educational trips, particularly those connected with the National Curriculum. This avoids the need for additional, expensive accessible buses. Data shows that a typical operator uses a vehicle for 14 to 20 such trips per month. Furthermore, operators such as First in Hampshire have marketed the availability of yellow school buses and have a full booking diary long in to the future.

The demand for education-related trips during the school day is likely to increase significantly over the next few years as a result of the 14-19 education reforms.

Recommendation 16

School bus contracts should include regular inter-peak school work, whilst other off-peak work carrying school children should also be sought.



5.5.5 Stimulating competition

The Commission has observed that some authorities have cost-effectively improved the quality of provision and attracted market entry through:

- longer contracts (see Section 5.3)
- additional revenue funding for improved specification
- grant-funding vehicle purchases
- investing in vehicles which are then let with the contracts.

These practices, common in the USA, have attracted operators to enter the market.

Cheshire and West Sussex authorities have introduced and operated their own yellow school buses to stimulate competition. In general this has taken place in small, localised areas, where the commercial sector showed little interest in bidding for school bus operation contracts, sometimes because of behavioural concerns. Cheshire considers the operation of small fleets to be effective in managing local contractor prices, in quality, supervision issues and behavioural problems.

Elsewhere, yellow school bus initiatives have stimulated competition. New market entry has been encouraged by improved specifications, longer contracts, better funding and by authorities making available vehicles and/or depots with contracts.

In parts of the UK, the public sector has looked to stimulate competition and support improvements in quality through purchasing vehicles to be let with contracts. This is advantageous where small operators prevail and larger vehicle orders may offer economies of scale.

5.6 London

London is unique. Population density is much higher with a higher concentration of schools, and intensive bus, underground and rail network. Furthermore, unlike the rest of England, Scotland and Wales, the London bus market is regulated, with Transport for London procuring all public bus services.

Transport provision for eligible pupils (mainstream and SEN) rests with the London borough councils. However, in terms of transport policy, Transport for London (TfL) has recently chosen to provide free transport for all those of school age. At secondary age the public transport network in London performs reasonably well, with high capacity bus and rail networks able to transport children and facilitate choice. TfL also augments its network with around 70 journeys designed specifically for defined secondary school movement. Nevertheless there remain some journeys, particularly arising from parental choice, that require a change of bus or mode en route.

For primary age, the 13% mode share⁶ using public transport compares with a national average of 5%. This suggests that the free fares policy combined with the extensive public transport network coverage is having some desired effect. Parents are highly unlikely to put the youngest primary age children unaccompanied on the public bus network. Private schools also present issues where the intake is more dispersed and catchments do not necessarily follow public transport routes. Both these issues have led to problems in some areas of the capital, most notably in the Hampstead area.



There are also concerns that free fares cause some abstraction from walking short distances as well as heavy demand from parents for dedicated buses.

London also has an issue with the large number of SEN pupils who attend mainstream schools and currently use specialist transport: the cost to London boroughs transporting these pupils separately is high.

The Opportunity to integrate the requirements of many special needs pupils and their primary age peers must be fully explored to determine a cost-effective solution.

Recommendation 17

Transport for London should consider future provision for primary age children, independent schools and those with special educational needs. There is potential for integrated dedicated services (ideally meeting yellow school bus standards) to achieve modal shift, and where possible reduce borough expenditure, particularly on special educational needs transport.

5.7 Further measures to encourage walking and cycling

As stated in Section 4 and reinforced in the recommendations, the Commission is mindful that any proposals should build on the work done to develop walking and cycling. For shorter distances, walking and cycling remain the most sustainable mode of travel for the journey to school.

Through making funding available through the School Travel Plan process, local proposals to introduce yellow school buses should be conducted in tandem with walking and cycling initiatives, reducing further the risk of modal shift away from these sustainable modes. New and enhanced initiatives could include walking buses, road safety training, short-term free bike hire, and cycling proficiency training.

Recommendation 18

The rollout of improved school transport should be conducted in parallel with continued (and perhaps expanded) capital funding for initiatives to improve walking and cycling, coupled with targets to maintain and improve modal share of all sustainable modes.



Case study

Northampton School for Girls

In this example of home-to-school transport provision, parents currently pay towards the cost of operating four dedicated yellow school buses. Charging became necessary following a decision by the local council to reorganise local primary, middle and secondary schools and to withdraw funding for transport to single-sex schools.

Northampton School for Girls has 1,720 pupils. At £469 per child per annum, the parental contribution towards home-to-school transport fares is significant, but the service has all the attributes of a comprehensive yellow school bus initiative, offering a safe, virtually door-to-door alternative to the private car.

Furthermore, the vehicles operate under the complete control of the school and so can meet the needs of both core and peripheral school activities.

The school offers parents the option of purchasing a 'half-pass' at the reduced cost of £319 per annum. Those with a half-pass arrive earlier at school for breakfast, allowing parents to save money. In the afternoon, there are two departures enabling students to participate in peripheral school activities without missing their journey home. Critically, it enables the school's four buses to do double runs every day, raising efficiency and reducing cost.



5.8 Impacts on existing bus networks

The Commission understands that the concept of introducing yellow school bus services can raise concerns for those involved in the provision of existing public bus services.

Due to the small numbers of primary pupils using existing bus services (5% of pupils in total), with only 2% using public bus services, significant patronage effects on public bus services as a result of any large scale rollout of yellow school buses is unlikely.

However at secondary level, buses remain the predominant mode of transport for distances over one mile. The Commission's cost benefit modelling highlighted the risks of a full rollout of yellow school buses for secondary age pupils.

Instead, the Commission proposes a more varied and flexible approach to implementation of dedicated and improved school transport for secondary pupils. As we have shown, yellow school buses can have a role in meeting secondary school requirements, for example, where there are gaps in the existing bus coverage or problems with bad behaviour.

Although the new authorities will still, where possible, use capacity on public services that may currently be unused, thereby improving revenue for many routes, those public services functioning at or near capacity may be affected by issues of overcrowding and displacement of the wider public.

Working in partnership will help to minimise these risks and ensure that pupil travel is adequately reimbursed. In this way, services can develop to accommodate increased demand, and operators can be encouraged to raise quality, capacity and safety standards. This combined approach is designed to attract mode shift from car for the school journey. Of course all bus users – not just the school pupils – will share and benefit from these improvements.

Some operators providing school services to both primary and secondary schools will inevitably be affected at the local level. Any losses in patronage where dedicated transport is introduced could be largely mitigated by extra fare revenue from new adult passengers attracted to services without school children.

The implementation of yellow school buses should take into account the impacts on existing operators. It is anticipated that all existing bus networks and operators will be invited to tender for yellow school bus operation provided they continue to meet local tender rules and quality standards for new services.

In terms of the provision of dedicated school transport, the awarding of longer contracts would give good opportunity for post-tendering partnership to develop and greater certainty regarding investment in fleet for all operations, large and small. Where appropriate, a number of smaller, low-floor and wheelchair-accessible vehicle requirements (which can be used flexibly by operators for other purposes) would ensure effective utilisation, particularly in areas where public transport provision is minimal.



5.9 Summary

The funding requirement for dedicated school transport for primary and secondary age pupils is significant. However, the benefits are substantial.



It is recommended that joint School Travel Plans be developed between clustered primary schools, and that revenue grants of up to £10,000 are made available to those schools with successful Travel Plans as an incentive.

Improvement of the school transport offer for all secondary pupils living over two miles from school should build upon existing bus provision, but raising quality and safety standards should be a priority. In addition, yellow school bus services should be considered in areas where existing services are insufficient, due to levels of service, demand or issues of behaviour. Again, such provision can be introduced as part of the continuing development of School Travel Plans in order to continue promoting sustainable travel in tandem with the rollout of dedicated and integrated school transport.

Contracts of up to ten years in length will motivate operators to invest in new dedicated vehicles and encourage post-tendering partnership working with the authority.

The move to achieve higher standards may be encouraged by offering Bus Subsidy Operators Grants to vehicles meeting yellow school bus standards. Other incentives to operators and authorities should also be developed to support new quality standards. The opportunity for alternative charging mechanisms for school transport services should also be explored, refining ideas emerging from the Pathfinder initiative. Local authorities can explore new funding opportunities such as local business sponsorship.

Effective procurement will play a part. To ensure efficiency this should be done through Integrated Transport Units. Entitled and non-entitled school transport should be procured together and where possible school bus contracts should be let with regular inter-peak school work.

The Commission recognises the unique nature of London and the role that Transport for London plays in the provision of regulated public transport. Although it provides free transport for mainstream secondary age pupils, the offer to primary age and independent school pupils should be reviewed. Efficiency savings from the integration of any future dedicated service with requirements for special educational needs must be explored.

The proposals for service delivery fully consider the need to maintain and enhance the modal share of other sustainable modes such as walking and cycling, as well as ensuring that the impact of any changes does not negatively effect other public transport provision.



6. Implementation: a toolkit for success

This report contains the necessary ingredients of an 'implementation menu' for dedicated school transport for both primary and secondary schools. The present Section brings together those ingredients and offers a toolkit that will help to guide the successful delivery of school transport improvements.



6.1 A menu for implementation: primary schools

1. The first step is for neighbouring schools to form clusters (a similar approach is being undertaken where school resources are shared in relation to extended schools provision) and submit a joint Travel Plan for a shared yellow school bus. The Travel Plan should continue to promote walking and cycling for pupils within one mile from school.
2. Partnering schools should specify their plans for the shared yellow school bus service in the Joint School Travel Plan. The Plan should include:
 - estimated take-up of the service
 - likely demand for late buses
 - requirements for escorts
 - potential use of vehicles for education purposes between school runs
 - any particular transport requirements of the schools or their pupils.
3. If all the above criteria are met then the local authority may approve the Joint School Travel Plan and award up to £10,000 in revenue support for each school. An additional, one-off incentive payment is recommended for those schools who stagger their hours. This process will deliver the most efficient and effective operation and ensure the annual vehicle operational cost is met.
4. Government should provide up to £154 million per annum to local authorities for primary school yellow school bus services. This revenue support will be administered via School Travel Plans. The eligibility criteria for schools and operators will effectively phase an incremental, affordable and manageable implementation.
5. Local authorities will specify the contract to include service outlines, route details and minimum driver and vehicle requirements. Long contracts (up to ten years duration) will stimulate healthy competition and attract the widest range of operators.

To secure approval, Travel Plans' school bus initiatives will probably need to meet the following criteria:

- a. many pupils are currently driven to school
- b. schools either stagger their hours or offer extended childcare provision (both options allow double running, making best use of vehicle time)
- c. active partnerships are fostered between parents, schools, local authority and possibly local businesses.

The target is to achieve double running with 85% occupancy of the vehicle.

Estimated take-up will provide an indication of fare revenues and subsidy payments required for entitled pupils. That total figure plus business sponsorship income and

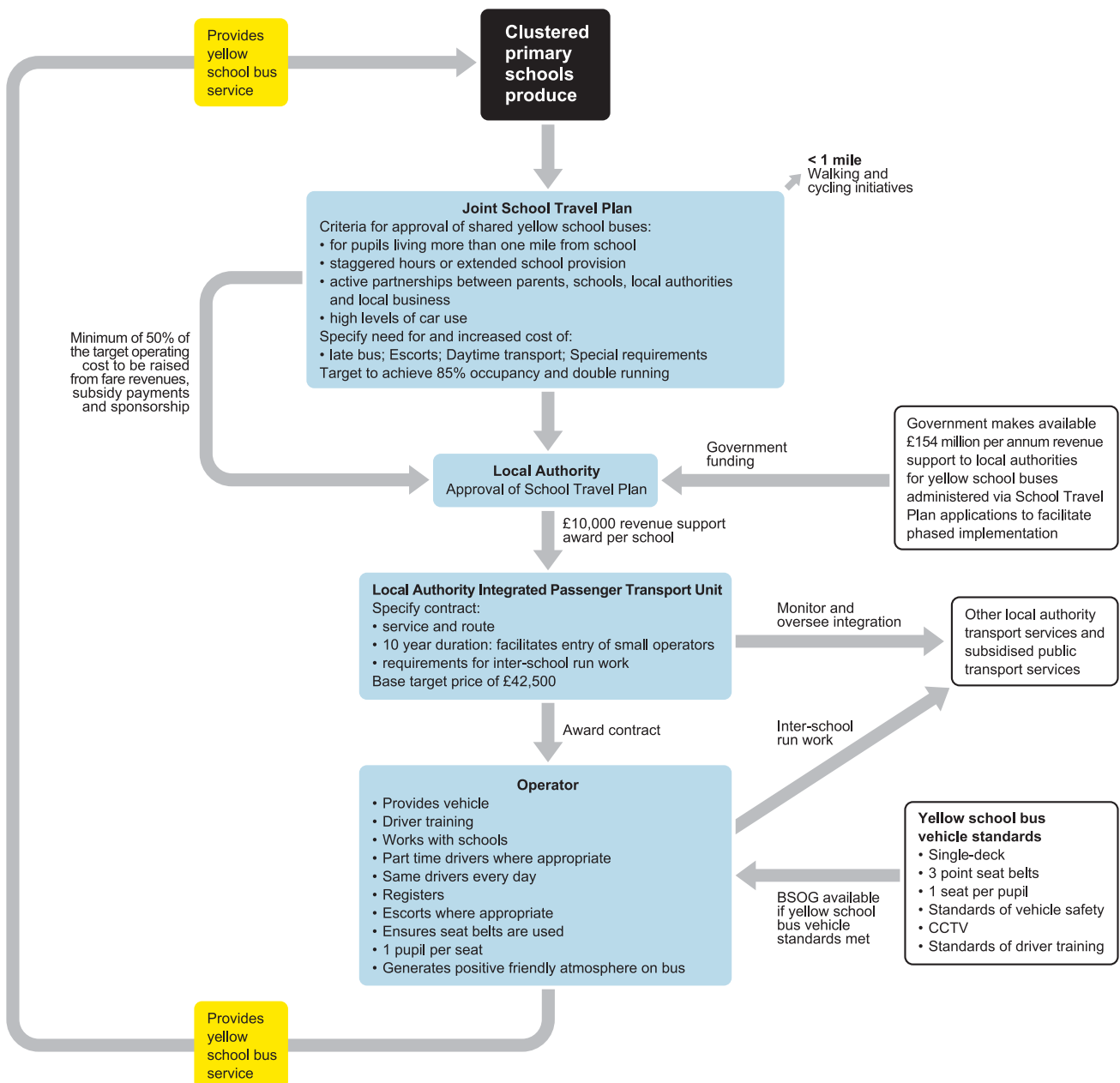
minus extra monies required for late bus, escorts or special requirements should exceed 50% of the target operating cost.

Improved understanding of vehicle use (ideally through an Integrated Transport Unit) allows a local authority better to assess the proportion of fleet that should be fully accessible. Where appropriate, vehicles should also be considered for use in other suitable ways, such as socially necessary public transport services.

6. The operator will provide services according to the contract specification. The contract will specify minimum requirements for vehicles and drivers and for this, the higher yellow school bus service standards of quality and vehicle safety are recommended. These standards are fully detailed in Annex B. If the higher standards are met then operators should be entitled to BSOG for the routes driven by these vehicles.

7. The operators also fulfil any additional work between school runs for education trips or integrated local authority services, as specified in the contract.

The following diagram shows the ingredients of the menu for implementation of school transport improvements to primary schools illustrating the involvement of and interaction between schools, local authority, central government and bus operators:



6.2 A menu for implementation: secondary schools

The first objective for secondary bus provision is to build on current, successful provision such as well-used existing public transport provision and the promotion of walking and cycling for pupils living within a two-mile radius.

1. The following initiatives will stimulate take-up and modal shift where public bus services have the potential to be well used by pupils.
 - Reimburse operators for scholars' passes and child concessionary fares (increased demand fuels growth and motivates operators to improve quality and safety, which in turn attracts greater uptake).
 - Schools and local authorities to provide education and guidance on use of public bus services via school travel advisors in schools.
 - Include codes of conduct on public transport in schools' Travel Plans.
 - Local authorities to improve infrastructure at and between bus stops (shelters, bus priorities, etc).
 - Schools to create safe walking routes and waiting areas.

For existing dedicated school services the following actions are advised:

- Local authorities continue to support those services which are operating efficiently and safely.
 - Local authorities open up spare capacity to non-entitled pupils.
 - Government make BSOG available to services which meet the yellow school bus standards (as defined in Annex B).
 - Include codes of conduct on behaviour in school buses in School Travel Plans.
2. Yellow school bus services are appropriate in some situations, for example where secondary school bus use is extremely low or where the service may be linked with suitable primary school provision (ie where the school is unable to cluster with a neighbouring primary school and cannot justify a dedicated school bus service of its own).

These secondary schools should be encouraged to consider new yellow school bus initiatives for themselves via their School Travel Plan. Taking ownership of the service in partnership with the local authority will increase motivation for success and facilitate incremental implementation.

3. Schools should detail their yellow school bus proposals in their School Travel Plan. The Plan should include:
 - estimated take-up of the service
 - likely demand for late buses
 - requirements for escorts
 - potential use of vehicles for education purposes between school runs
 - any particular transport requirements of the schools or their pupils.

The criteria for approval of a School Travel Plan are as follows:

- a. An identified special need due to one or more of the following:
 - (i) no existing bus service
 - (ii) poor existing levels of bus use
 - (iii) extreme bad behaviour of pupils on public bus network
 - (iv) possibility of linking service with suitable primary school provision.
- b. Staggered hours or extended school provision.
- c. Active partnerships between parents, schools, Local Authorities and local business.
- d. High levels of car use.

The target is to achieve 85% occupancy as well as double running.

The service should raise a minimum of 75% of the target operating cost from fare revenues, subsidy payments and sponsorship. Indeed, in many cases new services may even be commercially viable if carefully planned (see Annex A.4 for options on how this could be achieved).

4. If all the above criteria are met, then the local authority may approve the School Travel Plan and award up to £10,000 in revenue support for each vehicle required. An additional, one-off incentive payment is recommended for those schools who stagger their hours (and thus allow the vehicle to serve another school). This process will deliver the most efficient and effective operation and ensure the annual vehicle operational cost is met.

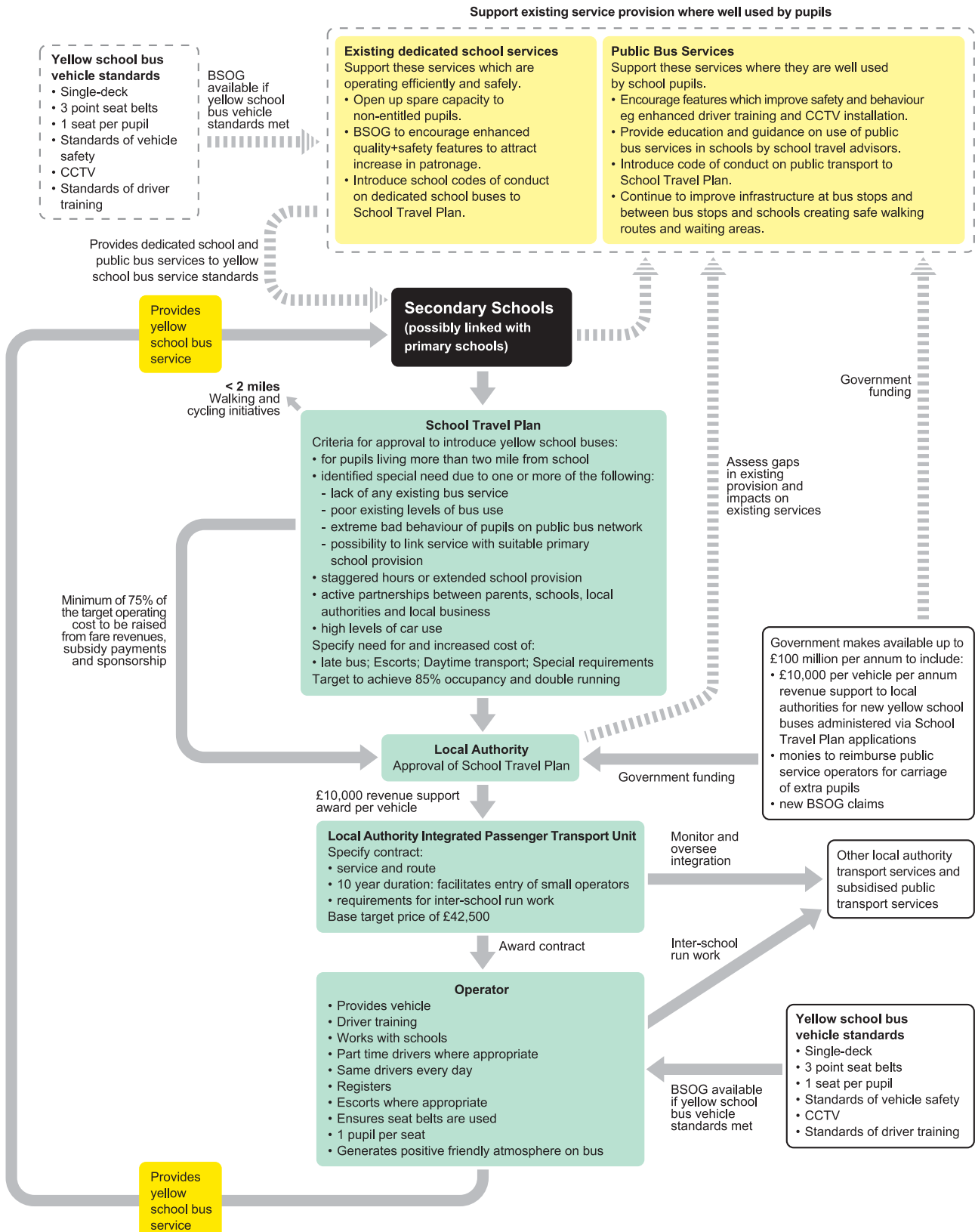
The cost benefit analysis completed for secondary schools estimates that an additional £100 million of funding is required for a full rollout of yellow school buses to all schools for those living between two and five miles from school.

However, it is anticipated that the actual funding required for secondary level yellow school buses will be substantially less than the estimate for a full rollout because only a proportion of secondary schools will meet the above criteria. Nevertheless, £100 million per annum is thought to be a realistic figure for the total package of improvements to secondary school transport. This funding would incorporate reimbursement to existing operators carrying more school pupils and BSOG refunds for dedicated school services meeting yellow school bus standards.

The remaining menu for implementation of new yellow school buses at secondary level follows steps 5, 6 and 7 of the primary school implementation path.



The following diagram shows the ingredients of the menu for implementation of school transport improvements to secondary schools illustrating the involvement of and interaction between schools, local authority, central government and bus operators:



Annex A: Summary of cost benefit analysis

The Commission has reviewed the current situation relating to home-to-school transport in England, Scotland and Wales and has identified an urgent need and strong support for a new approach to providing this service. The Commission has gathered evidence from government and industry experts, schools, parents and pupils on what is currently not working and how transport may be improved. Commissioners have visited yellow school bus operations across Britain and in the US to assess the potential of such services for overcoming identified problems, to learn lessons and share examples of good practice. In doing so they have identified the nature and variety of the benefits and costs involved in the introduction of yellow school buses.

The Commission fully appreciates that the main barrier to improving the quality and expanding the provision of dedicated school transport in the UK is money – a recurring theme in all Commission visits meetings. All those involved wish to raise standards and address the traffic congestion attributed to the school run. This Annex quantifies the costs and monetary benefits of a comprehensive rollout of yellow school buses for both primary and secondary schools.

The analysis has been conducted using accepted Government appraisal methodology as described in WebTAG¹ and COBA.² Data used in the study has been derived from a combination of current known and historical nationwide data updated to current values. Where appropriate, data from questionnaire survey responses and existing dedicated school transport operations is also included. The effects of small samples and regional variations should be considered when drawing

nationwide conclusions using these empirical data sources. It is important to bear in mind that variation from the national averages is likely for implementation in specific locations.

The analysis aims to provide indicative 'order of magnitude' costs and benefits applied at a national level. It should be understood that the timescale over which any proposals with comprehensive coverage could be introduced would be several years, so that the build-up to the costs presented here would be gradual. Full implementation across England, Scotland and Wales should be phased and an incremental approach to this is proposed in Section 5. Initially there is no intention to replace existing school transport provision that works well, particularly for secondary schools. However, through suitable incentives, an evolution of these operations towards standardised levels of quality and safety in line with yellow school bus provision is anticipated.



A.1 Core assumptions used in the modelling

The core assumptions applied in the modelling work are derived from the Commission recommendations provided in Section 4 and are listed below:

- distances considered: greater than one mile and less than five miles
- 30% of non-entitled pupils and 75% of entitled pupils transfer to yellow school bus
- operating costs: £42,500 per vehicle per annum
- 60-seat vehicles: 85% occupancy
- 30% of fleet provide double running
- fares: £1 per day.

The basis for and justification of these assumptions is provided in A.5. In practice, the assumptions will vary at local level. For example, in certain areas driver costs are higher; lower occupancy, low-floor accessible vehicles may be appropriate in certain areas where demand is lower and where vehicles are needed to provide public

services throughout the day; price sensitivity to fares varies across the country; in certain rural areas or for certain schools a larger catchment area would be appropriate and so there should be flexibility to the modelled five-mile upper limit in such circumstances. The costs and benefits of these variations are considered in the discussion, which follows the results of the core assumptions.

A notable extension of the core assumptions presented in the results table is the additional modelling of a two mile lower limit for secondary pupils. This is included as the feedback on acceptable walking distances for secondary pupils received by the Commissioners from their evidence gathering was mixed: some felt one mile was an appropriate upper limit while others thought two miles was acceptable. However the vast majority felt that walking distances above one mile for primary age pupils was undesirable.

A.2 Elements of cost benefit modelling

Costs depend largely on the vehicle operating costs and the number of pupils estimated to use the service. The more pupils, the greater the number of vehicles required and hence the greater the cost. Pupil type (entitled or non-entitled) also impacts on revenue and benefit values. The table below³ details the percentages of pupils who fall within the yellow school bus catchment of between one and five miles from school attended and the current mode of travel for both primary and secondary schools.

	Primary 4,115,000 pupils
< 1 mile	55% (47% walk; 8% car)
1-3 miles	32% (22% car; 7% walk; 2.5% local bus; 0.5% dedicated bus)
3-5 miles	7% (6% car; 1% dedicated bus)
> 5 miles	6% (5% car; 1% dedicated bus)

	Secondary 4,717,000 pupils
< 1 mile	32% (29% walk; 2% car; 1% other)
1-2 miles	22% (12% walk; 6% car; 4% local bus)
2-3 miles	14% (2% walk; 4% car; 6% local bus; 2% other)
3-5 miles	17% (7% local bus; 5% dedicated bus; 5% car)
> 5 miles	15% (4% car; 7% local bus; 2% dedicated bus; 2% other)

The above table shows that 39% of primary pupils would be eligible to travel by yellow school buses based on the core assumptions. 72% of these are currently driven to school. For secondary schools 53% of pupils would be eligible to travel by yellow school bus if a lower limit of one mile was applied, with 28% of these currently driven to school while 26% walk. If a two-mile lower limit were applied then 31% of secondary pupils would be eligible to travel by yellow school bus with 22% of these currently travelling by car and a much lower 5% currently walking. Almost two-thirds of those in the two- to five-mile catchment already use a bus.

With 50% more secondary pupils in the one- to five-mile catchment than primary pupils, more buses are required and so overall costs will be higher. However, if a two-mile lower limit is applied for secondary then the numbers of pupils in the catchment will be similar to the one- to five-mile primary catchment.

Revenues are made up from a combination of fare-box revenue (£1 per pupil per day for non-entitled pupils) and local authority subsidy transfer for those current statutory entitled pupils who opt to use the yellow school bus service.

It is worth clarifying that pupils entitled to free transport living between one to five miles from the school they attend will be expected to transfer to the yellow school bus service wherever appropriate. It is accepted that in practice, not all of these will be able to transfer because routes are inappropriate (for example in remote, rural areas) or because of particular individual requirements. As a result, only 75% of entitled pupils living between one to five miles of their school are assumed to transfer to yellow school buses. For the remainder of entitled pupils between one to five miles in addition to those living more than five miles from their school, it is assumed that the local authority will continue to provide home-to-school transport and will still require the appropriate funding to do so.

Currently over £1 billion is paid annually in the UK to subsidise home-to-school transport (£912 million in England in 2007)⁴ although approximately half of this is for transport to special schools and therefore not addressed by yellow school bus provision to mainstream schools. Primary transport accounts for around 16% of the total (£160 million) while secondary transport accounts for about 33% (£330 million). The modelling assumes that current subsidies supporting transport to mainstream schools for statutory entitled pupils will be used to aid the funding of yellow school bus operations on a pro-rata basis for the pupils who transfer to yellow school bus services. This equates to approximately £4 per day for entitled secondary pupils who transfer and £8 per day for entitled primary pupils who transfer.

Subsidy revenue related to this is approximately £72 million for primary and £134 million for secondary pupils. The remainder of the current funding (£88 million for primary and £196 million for secondary) should remain with local authorities to provide transport for those entitled pupils who are not served by yellow school buses.

Cost implications are also taken into account in terms of the additional subsidy payments due from local authorities as a result of the newly introduced Education and Inspections Act (2006). It is estimated that these will amount to around £16 million in additional subsidies for primary pupils using yellow school buses and about £62 million for secondary. This is notably less than the £23 million available from DCSF for rural areas.⁵ However this increased subsidy will be associated with a loss of fare revenue as the pupils affected by the legislation move from non-entitled, fare paying status to entitled, free transport status. The fare revenue losses are estimated at £4 million for primary pupils and £15.5 million for secondary.

The benefits modelled include direct benefits to parents (ie savings in time and vehicle operating costs) and external benefits related to environment, health, safety, education and the economy. Where there is an accompanying detriment this has also been modelled, such as additional bus fares for parents whose children were previously driven or walked, and loss of tax and duty revenue to the Treasury as a result of reduced vehicle operating costs (mainly fuel-related). Detailed calculations for each of these elements are presented in the University of Aberdeen's Cost Benefit Analysis Background Report. The results table below presents the summary results for a full yellow school bus initiative serving primary schools with a one- to five-mile catchment area and secondary schools with models for both one- to five-mile and two- to five-mile catchments.

A.3 Results of cost benefit modelling

The table below presents a cost benefit summary of full yellow school bus operations across England, Scotland and Wales based on core assumptions.

	Primary School	Secondary School	Secondary School
Demand	> 1 mile < 5 mile	> 1 mile < 5 mile	> 2 mile < 5 mile
Total number of pupils	4,115,000	4,717,000	4,717,000
Pupils in yellow school bus catchment	1,604,850	2,500,000	1,462,270
Total number to be carried	509,231	856,135	544,813
Mode switch	345,660 pupils from car 86,415 pupils from walk 30,862 from local bus 46,294 from dedicated bus	212,265 pupils from car 198,114 pupils from walk 240,567 from local bus 176,887 from dedicated bus 28,302 from other	127,359 pupils from car 28,302 pupils from walk 183,963 from local bus 176,887 from dedicated bus 28,302 from other
Supply cost operating cost = £42,500	(-) £326.4 million 7,680 vehicles reg for 9,985 runs	(-) £548.8 million 12,913 vehicles reg for 16,787 runs	(-) £349.2 million 8,217 vehicles reg for 10,682 runs
Revenue	£172 million	£309.7 million	£250.7 million
Fare revenue (at £1/day)	£88 million	£129 million	£70 million
Subsidy revenue	£72 million	£134 million	£134 million
Extra subsidy revenue	£16 million - £4 million lost fares	£62.2 million - £15.5 million lost fares	£62.2 million - £15.5 million lost fares
Shortfall or additional funding required (Supply cost - revenue)	(-) £154.4 million	(-) £239.1 million	(-) £98.5 million
Benefits to parents			
Non-work time benefits	£209.5 million	£113.4 million	£82.4 million
Work time benefits	£142.6 million	£77.5 million	£46.5 million
VOC saved	£92 million	£60 million	£40 million
External benefits			
Decongestion benefits	£88.2 million	£57.6 million	£38.4 million
Safety benefits (car switch)	£31.6 million	£20.7 million	£13.8 million
Safety benefits (walk switch)	£1.5 million	£11.8 million	£1.7 million
Environmental benefits	£1.6 million	£1 million	£0.7 million
Health benefits	£0.67 million	£0.44 million	£0.3 million
Education benefits	£10.4 million	£55.6 million	£35.4 million
Economy benefits	£23.4 million	£39.25 million	£25 million
Disadvantages			
Extra fares for parents	(-) £82.1 million	(-) £78 million	(-) £29.6 million
Loss of VOC tax/duty	(-) £57.6 million	(-) £37.6 million	(-) £25.1 million
Benefits Total	£461.8 million	£321.7 million	£229.5 million
ROI ratio (shortfall/benefits)	3.0	1.35	2.33
Net benefit (total benefits - shortfall)	£307.4 million	£82.6 million	£131 million
Break even charge	£2.75 per day	£2.85 per day	£2.41 per day

A.3.1 Primary school results

- Modal shift** It has been estimated that for primary schools about 12.3% (509,231) of the school roll would utilise the yellow school bus service, 350,000 of these being former car users. The model also predicts that former car users would fill approximately 68% of the occupied seats on yellow school buses. This is consistent with experience in other such initiatives for primary pupils (65% for MyBus, 77% for RidePegasus!), suggesting that the analysis has practical validity. Less than 4% of those who currently walk are predicted to use the yellow school bus. Although this appears detrimental from a health perspective, these are young children expected to walk over a mile often because there is no alternative. According to CfiT⁶ they would be categorised as socially excluded if this journey took 30 minutes.
- Congestion reduction** It is estimated that the yellow school bus service would reduce 20.5% of all car journeys to primary schools and remove approximately 2.6% of all car traffic on the roads between 8:45am and 9:00am. This equates to over 130 million car journeys annually. The associated savings in CO₂ emissions are estimated at 55,351 tonnes per annum.
- Bus patronage** The uplift in bus patronage is estimated to increase from 5% to 15.5% of primary pupils with 80% of this uplift from car and 20% from walking. Very little abstraction from existing services as a result of yellow school bus services is anticipated due to the relatively small numbers of pupils previously using bus services.
- Total benefits** The total benefits are estimated at £461.8 million, with parents enjoying approximately £362 million of this sum (within this the specific savings in vehicle operating costs for those previously driving their children to school totals £92 million which more than justifies the additional bus fares incurred by parents of £82 million per annum). There are also considerable safety benefits (£33 million) to primary children as well as substantial benefits to other road users as a result of the removal of school run traffic (£88 million). An associated dis-benefit of removing school run traffic which has been accounted for is the loss of tax and duty

to the Treasury, as a result of less fuel and vehicle maintenance costs; this totals £57.6 million per annum. However, there are other benefits including estimated reductions in truancy (£10.4 million). The benefits of yellow school bus services in reducing truancy have been quantified based on the assumption that truancy levels can be reduced by 10% as a result of the introduction of yellow school bus services (although there is some evidence that the benefits of yellow bus services in reducing truancy are in fact much higher). The analysis applies this assumption to DCSF truancy rates and the costs of truancy and exclusions calculated by the New Philanthropy Capital (NPC) organisation (truancy rates are higher at secondary school level, see below).⁷ Increased driver employment produces another £23.4 million in benefits.⁸ Quantified environmental and health benefits total £2.3 million per annum.

- **Vehicle requirements** An estimate of just over 7,500 vehicles will be required to provide this level of service at an overall cost of £326.4 million per annum. The revenues from fares and subsidy replacement are estimated to total £172 million leaving

a shortfall of £154.6 million. This is the additional funding required to support a comprehensive rollout to primary schools.

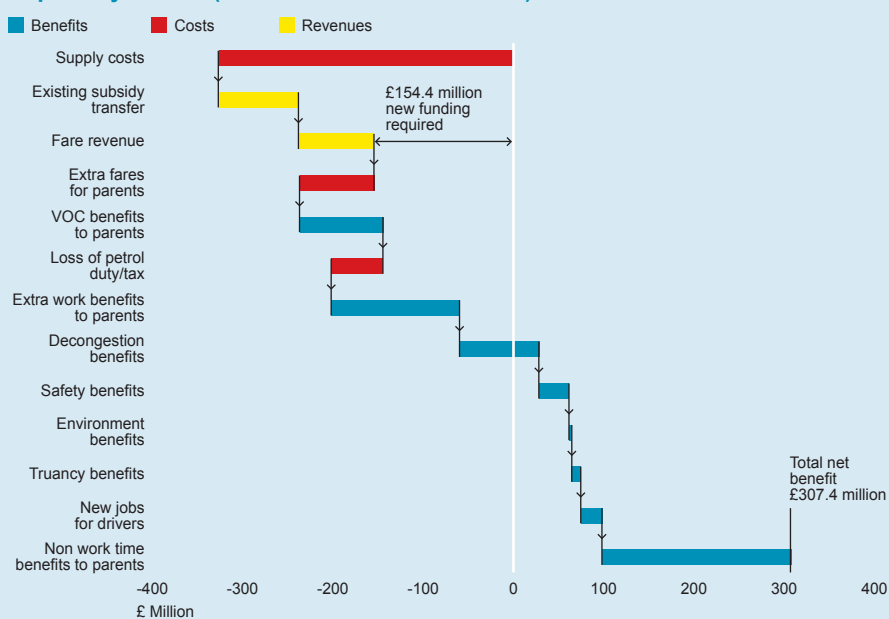
- **Net benefits** The net benefit estimated by the model is more than £300 million. Much of this constitutes non-work time benefits for parents. Although these are clearly real benefits to the parents themselves and will have a major influence on parents' motivation to use the service for their children, it is arguable that they do not necessarily generate economic benefits to the State. However, it is worth pointing out that even excluding these benefits from the calculations there is still a significant net positive economic benefit from introducing yellow school buses to primary schools.
- **Return on investment** The estimated 3.0 return on investment (ROI) ratio is very attractive. This measures the value of the benefits relative to the additional costs of achieving those benefits and means that for every £1 of additional investment in yellow school bus home-to-school transport, £3 worth of measurable benefits are realised. This is a good result as any ROI ratio above 1.0 is generally attractive from an investment viewpoint.

A.3.2 Secondary school results (one- to five-mile catchment)

The situation for secondary schools is different. Based on the core assumptions with a one- to five-mile catchment area, almost 70% more secondary pupils would use the yellow school bus service, resulting in an almost 70% greater supply cost. However, the transferred subsidy revenue is higher for secondary pupils as a far greater proportion within the proposed yellow school bus catchment currently receives subsidised travel (21% for secondary compared to 9% for primary). When combined with the higher revenue from fares we see that total revenue for yellow school bus rollout to secondary schools is more than double that of primary. It has been estimated that for secondary schools about 18.1% of the school roll (856,135 pupils in total) would utilise the yellow school bus service if available over a one- to five-mile catchment area.

- **Modal shift** An estimated 212,000 secondary pupils will switch from car to yellow school bus. Former car users would therefore fill approximately 25% of the occupied seats; former walkers will fill 23% (amounting to 10% of all walkers); former local bus users will fill 28% and former dedicated bus users will fill 21%.
- **Car journeys** 21.5% of all car journeys to secondary schools would be removed, equating to approximately 1.6% of all car traffic on the roads between 8:45am and 9:00am. This would save over 80 million car journeys and the associated reduction in CO₂ emissions is estimated at more than 40,000 tonnes per annum. The uplift in bus patronage would increase from 31% to 41.8% for secondary pupils.
- **Total benefits** Total benefits are calculated at over £320 million with approximately £173 million of this benefit being enjoyed by parents. Quantified education benefits are related to truancy rates and as a result are higher for secondary schools (£55 million): more than three times as many pupils are classified as regular truants at secondary age than primary. There are also significant other known (but not quantified) education benefits such as reductions in bullying and pupils arriving in class more alert and ready to learn.

Costs and benefits of nationwide Yellow School Bus service to primary school (one- to five-mile catchment)

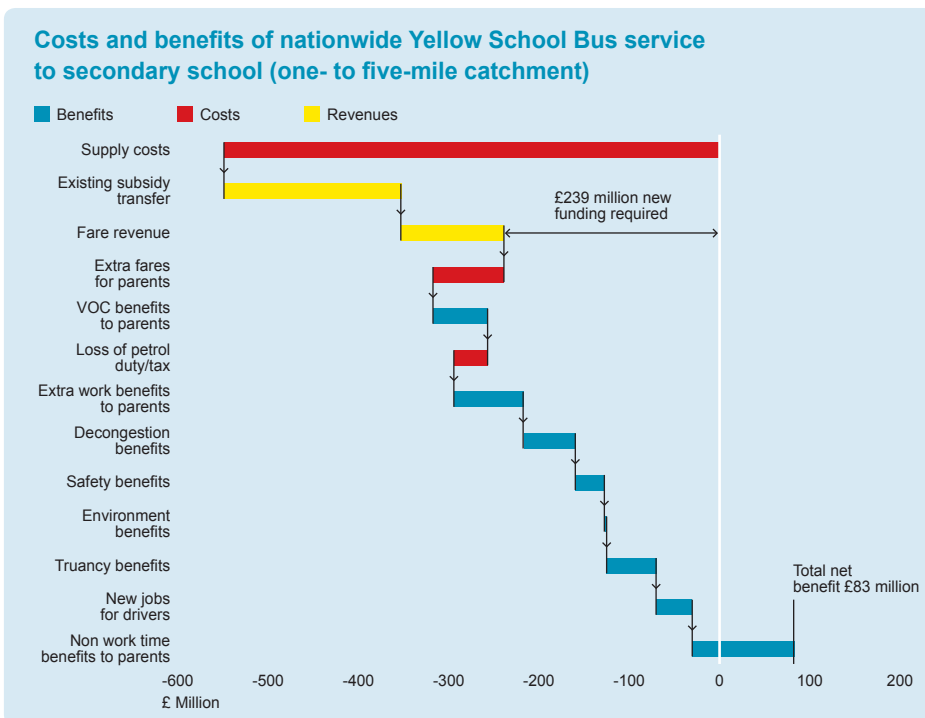


Again there are considerable safety benefits (£32.5 million) and substantial benefits to other road users as a result of the removal of school run traffic (£57.6 million). The associated dis-benefit of loss of tax and duty to the Treasury of removing school run traffic totals £37.6 million per annum. Increased driver employment is estimated to benefit the economy by almost £40 million per annum and quantified environmental and health benefits total around £1.5 million per annum. Although quantified environmental and health benefits constitute a very small proportion of the overall benefits for both primary (0.41%) and secondary (0.35%), these remain important to both parents and pupils and significantly influence modal shift from cars.

- Vehicle requirements** A requirement of almost 13,000 buses is estimated for this level of service at an overall cost of £549 million per annum. The revenues from fares and subsidy replacement are estimated at about £310 million, leaving a shortfall of £239 million. This is the level of new funding required to support a comprehensive rollout to secondary schools with a one- to five-mile catchment.
- Net benefits** The net benefit estimated by the model is £82 million. Unlike primary provision, the non-work time benefits for parents exceeds this value and so there is a net economic loss of £30 million per annum if these are excluded from the analysis.
- Return on investment** The return on investment ratio (ROI) is estimated at 1.35, considerably lower than that for primary provision but still attractive from an investment perspective (if non-work time benefits to parents are taken into account).

Considering all aspects of the secondary school, modelling a comprehensive secondary rollout with a one- to five-mile catchment area is not thought to be a sensible option. The benefits: cost ratio is lower than for primary, congestion relief and benefits to parents are more limited, the possible attraction of large numbers who currently walk and the potential impact of abstraction of existing bus passengers and potential loss of service is too high a risk (see Section 4 for further detail).

Increasing the lower limit on distance from school from one to two miles is a far more attractive proposition.



A.3.3 Secondary school results (two- to five-mile catchment)

The number of pupils estimated to use the service falls from over 850,000 to just under 550,000 (11.6% of school roll) reducing estimated supply costs by around 36%. At the same time the transferred subsidy revenue remains constant as only those living more than three miles from school are entitled to free transport. Taking account of the associated reduction in fare revenue, the shortfall is reduced from £239 million to £99 million per annum.

- **Modal shift** An estimated 127,000 secondary pupils will switch from car to yellow school bus. Therefore approximately 23% of the occupied seats would be filled by former car users (similar to one-mile lower limit), 5% by former walkers (compared to 23% for one mile limit), and 66% by former bus users. It is this large transfer from those already

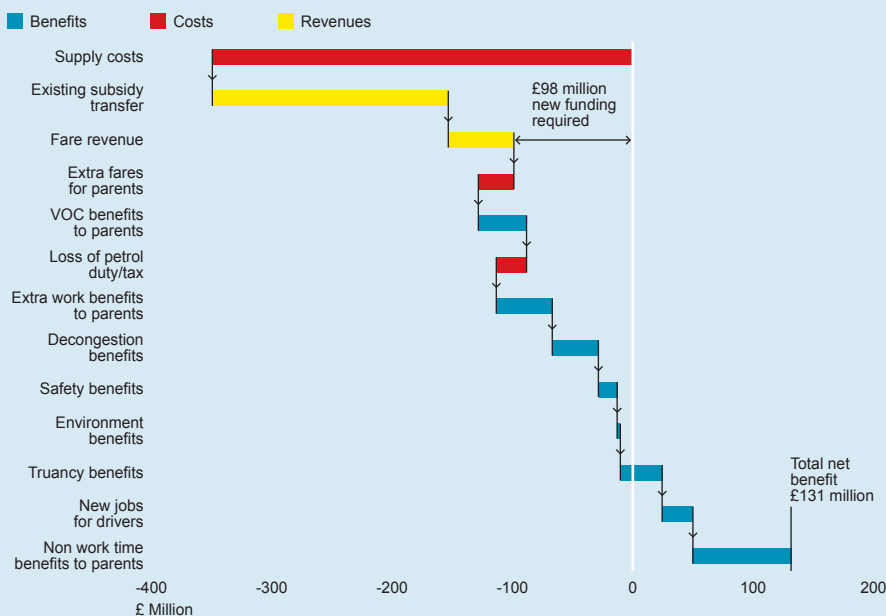
using bus services which emphasises the need for careful thought in the manner in which yellow school bus services or features should be introduced at secondary level (see Section 5).

- **Car journeys** 13% of all car journeys to secondary schools would stop, equating to approximately 1% of all car traffic on the roads between 8:45am and 9:00am. This amounts to just under 50 million car journeys and associated savings in CO₂ emissions of over 24,000 tonnes per annum. The uplift in bus patronage should increase from 31% to 35.1% for secondary pupils.
- **Total benefits** Total benefits are estimated at £230 million with approximately £139 million of this benefit being enjoyed by parents (within this the specific savings in vehicle operating costs for those previously driving their children to school totals £40 million which more than justifies the additional bus

fares incurred by parents of £29.6 million per annum). Most benefits are proportionately reduced as a result of fewer users compared to the one-mile lower limit. However, safety benefits related to fewer walking-related injuries are much lower because fewer walkers use the bus.

- **Net benefits** The model estimates a net benefit of £131 million. The non-work time benefits for parents total £82 million and if these are excluded from the analysis there is a net economic benefit of almost £50 million per annum.
- **Return on investment** The return on investment (ROI) ratio is estimated to be 2.33, still lower than that for primary provision but considerably higher than the secondary provision with a one-mile lower limit.

Costs and benefits of nationwide Yellow School Bus service to secondary school (two- to five-mile catchment)



A.4 Costs and benefits for an individual school

As the introduction of any comprehensive yellow school bus initiative is likely to be done on a phased or incremental basis, it is useful to consider the average costs and benefits for a typical school. This is especially relevant to the secondary sector where new services will probably be introduced initially on a school-by-school basis rather than as a phased approach across England, Scotland and Wales.

For maintained secondary schools, the national average school roll is 944 pupils. If uptake of yellow school bus services were 30% of those in the two- to five-mile catchment then demand would be likely from 110 pupils per school. A 60-seat vehicle operating at 85% occupancy carries 51 passengers, but if the route logistics permitted then all 110 pupils could be carried by two vehicles (or even one vehicle providing a double run if class times were staggered). Of course the level of demand may be much higher than the assumed 30% in which case a decision must be made as to whether to add additional vehicles.

- Assuming no double running, each school would require two 60-seat vehicles. The average cost of implementing a yellow school bus service would therefore be around £85,000 per annum.
- Revenue generated will depend on the mix of entitled to non-entitled pupils using the service and will vary between locations. For example, if the service targets local authority requirements for statutory students plus non-eligible students within the two- to five-mile catchment, then even if all seats were filled by statutory pupils (assuming a subsidy transfer of £4 per entitled pupil per day) the cost of provision would exceed revenue by £1,400 per annum.
- However, where double running is made a condition of the yellow school buses offer, the supply cost drops to £42,500 and only 38% of the pupils carried need be statutorily entitled while others pay a £1 fare.
- An alternative, commercial operation targeting mode shift rather than fulfilment of local authority requirements for statutory students is possible. Double running would be mandatory and no subsidised transport would be provided. All pupils would pay £2.03 per day. Where occupancy is lower, the daily fare would need to increase. For instance 75% occupancy on each run, commercial viability would demand a daily fare of £2.49 per passenger.

- A further option for revenue generation is a partnership approach with local private sector businesses within their sponsorship and corporate social responsibility programmes. Based on the Runnymede model (see the case study in Section 5.4.3) where a single bus attracts £12,500 sponsorship, all the following alternatives provide commercially viable models of operation:
 - single run, all pupils pay £2.87 per day
 - single run, 62% of pupils statutorily entitled, 38% pay £1 per day
 - single run, 44% of pupils statutorily entitled, 56% pay £2 per day
 - double run, all pupils pay £1.44 per day
 - double run, 15% of pupils statutorily entitled, 85% pay £1 per day.
- Actual benefits depend on the reasons for implementation. For example, if the operation aims to provide a viable alternative to car use in areas of very high car ownership, then mode shift from car and congestion relief could be higher. If the goal of the service implementation is to target bad behaviour and truancy problems, then the educational benefits could be more significant. As a rough indicator, national average data has been applied to the present analysis: based on the transport of 110 pupils with the modelled splits of 23% from car, 5% from walking, 66% from bus and 5% from other, the benefits per school are expected to be £46,400 per annum.
- The above discussion relates to the introduction of a new yellow school bus service to secondary schools. If a service were proposed which links with an existing primary yellow school bus then the marginal cost of providing a service to the secondary school would be minimal.

Briefly applying the above analysis to primary schools, we find that the national average school roll for maintained primary schools is 224. If uptake of yellow school bus services were 30% of those pupils in the one- to five-mile catchment then there would be likely demand from 27 pupils per school (12.3% of 224). Therefore the target occupancy rate of 85% requires that there must either be mandatory clustering of two neighbouring primary schools or between 55% and 60% uptake from eligible pupils.

- Assuming clustering between two neighbouring schools then one vehicle is required at a shared cost of £21,250 per school.

- Again, revenue generated will depend on the mix of entitled and non-entitled pupils using the service. However as there are far fewer primary pupils entitled to free transport than secondary pupils, it is less likely that primary services will be developed principally to satisfy the requirements of entitled pupils.
- Based on the modelled national average that 9% of yellow bus users in the one- to five-mile catchment will be entitled to free transport, and given the average local authority subsidy for primary entitled pupils is almost double that for secondary, a subsidy transfer of £8 per entitled pupil per day is applied. From this we find that five pupils per bus would be entitled to free transport, providing a subsidy transfer of £7,600. If remaining pupils each pay a £1 per day fare then this generates £16,900. This could raise a total of £24,500 in revenue for two clustered schools. If suitable clustering is not achieved then the revenue is likely to be around £12,250 (although there is scope for more fare revenue if uptake exceeds 30%).
- The resulting shortfall is likely to be between £9,000 and £30,000 per school.
- Charging fares of £2 per day may reduce the shortfall by around £4,500 per school, but this risks losing patronage and thus their fare revenue and associated benefits.
- Business sponsorship following the Runnymede model could further reduce the shortfall by up to £12,500 for non-clustered schools or £6,250 for clustered schools.

In some cases, clustering between more than two primary schools will be achievable facilitating the possibility of double runs with higher occupancy. Furthermore, by linking primary schools with nearby secondary schools the opportunity for double running increases significantly (see the West Yorkshire case study in Section 3.1).

The average benefits for each primary school are estimated at around £25,000 per annum. Each primary school needs about an extra £9,000 for its yellow school bus service assuming the service is shared between two neighbouring schools (either through clustering and carrying the pupils on the vehicle at the same time or by a separate run to each school in turn).

A.5 Practical issues

Local practicalities will create a certain amount of variation in delivery. For example, some operations will require smaller vehicles; purchase costs for identical vehicles may be higher for small operators than for larger operators buying in bulk; acceptable fare levels may vary across the country or by type of school; service uptake occupancy levels may vary; additional costs associated with escorts or late 'sweeper' buses may be incurred.

A.5.1 Cost of vehicle provision

Costs vary depending on type of vehicle and the local market conditions, for the purposes of this paper it has been concluded that an annual cost of £42,500 for operating yellow school bus services can be applied. This has been derived taking into account the following:

1. Vehicle purchase prices vary depending on type of vehicle (bus versus coach) and specification (low floor versus high floor). List prices of such vehicles range from £84,000 to over £120,000. Experience from North America shows that production of a market and state approved school bus model, meeting standards as defined in legislation, translates into lower manufacturing costs, higher volume of production and lower purchase prices for all market participants. For the purpose of this report, the lowest retail list price in the current range which meets all specifications as set out in Annex B (£84,000) has been used with a straight line depreciation of 12 years.
2. Examination of UK yellow school bus operations, labour arrangements and typical mileages, with the use of part-time drivers and up to five hours' operational use per day.
3. Identification of maintenance and overheads for operation of local bus fleets from a major UK bus operator.

A.5.2 Vehicle capacity and accessibility

Commission site visits to yellow school bus operations revealed that vehicle sizes ranged from 37 seats to 75 seats with a typical vehicle size of around 60 seats. To reduce operating costs, larger capacity vehicles are preferable and should be single-deck to facilitate supervision.

The Disability Discrimination Act has led to two different vehicle solutions for access for

the mobility-impaired. The more radical and expensive solution is the low floor bus, which has a range of benefits designed to enable those with mobility impairments to board easily. Wheelchair positions double up for use with buggies, but these do reduce seating capacity. The alternative solution is the fitting of wheelchair lifts.

Whilst certain initiatives have opted for the use of fully accessible vehicles, it is noted that purchase costs are higher and capacity is lower. The RidePegasus! initiative in Surrey uses such vehicles. The fully accessible low floor vehicles have only 37 forward facing seats suitable for children, although this can benefit inter-peak utilisation. Typical cost per vehicle exceeds £100,000, and can be up to one-third more than the estimated cost of a 60-seat dedicated yellow school bus and with a third fewer seats. Capital and operational costs increase significantly with lower capacity vehicles and fully utilising the vehicle will result in shortened vehicle life.

The move towards the development of yellow school buses that meets the standards, defined in Annex B, will offer the benefits of known requirements for high quality school transport. Furthermore, the Commission believes this is consistent with the aims and objectives in seeking derogation from the European Community Whole Vehicle Type Approval for UK school buses, being considered by the industry and the Department for Transport.

In English maintained schools, 0.3% of primary pupils (12,190) and 0.25% of secondary pupils (8,200) in mainstream education have SEN statements listing physical disability as their primary impairment.⁹ The Commission recognises that the use of accessible vehicles should be encouraged. Since the movement of children with mobility issues is clearly identified, additional financial savings can be achieved if the number of accessible vehicles purchased was matched to both current need and a projected expansion of mobility-impaired pupils travelling on dedicated school buses.

In certain circumstances smaller vehicles may still be more suitable. A smaller wheelchair-accessible fleet is also more flexible and adaptable for use outside school run times. This is particularly important in rural areas where commercial public transport networks

are limited. It is recognised that for some operators, the same fleet is used for primary school bus and inter-peak stage carriage work. In rural areas this is often borne out of necessity and efficiency.

The extra costs of supplying 20% of the fleet as smaller more versatile vehicles can be recouped by a relatively small increase in fares of approximately 30p per day. Alternatively, local authority contracts for socially necessary transport services or additional third party hire work may generate the revenue required to meet the extra cost. However, the demand for this type of vehicle is limited and so the majority of the yellow school bus fleet should remain high capacity and dedicated to school use.

A.5.3 Vehicle occupancy

Actual occupancies of existing initiatives range from 68% up to 95%. For example, WYPTE's MyBus initiative claims a load factor of 90% for secondary school trips, but the actual usage per trip is 68% of capacity due to factors such as sickness, pre and after-school activities, work experience and pupils simply travelling by other modes on different days of the week. Similarly, GMPTE report a take up of 87% although actual use drops to 74% of capacity. Both initiatives guarantee registered users a seat and choose not to register more passengers than there are seats available. RidePegasus! on the other hand has achieved 95% actual occupancy by using planned over-subscription in order to maximise occupancy while maintaining one pupil per seat and no standing criteria. The Commission therefore consider it reasonable to assume that an average of 85% actual occupancy is achievable.

A.5.4 Clustering of schools

To achieve the target occupancy rates stated above would require clusters of neighbouring primary schools sharing the same service. The average primary school size ranges from 176 in Scotland to 237 in England, with a UK-wide average of 224 pupils. Given these figures, achieving target occupancy of 85% on a 60-seat vehicle would require almost a quarter of the school to use the service. However as only those living between one and five miles are eligible (39% of pupils) it actually requires between 55% and 60% of those within the catchment to use the service. Achieving this for all schools is highly optimistic, though not impossible.

Results from several previous stated preference studies¹⁰ reveal that between 30% and 50% of parents claim that they would definitely or probably use a yellow school bus initiative if it were introduced at their child's school and about 70% would consider using yellow school bus services. Note that it is often the case that stated preference studies overestimate actual use and so these results need to be treated cautiously.

Assuming a realistic and achievable level of use of 30% would require two neighbouring schools to share a 60-seat yellow school bus in order to attain 85% occupancy.

Furthermore, based on the model applied there is the potential to accommodate up to a 60% transfer of eligible pupils. If this more ambitious target were achieved over the longer term then the ultimate potential of the initiative could generate an extra £50 million per year in fares, doubling the benefits estimated in the core assumptions modelling.

A.5.5 Staggered hours

In the UK most schools start and finish at around the same times with primary children arriving at about 8:50am and finishing at around 3:15pm. The majority of secondary schools begin at about 8:30am and end between 3:00pm and 4:00pm.¹¹ Demand for school transport coincides for most schools and also clashes with commuters in the morning.

The hours that a school operates are set in England by each school's Board of Governors.¹² The Commission recognises that there is often great resistance to such changes because of nervousness that it will disrupt parents and teachers unnecessarily. However, the changes required are not necessarily significant. For example if two schools changed their hours by 20 minutes in opposite directions, this would give an additional 40 minutes to accommodate the second vehicle journey. This will require schools to cooperate or adjust their times by mandate.

There are some examples of successful staggering of school start times, most notably the schools in West Sussex and on the Isle of Wight. In West Sussex, school bus services serve up to three schools and the local

authority has been successful in working with schools to ensure that this feeds through into more money for the front line. In the Isle of Wight, staggered school hours have been in place for over 20 years. Transport costs are around £400 per entitled student per annum (well below the average for rural areas) and sensible integration of the school and local bus networks allows most pupils to use the whole local bus system following after-school activities. Suffolk County Council has similar arrangements for some of its schools and believes that staggering arrangements save it around £1 million per year.

A very small number of areas have staggered times to improve efficiency (eg Chichester and Newport)¹³ and most are longstanding arrangements. In the US, staggered hours between schools are the norm, enabling buses to make two or three journeys to different schools, dramatically improving efficiency and reducing costs.

A.5.6 Double running

Greater operational efficiencies can be achieved if buses provide two separate runs to clustered schools in the morning and evening. This is known as double running.

However, if 30% of the eligible demand is assumed to use the yellow school bus then in order to attain double running with 85% occupancy, a second run to another nearby pair of clustered schools is required. As this is probably impossible for the whole fleet, the Commission suggests a target of 30% of the fleet providing double runs. This is based upon the following considerations.

- 37.3% of the WYPTE MyBus fleet operate a double run (albeit with lower average capacities on the second run). GMPTE have achieved 18.5% double running. At individual schools such as Northampton School for Girls, double running has been achieved with all vehicles operating to the school by linking with breakfast clubs. Other examples of successful double running were observed in authorities where staggered school start times are in place, as in Newport, Monmouthshire and East Sussex.
- In the US, New Jersey expects 120% use from each seat. At 85% occupancy this relates to just over 40% double running.

- Based on the above evidence for the purposes of the modelling, an average of 30% of the fleet is assumed to provide double running. With the increase in breakfast club and after-school provision and with the possibility of more schools staggering their hours, the potential level of double running is significantly higher.

Breakfast and after-school clubs and the extended schools programme will create the ideal environment for double runs to the same school. This mainly benefits secondary school provision where multiple bus loads to the same school can be accommodated but will also aid primary school services since it may eliminate the need to stagger neighbouring school start times while still allowing both schools to use the same vehicle.

An alternative application of double running would be to use the same vehicle to provide linked trips to primary and secondary schools with suitable staggered hours, as demonstrated by the West Yorkshire MyBus initiative.¹⁴

A.5.7 Late buses

School transport should enable all children to take advantage of the opportunities offered by the longer school day. Introducing Educational Supplementary Allowance would help pupils and their parents to afford not only the additional costs of dealing with the extended school day, but also could form a useful mechanism for assisting families in contributing towards dedicated school transport.

It is therefore recommended that an additional school bus service run or a 'sweeper service' be provided at the end of after-school activities (usually after 5:00pm) in order to get the maximum educational and parental employment benefits from the extended schools programme. The analysis has shown that the additional costs of providing this will probably be balanced by extra working hour benefits for parents. However, the real benefits in a sweeper service are the educational benefits to the pupils in facilitating participation in after-school activities.

Annex B: Yellow school bus service standards

Driver

- CRB checked at enhanced level
- References taken independently by the local authority
- Properly trained in:
 - accident and breakdown procedures
 - evacuation drills
 - pupil management and behaviour
 - child protection (including identifying signs of bullying)
 - reporting procedures
 - disability and SEN awareness
- Respectful towards children and young people
- Courteous and clean appearance
- Uniformed clothing
- Professional image
- Understands what is acceptable behaviour for a professional driver
- Able to build rapport with parents and a good partnership with schools
- Wears ID badge

Vehicle

- Safety aspects:
 - strength in construction
 - sufficient and accessible emergency exits
 - three-point safety belts
 - suitably padded seats
 - racks to stow luggage
 - interlocking doors and emergency exits when the vehicle is in motion
- Reasonable pitch between seats
- Protection for driver behind his seat
- CCTV including a rear-view camera
- The use of recording technology to monitor vehicle speed and drivers hours
- Light and airy with roof lights
- Defined yellow colour to ensure high visibility for safety and for effective branding
- In-vehicle entertainment (ie radio or CD player)
- Where appropriate, specific (rather than all-vehicle) contract requirements enabling access for those with mobility impairment

Service

- Regular drivers on each route
- Guaranteed seat
- Pick-up points reasonably close to homes
- Closed contracts (not available to the wider public)
- Bus prefects (parents may prefer escorts for primary school children)
- Evacuation drills for pupils

Notes

Executive summary

- 1 Department for Transport, 2002 National Travel Survey; 2006 National Travel Survey.
- 2 Ibid.
- 3 Calculated from data from the following sources: Department for Transport, 2006 National Travel Survey; Department for Children Schools and Families, 2007 School Census; Department for Children Schools and Families, 2007 Education and Training Statistics for the United Kingdom (Internet only), www.dfes.gov.uk/rsgateway/DB/VOL/v000761/Vweb02-2007final.pdf, (Accessed 24 Jul 2008).
- 4 Department for Transport, 2006 National Travel Survey, Table 4.5.
- 5 Ibid, Table 4.6.
- 6 Trafficmaster, 11 Dec 2006, Press Release "Trafficmaster Reveals Term-Time Trauma On Our Roads", www.trafficmaster.co.uk/_assets/mns7v0xvsd376zrkts.pdf (Accessed 24 Jul 2008).
- 7 Department for Communities and Local Government, Nov 2007, Local Government Finance Key Facts: England. (2006/7 English Local authorities revenue expenditure=£94,014 million), www.local.communities.gov.uk/finance/stats/keystats/key2007.pdf, (Accessed 24 Jul 2008).
- 8 Department for Transport, 2007, Transport Statistics Great Britain 2007. Local Government transport expenditure (England 2006/7=£8,880 million) and Central Government Transport Expenditure (England 2006/7=£2,525 million). www.dft.gov.uk/pgr/statistics/datatablespublications/tsgb/2007edition/Sectiononemodalcomparisons.pdf, (Accessed 24 Jul 2008).
- 9 Calculations based on average car trip of 3 miles each way (50% of return distance used for those diverting on way to work) and 2006 average new car emissions of 167.2g carbon dioxide per km.
- 10 Ibid.
- 11 Department for Transport, 21 Jan 2008, "Ruth Kelly launches £140 million cycling fund" <http://nds.coi.gov.uk/environment/fullDetail.asp?ReleaseID=346231&NewsAreaID=2&NavigatedFromDepartment=False> (Accessed 24 Jul 2008).
- 12 Calculated from data from the following sources: Department for Transport, 2006 National Travel Survey; Department for Children, Schools and Families, 2007 School Census; Department for Children, Schools and Families, 2007 Education and Training Statistics for the United Kingdom (Internet only), www.dfes.gov.uk/rsgateway/DB/VOL/v000761/Vweb02-2007final.pdf, (Accessed 24 Jul 2008).
- 13 Department for Transport, 2006 National Travel Survey, Table 4.5.
- 14 Ibid.
- 15 Ibid.
- 16 Education Act 1944, Sections 39 and 55; Education Act 1996, Sections 444 and 509; Education and Libraries (Northern Ireland) Order 1986, Article 52.
- 17 Department for Children, Schools and Families, 2007 Schools and Pupils in England: January 2007 (Final), Tables 2e and 30. www.dcsf.gov.uk/rsgateway/DB/SFR/s000744/index.shtml (Accessed 24 Jul 2008).
- 18 Department for Children, Schools and Families, 2007 Schools and Pupils in England: January 2007 (Final), Table 12. www.dcsf.gov.uk/rsgateway/DB/SFR/s000744/index.shtml (Accessed 24 Jul 2008). Calculated values for proportion of pupils at independent schools exceeding 20% for Rutland (31%), Windsor and Maidenhead (24%), Surrey (21%), Richmond upon Thames (30%), and the following London Boroughs: Westminster (28%), Wandsworth (22%), Camden (25%), City of London (90%), Hammersmith and Fulham (26%), Kensington and Chelsea (51%). Excludes nurseries.
- 19 Scottish Parliament Debate, 31 Jan 2008, Class Sizes (Parental Choice), www.theyworkforyou.com/sp/?id=2008-01-31.5709.9, (Accessed 24 Jul 2008).
- 20 Department for Children, Schools and Families, 2005 Pupil Level Annual School Census (PLASC) data. Includes all pupils up to age 15 attending maintained secondary schools (excluding middle deemed secondary), CTCs and Academies. Distances are measured in a straight line.
- 21 Department for Children, Schools and Families, 2007, 14-19 Partnerships and Plans, www.dcsf.gov.uk/14-19/documents/21055_14-19_web.pdf (Accessed 24 Jul 2008).
- 22 Department for Children, Schools and Families, 2007, Extended schools building on experience, www.continyou.org.uk/files/building-on-experience.pdf (Accessed 24 Jul 2008).

Section 2: The journey to school

- 1 Department for Transport, 2006 National Travel Survey, Table 4.5.
- 2 Department for Transport, 2002 National Travel Survey; 2006 National Travel Survey.

- 23 Education and Inspections Act 2006, Section 508A.
- 24 Department for Transport and Department for Children, Schools and Families, March 2008, Presentation to Yellow School Bus Commission by N. Campbell (DfT) and J. Butcher (DCSF).
- 25 Office for National Statistics, 2006, General Household Survey, Table 4.17, www.statistics.gov.uk/downloads/theme_compendia/GHS06/GHS06chapter4-Housing&cd.xls, (Accessed 24 Jul 2008).
- 26 Department for Transport, 2006 National Travel Survey, Table 6.8.
- 27 Department for Transport, 2006 National Travel Survey, Table 6.9.
- 28 Office for National Statistics, 2007, Deaths by age, sex and underlying cause (England and Wales) www.statistics.gov.uk/downloads/theme_population/Table_2_Death_Registrations_Cause.xls, (Accessed 24 Jul 2008).
- 29 Department for Transport, 2006, Road casualties Great Britain, Table 36.
- 30 CPT 2008 On the Move 2007/08 new opportunities new passengers.
- 31 Youth Parliament Making Our Mark, UKYP Sheffield, Transport Research Project, Summary of Report, 2007.
- 32 Barker, John, Accessing Positive Activities: Innovative solutions for young people's bus travel. The National Youth Agency, Leicester, 2006.
- 33 Department for Transport, 2006 National Travel Survey, Table 4.5.
- 34 Department for Transport, 2002 National Travel Survey; 2006 National Travel Survey.
- 35 Department for Environment Food and Rural Affairs, 2007, Survey of Public Attitudes and Behaviours toward the Environment.
- 36 Department for Transport and Department for Children, Schools and Families, March 2008, Presentation to Yellow School Bus Commission by N. Campbell (DfT) and J. Butcher (DCSF).
- 37 Calculations based on average car trip of 3 miles each way (50% of return distance used for those diverting on way to work) and 2006 average new car emissions of 167.2g carbon dioxide per km (Friends of the Earth, 7 Feb 2007 Press Release "EU Targets for Greener Cars Too Weak"), www.foe.co.uk/resource/press_releases/eu_targets_for_greener_car_07022007.html (Accessed 24 Jul 2008).
- 38 Department for Communities and Local Government, 2007 Local Authority Section 52 outturn statements.
- 39 Department for Education and Skills, 22 Sep 04, Press Release: "Greener, Safer, Healthier Transport to Schools: School Transport Bill to Proceed", www.dfes.gov.uk/pns/DisplayPN.cgi?pn_id=2004_0160, (Accessed 24 Jul 2008).
- 40 Department for Communities and Local Government, Nov 2007, Local Government Finance Key Facts: England. (2006/7 English Local Authorities revenue expenditure=£94,014 million), www.local.communities.gov.uk/finance/stats/keystats/key2007.pdf, (Accessed 24 Jul 2008).
- 41 Department for Transport, 2007, Transport Statistics Great Britain 2007. Local Government transport expenditure (England 2006/7=£8,880 million) and Central Government Transport Expenditure (England 2006/7=£2,525 million). www.dft.gov.uk/pgr/statistics/datatablespublications/tsgb/2007edition/Sectiononemodalcomparisons.pdf, (Accessed 24 Jul 2008).
- 4 Institute of Education Sciences, National Center for Education Statistics (online) "Fast Facts", <http://nces.ed.gov/fastfacts/display.asp?id=67> (Accessed 29 Jul 2008).
- 5 School Transportation News (online), FAQ's: "Is school transportation a large enterprise?", www.stnonline.com/stn/faq/aboutpupiltrans.htm#children, (Accessed 24 Jul 2008).

Section 4: Improving school transport

- 1 Department for Education and Skills, Nov 2004, The Cost of Schooling, Research Report RR588.
- 2 Department for Children, Schools and Families, 2007, Home to School Travel Guidance and Guidance to Local Authorities interested in Pathfinder Status - Consultation Response and Summary Report, (Accessed 02 Sept 2008)
- 3 Yellow School Bus Commission site meeting at Newport Borough Transport and visit to Bishop Luffa School, Chichester, West Sussex.
- 4 Department for Transport, Local Government and the Regions, 2002, Attitudes to, and potential take up of, additional home-to-school transport.
- 5 Yellow School Bus Commission Parents Questionnaire responses; Yellow School Bus Commission 07/03/08 meeting. 7 Mar 2008, with Pat Harris, BUSK.
- 6 Yellow School Bus Commission meeting with St Joseph's School, Newport (March 2008); West Yorkshire PTE/Metro, 2008, Draft MyBus Evaluation Report.
- 7 Yellow School Bus Commission meeting with Surrey County Council (RidePegasus!) December 2007.
- 8 This limit has been set based on experiences at existing yellow school bus operations and restricted availability of data on pupil distance from home-to-school.
- 9 Yellow School Bus Commission meetings with Surrey County Council (RidePegasus!); First Student/MyBus operation, Halifax; Kempshott Infant & Junior School, Basingstoke; Norfolk County Council; St Richard Gwyn RC High School, Flintshire; Cheshire County Council.

Section 3: The Commission's review

- 1 West Yorkshire PTE/Metro, 2008, Draft MyBus Evaluation Report.
- 2 Greater Manchester Passenger Transport Authority, 13 Jul 2006, Procurement and Operation of Yellow School Buses: Report of the Director General of the PTE, www.gmpta.gov.uk/uploads/agendas/2/46/Reports/Item%2012%20Procurement%20of%20Yellow%20School%20Buses.pdf, (Accessed 24 Jul 2008).
- 3 County Surrey Council, 24 Sept 2007, Monitoring of the RidePegasus! School Bus Services, Full Report.

10 University of Aberdeen, July 2008: Cost Benefit Appraisal of a Nationwide Service of Yellow School Buses.

Section 5: Service delivery

1 An overview of the UK Education System. www.astarteachers.co.uk/docs/About-working-in-UK-Schools-part-2-Jan-04.doc.

2 Office of Public Sector Information, 1999, The Changing of School Session Times (England) Regulations 1999. www.opsi.gov.uk/si/si1999/19992733.htm (Accessed 24 Jul 2008).

3 Commission site meeting at Newport Borough Transport and visit to Bishop Luffa School, Chichester, West Sussex.

4 Department for Transport, Conditions of Eligibility (PSV360) for Bus Service Operators Grant, www.dft.gov.uk/pgr/regional/buses/busgrants/bsog/conditionsofeligibilitypsv363543 (Accessed 24 Jul 2008).

5 Note that if a £2 per day fare was charged then the government could save around £15 million per annum in subsidy payments as a result of additional fare revenue from those previously entitled to free travel assuming no resulting loss of patronage due to the £2 daily charge.

6 Yellow School Bus Commission dialogue with Transport for London, 19 May 2008.

Annex A: summary of cost benefit analysis

1 WebTAG is the Department for Transport website providing detailed guidance on the appraisal of transport projects.

2 COBA is the Department for Transport cost benefits analysis package for estimating the effects of highway improvements, in terms of time, vehicle operating and accident costs on the users of the road system www.dft.gov.uk/strategy/coba (Accessed 24 July 2008).

3 Calculated from data from the following sources: Department for Transport, 2006 National Travel Survey; Department for Children Schools and Families, 2007 School Census; Department for Children Schools and Families, 2007 Education and Training Statistics for the United Kingdom (Internet only), www.dfes.gov.uk/rsgateway/DB/VOL/v000761/vweb02-2007final.pdf, (Accessed 24 Jul 2008).

4 Department for Communities and Local Government, 2007 Local Authority Section 52 outturn statements.

5 Department for Children, Schools and Families, 30 Jun 2008, Press Release: "£23 million Boost to Rural Plans to Support the Diploma Announced", www.dfes.gov.uk/pns/DisplayPN.cgi?pn_id=2008_0134 (Accessed 24 Jul 2008).

6 CfIT (2002) Obtaining best value for public subsidy for the bus industry: Appendix 7 - Results of transport social exclusion research. Commission for Integrated Transport, Mar 2002, Obtaining best value for public subsidy for the bus industry: Appendix 7 - UK Bus Priorities: Transport Social Exclusion. www.cfit.gov.uk/docs/2002/psbi/lek/pdf/appendix7.pdf (Accessed 24 Jul 2008).

7 New Philanthropy Capital, June 2007, Misspent Youth – The costs of truancy and exclusion www.philanthropycapital.org/download/default.aspx?id=352 (Accessed 02 Sept 2008).

8 The establishment of a nationwide rollout of yellow school bus services will create thousands of jobs for drivers. Although not all of these will be new jobs to the bus industry a considerable number are likely to be. The analysis assumes that 40% of drivers will be completely new jobs within the industry employed part-time (5 hours per day) during term time.

9 Department for Education and Skills, Jan 2007, Special Educational Needs in England, Table 9 www.dfes.gov.uk/rsgateway/DB/SFR/s000732/sfr20-2007.pdf (Accessed 24 Jul 2008). Also Department for Education and Skills, 2007 Education and Training Statistics for the United Kingdom (Internet Only), www.dfes.gov.uk/rsgateway/DB/VOL/v000761/vweb02-2007final.pdf (Accessed 24 Jul 2008) England 2006/7 numbers attending maintained primary schools (4,148,400) and secondary schools (3,272,500).

10 DfES/Confed survey, Feb 2004; Department for Transport, Oct 2003, Evaluation of First Yellow Bus Pilots schemes surveys; Yellow School Bus Commission Surveys, 2008.

11 A* Star Teachers website, An overview of the UK Education System. www.astarteachers.co.uk/docs/About-working-in-UK-Schools-part-2-Jan-04.doc (Accessed 24 Jul 2008).

12 The Changing of School Session Times (England) Regulations 1999. www.opsi.gov.uk/si/si1999/19992733.htm (Accessed 24 Jul 2008).

13 Yellow School Bus Commission site meeting at Newport Borough Transport and visit to Bishop Luffa School, Chichester, West Sussex.

14 West Yorkshire PTE/Metro, 2008, Draft MyBus Evaluation Report.



Printed in the UK by Pro Co Print Ltd a company committed to the environment by promoting waste minimization and the efficient use of resources energy and fuel, on paper made from 75% recovered fibre. The printer and paper manufacturing mill are both Forestry Stewardship Council Certified. When you have finished with this report/notice, please dispose of it in your recycled waste stream.



Commission Secretary
Yellow School Bus Commission
c/o FirstGroup plc
B210
Macmillan House
Paddington Station
London W2 1TY

Tel: 020 7298 7379
Facsimile: 020 7706 2645

The Yellow School Bus Commission has been established to examine, review and quantify the potential benefits of dedicated home to school transport.

Established and sponsored by FirstGroup plc, it comprises six independent Commissioners:
The Rt. Hon. David Blunkett MP (Chair), Baroness Ros Scott, Lt. Col. Tex Pemberton OBE,
Patrick Harvie MSP, John Burch and Garth Goddard.