

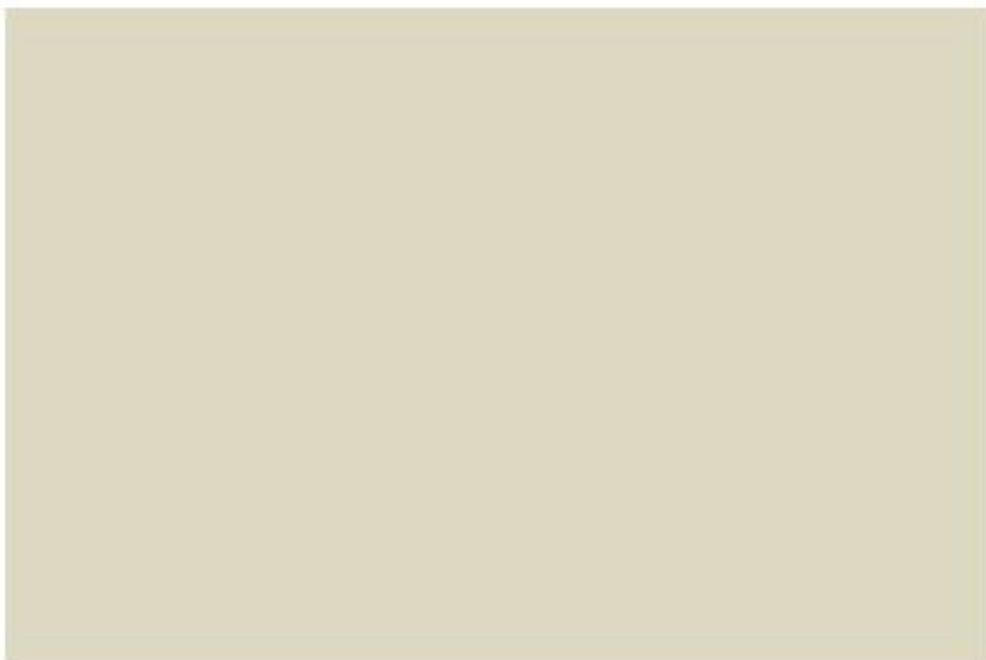


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Children's independent mobility: a comparative study in England and Germany (1971-2010)

By Ben Shaw, Ben Watson, Bjorn Frauendienst, Andreas Redecker, Tim Jones, with Mayer Hillman



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Any errors and omissions in the work are, of course, the responsibility of the authors.



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Executive Summary

Children's well-being and health, the quality of the environments they are brought up in and the impact of a range of social and technological developments in the lives of children has been the subject of much research, public concern and debate. This report presents new research on one factor that is affected by (and affects) these issues – children's independent mobility. This can be defined as **'the freedom of children to travel around their own neighbourhood or city without adult supervision'** (Tranter and Whitelegg, 1994).

This report compares new findings with research that was undertaken 20 and 39 years before. In 1990, the Policy Studies Institute (PSI) published *One False Move... A Study of Children's Independent Mobility* (Hillman, Adams and Whitelegg, 1990). The headline finding reported that, in England, between 1971 and 1990 there was a dramatic decline in children's independent mobility. In 1971, 80 per cent of seven and eight year old English children surveyed were allowed to go to school without adult supervision. By 1990, the figure had fallen to 9 per cent. Over the same period, in Britain, although the volume of traffic nearly doubled, child fatalities on the roads nearly halved (Hillman, Adams and Whitelegg, 1990: p3). Similar surveys were also conducted in West Germany in 1990. These found that German children in comparable areas had substantially higher levels of independent mobility, in spite of higher levels of car ownership.

The *One False Move* report challenged the orthodoxy that road casualty statistics represented a valid and reliable indicator of road safety. Fewer children were being killed and injured even though road traffic had increased. Rather, children had been removed from the source of danger – namely traffic – either through their denial of the freedom to play outside and travel in their local community unsupervised by adults or because they were taken by car rather than on foot or by bike. Clear evidence was presented that parents restricted their children's independent mobility because of a fear of danger from traffic. A large increase in the time that parents spent escorting children to destinations was also noted, with the increase in car use for these journeys exacerbating the dangers posed to the remaining unaccompanied children and other pedestrians (Hillman, Adams and Whitelegg 1990: p106).

Twenty years on from the 1990 *One False Move* report, PSI, in conjunction with partners at Oxford Brookes University and Ruhr-Universität Bochum in Germany, has returned to this issue to examine the changes in children's independent mobility over nearly 40 years in England and over 20 years in Germany.

Methodology in 2010

The research consisted of a literature review on children's independent mobility, secondary analysis of existing survey data and primary data collection (surveys and interviews) in English primary (n=481) and secondary (n=546) schools. In addition, primary data collection took place in German primary (n=317) and secondary (n=484) schools. The current study was largely shaped, and constrained, by the previous waves of research in 1971 and 1990.

Five areas in England and Germany were selected to provide a cross-sectional snapshot of children's independent mobility in 1971, and the research was repeated in these areas in 1990 and 2010. The areas comprised a range of urban, suburban and rural geographies. To maintain consistency, the

research revisited the same schools where possible (5 primary and 5 secondary schools in each country), and found nearby replacement schools where research was not possible (all of the same schools participated in 1990, but in 2010 3 schools were substituted in England and 3 in Germany).

Only primary school children aged 7-11 years old were surveyed in England in 1971, with no parallel surveys in Germany. In 1990 and 2010, the survey was expanded to primary and secondary school children aged 7-15 years old, and a parallel survey was conducted in Germany. Self-completion questionnaires were issued to the pupils and parents/guardians. The children were asked how they travelled around (walking, cycling, taken in a car, public transport) and whether they were accompanied by an adult on these journeys. Parents/guardians were asked about their child's travel and their attitudes and concerns about their child's independence outside the home.

The research monitored changes to six 'licences' which children were granted by their parents (these were envisaged as similar to adults being granted driving licences, which recognise that they are experienced and competent enough to drive on main roads). These were:

- Licence to cross main roads alone
- Licence to travel to places other than school within walking distance alone
- Licence to travel home from school alone
- Licence to go out alone after dark
- Licence to cycle on main roads alone (parents' response)
- Licence to use local buses alone (children's response).

Total sample sizes for each cohort and corresponding response rates are presented in Table 1. Details of the full methodology are available in section 2 and copies of the questionnaires can be found in Annex 1 and Annex 2 to this report.

The survey generated the following response rates:

Survey location and year	All children	All parents	Number of responses					Percentage of secondary parents that responded
			Primary children 7-11 years old	Primary parents	Percentage of primary parents that responded	Secondary children, 11-15 years old	Secondary parents	
England 1971	629	1387	629	N/A ¹	-	Not surveyed	Not surveyed	-
England 1990	1011	887	541	507	94%	470	374	80%
Germany 1990	875	795	264	242	92%	491	448	91%
England 2010	987	535	481	353	73%	546	196	36%
Germany 2010	801	579	317	281	89%	484	298	62%

Table 1: Response rate among parents and children, England and Germany 1971-2010.

Limitations

The methodology used for this study has some weaknesses, which are a product of the research design and implementation. These need to be borne in mind when interpreting the results:

- The samples used in this research are limited in scope – they are non-random and not nationally representative. The areas in England and Germany were chosen to provide a cross-sectional snapshot of the countries.
- The survey captured a single day in each of 1971, 1990 and 2010 to construct a ‘snapshot’ of children’s independent mobility. Each child was only surveyed once, and they were not tracked over time to see if their journeys varied from day to day.
- Only a limited amount of socio-economic data was collected in the survey.
- The methodology relies on honest and accurate answers from both children and parents. To control one party making a false statement, the same questions were asked of both children and parents for some of the questionnaire. The comparability of these questions was sometimes limited, though – something which is explored in more detail in the analysis below.

¹ Note that in the 1971 survey, the parents of the children were not surveyed; instead, randomly selected adults were surveyed by post, separately from the children who were surveyed in school as part of the normal school day.

- The questionnaire has allowed the researchers to map trends in children's independent mobility from 1971-2010, with data on the modes used by children and parents, accompaniment of children by parents and other adults, and measures of the six licences of independent mobility. The short questionnaire means that less data has inevitably been gathered on the *reasons* for these trends. While response rates were high in 1971 in England and in both countries in 1990, there were lower response rates from parents of secondary school children (11-15 year olds) in Germany and England in 2010, with 62 per cent of German secondary school parents and 36 per cent of English secondary school parents returning their questionnaire. While this is relatively high for a survey of this kind, it has obvious implications for the robustness of the data. The response rates from both English and German primary school parents (of 7-11 year olds) in 2010 remained high.
- Only one parent responded to the questionnaire, and this was usually the mother of the child. It is unclear what impact this has had on the answers given.

These limitations need to be borne in mind when considering the results. However, it should also be remembered that there are limited data available on children's independent mobility, and in particular longitudinal data. By repeating the surveys run in 1971 and 1990 valuable insights can be gained into how children's independent mobility has changed over time in the areas surveyed which are likely to be reflective of broader national trends.

Summary of findings

A summary of the main survey findings is reported in Tables 2 and 3.

In England between 1971 and 2010...

Overall, there has been a large reduction in independent mobility for primary school children in England since 1971. The main part of this reduction took place between 1971 and 1990 in the surveyed schools, with the percentage of children being granted the four licences that were surveyed in 1971, 1990 and 2010 dropping between 21 and 57 per cent. **There is a less clear trend to changes in the independent mobility of primary school children between 1990 and 2010**, with any changes being much smaller in scale than the large drop in licence-holding observed between 1971 and 1990.

Between 1990 and 2010 there has been little change in the percentage of English secondary school children granted licences of independent mobility.² Very little change was observed for four of the licences. For the remaining two, the licence to cycle has reduced, and the licence to go to places other than school has remained static or dropped (depending on the measure used).

The gender gap in granting of the licences between primary school boys and girls has closed between 1990 and 2010. While in 1990 at primary school a higher percentage of boys were granted all six licences than girls, in 2010 there was little difference between the levels of independent mobility among primary school boys and girls.

A majority of primary school children still walk to school and this has changed little since 1990, but there has been an overall drop in walking to school since 1971. For primary school children the most marked change in the mode of transport used to travel to school was from 1971 to 1990, over which period the proportion of children walking to school dropped from 81 to 63 per cent, while the percentage being taken in cars increased nearly fourfold (from 9 per cent of primary school children to 34 per cent) and the percentage of children using public transport or a school bus dropped from 9 per cent to 3 per cent. For primary school children there has been little change since 1990 in the mode of transport used to travel to school: in both 1990 and 2010 a little over 60 per cent of children walked to school and a little over 30 per cent were driven. There was very little difference between the genders for the journey to school for primary school children in 1990 and this did not change in 2010.

A majority of secondary school children walked to school in 2010 and this proportion increased since 1990. For secondary school children, we have no data for 1971 but the proportions of children walking or being driven to school have both increased since 1990, at the expense of travel on public transport/school buses. As with primary school children only a few per cent cycle to school. There is little difference according to gender although the shift to walking and away from public transport is more pronounced for girls between 1990 and 2010.

More children were accompanied on the journey to school in 2010 than in 1990. In 1990, 64 per cent of primary school children were escorted to school and in 2010 this had risen to 77 per cent. Accompaniment of secondary school children has also increased between 1990 and 2010 (9 per cent

² No data were recorded for secondary school children in 1971.

in 1990 to 17 per cent in 2010). The gender gap for accompaniment has narrowed between 1990 and 2010.

Adult accompaniment of children on journeys to destinations other than school also increased.

The percentage of weekend journeys undertaken by primary school-aged children with adult accompaniment increased from 41 per cent of weekend journeys in 1971 to 62 per cent in 2010. It is also notable that in 1971 primary school children engaged in at least twice as many unaccompanied weekend journeys compared with either 1990 or 2010. For secondary school children a small drop in the average number of weekend journeys was observed with a small increase in accompanied journeys.

Parents reported being less concerned by the risk of their children being injured in a traffic accident in 2010 than in 1990.

Secondary school parents continued to be less concerned about their child being injured by traffic than primary school parents. Primary school parents' attitudes to boys and girls were similar in 1990 and 2010. In 2010 though, twice as many parents of secondary school boys compared to parents of girls reported they were 'very' worried about their child being injured in a road accident (33 per cent of parents of boys, compared to 16 per cent of parents of girls). This disparity was not as pronounced among secondary school parents in 1990.

In Germany between 1990 and 2010...

Children's independent mobility for primary school children has reduced to some degree. For the two licences of crossing roads and travelling home from school there was a clear reduction in granting of the licences between 1990 and 2010. For three of the other licences the picture is unclear, and for the other licence (to go outside alone after dark) very few primary school children were granted this licence in either 1990 or 2010.

Fewer primary school children walked home from school and more were driven. Fewer primary school children travelled by foot home from school in 2010 than 1990 (83 per cent of primary school children walked in 1990, compared to 61 per cent in 2010) and more travelled by car (12 per cent of primary school children travelled to school by car in 1990, compared to 30 per cent in 2010). Some caution should be taken in generalising these results on mode as the changes are not consistent across areas and the drop in walking is particularly associated with two areas.

More primary school children were accompanied by an adult on the journey home from school.

On the journey home from school the percentage of children travelling with a child of the same age or younger dropped dramatically between 1990 and 2010, and the percentage of children accompanied by a parent or other adult increased from 9 per cent of children in 1990 to 33 per cent of children in 2010.

There was little change in secondary school children's independent mobility. Between 1990 and 2010 changes were observed in only two of the licences. There was an increase in the proportion of German secondary students reporting they used buses alone and a decrease in students going out alone after dark.

Fewer secondary school children walked and cycled to school and more used public transport or school buses. Overall, there was a shift away from walking and cycling between 1990 and 2010 in the surveyed schools. Use of public transport and school buses increased 15 percentage points

(from 49 per cent in 1990 to 64 per cent in 2010). Car travel also increased (from 9 per cent in 1990 to 14 per cent in 2010).

There was no major change in the level of accompaniment on the school journey for secondary school children. The percentage of secondary school children being escorted by a parent (or, in 2010, a child and a parent) has only seen a modest increase from 4 per cent of secondary school children in 1990 to 10 per cent in 2010.

Comparing England to Germany...

In 2010, German primary school children were still granted all the licences in greater proportions than their English counterparts. While for the licence to cross main roads the gap narrowed between England and Germany between 1990 and 2010, large differences still existed for other licences. For example, in 2010 in Germany compared to England, 51 percentage points more primary school children were allowed to come home from school alone, 30 percentage points more were allowed to cross roads alone (according to parents' responses; children's responses indicate a narrower gap) and 20 percentage points more were allowed to use buses alone. The gap between England and Germany for the licence to travel home from school alone also seems to have remained large.

There were less evident differences between English and German secondary school children. Any changes between 1990 and 2010 have been partly obscured by changes to the survey instruments in the way that the licence to travel to places other than school and licence to cycle were measured, but higher percentages of the German secondary school children had the licence to travel home from school alone and to travel to places other than school.

There was little difference in the granting of licences by gender in both England and Germany in 2010. The only clear difference was in relation to secondary school children for whom more boys than girls were granted the licence to go out after dark in both England and Germany. Additionally, secondary school boys in England seemed to be granted the licence to use buses *less* than girls.

The modes of transport used for the journey to school in 2010 were very similar for English and German primary school children. German primary school children's level of walking has dropped over 20 percentage points from 1990 from the very high level of 83 per cent, with higher car use accounting for most of the difference. These changes brought German children closer in line with their English counterparts. Between 1990 and 2010, there was no change in the proportion of English primary school children walking to and from school, following the dramatic reduction in this mode of transportation from 1971 to 1990. However, some care should be taken in generalising this finding as the variation in modal split was not consistent across all five areas in each country.

There was some divergence between English and German secondary school children in the modes of transport used to travel to school. However, walking remained the dominant mode of transport for students in the 2010 English secondary schools while buses/school buses remained predominant in Germany. This difference in mode used to travel to school is likely to be due to different approaches to school transport policy in the two countries.

Between 1990 and 2010, car travel to school in Germany has risen to English levels. This finding was observed for both primary or secondary school children. **But, in 2012, the level of adult accompaniment to and from school is still lower in Germany than England.** While the cross-country difference is small for secondary school children, for primary school children it is large (53 per cent accompanied to school in Germany compared to 80 per cent in England).

There is a trend from 1990 to 2010 towards increasing accompaniment on journeys to destinations other than school in both England and Germany. The number of weekend journeys has changed little between 1990 and 2010 with similar levels of activity being seen in both England and Germany for all ages. However, between 1990 and 2010 there has been a small shift towards increased accompanied travel.

Factors affecting the granting of independent mobility in England and Germany

In England and Germany age is the key distinguishing factor in granting independent mobility to children. The granting of all independent mobility licences increased with age in both England and Germany, typically increasing, in England, from school year 3 (7-8 year olds) and levelling-out in school years 7 or 8 (11-13 year olds, the first two years of secondary school) as it approaches 100 per cent. The exception to this is the licence to go out alone after dark, which was granted to low percentages of primary and secondary school children in both England and Germany in 2010. In Germany some of the licences are granted in significant proportions at an earlier age.

For the most part gender does not seem to be a major factor affecting the granting of independent mobility in 2010. While gender was identified as a significant factor in the *One False Move* study in 1990, the difference between primary school boys and girls in England closed between 1990 and 2010, leaving only small differences. For secondary school children in England, the main difference was that fewer girls than boys were allowed to go out alone after dark. This gender difference was not as marked in Germany.

Areal characteristics clearly affected the granting of the licences. In simple terms the level of accompaniment of children to school in England in 2010 increased with distance between home and school.³ The granting of licence to travel home alone from school alone reduced with increased distance from home to school for both primary and secondary school children. The granting of the licences also clearly varies across the areas surveyed in England and Germany, but the variations in each area are not consistent across all the licences. This suggests the granting of licences is affected by a range of different areal factors. The questions added to the questionnaire used in England in 2010 also allow some additional analysis of the factors that affect children's independent mobility.

In summary, the additional factors explored in the English 2010 data reveal that:

While parents report a range of concerns related to the granting of children's independent mobility, the degree to which these different concerns affect the actual granting of the licences is not clear. Questions were asked of parents in the 2010 surveys in England about their perceptions of safety in the local area. These showed variations across the areas but the differences were not

³ Data which would enable the estimation of the distance from the child's home to their school was only collected in England in 2010, and was not collected in Germany.

consistently reflected in the granting of the licences of independent mobility, which were much less variable across the areas.

Parents reported fear of traffic as the main reason for picking up children (primary and secondary) from school and there seemed to be a clear relationship between the granting of the licence to cross roads and parents' concern about involvement in traffic accidents in relation to primary school children.

Most children reported feeling safe in their local area, suggesting parental concerns may partly account for restrictions on children's independent mobility. The majority of children indicated they felt 'very safe' or 'fairly safe' in their local area. As such it would seem that children's concerns did not account for the restrictions placed on their independent mobility. Strangers, bullying and getting lost were cited as concerns by over 4 in 10 primary school children, though, and strangers, abduction and dogs were the frequently cited unprompted concerns given by children about being outside alone.

Parental concerns were not the only reason for accompanying children on journeys. Parents gave positive and negative reasons for picking up children from school, with positive reasons including the opportunity to spend time with their child, get exercise or meet people. So while accompaniment may have reduced independent mobility on the journey home from school, the reasons for it are not all associated with fear of the consequences about letting children travel alone. However, we do not have data which indicates whether this finding can be transferred to journeys and activities beyond collection of the children from school.

Parents had negative perceptions about the safety of their local environment after dark. The reasons given by parents for not letting their child out after dark provide an interesting but incomplete insight into parental concerns and attitudes to independent mobility. There was a clear and widespread perception amongst parents that streets are unsafe for children. Unprompted explanations for why parents did not allow their children out after dark included: there is not actually a need for children to go out; that if they do, then it should not be alone; and that all a child's needs can be catered for at home. Reasons for not granting the other licences in hours of daylight may be different.

In conclusion, the data we have available means we have been able to draw some links between the levels of independent mobility and the factors that affect them. It is unsurprising that there are many factors at play, as this is consistent with the findings from the literature review. Children's independent mobility is a complex phenomenon which results from a combination of factors including: children's capabilities and desires, the physical and social environment they live and move around in and parental perceptions of these factors.

The six licences of children's independent mobility, 1971 to 2010

PRIMARY SCHOOL CHILDREN

Licence	England 1971	England 1990	England 2010	Germany 1990	Germany 2010
Cross main roads alone (children's response)	72	51	55	75	61
Cross main roads alone (parents' response)	-	22	36	70	66
Travel to places other than school alone	63-94	37	7-33**	70	27-85**
Travel home from school alone	86	35	25	91	76
Go out alone after dark	-	2	2	5	7
Cycle to go places (children's response)* - as a percentage of bicycle owners	-	-	60	-	76
Use buses alone (children's response)	48	15	12	31	31
Use buses alone (parent's response)	-	7	5	29	25

Table 2: Percentage of primary school children granted the six licences of independent mobility, England and Germany, 1971-2010.*

SECONDARY SCHOOL CHILDREN

Licence	England 1990	England 2010	Germany 1990	Germany 2010
Cross main roads alone (children's response)	97	99	96	90
Cross main roads alone (parents' response)	90	95	98	95
Travel to places other than school alone	84	42-83**	92	39-95**
Travel home from school alone	87	88	99	99
Go out alone after dark	24	25	37	24
Cycle to go places (children's response)* - as a percentage of bicycle owners	-	93	-	95
Use buses alone (children's response)	84	87	87	95
Use buses alone (parent's response)	66	59	95	96

Table 3: Percentage of secondary school children granted the six licences of independent mobility, England and Germany, 1990-2010.*

* A meaningful comparison for the changes between 1990 and 2010 in the licence to cycle in England and Germany is not possible due to changes to the way the question was asked in the different surveys.

** The range displayed is due to the way the question was asked in 2010, with some parents reporting that their children 'travelled alone' and others reporting that it 'varies' – for example, in England in 2010, 7 per cent of parents of primary school children reported that they usually travelled alone, while a further 26 per cent said it 'varies'.

1. Children's independent mobility: a comparative study in England and Germany (1971-2010) - Introduction

Children's well-being and health, the quality of the environments they are brought up in and the impact of a range of social and technological developments in the lives of children have been the subject of much research, public debate and anxiety in recent years. Concerns (sometimes apparently contradictory) about the threats to and from children have exercised parents, policy-makers and the media, with a particular focus on obesity and levels of physical activity, the rush to adolescence, gangs of children roaming the streets, the threat from paedophiles and the impact of new communications technologies. Government has developed specific strategies intended to address the needs of children in many of these areas. Yet, at the same time, the broader policy agendas that shape the world that we live in at the local and national levels often overlook the specific needs of children.

This is obviously a complex situation. The interactions, overlaps and tensions between policy in the areas of health, education, planning, transport and environment all affect the outcomes for children's well-being and development. This report presents new research on one factor that can be affected by actions in any of these policy areas – children's independent mobility. This can be defined as 'the freedom of children to travel around their own neighbourhood or city without adult supervision' (Tranter and Whitelegg, 1994). This mobility could be for the purposes of play or for travel, within or beyond their local neighbourhood, and to specific destinations (such as school and to access leisure facilities) or just being outside of the home. In this report we examine the results of surveys of children's independent mobility conducted in England and Germany in 2010 and compare these with similar surveys conducted in 1990 and 1971. We also explore the implications for policy.

In 1990, the Policy Studies Institute (PSI) published *One False Move... A Study of Children's Independent Mobility* (Hillman, Adams and Whitelegg, 1990). The headline finding reported that, in England, between 1971 and 1990 there was a dramatic decline in children's independent mobility. In 1971, 80 per cent of seven and eight year old English children surveyed were allowed to go to school without adult supervision. By 1990, the figure had fallen to 9 per cent. Over the same period, in Britain, although the volume of traffic nearly doubled, child fatalities on the roads nearly halved (Hillman, Adams and Whitelegg, 1990: p3). This trend did not hold in West Germany, however. Similar surveys were conducted in 1990 where it was found that German children in comparable areas had substantially higher levels of independent mobility, in spite of higher levels of car ownership.

The *One False Move* report challenged the orthodoxy that road casualty statistics represented a valid and reliable indicator of road safety. Fewer children were being killed and injured even though road traffic had increased. Rather, children had been removed from the source of danger – namely traffic – either through their denial of the freedom to play outside and travel in their local community unsupervised by adults or because they were taken by car rather than on foot or by bike. Clear evidence was presented that parents restricted their children's independent mobility because of a fear of danger from traffic. A large increase in the time that parents spent escorting children to destinations was also noted, with the increase in car use for these journeys exacerbating the dangers posed to the remaining unaccompanied children and other pedestrians (Hillman, Adams and Whitelegg, 1990: p106).

One False Move has been cited many hundreds of times in the academic literature and policy documents. The headline finding of the reduction in mobility between 1971 and 1990 is still cited in recent policy documents as if it were a recent finding. This would suggest that there is still an interest in children's independent mobility but a lack of readily accessible current data to support policy debate. Obviously, much has changed since 1990. Twenty years on from the 1990 *One False Move* report, PSI in conjunction with partners at Oxford Brookes University and Ruhr-Universität Bochum in Germany have returned to this issue to examine the changes in children's independent mobility over 39 years in England and over 20 years in Germany.

1.1 Research aims and objectives

Our aim in revisiting this area is firstly to establish the long-term trend in children's independent mobility and to consider the factors that may affect it, and secondly, to explore and re-start the debate on the possible policy responses that may be required to respond to these trends. Has children's independent mobility decreased further, remained static, increased or changed in other significant ways? What factors affect children's independent mobility and have they changed from 1971 and 1990? What are the implications of these changes for children? Are further or different policy interventions required to address children's mobility and if so what are they?

To answer these questions, we have revisited the areas surveyed in England in 1971 and 1990 and Germany in 1990 and also conducted a literature review of other work on children's independent mobility conducted since 1990.

1.2 The content of this report

Section 1 provides the introduction to this report.

Section 2 details the survey methodology with full details of the approach and its limitations.

Section 3 contains the findings of the literature review we have conducted. This considers the broad motivation for studying children's independent mobility in terms of the impact of independence on children's well-being, physical and social development. It also looks at other recent work investigating trends in children's independent mobility and the factors that affect it.

Our findings are presented in sections 4 to 7 with section 4 considering the findings from England 2010, section 5 the changes in England between 1971 and 2010, section 6 the results from Germany in 2010 and changes since 1990 and section 7 presenting a comparison between England and Germany from 1971 to 2010.

In section 8 we discuss the implications of the findings and draw our conclusions and recommendations.

2. Survey approach and methods

The primary research findings given in this report are derived from self-completion surveys of children and their parents conducted in schools in England in 1971, 1990 and 2010 and Germany in 1990 and 2010. The key aspects of the approaches used are given below.

2.1 Approach to the surveys

The surveys were administered by the researchers to collect information from both children and their parents on children's travel patterns and accompaniment on journeys to school and other activities. The first surveys were conducted in 1971 in schools in five locations in England (see below) intended to give a 'cross-section' of settlement types in the country, with the five areas having a range of population density, geography and socio-economic characteristics. These same schools were revisited (where possible) for the subsequent surveys in England in 1990 and 2010.

Although by no means representative of school children in England and Germany, the surveys provide some indication of child independent mobility for three cohorts of children attached to specific schools in these countries.

In 1971 only primary school children aged 7-11 years old and their parents were surveyed in England – no parallel survey took place in Germany. The results from these surveys of primary school children were reported in the Political and Economic Planning⁴ reports *Personal mobility and transport policy* (Hillman et al., 1973) and *Transport realities and planning policy* (Hillman et al., 1976)⁵.

In 1990 the same schools in England were revisited and similar surveys to 1971 conducted. In addition to primary school children aged 7-11 years old, secondary school children aged 11-15 years old were also surveyed in the same five locations in 1990. Ten schools (five primary and five secondary) in five comparable locations in the then West Germany were also surveyed. The findings from these surveys and comparison with the 1971 surveys were reported in *One False Move... A Study of Children's Independent Mobility* (Hillman et al., 1990).

In 1990 the schools in Germany were sampled from the official list of schools in the North Rhine Westphalia District, when a number of schools were contacted and asked if they would be willing to co-operate in the study. The first replies in the target areas were accepted. After discussions with teachers in 1990, the 'Gymnasium' schools (equivalent to English Grammar schools) were excluded from the study, and the 'mid-range' secondary schools were used. This meant that four 'Realschule' and one 'Hauptschule' were surveyed. A more detailed description of the German areas surveyed in 1990 can again be found in *One False Move* (Hillman et al., 1990: pp118-121).

In 2010, the schools surveyed in 1971 and 1990 were revisited with nearly all of the original schools (7 of 10 schools in England, and 7 of 10 schools in Germany) participating. Where the original schools were unable to participate, nearby schools with similar characteristics were selected as

⁴ Political and Economic Planning is now known as the Policy Studies Institute.

⁵ The results we have used for 1971 are drawn directly from these two reports, as the original dataset is not available. For both 1990 and 2010, full datasets were available.

replacements. In England, in 1971, 1990 and 2010 only state primary and secondary schools were surveyed. In the 2010 survey in Germany, only 'Realschule' secondary schools were surveyed.

2.1.1 Areas surveyed

Where possible, secondary schools were selected that used the surveyed primary school as one of their 'feeder' schools – meaning that some of the children who attended the surveyed primary school were likely to go on to attend the surveyed secondary school. Head Teachers were asked to nominate classes that were likely to be broadly typical of their year group to take part in the study. One class from each year group in each school was surveyed. The sample of school children was therefore reliant on the cooperation of teachers within the school. After the questionnaires were handed in, each child was given an envelope to take home containing an information sheet on the study, a postage-paid return envelope, and a questionnaire for completion by a parent/guardian.

The broad definitions of areas were used in 1990 (Table 4):

	England	Germany
Inner City	Islington, London	Köln Innenstadt
Suburban	Stevenage	Köln Chorweiler
Edge of large town	Nottingham	Witten
Free-standing market town	Winchester	Wuppertal-Langerfeld
Rural village	Hook Norton and Chipping Norton, Oxfordshire	Bochum

Table 4: Areas surveyed in England (1971, 1990 and 2010) and Germany (1990 and 2010).

2.1.2 The Questionnaire - differences over time and between countries

The questionnaires used in 1971, 1990 and 2010 were broadly similar and were conducted in class as part of the school day. The questionnaire asked children how they travelled around (walking, cycling, taken in a car, public transport) and whether they were accompanied by an adult on these journeys. As well as the journey to and from school, information was collected on activities that the children participated in at the weekend and after school. A second, similar self-completion paper questionnaire was given to children to take home to their parent or guardian to complete and return to the school. This focussed on their involvement in their child's travel and on attitudes to their child's independence outside the home. Copies of these questionnaires can be found in Annex 1 and Annex 2 to this report. The 2010 survey was largely similar to the previous ones but the questionnaire was updated and expanded slightly. The main changes were the addition or modification of questions on:

- mobile phone ownership and its impact on parental attitudes to their child's independent travel
- attitudes to travel in local area
- children's preferred method of travel
- whether the child attends nearest school
- ease of access to outside play space.

The questionnaire was modified through collaboration between the English and German researchers. The English questionnaire was also piloted in a primary and secondary school, and was subsequently shortened to make it easier to administer in one school session. The English questionnaire was then translated into German by partner researchers at Ruhr-Universität Bochum, and adjusted to meet the German context within which the research was being carried out. Some additional questions (on cycling, road safety, use of seat belts and cycle helmets) were inserted into the German questionnaire, and some questions about the parents' employment status were excluded due to a perceived general higher level of concern about privacy in Germany. In addition, a small number of questions were modified to suit national circumstances. The resulting German questionnaire used in 2010 can be seen in Annex 2.

2.1.3 Distance to school measure

For the English data, the distance from the child's home to school was generated from the parents' questionnaire using Geographical Information Systems (GIS) software, ArcGIS (ESRI, California, 2010) with Ordnance Survey MasterMap Integrated Transport Network (Europa Technologies, UK) data.⁶ Due to the way the questions were structured, parents provided their postcode rather than their complete address. The 'distance to school' variable generated for English children was therefore an estimate of the distance along roads and footpaths from the middle of the child's postcode area (which included, on average, 15 addresses) to the school.

2.1.4 Semi-structured interview with senior staff at school

In addition to the self-completion survey of parents and students, in each school in England a semi-structured interview was conducted with the head teacher or another senior member of staff. The interview included questions relating to school policy that might affect travel such as changes to the main catchment areas of the school; local transport provision; the nature and characteristics of the local area in terms of crime, socio-demographics; infrastructure design particularly in and around the school (e.g. cycle parking, implementation of 20mph zones etc.); and finally, the activities of parents and local groups that might have a direct influence (e.g. campaign for a new crossing) or indirect influence (e.g. change in school hours, after school clubs, etc.) on children's mobility. It was anticipated that these interviews would provide insight into possible causal mechanisms behind any trends in data collected from the quantitative surveys. The interviews were confined to the English studies and were not applied in Germany.

2.1.5 Timing of surveys

To minimise the impact of seasonal variations, the 2010 research was conducted around the same time of year as the 1990 study (during February and March). To try and minimise the effect of changing daylight hours and seasonal weather variations, the surveys in both England and Germany took place on days when the weather was unexceptional (e.g. no snow, ice or other abnormal conditions).

The surveys were conducted early in the week to make it easier for the children to remember the journeys they had made on the preceding weekend.

⁶ Distance from the child's home to school was not generated for the German data.

2.1.6 Ethics and other relevant administrative details

In line with accepted ethical guidelines on involving children in research studies, consent was sought from the 'responsible adult' in each school (the Head Teacher or Principal) to survey the children. A letter drafted by the researchers was then sent home to each child's family at least two weeks in advance of the study by the Head Teacher, on school headed paper, outlining the nature and objectives of the study and providing an option to opt their child out of the study without any consequence for their child, with a prepaid envelope addressed to the school included.

These opt-out forms were collected on the day of the survey, and used by the researcher to ensure that only children with parental consent were surveyed. The children who had opted out were unobtrusively given an appropriate alternative activity to complete by their teacher. In each class, the researcher explained the research to the children using a pre-prepared script pitched to the appropriate level. Each child was given the option to opt-out of any or all questions. No children in England or Germany refused to participate in the study on the day. Among the younger children (aged 7 to 9 years old) the survey was read aloud. The survey was conducted in the classroom as part of the normal school day, and the teacher remained in class throughout the survey to help the children answer questions.

After the questionnaires were handed in, each child was given an envelope to take home containing an information sheet on the study, a postage-paid return envelope, and a questionnaire for completion by a parent/guardian. Also included with the parent questionnaire was a second letter which gave parents the option to retrospectively withdraw their child from the survey.

2.1.7 Sample size and parental response rates

In England, children from school years 3-10 were surveyed, and in Germany school years 2-9, and the target age group in both countries was 7 to 15 years.⁷ Any children not within these year groups, aged less than 7, or more than 15 years old were excluded from the survey. The surveys were carried out in one class per school year in each school. The achieved 2010 samples for both countries are presented in Table 5.

⁷ Children not within these year groups or aged less than 7 or more than 15 years old, were excluded from the data sample.

Survey location and year	All children	All parents	Number of responses					Percentage of secondary parents that responded
			Primary children 7-11 years old	Primary parents	Percentage of primary parents that responded	Secondary children, 11-15 years old	Secondary parents	
England 1971	629	1387	629	Not applicable ⁸	-	Not surveyed	Not surveyed	-
England 1990	1011	887	541	507	94%	470	374	80%
Germany 1990	875	795	264	242	92%	491	448	91%
England 2010	987	535	481	353	73%	546	196	36%
Germany 2010	801	579	317	281	89%	484	298	62%

Table 5: Response rate among parents and children, England and Germany 1971-2010.

2.1.8 Approach to analysis

Three items from both the parent's and children's questionnaire recorded licences of children's independent mobility, covering whether the child was allowed to: (1) cross main roads alone; (2) travel on local (non-school) buses alone; (3) cycle on main roads alone. An additional three licences were only found on the parents' questionnaire: (4) travel on their own to places other than school (within walking distance of home); (5) travel home from school alone; (6) go out alone after dark.

As well as examining mobility licences, the following measures were used to assess the mode of travel to school and *actual* independent mobility on journeys between home and school, as well as on journeys to other local destinations within walking distance of home.

Descriptive analyses examined distributions of mobility licences, travel mode to school, and independent mobility on the school journey, according to areal characteristics, age, gender and year group. Additional analysis was also performed on data about household car ownership, parental and child attitudes and fears, and on the limited socio-economic data available.

2.2 Limitations of this study

The methodology used for this study has some weaknesses, which are a product of the research design and implementation. These limitations need to be borne in mind when considering the results. However, it should also be remembered that there are limited data available on children's independent mobility and in particular longitudinal data. By repeating the surveys run in 1971 and 1990 valuable insights can be gained into how children's independent mobility has changed over time in the areas surveys which are likely to be reflective of broader national trends.

2.2.1 Limitations of the method of data sampling

The samples used in this research are limited in scope – they are non-random and not nationally representative. The original studies were designed to tease out differences between different urban and rural settings, to understand implications of these settings on children's independent mobility.

⁸ Note that in the 1971 survey, the parents of the children were not surveyed; instead, randomly selected adults were surveyed by post, separately from the children who were surveyed in school as part of the normal school day.

The areas in England and Germany were chosen to provide a cross-sectional snapshot of the countries, not a nationally representative sample. The importance of the approach was that it identified that independent mobility significantly reduced between 1971 and 1990. The 2010 study uses the same methodology in order to provide a comparison over time, with the trends being much more important than the absolute numbers. These are indicative of the scale of changes in the surveyed areas, rather than estimates of the *specific* reduction in independent mobility.

The survey captured a single day in each of 1971, 1990 and 2010 to construct a ‘snapshot’ of children’s independent mobility. Each child was only surveyed once, and they were not tracked over time to see if their journeys varied from day to day. This could conceivably influence the mode of journey particularly in relation to the weather. To control for this would have required an enormous additional cost and it would only have improved the most recent research, yielding little real gain.

The methodology relies on honest and accurate answers from both children and parents. To control one party making a false statement, the same questions were asked of both children and parents for some of the questionnaire. The comparability of these questions was sometimes limited, though – something which is explored in more detail in the analysis below.

The samples of children and parents were selected through a multi-stage process of type of area, school and class. This replicated the methods used in the earlier studies in order to provide comparisons over time. One limitation of this approach is that sampling a whole class or group can have a substantial cluster effect, which should be borne in mind when examining the results.

2.2.2 The limitations of the questionnaire

Only a limited amount of socio-economic data was sought in the survey. In both England and Germany, questions about the respondent family’s household income, education and social status were kept to a minimum to try to make the questionnaire less intrusive, and thus increase the response rate from parents.

The methodology relies on honest and accurate answers from both children and parents. To try and control for this, obviously erroneous answers were coded as ‘missing’. In addition, to control one party making a false statement, the same questions were asked of both children and parents for some of the questionnaire. The comparability of these questions was sometimes limited, though – something which is explored in more detail in the analysis below. Of course, it is possible that parents’ attitudes and aspirations may well have shaped their child’s answers. To control for this, many of the questions were kept as objective as possible in the questionnaire.

Another limitation is that the questionnaire has allowed the researchers to map the trends in children’s independent mobility over time, with data on the modes used by children and parents, accompaniment of children by parents and other adults, and measures of the six licences of independent mobility. Unfortunately, the short questionnaire used means that less data has inevitably been gathered on the *reasons* for these trends. Children’s independent mobility is inevitably the result of a mixture of various interacting factors. These would be useful to investigate in further qualitative research.

2.2.3 Limitations in the responses received

While response rates were high in 1971 in England and in both countries in 1990, there was a disappointingly low response rate from parents of secondary school children (11-15 year olds) in Germany and England in 2010, with only 62 per cent of German secondary school parents and 36 per cent of English secondary school parents returning their questionnaire. This has limited the reliability of these findings, although the response rates from both English and German primary school parents (of 7-11 year olds) remained high.

Another limitation was that only one parent in each family responded to the questionnaire, and this was usually the mother of the child. It is unclear what impact this has had on the answers given. In England in 1990, 79 per cent of the responses were from mothers, and in 2010 it was 88 per cent. In Germany in 1990, 68 per cent of responses were from mothers, and in 2010 it was 81 per cent.

3. The literature on Children's Independent Mobility

To identify work relevant to the conduct and interpretation of the surveys, and given the 20 year gap between the 1990 and 2010 surveys, a review of the literature on children's independent mobility was undertaken.

The review focused on the following research questions:

1. At what age and under what conditions are children granted independent mobility?
2. How does children's independent mobility vary with factors such as age, gender, etc.?
3. How has children's independent mobility changed over time?
4. What has influenced changes in children's independent mobility?
5. What evidence is there on the relationship between children's independent mobility and children's well-being, health and personal development?

These questions are addressed in the sections below. Firstly, in section 3.1, the definition of children's independent mobility and some critiques of the concept are examined. Section 3.2 provides an overview of the research and policy interest surrounding the subject, and why children's independent mobility is considered important. Much of this work informed and stimulated the original PSI research in this area in 1971 and 1990. Sections 3.3 and 3.4 of the review consider the levels of children's independent mobility observed by different studies and the factors that may affect these levels. Finally, the main conclusions from the literature review are presented at the end of this section.

The review was conducted by an initial search of online databases to identify relevant material published since the surveys in 1990. This was then built on by a 'snowballing' approach by following up relevant citations in the most recent papers. The older material in the review (which informed the original surveys in 1971 and 1990) summarises particularly prominent or relevant publications released before 1990.

3.1 What is Children's Independent Mobility?

The *One False Move study* by Hillman, Adams and Whitelegg (1990) is perhaps the most well-known and cited work exploring the extent to which children in the UK and Germany are independently mobile. The study devised a set of behavioural indicators related to risks to children in the local environment on the basis that road casualty statistics on their own are an inadequate, and often a misleading, measure of safety or danger. These indicators were referred to as 'parental licences'⁹ and aimed to reflect parental judgements about the degree of maturity and competence required by their children to cope safely with perceived dangers outside the home unaccompanied by an adult (Hillman et al., 1990: pp5-6).

Since the publication of *One False Move* there have been numerous attempts to define and measure children's independent mobility. Tranter and Whitelegg (1994) provide a concise definition of how the concept is commonly understood, describing children's independent mobility as:

⁹As noted elsewhere in this report the six licences were the permission granted by parents for children when unaccompanied: to cross roads, to go to places other than school, to come home from school, to go out after dark, to cycle on the road, and to use buses.

'freedom [of children] to travel around their own neighbourhood or city without adult supervision'.

This mobility could be for the purposes of play or for travel, within or beyond their local neighbourhood, and to specific destinations such as school and to access leisure facilities, or to just be outside of the home. It should be noted that the 'without adult supervision' aspect of the definition allows independent mobility to include both solitary travel by a child and travel when accompanied by other children. This distinction is important as, for example, boys' and girls' independent mobility tends to vary in the degree of non-adult accompaniment observed. This is discussed in more detail below.

It is generally taken for granted that the provision of circumstances that allow children to move around alone (or with peers or siblings) without the necessity of an adult being present is good and desirable. However, there have been more recent calls for a re-examination of the notion of children's 'independent mobility' and its uncritical acceptance in the field of social science and human geography research. Mikkelsen and Christensen (2009), for example, examine and critique the theoretical and conceptual underpinnings of the concept. The authors combined ethnography with tracking by Global Positioning System (GPS) and a rolling mobile phone survey in a study of children's mobility in a suburban area of Copenhagen and two villages in Jutland, Denmark. They suggest that children's mobility is primarily social because *companionship* pervaded every aspect of the activity. They concluded that researchers need to attend to the diversity of children's mobility patterns, the local geographical contexts of children's movements and the various relations of interdependency that children's mobility involves.

A report by the Scottish Executive, *Children's Attitudes to Sustainable Transport*, provides an interesting insight into the desirability of independent travel amongst children and young people. It highlights that perceptions of transport evolve throughout young life in three phases: younger children considering the 'fun' aspects of travel important; teenagers appreciating the independence that not being reliant on parental lifts can bring; and older teenagers/young adults aspiring to car ownership (Scottish Executive, 2003). It has also been revealed that for younger children in particular, escort journeys by car can enhance mobility by providing opportunities to access a number of non-localised activities (Scottish Executive, 2003; Johansson, 2006). Indeed, there is some evidence from America to suggest that children can put pressure on parents to escort them to places that would otherwise remain inaccessible (Handy et al., 2005). The alternative situation is also possible, children choosing not to be independent, either out of personal preference and/or because of inheriting negative social or parental perceptions of the safety of the external environment.

Fotel and Thomsen (2004) suggest that parental chauffeuring of children offers sociality and intimacy which are highly valued by parents, and also compensates for the risk of being isolated, particularly amongst children from rural areas. Fotel and Thomsen (2004) have gone as far as to argue that far from seeing themselves as powerless victims of the hegemony of the car and of unequally distributed access to mobility, children can see themselves as both suffering and benefiting from automobility (e.g. travelling by car), and therefore, rather than being 'othered', they should be treated as partaking members of the automobile society.

Recent commentary suggests that it may be a mistake to assume that mobility without adult supervision *per se* is either truly independent or an absolute desirable objective, given the diversity

of children's own desires and the complexity and contingency of their everyday activity patterns. Technology may change or moderate parental attitudes and thereby perhaps reduce the true independence children have. There is a question as to whether children's independent mobility really is independent if a means of surveillance or communication can be achieved remotely without an adult physically accompanying the child. As Fotel and Thomsen (2004) point out, new technologies such as mobile phones and other devices have made it possible to monitor children's mobility from a distance, and remove the need for parents to be present.

The ability of parents and children to be in immediate contact via mobile communications would seem to reduce the absolute independence a child has when travelling unaccompanied. However, the essence of independent mobility would seem to remain and still be an important concept; that is the ability of a child to negotiate the external environment unaccompanied by an adult they know. Mobile phones allow a child to communicate with their parents but they are unlikely to be used or useful in addressing the situations that arises in negotiating the external environment and require immediate judgements from the child, such as whether a road is safe to cross, or whether a person approaching them is a potential threat and so on.

Mobile communications may also result in enhanced independence with parents permitting children to do things they would not otherwise be allowed to. There is a valid debate about the access to facilities and services for children that escorted journeys in cars allow. However, our concern is with the degree to which children are able to move about their local environment without *direct* parental supervision and the benefits that may result from this.

3.2 Why is children's independent mobility an important issue?

Evidence that supports the importance of children having independent mobility can be drawn from a wide range of disciplinary sources. We have not been able to review this comprehensively but below we summarise some of the relevant material. Initially, an overview of the work that informed and stimulated the previous PSI work in this area in the 1970s and 1990s is given and then we highlight some of the more recent relevant evidence.

Before World War II, sociologists such as Lewis Mumford in *The Culture of Cities* (1938) drew attention to the changing circumstances of children living in American towns and cities, noting the particular role of streets, rather than prescribed places for children's play, and the difficulty in accessing them. However, it was the decades after the war, especially the 1960s, that saw an extraordinary burst of interest among child psychologists in the various factors that enhance or diminish the quality of childhood. Some of it was focused on those aspects of children's emotional and intellectual development which enable them to develop coping skills when faced with new situations. Among the most notable publications were Arnold Gesell's study *The Child from Five to Ten* (1946) and a report of a UNESCO 1952 Seminar on *Child Education*, both of which noted children's desire to exercise their physical abilities and therefore their preference for outdoor activities such as cycling and wandering around.

Many of Jean Piaget's studies on children's cognitive development, such as *Intelligence and Affectivity: their relationship during child development* (1954) and *The Origins of Intelligence in Children* (1952) stressed the importance of curiosity and exploratory drives in the process of developing the skills of discrimination, and of forming friendships within their peer group. His

writings also drew attention to the importance of 'subsidiary environments' for children outside their family and school. Hilde Himmelweit et al. reported in *Television and the Child* (1958) that the character of children's lives was changing, as they were found to be spending an increasing amount of time indoors.

In *The Fear of Freedom* (1960), Erich Fromm cited the ability to act spontaneously as an essential element of an integrated personality. In this regard, Leonard Duhl in *The Urban Condition* (1963) and Jane Jacobs in *The death and life of great American cities* (1964) highlighted the need for children's easy accessibility to stimulating environments which contain ingredients for adventure, physical activity and opportunities for socialising. Vera Hole's study of *Children's Play in Housing Estates* (1966) and Iona and Peter Opie's book *Children's Games in the Street and Playground* (1969) drew attention to the importance of walking and proximity in promoting childhood friendships and the value of children playing outside 'free of adult authority'. In *A Time of One's Own* (1967) Pearl Jephcott noted that children's efficiency improved with a change of environment.

Examination of policy changes by PSI researchers at the time suggests that relatively little account was taken of this research other than in the context of schooling and the provision of play spaces. It was largely overlooked that children do more than just go to school and visit formal play spaces, and will have to move about their local area to get to these and other destinations. During this period and subsequently, it appeared to be taken for granted that, rather than letting children get about on their own, taking them to school and leisure activities was an essential part of parenthood. Children's consequent loss of independence in the wake of this change received little attention. Reducing exposure to increasing levels of risk, whether perceived or real, especially from the rising volume of traffic and later from 'stranger danger', was an ever more important parental concern, as was noted later by Cahill (1990) in relation to American children and by Valentine and McKendrick (1997) in relation to the UK. Moreover, the implications of the conclusions of these earlier studies, in terms of the importance of play, access to outdoor space and independence were only rarely translated into calls for change in policies respecting children's rights and affecting their development.

3.2.1 PSI work in 1971 and the 1990s

In 1971 Mayer Hillman, inspired by the work of previous sociologists, surveyed children's patterns of activity outside the home. It was important to evaluate these patterns in order to understand their policy implications, especially in the case of transport. His articles *Unfreedom Road* (1973), *Is the car cheating your child* (1975) and co-authored reports *Personal Mobility and Transport Policy* (1973), and *Transport Realities and Planning Policy* (1976), drew attention to the implication of denying children the right to a safe environment outside the home and the perceived need to limit their freedom. Much of this reduction in freedom stemmed from the effects on children's lives of transport and planning policy which aimed to accommodate the growth in car ownership and use. It was pointed out that a majority of the population could never have the optional use of a car due to the three limitations of age, ability, and income¹⁰. Hillman concluded that, on grounds of equity,

¹⁰ In 1971, 48 per cent of households had no car, compared to 25 per cent in 2009 (source, National Travel Survey). Considering the percentage of the population who can drive a car themselves, i.e. use a car independently, in 1975/6, 65 per cent of the population could not drive a car due to their age or because they did not hold a licence, compared to 44 per cent in 2009 (source, calculated from National Travel Survey and ONS Population Trends data). It should be noted that the holding of a driving licence does not equate to

planning for people's daily activity outside the home should be prioritised in favour of the lowly mobile, such as children and elderly people, with special attention being paid to walking – 'the forgotten mode' – and therefore the aim should be aim to reduce the need for motorised travel.

The issue of independence of children examined in the publications *Personal Mobility and Transport Policy* (Hillman et al., 1973) and *Transport Realities and Planning Policy* (Hillman et al., 1976) is based on evidence from a survey. Conducted in September 1971, the survey was undertaken in a school in each of five English wards with varying geographical characteristics. Independence was measured by whether the child was accompanied on the journey to school, the extent of bicycle ownership, parental restrictions on crossing the main road, permission to use public transport and going to various places alone. This revealed wide geographical variation in independent mobility as being largely due to where children lived and the level of car owning households, with those living in car owning households making fewer unaccompanied journeys. More specifically, on average parents were revealed not to allow their children to cross main roads unaccompanied until they reached the age of *eight*, travel by bus until they were *nine*, and to cycle on main roads until they were *ten*. It was concluded by Hillman et al. that traffic danger was sufficient reason amongst parents for denying their children this freedom, leading children to be denied the opportunity to develop 'complementary skills in coping with the unexpected' (Hillman et al., 1976, p165) and isolating them from many of the activities with which they would like to engage.

Subsequent discussions with Colin Ward, author of *The Child in the City*, and *The Child in the Country*, (Ward, 1990a,b) revealed a commonality of concern about the situation of children in an increasingly motorised society. Combined with a complementary concern about government claims that the sharp fall in children's road casualties in recent decades was attributable to the success of its road safety policy this led to the collaborative study by Mayer Hillman, John Adams and John Whitelegg *One False Move: a study of children's independent mobility* (1990). These authors concluded that the prime reason for the fall in casualties was the fact that the granting of the parental 'licence' to their children for independent travel was being granted at an ever later age and that this restriction could be having a serious retarding effect on their physical, social and emotional development.

The findings reported in *One False Move* are based on a comparison of the 1971 surveys reported in *Personal Mobility and Transport Policy* and repeat surveys in the same schools. The 1990 follow-up study recorded a dramatic loss of children's independence over the previous two decades. For instance, in 1971, 80 per cent of 7 and 8-year old children got to school unaccompanied by an adult but, by 1990, this proportion had fallen to 9 per cent.

Matching surveys of children in West Germany – a country similar to England in relation to relevant planning criteria, levels of car ownership, and so on – were also conducted to provide a cultural comparison and the results were reported in *One False Move*. It was concluded that the main reason for children's marked casualty reduction was not the implementation of UK road safety policy but rather rising restrictions on their personal autonomy outside the home. It was also established that, whilst levels of car ownership and use in the two countries were fairly similar, the German children enjoyed far more freedom than their English counterparts.

ownership of a car so it may indeed still be true, in the sense of autonomous use, that the majority of the population do not have access to the optional use of a car.

In 1993, a conference was held by PSI to discuss the principal themes stemming from *One False Move* and the justification for its challenges to government policy. Its proceedings were published that year as *Children, Transport and the Quality of Life* (Hillman, 1993). This examined children's independent mobility from a range of perspectives. The increasing restriction on the freedom of mobility was highlighted in relation to the rights children might be expected to enjoy. Children enjoy choosing what they do and where they do it, as adults do, and a sense of autonomy is an important part of people's quality of life. Recent research confirms this: in a survey of children's well-being 'the amount of choice you have in life' was the aspect second most strongly associated with overall well-being (after family) and the 'amount of freedom you have' was seventh (Children's Society, 2010). The vast majority of children enjoy going outside to play with research for Playday 2006 (cited in DCSF, 2008) showing that 80 per cent of children under 18 surveyed preferred to play outside.

Sections of the *Children, Transport and the Quality of Life* report also considered independent mobility in relation to children's mental, emotional and physical development. The proceedings generated considerable interest especially in Europe and Australia as evidenced in reports of studies which used similar questionnaires to those used in the PSI studies, and in subsequent conferences (see, for instance, Camstra, 1996).

3.2.2 Recent work on the benefits to children of independent mobility

The last two decades have witnessed a number of significant changes in public understanding of children's place in society, including the work of Peter Newell in his focus on *Children's Rights* following publication of *The United Nations Convention on the Rights of the Child* (1989). Article 31 of the Convention states that the right of children to rest and leisure and to engage in play and recreational activities appropriate to the age of the child should be recognised and that states should promote this right and encourage provision to satisfy it.

There is a very wide body of work relevant to children's independent mobility and its benefits, for example in the areas of play, physical activity, health, and physical, psychological and social development. Resource constraints have meant that we have not been able to review the literature fully but in the material we have considered there appears to be a growing consensus that the loss of children's independence is having adverse effects on their well-being, health and personal development. This builds on the work referred to in the sections above. We consider some of the more recent work below.

Beunderman (2010) evaluates the value of play. In his literature review a number of points of relevance to independent mobility are noted (although independent mobility is not mentioned explicitly). These include that:

- activity patterns get set early in life
- unstructured play is important in terms of the activity levels it generates
- access to natural environment reduces children's anxiety levels
- adult direction of play can be detrimental to children's learning processes and
- children gain the best understanding of the environment through their own exploration of it.

The intrinsic value of play is noted. Beunderman suggests therefore, that rather than focusing on the impacts or outcomes that play may result in it may be more important to focus on improving access to play because it is intrinsically valuable. Beunderman does not cite this but Page et al. (2010) found

that independent mobility is one of the factors that are associated with increased levels of outdoor play, a finding which is consistent with other studies they cite.

The evidence summary accompanying the Play Strategy (DCSF, 2008) highlights a similar range of benefits of play. It also highlights that play can promote community cohesion, citing evidence from Weller and Brugel (2009) that there is a dynamic interaction between children's independent mobility and both children's and parents' social interaction in their local area. They claim that children of parents who are fearful of the external environment are likely to have fewer friends. These parents are also less likely to become engaged in their local community. However, these behaviours are not fixed and children can play a role in engaging themselves and their parents in the community.

Prezza et al. (2001), in a study conducted in Rome, highlight that children with higher levels of independent mobility have higher levels of activity and sociability. A later study by Prezza and Paccilli (2007) found that more autonomy and play in public areas during childhood influence close neighbourhood relations, a stronger sense of community, and less fear of crime and this can reduce feelings of loneliness during adolescence.

Most recently, Richard Layard and Judy Dunn (2009) in *A Good Childhood: Searching for Values in a Competitive Age*, discussed the issues of children's freedom, safety, space for play and 'freedom of attitude'. The importance of friendships – exploring a world outside family – was highlighted (p37) as well as the importance of children having some freedom to 'range' if they are to flourish.

Joshi et al. (1999) consider key literature on the potential links between children's independent mobility and their cognitive and emotional development. Joshi et al. are critical of what they consider to be Hillman et al.'s (1990) assertion of the benefits of independent mobility, although it is conceded that there is evidence in the literature to support it. However, the data generated in the study of Joshi et al. (1999: p125) finds that children 'who were accompanied to school performed as well as their unaccompanied peers on spatial ability tests and showed no greater concern with stranger danger. However, they showed a greater tendency to cite traffic danger in their responses, and a greater knowledge of the environment as indicated by the use of landmarks in their drawings of their locality'. Rissotto et al. (2002) also provide a useful evaluation of the effects of the limitations imposed on children's autonomy on acquiring, processing and structuring environmental knowledge, concluding that greater autonomy and travel without parents is related to better performance in these abilities.

In a study of 8-11 year old children in England, Mackett et al. (2008) found that children's activity levels away from the home vary depending on whether or not they are accompanied by an adult. Unaccompanied children exhibit a greater level of exploratory behaviour which may well reflect playing, interacting with friends and exploring the local environment. It was also shown that children who are allowed to go out without an adult go out more often after school and consequently are able to engage in more activities and be more sociable. Earlier work by Mackett, Lucas, Paskins and Turbin (2005) found that children consume more calories in activities outside the home than those that are home-based or indoor after-school clubs. In the context of concerns about obesity this would seem to be an important finding and hence there are likely to be benefits to be gained from removing barriers to children going outside, with a lack of independent mobility being one barrier.

In summary, children's independent mobility would seem to be important from two perspectives. Firstly, from a rights-based perspective independent mobility is something of intrinsic value to children which they should be able to enjoy. A safe outside environment is a prerequisite for this which should be provided. This right is captured in the United Nations' *Convention on the Rights of the Child*. Secondly, in developmental terms the evidence suggests independent mobility results in health, social and development benefits which are necessary to contribute to the conditions required for children to flourish. The conditions in which children's independent mobility is likely to occur are also more broadly desirable for the rest of the population to live in.

In the next section we consider the evidence on the levels of independent mobility children experience and the factors that have been suggested may affect them.

3.3 Review of studies on trends in children's independent mobility

This section of the review seeks to provide evidence that identifies the age(s) at which children are granted independent mobility, and the extent to which this may have changed over time.

Developing a deeper understanding of the nature and extent of children's independent mobility is important because of the growing consensus that loss of this independence is having adverse effects on children's well-being, health and personal development. In this section we review the empirical research for trends in children's independent mobility, firstly, for the journey to school (a mandatory journey) and secondly for play and accessing outdoor leisure activities (a discretionary journey). Section 3.4 considers studies on the factors that affect levels of children's mobility.

3.3.1 Changes in children's independent mobility for the journey to school

There have been a wide range of studies that suggest that children spend less time moving around independently whether for travel to and from school, playing outdoors, running errands or meeting friends in the neighbourhood than they have in the past. This section focuses on available evidence to support this thesis for a required routine journey, namely the journey to school. First, trends for school travel in the UK are provided before highlighting studies that reveal international trends for the same journey.

The study of English and German children's mobility by Hillman et al. (1990) documented in the publication *One False Move* revealed that the proportion of English children aged 7 to 11 years who travelled to school unaccompanied fell markedly between 1971 and 1990. Comparisons were made between single classrooms of students attending schools in a mix of urban, suburban and rural locations. Five primary schools and five secondary schools were selected for study. According to children's accounts, school travel unaccompanied dropped from 72 to 7 per cent for 7 year olds and from 94 to 54 per cent for 10-11 year olds between 1971 and 1990 (Table 4, Hillman et al., 1990). O'Brien et al. (2000) emulated the approach adopted by Hillman et al. by conducting a comparative study of independent mobility in London and Hatfield. The study provides evidence to suggest a decrease in independent use of public space amongst children aged 10 to 11 years (with little change for older groups) since the 1970s. This was expressed through a change in the nature of the journey

to school and levels of accompaniment – 94 per cent of children went to school unaccompanied by an adult in 1971, 54 per cent in 1990 and 47 per cent in 1998¹¹.

Young People and Transport: Understanding their Needs and Requirements (DfT, 2006) revealed a significant change to children's travel since the early 1990s. For primary school students (aged 5-10), over the ten year period 1992 to 2002, the proportion of journeys to school escorted by car increased from 30 to 40 per cent whilst journeys on foot (escorted and independent) reduced from 61 to 52 per cent. For secondary school students there was also a decline in the proportion walking (from 44 to 40 per cent) and an increase in those being escorted by car (from 16 to 23 per cent), although this decline is less dramatic than for primary school pupils. DfT (2006) also indicates that for children aged 7-10, 79 per cent were usually accompanied to school by an adult in 2002/3, compared to only 29 per cent for those aged 11-13 and gives data by age on whether children are allowed to cross roads (Table 6 below).

Age	7	8	9	10	11	12	13
Never	70	50	31	19	8	3	2
Sometimes	24	37	47	45	34	11	6
Almost always	5	12	22	35	57	86	92

Source: Chart 4.12, DfT 2006

Table 6: Percentage Children Allowed to Cross Roads Alone 2002/3, by age.

The National Travel Survey 2010 (DfT, 2011a) gives more recent data, but grouped by 7-10 year olds (Table 7: Percentage of Children Allowed to Cross Roads Alone by Year, 7-10 year olds) and 11-13 year olds (Table 8: Percentage of Children Allowed to Cross Roads Alone by Year, 11-13 year olds). For 7-10 years old, between 2002 and 2009, the proportion of children 'almost always allowed' and 'sometimes allowed' to cross roads has dropped and the proportion 'not allowed' has increased. For 11-13 year olds the change over time is small but there is a weak trend of 'almost always allowed' dropping with 'sometimes allowed' increasing suggesting an ongoing reduction in licence to cross roads for children of these ages.

Year	2002	2003	2004	2005	2006	2007	2008	2009
Almost always allowed	19	19	18	16	14	13	14	16
Sometimes allowed	40	37	36	38	36	38	36	33
Not allowed	41	43	45	46	49	49	50	50

Source: DfT 2011a, National Travel Survey 2010, Table NTS0618 (no data collected in 2010)

Table 7: Percentage of Children Allowed to Cross Roads Alone by Year, 7-10 year olds.

¹¹ It should be noted that the 1971 and 1990 figures are derived from Hillman et al. (1990) and the 1998 figure from the research reported in O'Brien et al. (2000). Additionally, O'Brien (2000) incorrectly reports the 1971 figure as being for 1970.

Year	2002	2003	2004	2005	2006	2007	2008	2009
Almost always allowed	79	78	77	78	75	74	76	74
Sometimes allowed	17	18	19	17	19	21	18	20
Not allowed	4	5	5	5	6	5	7	6
Source: DfT 2011a, National Travel Survey 2010, Table NTS0618 (no data collected in 2010)								

Table 8: Percentage of Children Allowed to Cross Roads Alone by Year, 11-13 year olds.

Data from the National Travel Survey¹² provides some insight into levels of accompaniment of children by an adult to school between 2002 and 2008. These data show that, during this period there was a reduction from 23 per cent to 15 per cent in the proportion of unaccompanied journeys to school on foot by primary pupils (Table 9). For older pupils the unaccompanied journeys remained static between 2002 and 2008 with around four out of five arriving on foot unaccompanied by an adult (Table 10: Level of accompaniment for the journey to school for pupils age 10 to 16 years for the period 2002-2008).

Aged 5-10 years	2002		2004		2006		2008	
	Car/Van	Walk	Car/Van	Walk	Car/Van	Walk	Car/Van	Walk
Usually accompanied by an adult	99	66	100	70	100	78	98	78
Sometimes accompanied by an adult	1	10	0	7	0	4	1	5
Accompanied part of the way	1	1	-	1	-	0	1	1
Usually unaccompanied by an adult	-	23	-	22	-	18	-	15
Source: DfT, National Travel Survey (by request)								

Table 9: Level of accompaniment for the journey to school for pupils age 5 to 10 years for the period 2002-2008.

¹²These figures do not appear in the standard tabulations of the National Travel Survey – see <http://www.dft.gov.uk/pgr/statistics/datatablespublications/nts/> – but were obtained by request to the Department for Transport.

Aged 11-16 years	2002		2004		2006		2008	
	Car/Van	Walk	Car/Van	Walk	Car/Van	Walk	Car/Van	Walk
Usually accompanied by an adult	90	9	94	10	95	12	95	11
Sometimes accompanied by an adult	7	7	4	6	3	9	3	8
Accompanied part of the way	2	3	1	1	2	1	2	1
Usually unaccompanied by an adult	1	81	0	83	-	78	-	80
Source: DfT National Travel Survey (by request)								

Table 10: Level of accompaniment for the journey to school for pupils age 10 to 16 years for the period 2002-2008.

Using oral history evidence, Pooley et al. (2005) compared decisions about the journey to school in the UK in the past and present and the impact of changes on children's journey to school since the 1940s. For 10-11 year olds born between 1932 and 1941, 40 per cent travelled to school alone, while for 10-11 year olds born between 1990 and 1991 this figure has fallen to around 9 per cent. However, the evidence also suggests that despite obvious explanations for the increase in car use and the decrease in children travelling alone, other characteristics of the school journey in British urban areas have changed little over the past 60 years.

Studies outside of the UK have revealed similar trends. A study in Australia revealed a reduction in travel to school on foot and by cycle amongst 9-13 year olds between 1985 and 2001. In areas of high socio-economic status, this decline was found to be around 50 per cent whilst cycling declined by 77 per cent amongst children in areas of low socio-economic status (Salmon et al., 2007).

Even in Scandinavian countries, where children are often assumed to move around more freely, there is evidence that there has been a dramatic decrease in children's independence for the journey to school. A study in Denmark by Jensen and Hummer (2002), cited by Fotel and Thomsen (2004), revealed that between 1993 and 2000 the number of children driven to school by car doubled, such that 23 per cent of 6-10 year olds and 9 per cent of 11-15 year olds were driven to school in 2000. This was accompanied over the same period by a reduction of 40 per cent in journeys to school on foot for children 6-10 years old; such that 23 per cent of 6-10 year olds walked to school in 2000 (levels of adult accompaniment for walking are not indicated). Of course this does not suggest that children are not allowed out without an adult, but it does demonstrate that for the journey to school, at least, a downward trend in independent mobility is not just occurring in the UK. Fyhri et al. (2011) examine various datasets collected from 1965 onwards and confirm the existence of this trend in Denmark, Finland, Norway and the UK. In their consideration of the existing data available in these countries they found a reduction in independent mobility and increase in car use over time (and also usefully collate and summarise the available data on the children's mobility).

In summary, the evidence on levels of children's independent mobility on the journey to school indicates that it has been reducing over time both in the UK and other developed countries. Table 11 collates the figures given in the UK-focused studies and shows that for primary school children (aged

5 to 10) independent mobility reduced substantially over time with the largest reduction occurring before 1990. For secondary school children, the trend is less clear because of limited data. A small reduction in independent mobility could have occurred between 1992 and 2002 and after that, based on one study, levels appear to have remained stable. The focus on primary school children may have been based on the assumption that independent mobility would have been granted to children before the transition to secondary school. Given the observed trends this assumption may no longer be valid.

Study	Age of children	Aspect of journey to school	Year aspect measured							
			1942-51 ¹³	1971	1990	1992	1998	2001-2	2002	2008
Department for Transport 2006	5-10	% children taken by car				30%			40%	
National Travel Survey	5-10	% of children walking who are unaccompanied							23%	15%
Department for Transport 2006	7-10	% of children unaccompanied to school							21%	
Hillman et al. 1990	7	% of children travelling unaccompanied		72%	7%					
O'Brien 2000	10-11	% of children travelling unaccompanied		94% ¹⁴	54%		47%			
Pooley et al. 2005	10-11	% of children walking who are unaccompanied	40%					9%		
Hillman et al. 1990	11	% of children travelling unaccompanied		92%	52%					
Department for Transport 2006	11-16	% children taken by car				16%			23%	
Department for Transport 2006	11-13	% of children unaccompanied to school							29%	
National Travel Survey	10-16	% of children walking who are unaccompanied							81%	80%
Pooley et al. 2005	17-18	% of children walking who are unaccompanied	>80 %					33%		
NB Care should be taken when comparing these figures as the aspect of independent mobility listed and age of children studied varies. Even when they are the same the methodologies used to obtain the figures may not be consistent.										

Table 11: Summary of UK studies giving information on children's independent mobility on the journey to school.

¹³ This figure is based on work that canvassed a population of adults who had been born in the years 1931-42.

¹⁴ O'Brien cites this figure as being for 1970 but it is taken from Hillman et al. (1990) which gives the date as 1971.

3.3.2 Changes in children's independent mobility for play and outdoor recreation

Several studies also suggest a decrease in children's level of independent mobility for playing outdoors in the neighbourhood or to access recreational opportunities outside of the immediate area. Gaster (1991) investigated one New York neighbourhood to determine children's use of public space between 1915 and 1976. Through a series of interviews and use of archival sources, substantial changes were established in terms of the age children were first allowed outdoors without supervision. Gaster found a steady trend of succeeding generations of parents keeping their children under supervision for longer periods of their childhood.

Using oral histories, archival research and observations, Karsten (2005) compared children's use of public space in Amsterdam in the 1950s, 1960s and more recently. This revealed that although children's geographies have become more diverse, there has been a decrease in outdoor play and an increase in adult supervision. Similarly, a study by Kinoshita (2009) also provides a historical account of four generations in a neighbourhood in Tokyo over the period 1981 to 2005. The study reveals patterns of change reflecting decreased levels of children's play outdoors.

Tranter and Pawson (2001) have attempted to undertake an international comparison of the licences granted to 10-year old children in Australia, New Zealand, Germany and the UK using data from previous studies. Although the data only give a limited insight into the variability of children's independent mobility (because it relates to specific geographical areas within each country) these do provide an indication of the much higher level of independent mobility afforded to German children relative to their counterparts in other countries.

Zwerts et al. (2010) also provide an insight into children's independent mobility in Flanders, Belgium comparing results with the Netherlands, the United Kingdom and the United States. Children were found to travel most independently in the Netherlands (e.g. the lowest proportion travelled by car with an adult driver), whereas children from the US were most dependent. English and Flemish children were located between these end points.

3.4 Review of studies considering the factors that affect children's independent mobility

This section provides an exploration of the factors that can affect children's independent mobility. It provides an overview of evidence on individual factors (e.g. age, gender, etc.) before focusing on the more complex aspects of psycho-social factors (e.g. perceptions of safety) and finally physical environment factors (e.g. land use and transport system characteristics). Other issues include the cultural and societal transformations which may have implications for children's independent mobility.

3.4.1 Multivariate studies considering the factors affecting children's independent mobility

Several studies have attempted comprehensive multivariate analyses of the factors that were hypothesised to affect children's independent mobility in order to reveal those that are most significant.

Sener and Bhat (2007) provide perhaps the most comprehensive analysis of the social context of children's activity participation by focusing on individuals taking children to activities using data on the daily activity-travel participations of a sample of U.S. children in the 2002 Child Development

Supplement (CDS). The analysis reveals that older children (of a group aged 5-15 years old) are much more likely to participate in out-of-home discretionary activities without parents than younger ones. There is also an increased tendency of male children relative to female children to participate in active recreation. This is particularly elevated in the case of participation without parents. In terms of location variables, children residing in urban areas were revealed to have a higher likelihood of participating alone in out-of-home discretionary activities. The authors suggest that this may be a result of less "protectionism" on the part of urban parents and/or characteristics of the urban environment that provide more opportunities for children to travel on their own.

A recent study of Norwegian children investigated the individual, parental and environmental factors associated with walking and cycling to school and leisure activities (Fyhri and Hjorthol, 2008). The authors utilised the National Travel Survey database and an additional survey of the physical environmental activities of children to examine potential influencing variables. The key variables that explained most of the variance in levels of children's independent mobility were age of child and distance from school (with older children, and those who lived closer to school, having higher levels of independent mobility). The authors also found that the effect of the quality of the physical environment on independent mobility was mediated by parents' perception of safety, i.e., measures to improve the safety of the road environment also need to impinge on the parents' perception if independent mobility is to increase. Further, boys enjoyed more independent mobility than girls. Interestingly, there was a relatively weak association with 'stranger danger' which the authors suggest may reflect the higher feelings of security in Scandinavian countries.

Johansson's (2006) study of children's organised leisure travel used Kuller's (1991) Human-Environment Interaction (HEI) model to test the hypothesis regarding the relation between environmental, social, individual and child factors, and the outcome of the parents' attitudes and mode choice or 'basic emotional process' (Figure 1).

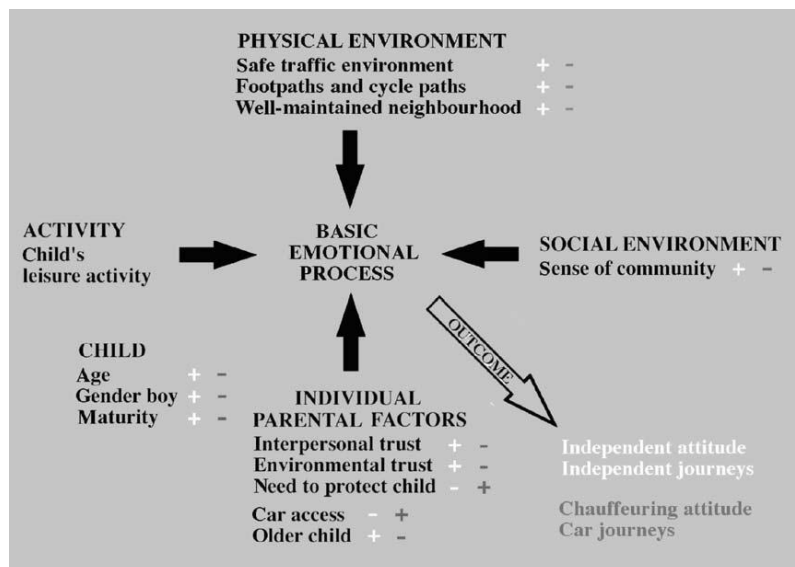


Figure 1: Human-Environment Interaction (HEI) model depicting the relationship between environmental, social, individual and child factors, and the outcome of the parent's basic emotional process (Johansson, 2006).

This study revealed a trend towards children being driven to places by parents in southern Sweden and preference amongst parents driving the children on leisure journeys rather than allowing for independent travel. The study used a factor analysis to draw out key factors, and (based on this)

multiple regression analyses. Traffic danger proved to have the strongest relationship, with fear of strangers less important than other factors. Parents of older children were found to have a more positive attitude towards independent travel than those with younger children between 8-11 years. Gender was not found to be a significant predictor of independent mobility. The conclusion drawn from the study was that attitudes towards driving children to places are based on parents' perceptions of environmental factors whereas attitudes to independent travel are largely related to the characteristics of the child (i.e. age, maturity, trust and perceived need to protect the child).

Studies with a multivariate focus suggest a number of key factors associated with children's independent mobility. Other studies have used a variety of different approaches aimed at identifying the significance of individual factors, psycho-social factors and physical environment factors. These are discussed below.

3.4.2 Individual factors associated with children's independent mobility

Age

In the multivariate analyses discussed in the previous section, age was revealed as the factor most strongly linked with independent mobility. Given that virtually all children will eventually be granted independent mobility this is not surprising. A multitude of other studies (too numerous to mention here) also corroborate this evidence. What is more difficult to ascertain is the precise age at which children are granted independent mobility for the journey to school or for outdoor leisure activities. There are limited data in which to compare different regions and countries. The CAPABLE study (Children's Activities, Perceptions and Behaviour in the Local Environment) which explored independent behaviour amongst children in Hertfordshire (see Mackett et al., 2008) is one study that indicates the age at which children are granted independent mobility (Table 12) and also provides a useful indication of the changes in children's independent mobility by age and gender (Table 13).

Type of Travel	Boys	Girls	All
Travel to friends' houses	7.5	8.6	8.0
Cycle on main road	7.9	8.1	8.0
Cross main road	7.9	8.7	8.3
Go on buses	8.6	9.2	8.9

Source: CABABLE Study, Mackett, Brown and Paskins 2005

Table 12: Age (average) at which children were first allowed to travel alone.

	Allowed out alone		Allowed out with older siblings and friends but not allowed out alone		Only allowed out with adult	
	Boy	Girl	Boy	Girl	Boy	Girl
Year 4 (age 8-9)	52	33	32	44	16	23
Year 5 (age 9-10)	50	44	26	27	24	29
Year 6 (age 10-11)	86	69	7	29	7	2
χ^2	19.772	12.321	11.486	3.896	6.163	12.340
Df	2	2	2	2	2	2
P	0.000	0.002	0.003	0.143	0.046	0.002
Source Mackett et al., 2008, CAPABLE Children's questionnaires						

Table 13: Percentage of children allowed out independently by year group and gender (Mackett et al., 2008).

Mackett et al. confirm that independent mobility increased significantly with age, suggesting that over 80 per cent of children are allowed out alone by the age of 10 years. An earlier study conducted by O'Brien et al. (2000) in London and the new town of Hatfield (Hertfordshire) also found that by the final year of primary school (aged 10 to 11 years) a similar proportion of children reported a fair degree of independence in their daily lives. Both sets of data highlight differences based on gender.

Gender

Valentine (1997) analysed children's self-awareness of their ability to navigate out-of-home environments. She found that boys are more confident about looking after themselves whilst girls rely more on the company of friends and familiarity with their surroundings in order to feel safe. This theory is supported by the study by O'Brien et al. (2000) in London and the new town of Hatfield (Hertfordshire) where it was found that girls aged 10-11 years are more restricted than boys of the same age in their use of urban space. Similar gender disparities are corroborated in the CAPABLE study (Brown et al., 2008) which revealed that boys enjoy greater mobility and range of activities than girls, and become independent much earlier (also demonstrated in Table 12 and Table 13). However, girls were also found to attain similar levels of independence from adults by travelling more frequently in groups. The authors suggest that the collective independence achieved through peer accompaniment is often overlooked and that this may compensate for some loss of individual freedom. It may also reflect the preference of some children.

Using logistic regression modelling to examine whether certain characteristics of the social and physical environment influence a child's mode of travel between home and school in Ontario, Canada, Larsen (2008) found the likelihood of walking or biking to school was positively associated with being male. In Italy, Prezza et al. (2001) realised that boys between 7-12 years of age were more independent than girls. In Cleveland, OH, USA, Spilsbury (2005) found girls have smaller ranges in 'elevated violence neighbourhoods' but adapted by travelling together in groups.

The social aspect of moving around independently has been found to be important in a study of Flemish children, particularly for girls (Zwerts et al., 2010). The authors speculate that collective independence achieved through peers may compensate for the loss of freedom. The study highlighted that girls are more responsive to the comfort elements of cars than boys but they are

also more sensitive to the negative environmental aspects of the car. However, girls were revealed to be driven to places far more than boys.

Socio-economic status

Several studies have revealed that socio-economic status could affect levels of independent mobility amongst children – suggesting that lower class children experience greater levels of independent mobility. In a study of Australian children aged 8 to 12 years Veitch et al. (2008) found that a higher proportion of children from low 'socio-economic status' (SES) areas reported that they could go to three or more places without an adult compared with those in the high SES area. Mota et al. (2007) also found that lower 'socio-economic position' was associated with active commuting to school amongst children in the Aveiro District, Portugal. In the UK, Sutton (2008) compared the freedom, safety, and use of public space amongst children from different social backgrounds in the UK and has revealed the importance of street play in the lives of disadvantaged children – a consequence of having less space and fewer alternatives. A systematic review of children's active transport by Pont et al. (2009) identified that increased household car ownership (associated with household income and socio-economic status) is consistently associated with lower rates of active travel amongst 5-18 year olds. Availability of cars was also found to encourage their use in a study by van der Houwen et al. (2002¹⁵).

Ethnicity

Turning to ethnicity, the study by O'Brien et al. (2000) of children in London and Hertfordshire revealed that minority ethnic children were generally more restricted in their use of urban space. Greves (2007) provides a fascinating study of immigrant families' attitudes to walking to school (and school breakfast) and creates a socio-ecological model to illustrate the main barriers (see Figure 2).

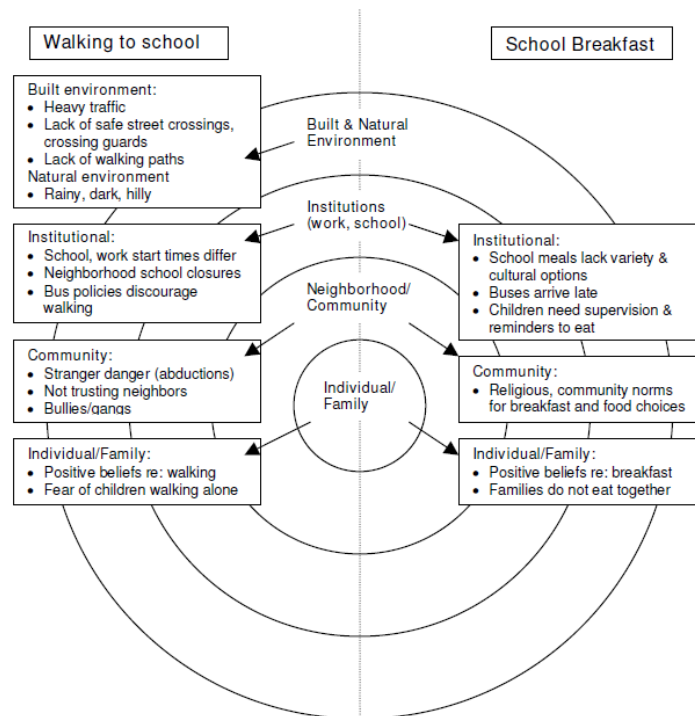


Figure 2: Socio-ecological model presenting barriers to walking to school and school breakfast participation amongst immigrant families.

¹⁵Original source in Dutch.

Through detailed focus group discussions the authors found that, whilst immigrant parents see benefits from walking to school (and eating breakfast), the opportunities to do so were inhibited by barriers across the domain of the ecological model. The barriers included concern for children's safety in relation to traffic, 'stranger danger' as well as physical barriers such as distance or travelling as large families with multiple children.

On the other hand, a systematic review by Pont et al. (2009) investigating the environmental (physical, economic, socio-cultural and political) correlates of active transportation (AT) among young people aged 5–18 years revealed that only the environmental variables (such as high population density, street connectivity, land-use mix and adequate walk/bike infrastructure) had positive associations with active travel amongst 5-18 year olds from an ethnic minority background. In support of this conclusion, the authors cite two studies – one by De Bruijn et al. (2005) in the Netherlands and the other Yelavich et al. (2008) in New Zealand – both of which found that children with an immigrant background were between two and a half to three times more likely to use active transport than those who did not have an immigrant background. Neither of these papers appears to control for income factors, although the latter considers car ownership and shows it to be an important factor reducing walking but notes that the socio-economic factors used may not be adequate as controls in regard to ethnicity. In the United States, McDonald (2008) has also shown that students from a minority ethnic background are more likely to walk or cycle to school than are white students, claiming that the difference can be explained by differences in vehicle access and income.

3.4.3 Psycho-social factors influencing children's independent mobility

Having studied the individual factors most commonly related to children's independent mobility, we now turn to psycho-social factors such as perceptions of safety and children's mobility and the influence of parental judgement and negotiation with their offspring. This is in recognition of socio-ecological theory that posits behaviour to be influenced by social and environmental factors, as well as intrapersonal factors that were discussed earlier. Parents are important mediators of their children's independent mobility and their perceptions of factors that pose a threat to their children's welfare can ultimately restrict the level of independence afforded to them.

3.4.4 Social safety – traffic danger and 'stranger danger'

Kevin Lynch's study *Growing Up in Cities* (1977) compared the everyday experience of children in Argentina, Australia, Mexico and Poland through semi-structured interviews and using 'mental maps' of the areas in which they lived. The study highlighted the rigid pattern of a child's weekday activity and how little time was spent outdoors. Traffic was regarded as one of the greatest inhibitors of children's freedom to use outdoor space.

Subsequent studies by Hillman et al. (1990), Karsten et al. (2002), Johansson (2006) and Zwerts et al. (2010) further supported the notion that traffic danger is parents' most important reason to accompany their children.

Another concern for child safety, 'stranger danger' or 'social fear', is also commonly cited in the literature. In an English study of parental attitudes towards the journey to school this was the most common response why parents accompany their child to/from school (Joshi and Maclean, 1995).

Stranger danger is regularly cited in the literature and more widely in society and the media but the term is often used without definition or discussion of what it means, perhaps because it is considered self explanatory. However, the term has been criticised as promoting or magnifying fear of all strangers unconditionally without increasing children's safety and at the same time restricting other aspects of children's lives and development. The corrosive societal impact of training children to fear all strangers is also often highlighted, impacting on the social ties which are required for healthy and pleasant communities for children and adults. Gill (2007), amongst other authors, considers these points and also highlights evidence that shows, contrary to the dominant message from popular media, the danger from strangers to children is small in absolute terms and not growing and is also small relative to the threat posed by family and other people known to children.

Milne (2009) contains an interesting exploration of children's attitudes to stranger danger and highlights the fact that children need to talk and interact with adults when they are unaccompanied outside the home, for example, in using public transport, visiting leisure facilities such as cinemas and swimming pools and also when shopping. Using interviews with children, Milne explores how children reconcile the tension between the instruction not to talk to strangers and navigating an adult-filled environment through their interpretations of who strangers are and what talking to someone means. As such some will be considered as strangers, e.g. other passengers on a bus and others as not, e.g. bus conductors, staff at leisure facilities and other adults working with the public. Similarly, asking someone when the next bus is due at a bus stop would not be considered talking to a stranger but a longer conversation would.

Prezza et al. (2005) included a discussion of 'social fear' which is perhaps less emotive than the term stranger danger. They are also more specific about the range of fears of a social nature that may be of concern to people, for example, related to aggressive behaviour, crime (in particular drug-related crime), to the presence of social groups subject to prejudice, paedophiles and bullying. However, Prezza et al. highlight that very little research has been done to understand what the intensity of parental social fears depends on and indeed the aim of their work was to develop a better quantitative understanding of parental perceptions associated with children's autonomy. Drawing on the work of other authors Prezza et al. highlight aspects related to social fear such as a generalised sense of insecurity pervading modern societies, the role of media and political institutions in either increasing (or decreasing) fears, the weak connection between observed levels of crime and fear of crime, and the positive impact of social and community ties on reducing levels of fear. They also highlight that parents' fears for themselves and their children are strongly related.

Safety and social factors are key themes in a qualitative study of parents' perceptions of influences on children's active free-play by Veitch et al. (2006). Concern about safety was most frequently identified by parents as the main reason for limiting their children's independent mobility, most significantly for young children.

Data drawn from the Welsh Youth Health Survey 2000 revealed that perceptions among 11–16 year olds in Wales of safety, friendliness, appearance, and play facilities in their local area were less likely to be positive for those young people living with busy traffic and road space given over to car parking (Mullan, 2003). Even where children desire to travel independently this can be limited by fear and obstacles (Mitchell et al., 2007).

For example, a longitudinal study of children (aged 8-9 years) and adolescents (aged 13-15 years) in Melbourne, Australia found no association between road environment variables and the likelihood of walking or cycling to local neighbourhood destinations amongst children but some association for adolescents (particularly girls), Carver et al. (2008a). These children and adolescents were followed up after two years to examine the change in the number of walking/cycling trips they made per week, and the following variables were associated with this among younger girls: the total length of local roads (with 50km/h speed limits) in the neighbourhood; total length of walking tracks and the number of traffic/pedestrian lights in the neighbourhood (Carver et al., 2010a). For adolescent boys, intersection density was positively associated with the change in the number of active trips and for adolescent girls, the total length of walking tracks was positively associated with this (Carver et al., 2010a). This suggests that the road environment can influence physical activity in different ways according to age group and gender.

The social characteristics specific to a location may also explain parent's attitudes. For example, a study of parents in New York City by Weir et al. (2006) revealed that inner-city parents were more concerned about neighbourhood safety than suburban parents and this concern was negatively associated with children's lower levels of physical activity. McDonald et al. (2010) analysed the association between parental perceptions of the social environment and walking and cycling to school among 10-14-year-olds and found that higher levels of parent-perceived child-centred social control are associated with more walking and cycling to school. It is important to note that they also found evidence of parents with negative or neutral perceptions of the social environment limiting girls' more than boys' walking or cycling.

Timperio et al. (2004) examined associations between perceptions of the local neighbourhood and walking and cycling among children from Australian primary schools. This revealed that negative perceptions of the characteristics of the built environment and transport system may influence children's physical activity. The study also revealed that Australian children aged 10-12 years were less concerned about road safety than their parents; but it is the parent's perceptions of road safety that had stronger associations with children's walking and cycling in the neighbourhood. This suggests that parents have the greatest influence and/or control of these behaviours.

Prezza et al. (2001) conducted semi-structured interviews with over 250 mothers living in Rome to investigate whether psycho-social factors influence children's (aged 7-11) independent mobility. Independent children were more likely to be male, older and living in apartment buildings with courtyards and near parks and with mothers who have strong neighbourhood relations. The authors posit that this probably allows mothers to rely more on diffused social control, i.e. passive observation and support from other neighbours.

There is a suggestion that children's travel behaviour and attitudes closely follow those of their parents (Scottish Executive, 2003) and they also internalise parental attitudes; thus the chauffeured child becomes a chauffeuring adult (Mitchell et al., 2007). Although not focusing specifically on independent mobility, a study (by Beets et al., 2007) revealed that parents getting involved in recreational activity was positively associated with children's (aged 8-11) outdoor physical activity suggesting that parents are an important component in the development of children's health behaviours (which could influence independent active travel). It is important to note, however, that there is little empirical evidence of the extent and type of parental restrictions on children's physical

activity or on how much children constrain their own behaviour in response to their perceptions of risk (Carver et al., 2008b).

3.4.5 Social and cultural norms and transformations

In this subsection we examine the evidence related to social and cultural norms; that is, how people believe they should behave (both privately and in public; personally, in relation to their children and other adults), their attitudes to transport and independent travel, and the impact this has on children's independent mobility.

Valentine (1997) has railed against 'adultist' tendencies towards children's mobility and has argued that children play a more significant role than is perhaps recognised. In a qualitative study examining America, Handy et al. (2005) found that parents choose to drive in order to provide for their children's activity needs. Research by Line et al. (2009) on the travel behaviour of young people and their attitudes to climate change further highlights this point. The authors reveal a general perception of lack of self-efficacy of young people towards tackling climate change in a large British city and conclude that their attitudes are dominated by their perception of a future in which they will own and use a car.

Lorenc et al. (2008) conducted a systematic review of attitudes to walking and cycling among children, young people and parents. This found that walking and cycling are perceived by children and young people as less convenient, pleasant and safe than travelling by car. However, it also highlighted that this perception may relate to cultural or preference-related influences as much as to structural factors. Low preference for walking and cycling may relate to perceptions of low status of these modes. However, children and especially young children are more positive than their parents about walking and cycling. One may draw from this that, while parents may have legitimate safety concerns about letting their children out alone, there are also important cultural pressures, leading parents to take their children to places by car for reasons other than safety.

Questions have also been raised surrounding what has come to be believed as 'good mothering'. For example, Sanger (1995, p. 719 cited in Collins and Kearns 2001) suggests that 'driving provide[s] evidence of good parenting and mileage (is) the measure of maternal contribution to familial welfare' in highly suburbanized Western cities. Robyn Dowling's (2000) qualitative case study of suburban mothers' car use in Sydney, Australia, also reveals that the car is used as a 'management tool', an aid in managing complex daily routines and the enabler of 'good mothering'. The study calls for more culturally aware research on this phenomenon. The significance of social norms was highlighted by Dyck (1990) who explored the meaning of the domestic workplace to mothers in Vancouver, Canada and showed how the notion of motherhood and the sets of practices making up 'mothering' were interpreted and negotiated as women responded to social and economic structuring.

Malone (2007) has also highlighted the complexities of parenting and Valentine (1997) has demonstrated through in-depth interviews with English parents how 'common-sense' understandings of the levels of independence that children can be granted develop through 'repetitive acts of parenting' and are reinforced through the interactions with other mothers. Freeman and Quigg (2009) highlight how today's children lead complex car-dependent lives and provide evidence that lifestyle patterns influence travel behaviour. Through mapping spatially the everyday lives of children aged 9-11 in 5 urban schools in the city of Dunedin, New Zealand and

considering the reasons for spatial activities, these researchers found that for many families, the local neighbourhood is no longer the primary focus of their daily activities which are becoming more dispersed across the wider city. Children's lives reflect the increasingly multifaceted nature of family life as they fit into complex family travel patterns dictated by multiple factors such as work access, travel to activities undertaken by different family members, travel involving extended family and childcare arrangements, leisure activities and shopping, as well as their level of car ownership.

Indeed, in their study of the journey to school in Britain Pooley et al. (2005) conducted in-depth interviews with four cohorts of people aged 10-11, 17-18, 30-39 and 60-69, and through qualitative analysis highlighted two key factors that have changed over time: parents' perceptions of the risks to children walking alone or in small groups and also the complexity of arrangements made to chaperone young children to and from school. The complexity of reproducing everyday life is attributed to the time-pressured lifestyle of a growing number of double-income households (Pol and Need, 2003) which creates time-space compression in order to fit in organized leisure activities but then leaving less time for children's independent travel (van der Spek and Noyon, 1995; Christensen and O'Brien, 2003; Neutens et al., 2007). Children therefore can see themselves as both suffering and benefitting from the car-dependent lifestyles of their parents, as highlighted by Uth Thomsen (2004).

Fotel and Thomsen (2004) highlight from interviews the rationality of some parents' reasons for escorting children to school by car typically because it is often on their same route to work. As noted earlier in this paper, Mikkelsen and Christensen (2009) also emphasise that children's mobility is primarily social and that companionship pervades every aspect of activity. Whilst performing a regular everyday routinised activity, such as travelling to school, children and parents may actually enjoy using the opportunity to spend time together. Zwerts et al. (2010) also confirm from a study of young people aged 10-13 years in Flanders that the most important part of travelling is its social aspect.

Further social and cultural factors have also been revealed in the literature to affect children's independent mobility. These relate to the influence of institutional policies that directly affect spatial activities and, of new home-based and portable technologies affecting it.

3.4.6 Schools, parental/student choice and distance to school

In the UK there has been an ongoing increase in the statutory rights parents have to request their children attend a particular school, which may not be the nearest one available and may therefore result in different modes of transport being used to get to it. The National Travel Survey (DfT, 2011b) indicates that journeys to primary schools have increased from 1.3 miles in 1995/97 to 1.5 miles in 2010 and to secondary schools from 2.9 to 3.5 miles over the same period. Flack (2009), commenting on earlier but similar figures, suggests the increase in choice 'has probably led to an increase in the length of journeys to school' but this needs to be separated out from other potential causes and influences such as increased income and car ownership and there are limited data available to make this assessment.

Collins and Kearns (2001) highlight the impact on school travel of market-oriented reforms based on the neo-liberal principles of the national education system in New Zealand. This requires state schools to accept all eligible children who live within their self-defined 'home zones' but they are also free to enrol children who reside outside them. Whilst beneficial to school rolls this has the

negative effect of increased traffic activity and increased distance travelled to school. Marshall et al. (2010) also report on the market-oriented approach in the USA. Their study reveals that travel distance has the greatest effect on travel mode to school, and that eliminating choice of school in areas where schools are provided on a district-wide principle would have significant impacts on transport modes (towards more active travel). Muller et al. (2008) highlight the case in Germany where declining enrolment and school closures are increasing chauffeuring because of the increased distance to schools. Similar observations from studies in other countries were made that identify distance as a key factor in the likelihood of active travel to school and therefore increased opportunity for non-chauffeured independent journeys (Fyhri and Hjorthol, 2008; Fyhri et al., 2011; Larsen, 2008; Pont et al., 2009; Rodriguez and Vogt, 2009; Wilson et al., 2010).

Attempts to reverse trends in school escort journeys by car in Denmark have been attributed to the Danish decentralised school system and improvements for cycling (Jensen, 2008). Kingham and Ussher (2007) also report the success of walking school buses (WSB) in Australia and argue that these schemes have many social benefits and can encourage children's independent mobility. However, Kearns et al. (2003) highlight that, *"although WSBs extend children's geographies they are, at best, an ambivalent response to the hegemony of motorized transport."*

3.4.7 The impact of mobile communications, new technologies and new forms of play

With the explosion of the availability of mobile communication devices and increasing access to them amongst young people, Fotel and Thomsen (2004) have questioned the extent to which children and young people are really independent given that parents are able to operate surveillance and a degree of remote control of children through mobile devices. The availability of this technology could be altering the landscape of negotiation between parents and children over where they are allowed to go on their own. Williams et al. (2005) discuss a practical workshop they held with children to explore the possibilities of 'pervasive mobile media' and 'how it can be used to enhance the ways in which children experience and interact with their physical environment and with each other in urban and public spaces'. This workshop revealed that mobile phone ownership *'is closely tied to parental purchases, and motivated by parental and child desires for parents to be able to contact their children when they have gone out alone or with others. Children stated that they were only able to go out if they took their mobile'* (Williams et al. 2005: p826). Children also related the use of their mobile to the handheld technology used in the workshop which might allow them to better interact with and understand their environment and its threats and opportunities.

Research by Tandy (1999) has explored changes in the nature and location of children's play over time in New South Wales, Australia. The current generation of children were found to have greater access to home-based leisure technologies, such as computer games consoles, and now prefer to play within the home. However, through further analysis, the author reveals that, given the chance, the majority of children would choose to play outdoors. Therefore, where they play may in fact be determined by knowledge of parental concerns about their safety.

Similarly, Karsten's (2005) study comparing children's space-time behaviour in the city of Amsterdam during the 1950s, early 1960s and today reveals the transformation of the public space of the street from child space for play to adult space for traffic and parking, and concomitantly private home space becoming more associated with child space. Karsten notes that although this may be regarded as a loss, it should be recognised that new children's activities have emerged outdoors as well as

indoors (although only skateboarding is given as an example of a new outdoor activity). Overall, however, Karsten's conclusion is that the children have experienced a loss of agency which deprives them of real-life experiences which may add to the arguments for putting child friendly outdoor space higher on the policy agenda. A study by Mota et al. (2007) to assess the relationships between transport to and from school (active vs. passive) and sedentary behaviours, however, found no statistically significant differences between different travel groups in the time spent watching television or using computers.

3.4.8 Physical environment factors affecting children's independent mobility

The complex timing and spatial patterning of activities can affect levels of children's independent mobility as the evidence above suggests. This is becoming more complex due to social and cultural transformations including institutional policies that affect, for example, the distance children have to travel to school or recreational facilities. Studies cited earlier highlight the effect of increasing distance. Fyhri and Hjorthol (2008) revealed how distance to school (and children's age) were the most influential variables on children's independent mobility for the journey to school. In a large survey of over 2000 Flemish children aged 10-13 years of age, Zwerts et al. (2010) also established that nearly two-thirds of parents do not allow their children to travel independently and that the further the distance from home, the more restrictions are imposed on independent travel. A study by Yelavich et al. (2008) focusing on the journey to school in Dunedin, New Zealand, also found that living less than 1km from school was a stronger predictor of walking there than having a car in the household or attending a school in a low socio-economic area.

The design of the neighbourhood may also serve to inhibit children's independent mobility. Davidson and Lawson (2006) conducted a review of studies that focus on the relationship between the built environment and physical activity in children. It revealed that this is positively associated with the local availability of recreational infrastructure and negatively associated with traffic density, speed and local conditions such as crime rates. Grow et al. (2008) found that proximity to recreational sites was associated with active travel to large parks and public open space amongst children and adolescents in the USA and state that this most likely reflects parents allowing their children/adolescents more opportunity to walk/cycle independently. Sutton's (2008) research into the use of public space amongst children from different social backgrounds in the UK established that disadvantaged children were more affected by the limitations of having less home and local space for play. The contrast between more affluent children's free time, which is heavily organised and structured, and less affluent children whose experience is less structured and more autonomous was noted with Sutton stating, 'Playing outside is fundamentally linked with disadvantage'.

According to a meta-review by Badland and Schofield (2005), the key urban design features attributed to transport-related physical activity (or active travel) are density, subdivision age (i.e. the age of the urban form, with older urban environments tending to being easier to walk around), street connectivity and mixed land use. In particular, these authors have found that parents moving to the suburbs, on the premise of providing more opportunities of play space for their children, paradoxically reduce their children's opportunities for independent mobility. This is due to the increased distance between activities and parental concerns over safety. However, a study of children living in contrasting urban environments (London and a lower-density new town) by O'Brien et al. (2000) revealed that children's freedom to move around their neighbourhood was greatest in

the new town. Mackett, Brown and Paskins (2005), showed that children's independent mobility was higher in Hertfordshire than in Lewisham in south east London.

As well as access to recreation space, other physical environment factors affect children's mobility. Larsen (2008) investigated characteristics of the social and physical environment that might influence a child's mode of travel between home and school in Ontario, Canada. This revealed that higher land use mix and the presence of street trees was positively associated with walking and cycling to school. In a study of young people in Taipei, Taiwan, Lin and Chang (2009) revealed that high shade-tree (tree-shade?) density and high pavement coverage are associated with more children walking to school independently, while large block sizes and increased intersection numbers have a deterrent effect. Mota et al. (2007) in a study of children in Portugal found that street connectivity was positively and significantly associated with active travel to school.

Carver et al. (2008a) examined associations between objective measures of the local road environment and physical activity (including active transport) among young people using a cross-sectional study of those aged 8–9 years and those aged 13–15 years in Melbourne, Australia. Road environment features were measured within an area of 800 metres of each participant's home. The study found that these features influence physical activity in different ways, varying by age group, sex and type of physical activity. For example, no associations were found between road environment features and children's likelihood of making at least seven walking/cycling trips per week to neighbourhood destinations. However, provision of pedestrian crossings was found to be associated with increased levels of walking and cycling amongst girls and, for boys, living in cul-de-sacs or areas with speed bumps was associated with more physical activity.

Several studies have compared children's mobility in urban and rural situations. Tillberg Mattson (2002) investigated the extent to which rural children's leisure time is less institutionalised and more directed to the local neighbourhood than that of children living in towns in Sweden. Empirical evidence revealed that rural children are engaged in urban-based activities to the same extent as urban children, but they enjoy less daily independent mobility than children living in towns. Parents in rural areas have become accustomed to time-space adaptation and are engaged in more frequent chauffeuring to enable their children to access leisure activities. Smith and Barker (2001) provide rich accounts of children's (aged 5 -12) views of their play environments in rural settings in England and Wales, demonstrating that few children living in rural areas experience unrestricted play in the countryside. The authors highlight how rural children's spatial mobility is being curtailed due to adult concerns over children's use of public space and how rural space for children's play is becoming increasingly commodified, privatized and institutionalized.

McMillan (2005) has reviewed planning and public health literature on the relationship between urban form and children's travel behaviour for the journey to school in the USA. The author developed a conceptual framework showing the complexity of the relationship between urban form and the school journey (Figure 3). While the issue of independent travel is not highlighted in the framework, the factors affecting parental decision-making would still seem relevant to independent mobility. The model identifies the key decision makers, the factors that may be considered and how these factors influence the relationship between urban form and the journey to school. This neatly emphasises the relationship between urban form and so-called mediating and moderating factors on parental decision making and ultimately on children's (independent) travel.

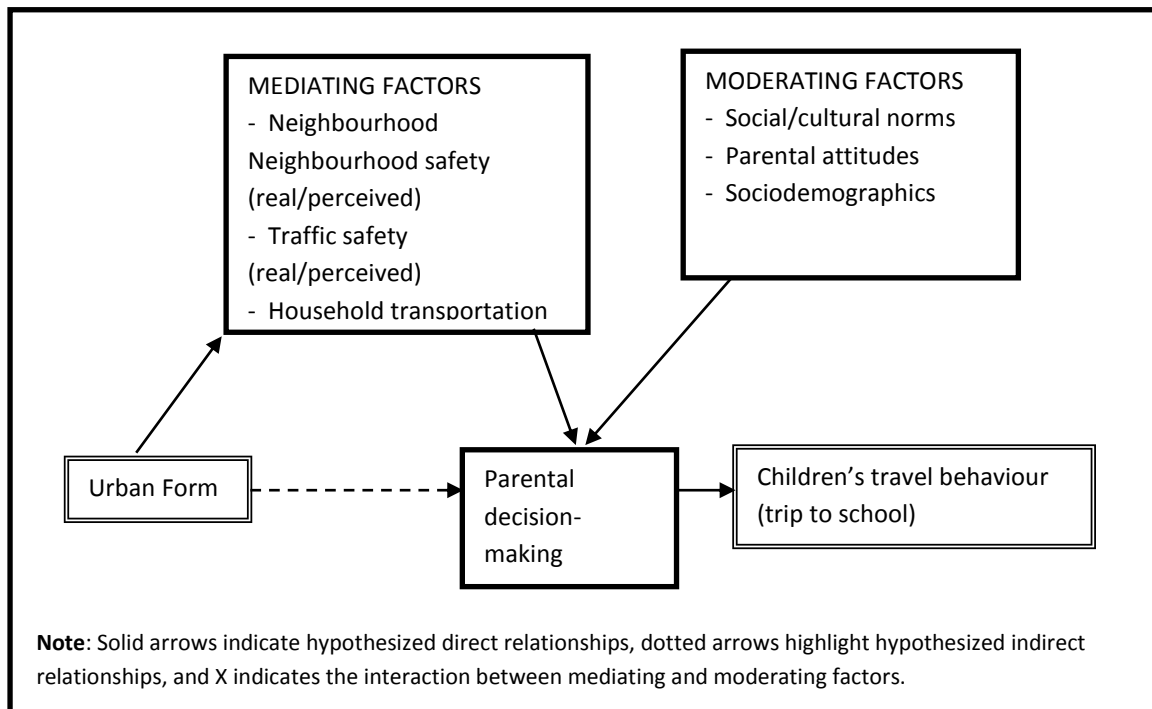


Figure 3: Conceptual Framework of Children's Travel Behaviour for the Journey to School (redrawn from McMillan, 2005)

3.5 Future approaches to the study of children's independent mobility

Fyhri and Hjorthol (2008: p2) note that, "the main body of research concerning children's independent mobility, or children and transport in general, is of an empirical nature and tends to lack any clear theoretical approach". One notable exception is Johansson's study on children's independent mobility in relation to Küllers Human Environment Interaction (HEI) model (Johansson, 2006; Küller, 1991). Indeed, Johansson (2006) calls for further studies of this nature across different countries and for an investigation of the interaction between children and parents in relation to attitudes towards choice of travel mode and trip-chaining and habitual car use when applying the HEI model. In their meta-analysis of studies that focus on the neighbourhood and children's physical activity, Carver, et al. (2008b) highlight that most studies are cross-sectional making it difficult to prove causality. These researchers also highlight the lack of empirical studies that are longitudinal so as to explore change over time.

Following their meta-analysis aimed at investigating the environmental correlates of children's active transportation, Pont et al. (2009) urge that particular attention is paid to the use of multi-level study designs. This includes measures of the local environment and parents' and children's perceptions of this so that comparisons between the objective and their perceived attributes and their relative impact on active travel can be established. This advice could equally be applied to studies of children's independent mobility. Future work could also build on projects done on theoretical models such as socio-ecological theory, which posits that behaviours are influenced by social and environmental factors, as well as intrapersonal factors. The importance of these factors in decision-making could also be explored again with the aim of understanding the nature of policy interventions that are most likely to be most effective in different situations.

There is little empirical evidence of the extent and type of parental restrictions on children's physical activity or on how much children constrain their own behaviour in response to their own

perceptions of risk (see Carver et al., 2008b). However, an Australian study reported lower levels of active transport among children (aged 10-11 years) and adolescent girls (aged 15-17 years) whose parents restricted their children's walking, cycling and physical activity during non-school hours due to safety concerns (Carver et al., 2010b). This is an area that could benefit from further investigation.

3.6 Conclusions and key issues emerging from the review

Children's independent mobility is the result of a complex interaction of factors. These factors relate to the attributes of children and their parents, the external environment in which they live and the cultural and social norms affecting people's choices and behaviour. As such, there is a wide range of literature relevant to the topic. This review has attempted to explore the literature in relation to: the definition of children's independent mobility; its value to children; the levels of and changes in independent mobility that children have experienced; and the range of factors that account for these levels.

Our main focus has been on the latter two issues of levels/trends of mobility and the factors that affect them. Given the complexity of the topic and the nature of the studies which have studied mobility in very different contexts, care should be taken in drawing definitive conclusions but we believe the following observations can be made:

- There is a long history of work exploring children's experience of the external environment, whether urban or rural and the impacts this may have on their health, well-being and personal development. This continues to be added to with the impact of changed lifestyles, in particular, those based around cars, and the development of new technologies now being explored in the literature.
- From a rights-based perspective, independent mobility would seem to be an important element of delivering the right of children to rest, leisure and play which are enshrined in the UN Convention on the Rights of the Child.
- The literature related to the health, well-being and personal development of children, which we have by no means explored fully, would suggest independent mobility is an important factor enabling benefits in these areas to be delivered. Further review and research work could usefully be done to clarify the relationship of independent mobility to benefits to children in health, well-being and personal development and other areas.

In terms of levels and trends in children's independent mobility it is difficult to be precise about the age at which children are granted independent mobility for the journey to school or for outdoor leisure activities. There are limited data to compare across different regions and countries, and the data that are available only give a limited insight into the variability of children's independent mobility, relating to specific geographical areas within each country across different time periods. However, this said the studies reviewed show a consistent reduction over time in independent mobility for children of primary school age.

There is a broad literature on the factors accounting for levels of independent mobility. As might be expected, age is consistently cited as a key factor – independent mobility increases with age. Other factors suggested to influence the degree of independent mobility include: living in urban areas, gender (with boys being more independently mobile than girls), proximity of destination, parental

behaviour and attitudes, socio-economic status and fear of traffic danger. However, other studies conflict with these findings for example in relation to stranger danger and gender. Much of the reduction in children travelling independently may be due to increased car use by parents/children.

The availability of new technology has made it possible to monitor children's mobility from a distance. For example, the use of mobile phones and devices that reduce the need for parents to be co-present on the trips their children make. This technology could be altering the landscape of negotiation between parents and children over where they are allowed to go on their own.

Research needs to focus on the diversity of children's mobility patterns, the local geographical contexts of children's movements and the different relations of interdependency that children's mobility involve. It has also been suggested that there is a further need to investigate cultural phenomenon such as social norms around 'good mothering' or parenting and children's own travel desires including the concept of *companionship* relative to *independence*. Future work could also build on projects done on theoretical models such as socio-ecological theory, which posits that behaviours are influenced by social and environmental factors, as well as intrapersonal factors. Understanding of the combination of factors affecting children's independent mobility will help in the development of successful policy interventions.

We will return to these issues in the discussion and conclusions at the end of the report and consider their implications for policy. In the following sections we report on our findings from the surveys conducted in 2010 and compare these with the previous surveys conducted in England in 1990 and 1971 and Germany in 1990.

4. Children's Independent Mobility in England 2010

This section presents detailed results from the English surveys conducted in 2010. Given that the primary interest of this study is in children's independent mobility, the levels of independent mobility observed among primary and secondary school children are reported first, as indicated by the six 'licences' of independent mobility reported by children and their parents (envisaged as similar to adults being granted a driving licence, in recognition of their experience and competence to drive on main roads). These were:

- Licence to cross main roads alone
- Licence to travel to places other than school within walking distance alone
- Licence to travel home from school alone
- Licence to go out alone after dark
- Licence to cycle on main roads alone (parents' response)
- Licence to use local buses alone (children's response).

Next, types of journey children make is presented, the transport modes these are made by and whether or not children are accompanied by an adult on them. The factors that may account for the variations in the levels of independent mobility observed are then considered, including variables such as socio-economic status, age and gender.

4.1 Licence-holding for independent mobility

The level of children's independent mobility was determined by considering whether or not children have been granted six licences of independent mobility by their parents. These licences are the granting of permission from parents for their children to travel or play outside the home *when unaccompanied by adults*. For three of these licences (crossing roads, using local buses and cycling to places) two measures are available – one from the children's questionnaire, and one from the parent's questionnaire. The differences between answers given by parents and children are explored in the following sub-section.

Licence	Primary school children	Secondary school children
Licence to cross main roads alone (children's response)	55	99
Licence to cross main roads alone (parents' response)	36	95
Licence to travel to places other than school <i>within walking distance</i> alone	Between 7 and 33 per cent (7 per cent of children usually travelled alone, while for a further 26 per cent it 'varies')	Between 42 and 83 per cent (42 per cent of children usually travelled alone, and for a further 43 per cent it 'varies')
Licence to travel home from school alone	25	88
Licence to go out alone after dark	2	25
Licence to cycle to places without any grown-ups (children's response)	60 per cent of cycle owners (91 per cent own a bicycle)	93 per cent of cycle owners (81 per cent own a bicycle)
Licence to cycle on main roads alone (parents' response)	11	51
Licence to use local buses alone (children's response)	12	87
Licence to use local buses alone <i>other than a school bus</i> (parent's response)	5	59

Table 14: Percentage of English primary and secondary children granted licences of independent mobility, 2010.

It can be seen from these figures that the surveyed primary school children in England in 2010 had limited independent mobility. Nearly half of the primary school children reported that they had the most basic licence of independent mobility – permission to cross roads alone. Only a third were allowed to go on their own to places other than school and only a quarter came home from school alone. Almost no primary school children are allowed out alone after dark.

For the mechanised modes of buses and bicycles, i.e. the modes that could significantly increase the independent range children have, between 5 and 12 per cent of the primary school children (depending on whether the answers for children or parents are used) were allowed to use buses. A very high proportion of children reported owning bicycles and nearly two-thirds said that were allowed to cycle to places without grown-ups. While this initially seems to indicate widespread use of bicycles by primary school children, it is interesting to note that parents reported a far lower percentage of primary school children (11 per cent) were allowed to cycle on main roads alone. On the basis of the journey to school on the day of the survey, independent usage of bicycles seemed to be very low, with only 4 per cent of primary school children and 2 per cent of secondary school children cycling to school on the day they were surveyed (Figure 4 below).

At secondary school virtually all children were allowed to cross roads alone and four-fifths or more were allowed to go to places other than school, come home from school, use buses and cycle to places alone. The most notable restriction on independent mobility for the surveyed secondary school children is that only a quarter of them were allowed to go out after dark. While overall the levels of independent mobility for secondary school children may seem to be reasonably high, the restriction on going out after dark is a significant one. During the autumn and winter months the

early time of sunset and the end of twilight¹⁶ will curtail the activities children might want to engage in following the end of the school day. We assume from the results of the survey (conducted in February and March when the sun sets relatively early) that children are allowed to come home from school in the dark but that restrictions are placed on journeys to other places when it is dark.

4.1.1 Differences between children's and parents' responses

For three of the licences, both children and parents' answers to similar questions are available. There were differences between the responses of children and parents to the various questions about the licences. Firstly, it is notable, that the children's responses indicated higher levels of independent mobility for all three licences than the equivalent responses from their parents. Whether this continued divergence reflects children's desire to be independent, or the feeling that they are capable or should be allowed to be independent (or even a degree of boasting) is not clear. Alternatively, it may show that parents are subject to social desirability bias, and that restricting their children is seen as good parenting.

For the licence to cross roads alone, the divergence between children's and parents' responses narrows sharply with increasing age. The highest level of divergence is found at in year 4 children (age 8-9) when 50 per cent of children but only 20 per cent of parents reported that the children were allowed to cross main roads alone, but as the age of the children increase the percentages of parents and children reporting that the licence has been granted then converge. For the licence to use local buses alone, by comparison, the children's and parents' responses remain divergent throughout all age groups, with a higher percentage of children at all ages stating that they had the licence to travel on local buses alone than their parents.

For the licence to cycle on main roads, the answers are widely divergent – with 60 per cent of primary school children indicating that they were granted this licence, while only 11 per cent of primary school parents said that they allowed their child to cycle on the main roads alone. The difference in responses to the cycling question is probably largely accounted for by the different framing of the questions. Children were asked 'if you have a bicycle, are you allowed to ride it to go to places (like the park or friend's houses) without any grown ups?' This question does not mention cycling on a main road. By comparison, the parents were asked 'Is your child allowed to cycle on main roads alone?'

One further difference between parents' and children's answers is in relation to their licence to travel to destinations other than school. The parents' questionnaire asked 'When going to places other than school that are *within walking distance*, is your child taken there or allowed to go alone?' This question had three responses – 'usually goes alone', 'usually taken', and 'varies'. This gave the following results:

- Between 7 and 33 per cent of primary school children were allowed to go on their own to places other than school (7 per cent of parents said their child usually travelled alone, while another 26 per cent said it 'varies')

¹⁶ Following the switch from British Summer Time to Greenwich Mean Time at the end of October, sunset in England is not later than 5pm until early in February, with the end of twilight following up to 35 minutes later depending on weather conditions.

- Between 42 and 83 per cent of secondary school children were allowed to go on their own to places other than school (42 per cent of parents said their child usually travelled alone, while another 43 per cent said it 'varies')

However, the children's questionnaire asked 'How safe do you feel on your own in your local neighbourhood?' with an option of 'not allowed out on my own'. Only 16 per cent of primary school children indicated that they are not allowed out in their local area alone. This is well above the top of the range given by parents' answers, but the wording of the question may reflect a licence to go out in the immediate locality rather than to destinations further away. A question asked to parents in relation to mobile phones also indicates that 69 per cent of primary school children who own mobile phones were allowed out alone. However, mobile phone ownership increases with age, and once this is adjusted for children's independence is more in line with the answers to the parental question on travelling alone to destinations other than school.

4.2 The journey to and from school

4.2.1 Mode of travel

At both the primary and secondary schools surveyed a majority of children walk to school and only a very few cycle, as indicated in Figure 4. A third of primary school children were driven to school, a figure which dropped to 16 per cent for secondary school children. Given the high levels of households that reported having access to one or more cars in the surveys – 85 per cent of households of primary school children and 68 per cent for secondary school children (Figure 5) it is perhaps surprising that more children were not driven to school.

Very few primary school children took a school bus or public transport to school, whereas a quarter of secondary school children did so. In two of the areas surveyed (Oxfordshire and Winchester) a school bus service was provided for secondary school children, which accounted for a large proportion of children's mode of travel to school (49 per cent and 24 per cent of secondary school children in each area respectively). This means that use of public transport is even lower than suggested by Figure 4 among secondary school children in the other three areas where school buses were not provided.

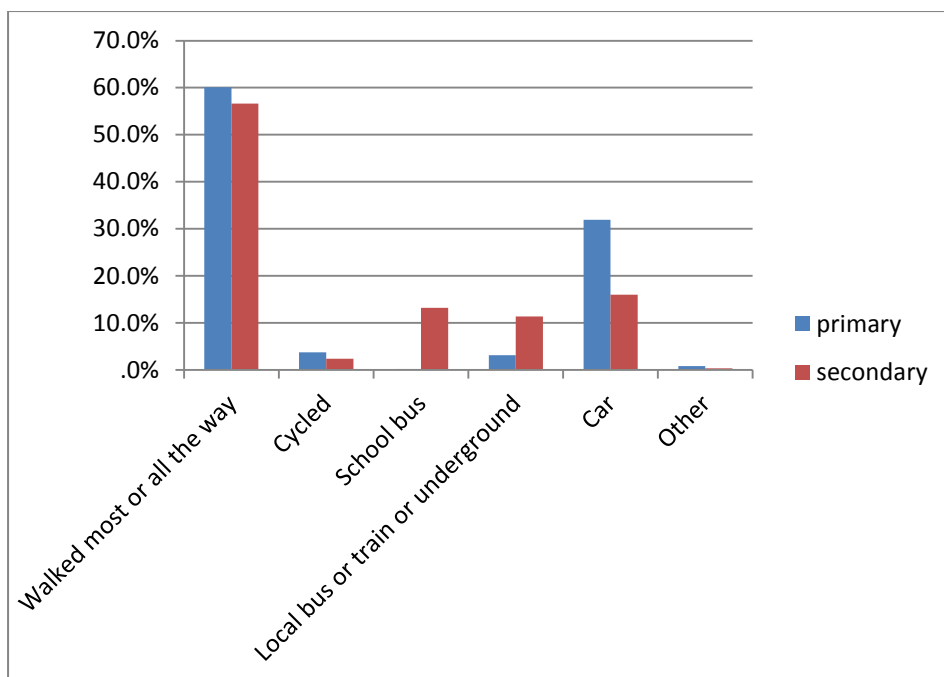


Figure 4: Percentage of children reporting the mode they used to travel to school on the morning of the survey, by primary and secondary school children

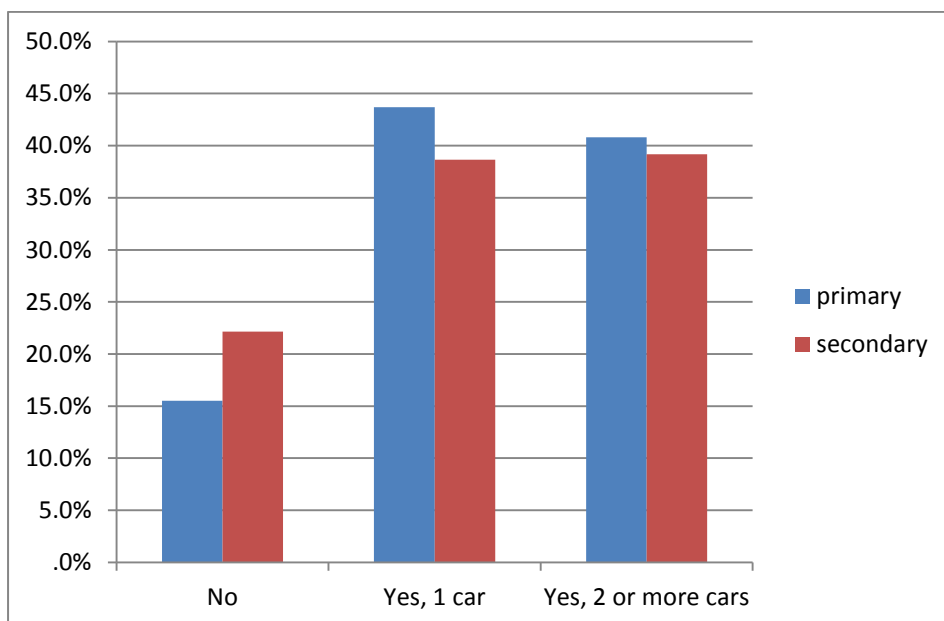


Figure 5: Percentage of parents reporting that their household has regular access to a car, by primary and secondary school children

The mode used by children on the way home from school was very similar to that for the journey to school. The only difference was that 5 per cent fewer secondary school children were driven, and more walked home. This is consistent with fewer parents being available to pick their children up at the end of the day because of work or other commitments and/or some children travelling home with friends and their parents.

4.2.2 Preferred mode to school

Children were asked to indicate their preferred mode of transport to get to and from school. The question was asked to gauge the degree to which children were content with how they got to and from school. The results are given in Figure 6. Nearly 70 per cent of primary school children and 60 per cent of secondary school children indicated a preference for active travel modes, i.e. walking and cycling, but this preference for active travel peaks in Year 5 (9-10 year olds) and then drops gradually through to Year 10 (14-15 year olds – see Figure 7).

Primary school children indicated a strong preference to cycle over other modes (cycling was chosen by nearly 50 per cent of primary school children) and secondary school children indicated a preference for walking over other modes. This is perhaps surprising given the longer distances involved in travelling to secondary school¹⁷. The popularity of walking is consistent with the importance of sociability for secondary school children noted in the literature review, with evidence showing that children like spending time with friends on their way to and from school.

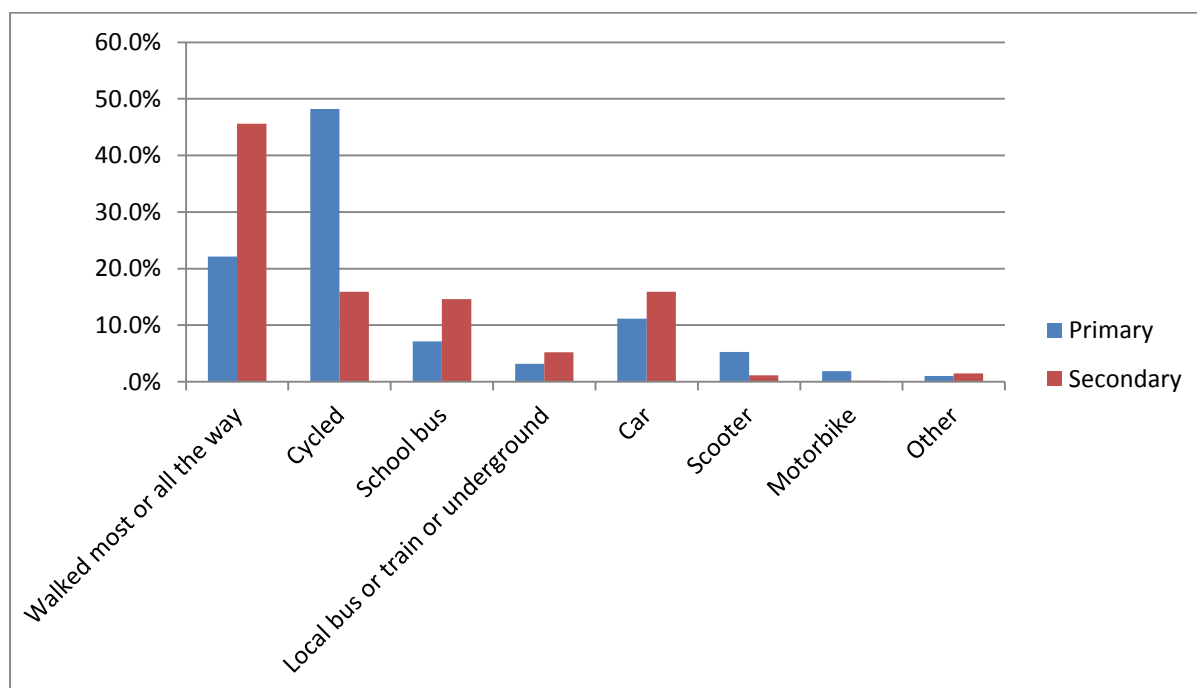


Figure 6: Percentage of primary and secondary school selecting each mode of transport as their preferred mode for travelling to and from school

¹⁷ The mean distance to school along main roads and footpaths for primary school children in our sample was 1512m (or 0.94 miles). The mean distance to school for secondary school children was 4541m (or 2.82 miles). These were estimated by the distance from the school to the middle of the child's home postcode using a GIS overlay. The National Travel Survey 2010 (DfT, 2011b) indicates that between 1995/97 and 2010 the average trip length for primary school children increased from 1.3 to 1.5 miles, and for secondary school pupils from 2.9 to 3.5 miles.

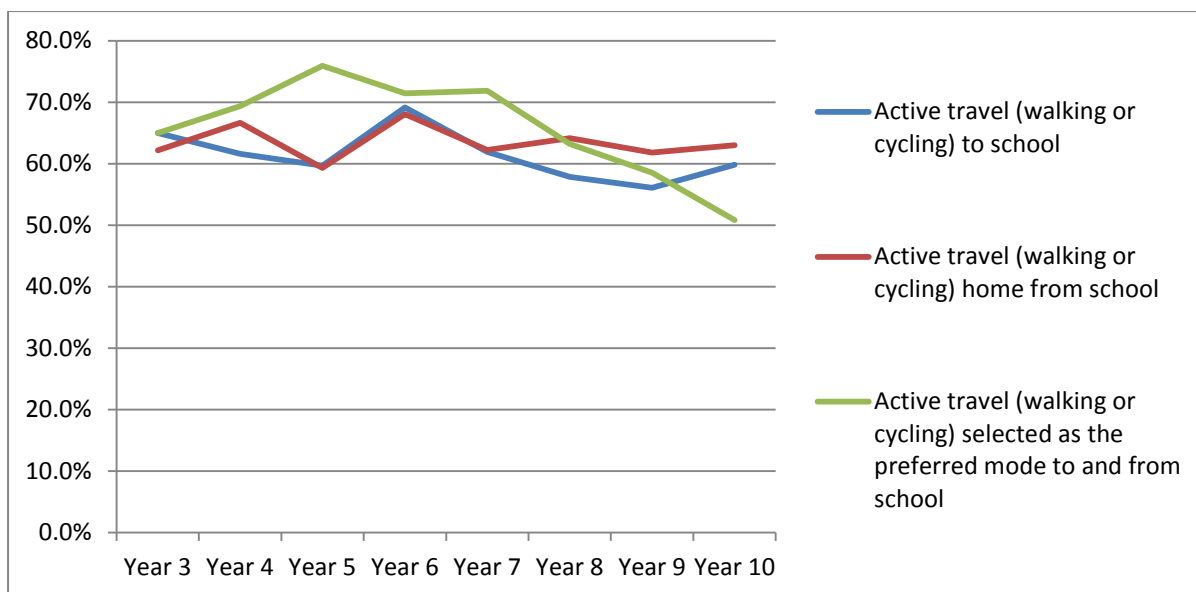


Figure 7: Percentage of children who selected active travel as their preferred mode of transport, compared to the percentage who travelled by active transport on the journey to or from school on the day of the survey, by year group.

The preferred mode of travel to school was similar for girls and boys at primary school but differences occur at secondary school as shown in Table 15. Walking became more popular in secondary school for both boys and girls. Cycling became less popular for both boys and girls but the drop was greater for girls. It is notable that 59 per cent of secondary school girls and 68 of secondary school boys had a preference for active travel (walking or cycling) to school. Consistent with the findings reported in the literature review, the more sociable modes of travel (walking and public transport) are preferred by girls.

Mode	Primary girls	Primary boys	Secondary girls	Secondary boys
Walk %	27	28	49	44
Cycle %	50	48	9	24
Public transport/school bus %	11	10	23	17
Car %	10	12	18	14

Table 15: How would you like to have travelled to school this morning?

Children's preferences for mode of travel to school vary with age as shown in Figure 8 (Year 3 children are 7-8 years old and year 10 children are 14-15 years old). The preference for cycling drops off steadily from a peak of 52 per cent in year 5, to 6 per cent in year 10. The preference for being driven increased in secondary school (unevenly but in overall terms), peaking in year 10 at 25 per cent which is consistent with the observations of research cited in the literature review that the proportion of children with pro-car attitudes increases with age.

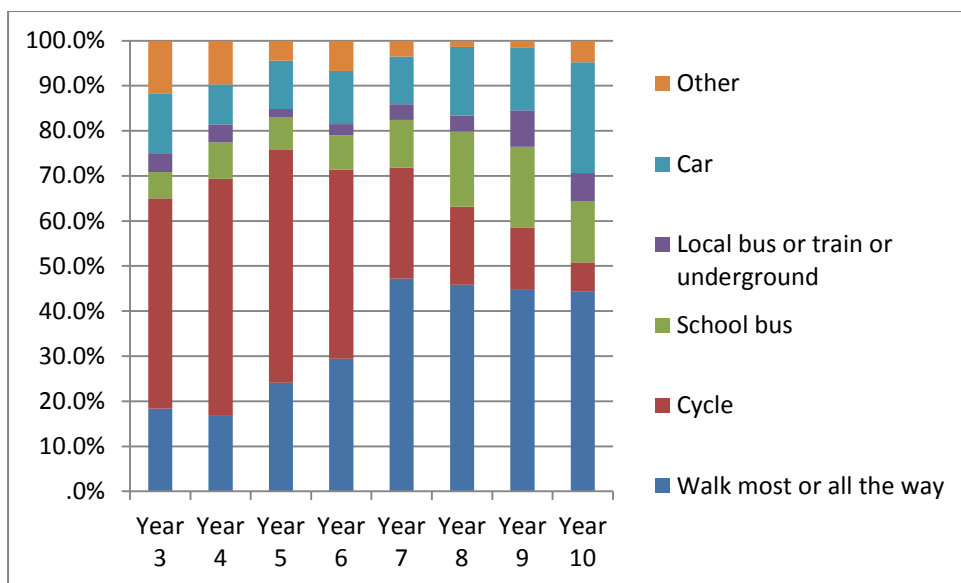


Figure 8: Percentage of children selecting their preferred mode from travelling to and from school, by year group

Given the high proportion of children walking to school, the desire of children to use active modes of travel, and current low levels of independent mobility on the journey to and from school there would seem to be the considerable scope for increasing independent mobility without necessarily having to focus on the additional challenge of a modal shift away from cars. i.e. through an increase in children's independent travel via walking or cycling.

4.2.3 Modes of travel to school by gender

There are few differences between boys and girls in the modes used to travel to and from school and their preferred mode. The proportions are broadly similar to those given in Figure 4. On the journey to primary school more girls than boys walked (64 versus 56 per cent), but more boys than girls cycled (6 versus 2 per cent). For secondary school children the differences were small, although more boys than girls reported cycling to school (4 versus 1 per cent).

4.2.4 Accompaniment to/from school

On the day of the survey, 77 per cent of primary school children reported being accompanied to school by a parent or other adult, and 78 per cent on the journey home. 17 per cent of secondary school children reported being accompanied to school by a parent or other adult, and 13 per cent on the journey home. The accompaniment figures for the journey to school are shown in Figure 9.

When asked how many days a week their child is typically collected from school by an adult, parents reported that 77 per cent of primary school children were accompanied to school by an adult every weekday, whereas only 11 per cent of secondary school children were accompanied to school every weekday.

Given the observed modal split of transport to school, and in the absence of changes to that split, at least 32 per cent of primary school children have to be accompanied by an adult as they were driven to school. In fact, of the 77 per cent of primary school children who were accompanied to school, 41 per cent were escorted in a car and 52 per cent were escorted by parents or other adults who walk with them.

Following the transition to secondary school, accompaniment by parents or other adults drops. Only 17 per cent of secondary school children were escorted to school by a parent or other adult. Of these, nearly three-quarters were accounted for by parents who drove their children to school, with about one in six accounted for by children who travelled on a school bus with an adult. Only 10 of the 544 secondary school children surveyed reported being accompanied to school by a mode other than car or school bus. The reasons for accompaniment are explored below in the discussion of why independent mobility is granted to some children and not others.

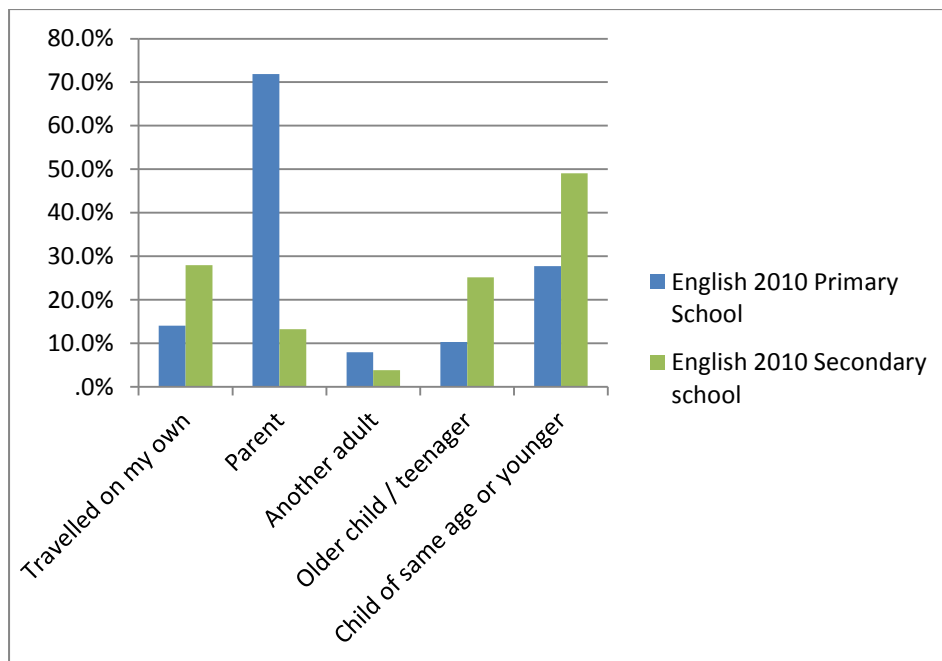


Figure 9: Percentage of children accompanied to school, by type of school (totals exceed 100 per cent as a multiple-response question was used)

4.2.5 Accompaniment by gender

As noted above a large majority of primary school children were accompanied to school (77 per cent). A slightly larger proportion of primary school boys surveyed travelled alone to school (e.g. without parents *or other children*) compared to girls (16 versus 11 per cent). While this is only a small difference it becomes larger at secondary school, with 36 per cent of boys travelling alone to school on the day of the survey, compared to 21 per cent of girls (Figure 10).

However, just because boys report travelling to school alone does not mean that girls are restricted from making the same journeys without adults. At secondary school the percentage of both boys and girls accompanied by a parent or another adult was similar (16 per cent of girls and 18 per cent of boys). This is because girls report in higher proportions than boys that they travelled to school with other children, both older and younger, which is consistent with the findings reported in the literature review of the importance of sociability to girls.

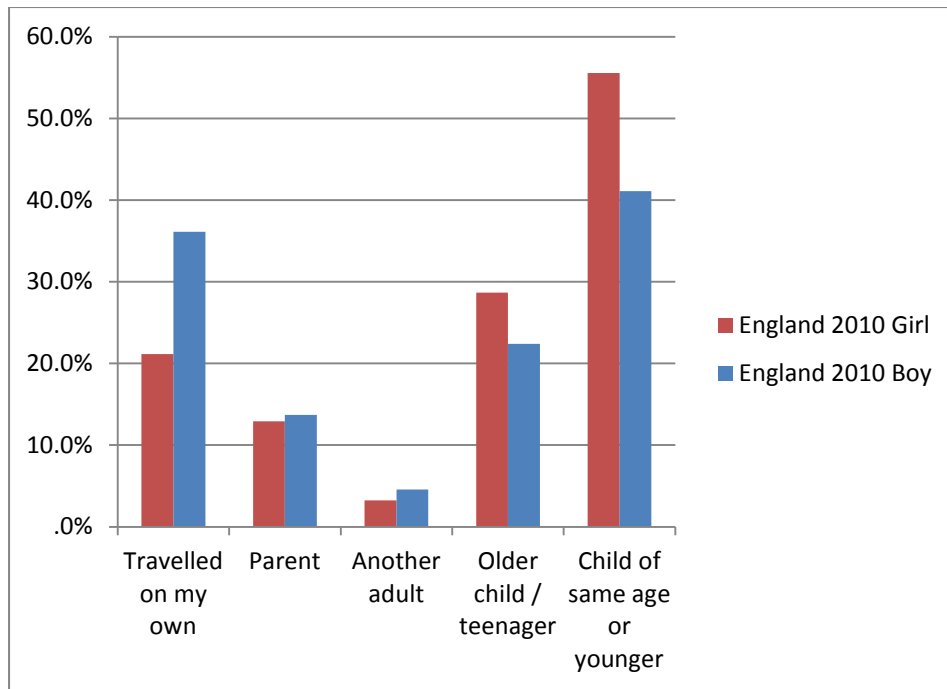


Figure 10: Percentage of secondary school children accompanied to school on the morning of survey, by gender

4.2.6 Length of journey to school

Children were asked to indicate how long their journey to school was. They were asked to specify journey length in minutes rather than distance as this was felt likely to generate more reliable answers¹⁸. More than 90 per cent of primary school children and more than 60 per cent of secondary school children's journeys took under 15 minutes, as shown in Figure 11. Ninety-nine per cent of surveyed primary school journeys were under half an hour. Journeys to secondary school were longer, as would be expected given their larger school size and consequent catchment area, but 94 per cent of journeys were still under half an hour.

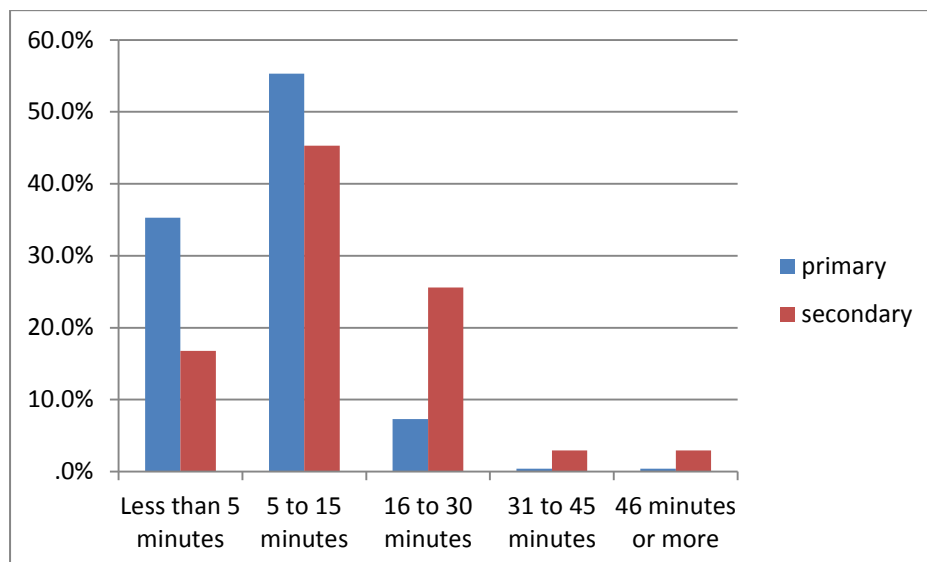


Figure 11: Percentage of children reporting their journey time to school on the day of the survey, by primary and secondary school

The approximate distance from the centre of each surveyed child's home postcode (where available) to the location of the school was estimated using a GIS overlay to calculate the approximate distance along the road network. The findings of this mapping exercise broadly fit with the children's estimates of journey time.

The majority of the primary school children (59 per cent) lived within 1km of the school, and 83 per cent lived within 2km of the school. Thirty-five per cent of secondary school children lived 3km or more away from their school, but more than two-thirds of the children who lived 3km or more away were concentrated in Winchester and Oxfordshire – the more rural areas surveyed, where school buses were provided by the local authority to bring children to school from surrounding villages and outlying areas.

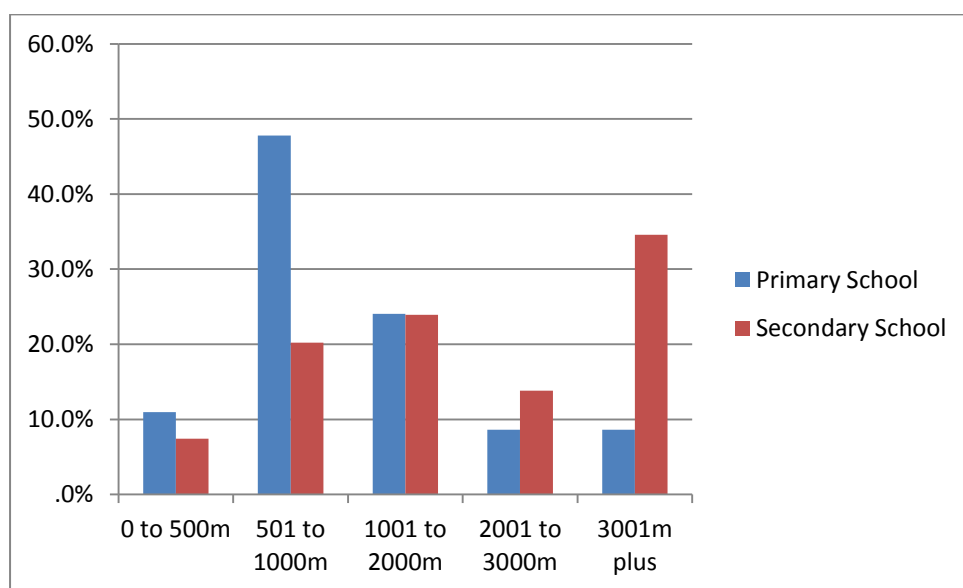


Figure 12: Percentage of children living within approximate distance bands from child's house to school (using a GIS overlay to estimate journey length along road system).

67 per cent of primary and 72 per cent of secondary children attended the school nearest to their home. The main reasons given by parents for their child not attending the nearest school from a prompted list of answers were 'Did not want to send child to local school or preferred a specific school elsewhere' (15 per cent of parents who responded to the relevant questions) and 'Moved home after child started at school' (9 per cent of the parents who responded to the relevant questions). The most frequent other answers given in an unprompted 'other...' category also related to the perceived higher quality of a school further away and that siblings already went to the more distant school.

As might be expected, far more of the children who **did not** attend the closest school were driven to school, and far fewer walked (Figure 13).

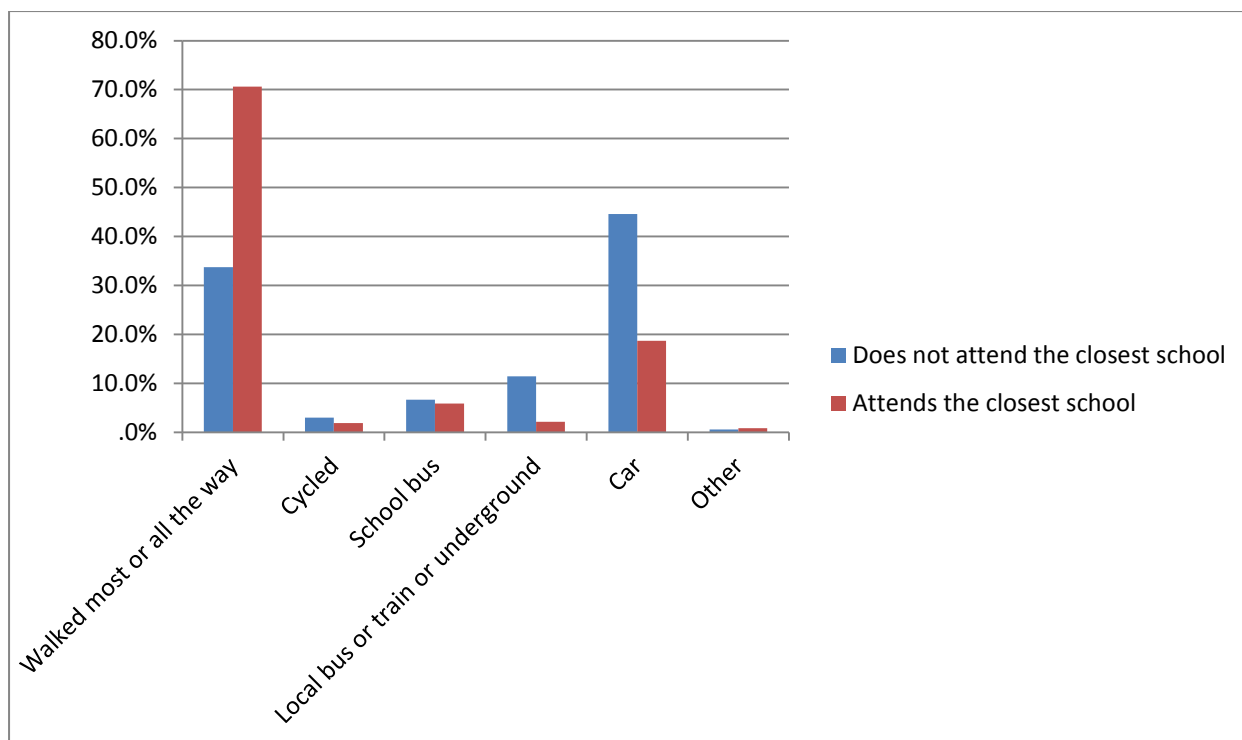


Figure 13: Percentage of children who used different modes to travel to school on the morning of the survey, by whether they attended the closest school

4.3 Non school travel and activities

There can be a tendency to consider the level of mobility children have only in relation to their attendance at school. Once weekends and school holidays are taken into account, children only go to school on just under half of the days in the year and less than half of their waking hours on school days are spent at school. It is therefore important to consider independent mobility in relation to non-school activities. Children engage in a wide variety of non-school activities, and mobility related to these activities is likely to present greater opportunities for social and physical development and learning experiences than the fixed and often time-pressured journey to school. As such, non-school activities may give a better indication of the extent to which children really have independent mobility.

4.3.1 Weekend journeys

Children were asked to indicate the activities that they had travelled to outside the home over the previous weekend (i.e. the two days before they completed the survey on Monday) and whether they had been accompanied by an adult for these journeys. From the prompted list of options given on the questionnaires, the destinations selected most frequently by both primary and secondary children were 'visited a friend's home' and 'went to the shops' (Table 16). The options selected least frequently by both primary and secondary school children were 'went to a library', 'went to a concert or nightclub' and 'visited a place of worship'.

Primary school children	Secondary school children
Visited a friend's home Went to the shops Went for a walk or cycled around Went to a playground, park or playing field Played sport or went swimming	Visited a friend's home Went to the shops Went to a playground, park or playing field Spent time with friends outside after dark Went for a walk or cycled around
Source: Children's Questionnaire. Listed in order of preference, most common first. Activities selected from a prompted list.	

Table 16: Children's most commonly reported destinations for travel in the weekend before the survey, by type of school.

The numbers of weekend journeys children engaged in are given in Table 17 for primary school children and Table 18 for secondary school children (reported by the children for the most recent weekend, which was 1-2 days before the survey). Primary school children, on average, engaged in about four weekend journeys to activities outside the home, and a majority of these were accompanied rather than unaccompanied (62 per cent versus 38 per cent). For secondary school children the average number of journeys was similar but three-quarters of the activities were unaccompanied.

	Unaccompanied weekend journeys (n=481)	Accompanied weekend journeys (n=481)	All weekend journeys (n=481)
Total number of journeys undertaken by sampled children	742 (38%)	1235 (62%)	1977
Mean no. of journeys per child	1.5	2.5	4.1
Median no. of journeys per child	1	2	3

Table 17: Number of primary school children's weekend journeys outside of the home.

	Unaccompanied weekend journeys (n=546)	Accompanied weekend journeys (n=546)	All weekend journeys (n=546)
Number of journeys in sampled children	1759 (74%)	613 (26%)	2372
Mean no. of journeys per child	3.2	1.1	4.3
Median no. of journeys per child	3	1	4

Table 18: Number of secondary school children's weekend journeys outside of the home.

The means given in Table 17 and Table 18 do not reveal the variation in the number of journeys to weekend activities undertaken by different children. Only 3 per cent of primary school children and 3 per cent of secondary school children did not make any weekend journeys to activities outside of the home (whether accompanied or unaccompanied). However, it is notable that nearly half of the primary school children and 15 per cent of secondary school children did not make journeys to weekend activities outside the home *unaccompanied*. This is consistent with the response given to the question about the licence to go alone to places other than school in which parents indicated that up to 33 per cent of primary school and 83 per cent of secondary children *are* allowed to travel alone to places within walking distance.

To illustrate the differences in number of journeys to activities undertaken by children at different ages, the median and highest and lowest quartiles of the number of accompanied and unaccompanied journeys to activities in the previous weekend are calculated for 8-year olds (some of the youngest in our sample), 11-year olds (the median age in our sample) and 14-year olds (some of the oldest children in our sample) (Table 19 and Table 20). As might be expected it is the older secondary school children who accounted for more of the unaccompanied journeys to weekend activities.

	Lowest quartile of unaccompanied journeys undertaken outside the home at the weekend	Median number of unaccompanied journeys undertaken outside the home at the weekend	Highest quartile of unaccompanied journeys undertaken outside the home at the weekend
8-year olds (n=118)	0	0	2
11-year olds (n=123)	0	2	4
14-year olds (n=127)	1	4	6

Table 19: Number of *unaccompanied* journeys to activities undertaken by children at three ages, by lowest, median and highest quartile.

	Lowest quartile of accompanied activities undertaken outside the home at the weekend	Median number of accompanied activities undertaken outside the home at the weekend	Highest quartile of accompanied activities undertaken outside the home at the weekend
8-year olds (n=118)	2	3	4
11-year olds (n=123)	1	2	3
14-year olds (n=127)	0	1	1

Table 20: Number of *accompanied* journeys to activities undertaken by children at three ages, by lowest, median and highest quartile.

4.3.2 Weekend journeys to activities by gender

The number of weekend journeys to activities was the same for both boys and girls at primary school, on average 4.1 activities per weekend. This increases slightly with the move to secondary school. While the *numbers of journeys* were similar the *levels of accompaniment* varied by gender. Sixty-eight per cent of primary school girls' journeys to weekend activities were accompanied by parents or other adults compared to 60 per cent of boys'. The percentage of accompanied journeys reduced significantly for secondary school children, but girls are still more frequently accompanied on their weekend journeys than boys: 29 per cent of girls versus 23 per cent of boys.

	Girls	Per cent journeys within gender	Boys	Per cent journeys within gender	All	Per cent journeys within school type
Primary						
No. unaccompanied journeys	297	32%	415	41%	712	37%
No. accompanied journeys	619	68%	596	59%	1215	63%
Total	916		1011		1927	
Sample size	229		241		470	
Average number of journeys	4.0		4.2		4.1	
Secondary						
No. unaccompanied journeys	865	71%	790	77%	1655	74%
No. accompanied journeys	351	29%	240	23%	591	26%
Total	1216		1030		2246	
Sample size	279		242		521	
Average number of journeys	4.4		4.3		4.3	

Table 21: Number of primary and secondary school children's weekend journeys to activities, by gender.

4.3.3 Parental escorting of children

If children are not allowed to go to places without an adult they either have to be accompanied by a parent or other adult, or are prevented from travelling outside of the home. Having independent mobility may therefore enable children to undertake more journeys and to lead a more varied life. We explore this later in the section on the factors influencing independent mobility.

A lack of independent mobility will impact on the parent as well. If a trip is to be made and a child is not granted independent mobility, the parent will have to escort the child on trips and activities outside the home. To get an indication of the amount of escorting of children parents were involved in, parents were asked 'What is the approximate number of round trips made each week to accompany your child, excluding the journey to school?'. The number of escorted trips drops from a mean of 3.9 trips per week among primary school children, to a mean of 2.3 trips per week among secondary school children.

Parents were also asked about the mode of transport they most frequently used for round trips where they accompanied their child, *excluding* the journey to school. Parents were allowed to indicate as many options as they wanted. Results are displayed in Figure 10. Car travel was clearly the mode of transport most frequently used by parents to accompany children, being selected by 72 per cent of primary school parents and 79 per cent of secondary school parents. This is all the more striking as car use was relatively limited in Islington, where only 33 per cent of responding parents picked this option. In the other four areas, car was one of the options chosen by between 70 and 86 per cent of parents.

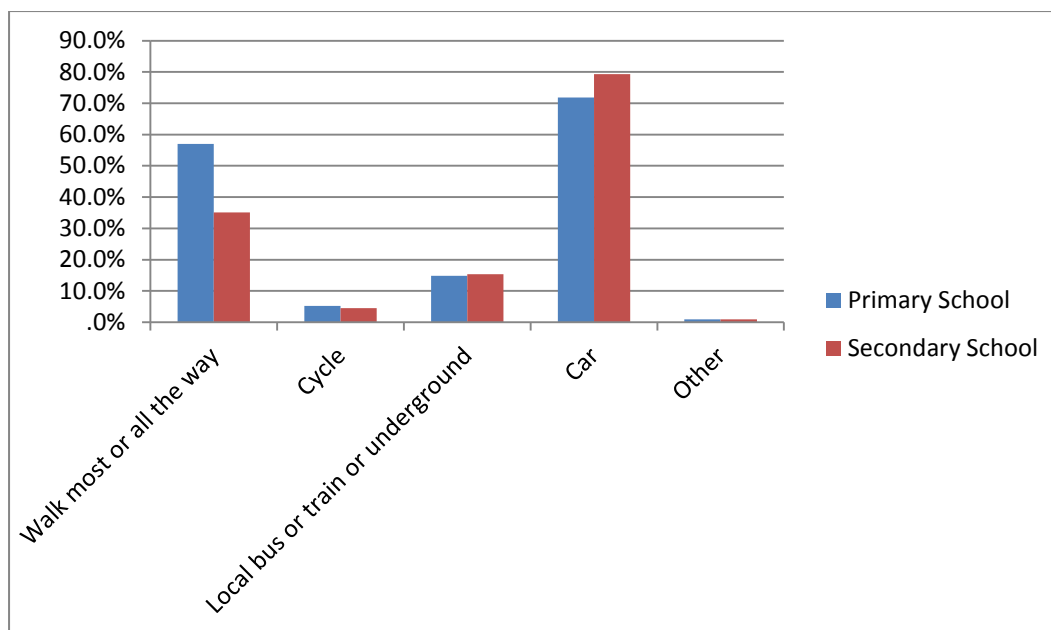


Figure 14: Percentage of parents choosing the modes of transport most frequently used when accompanying their child on round trips to destinations other than school (parents could tick as many options as they wanted).

The mode used to accompany children on the journey to school and the expected mode for escorting the child home from school can also be examined. Among primary school children, around 40 per cent of the children who were accompanied travelled by car to and from school; but interestingly, over 50 per cent walked to school with a parent or other adult.

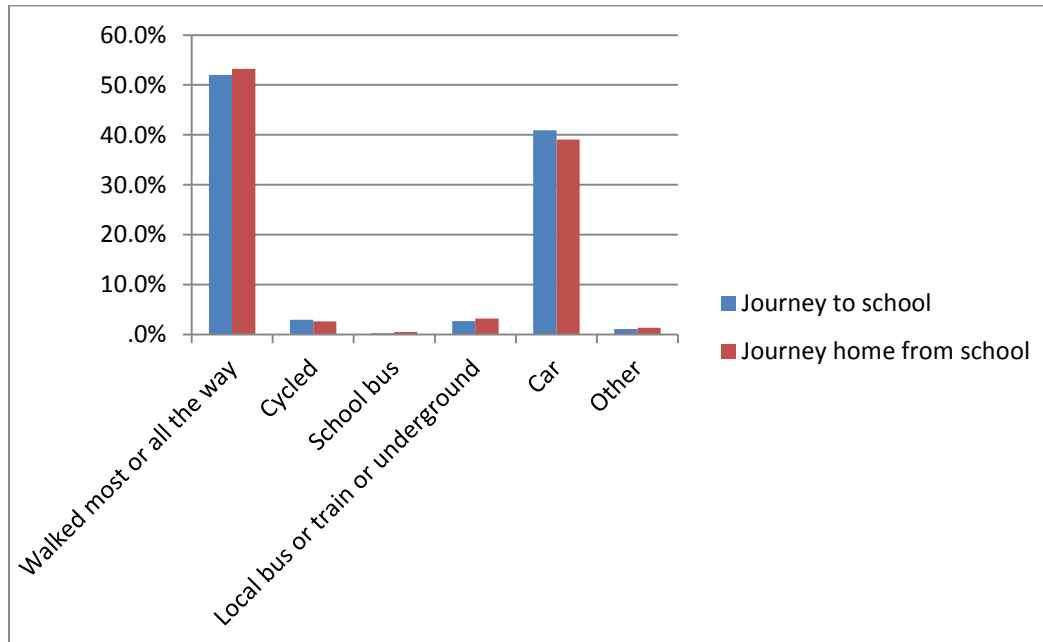


Figure 15: Percentage of primary school children who were accompanied by a parent or other adult who report they will use each mode on the journey to and from school.

Among the 17 per cent of secondary school children who were accompanied to school, and the 13 per cent who were accompanied home from school, over 5 out of 6 children who were accompanied either travelled in a car or a school bus. Only 5 per cent of secondary school children who were

accompanied travelled by walking or cycling with a parent to school; and only 10 per cent on the journey home from school.

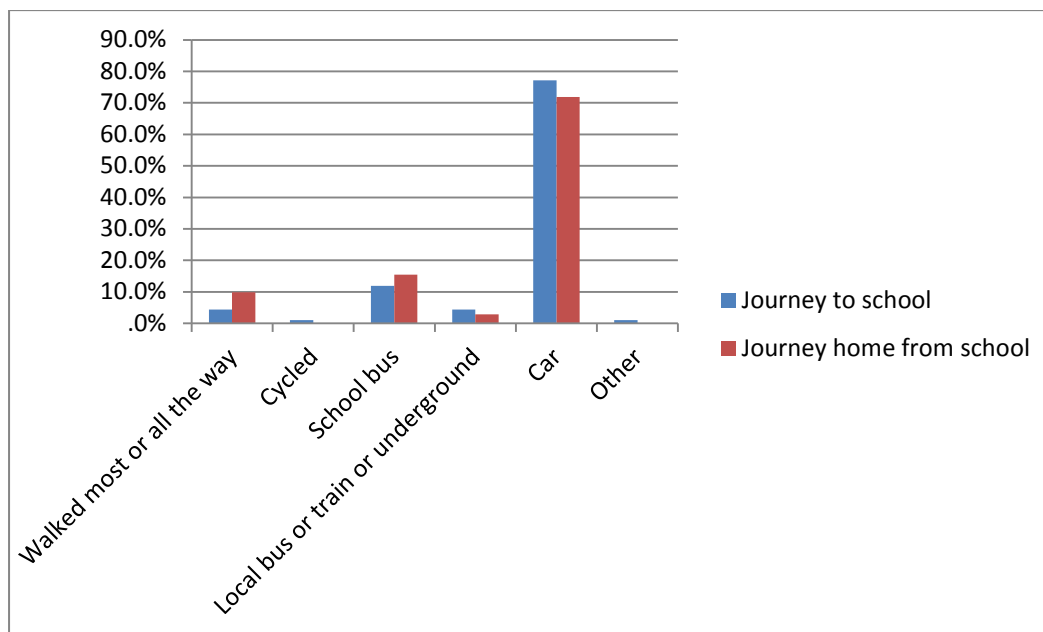


Figure 16: Percentage of secondary school children *who were accompanied by a parent or other adult* who report they will use each mode on the journey to and from school.

4.4 Influences on independent mobility

So far we have given details of the levels of children's independent mobility observed and the nature of their journeys and activities. Below we consider the factors that may account for these observed variations in the granting of licences of independent mobility. The factors we consider that could impact on independent mobility are: age, gender, socio-economic status, perception of safety, levels of household car ownership and areal characteristics. We also consider whether having independent mobility results in children typically engaging in more activity.

4.4.1 The impact of age

Unsurprisingly, age is a key factor affecting the level of independent mobility that children report. The proportion of children granted each of the licences increased with age as shown in the figures below. We present the changes by school year group, rather than actual age¹⁹, which we have presented to make clearer any changes associated with the transition from primary to secondary school between year 6 and year 7.

Some key points to note about these cross-tabulations of age against the different licences are:

- The granting of all the licences in independent mobility increased with age.
- The licence to cross main roads alone (Figure 19) and travel home from school alone (Figure 20) rise from year 3 and level-out in year 7 or 8 (the first two years of secondary school) as it approaches 100 per cent.
- Depending on whether the answer 'varies' or 'usually goes alone' is used, the licence to go to places other than school was granted to more than 20 per cent of children from year 4

¹⁹ Year 3 corresponds to 7-8 year olds; year 4, 8-9 year olds and so on.

(using only 'usually goes alone') or year 6 (using 'varies' and 'usually goes alone' - see Figure 21).

- The licence to travel on local buses increases from year 6 onwards (Figure 20).
- For the remaining licence (going out after dark) the trend, albeit a rather uneven one, is upwards from year 7. Other than for a handful of primary school children the licence to go out after dark started to be granted at secondary school age: 16 per cent in year 7 increasing to 47 per cent in year 10 (Figure 21). However, even in year 10 less than half of children were allowed out after dark alone.

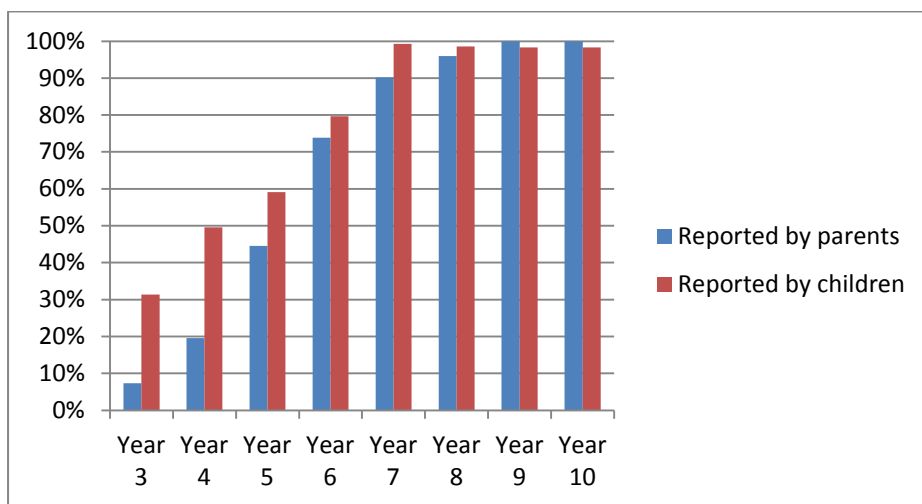


Figure 17: Percentage of parents and children reporting that the child had a licence to cross main roads alone, by year group. Year 3 corresponds to 7-8 year olds, and year 10 is 14-15 year olds.

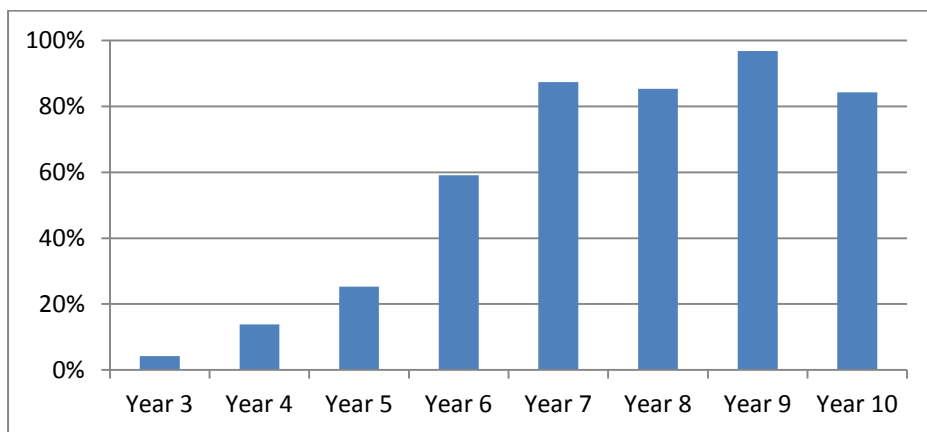


Figure 18: Percentage of parents reporting that their child had a licence to travel home from school alone, by year group. Year 3 corresponds to 7-8 year olds, and year 10 is 14-15 year olds.

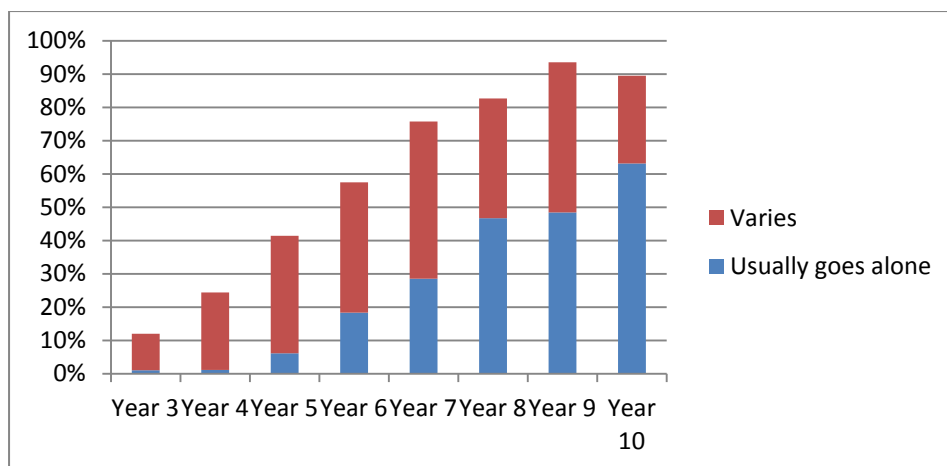


Figure 19: Percentage of parents reporting that their child had a licence to go to places other than school, by year group. Year 3 corresponds to 7-8 year olds, and year 10 is 14-15 year olds.

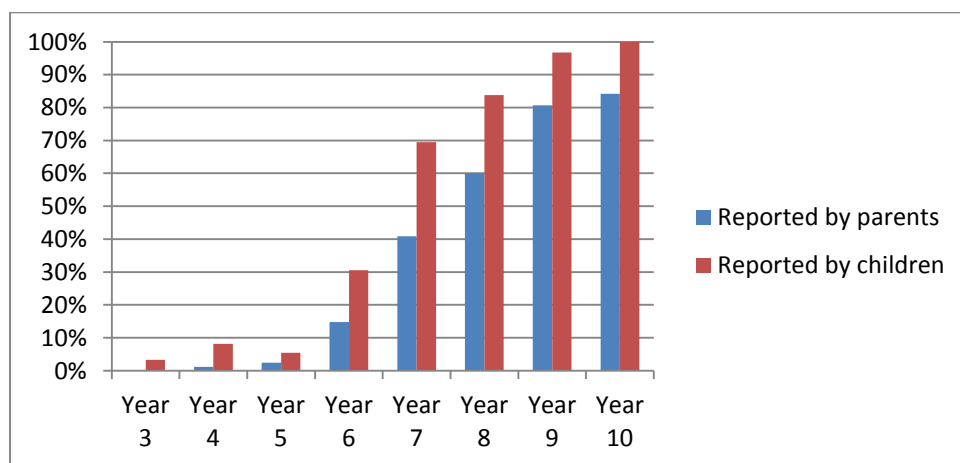


Figure 20: Percentage of parents and children reporting that the child had a licence to go on local buses alone, by year group. Year 3 corresponds to 7-8 year olds, and year 10 is 14-15 year olds.

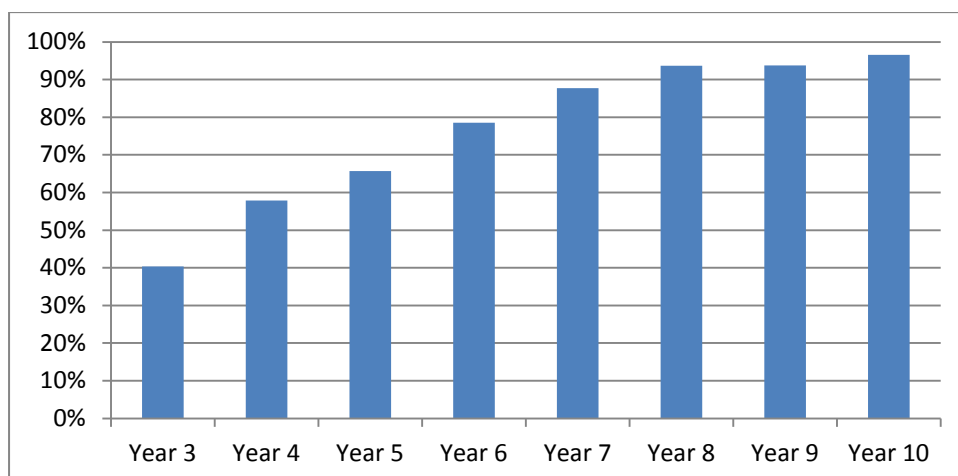


Figure 21: Children who own a bicycle, percentage reporting that they had a licence to cycle to places (like the park or friends' houses) without any grown-ups by year group. Year 3 corresponds to 7-8 year olds, and year 10 is 14-15 year olds.

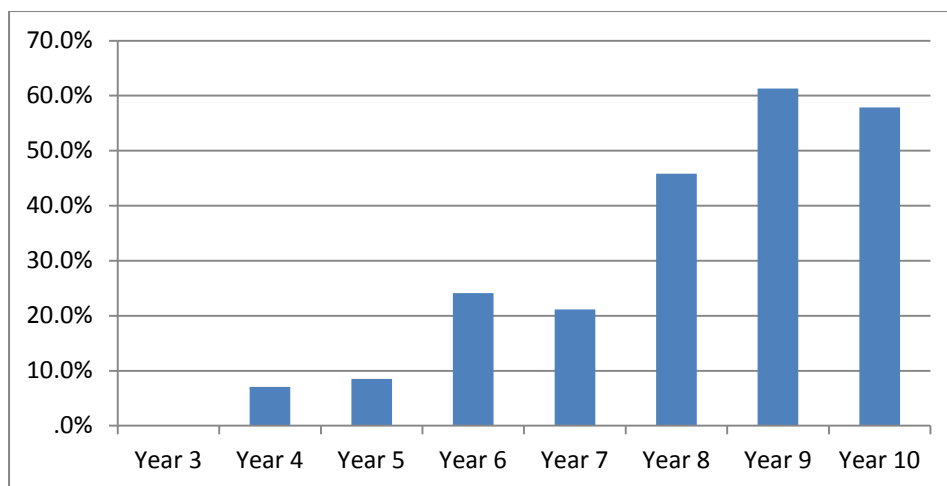


Figure 22: Percentage of parents of children who own a bicycle reporting that their child had a licence to cycle on main roads alone, by year group. Year 3 corresponds to 7-8 year olds, and year 10 is 14-15 year olds.

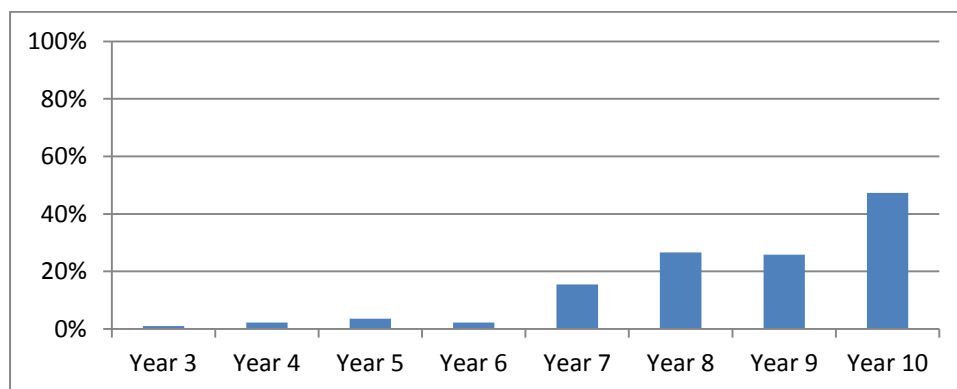


Figure 23: Percentage of parents reporting that their child had a licence to go out alone after dark, by year group. Year 3 corresponds to 7-8 year olds, and year 10 is 14-15 year olds.

4.4.2 The impact of gender

Licences by gender

The granting of licences to primary and secondary school children varied little by gender, as shown in Table 22 and Table 23. For primary school children a larger number of boys than girls reported being allowed to cross roads alone, but parental responses suggest the difference was small. More primary school boys than girls seemed to be allowed to use their bicycle to get around. There are no other notable differences.

For secondary school children the differences were more marked. Fewer girls than boys were allowed to go out alone after dark, and boys seemed to have more freedom to travel home from school and to places other than school alone. However, according to children's responses, (but not parents), more girls than boys were allowed to use local buses alone.

Licence	Girls	Boys
Licence to cross main roads alone (children's response)	50	59
Licence to cross main roads alone (parents' response)	34	37
Licence to travel to places other than school <i>within walking distance</i> alone	6-34 per cent (6 per cent answered 'usually goes alone, 26 per cent answered 'varies')	7-35 per cent (7 per cent answered 'usually goes alone, 28 per cent answered 'varies')
Licence to travel home from school alone	23	28
Licence to go out alone after dark	2	3
Licence to cycle to places without any grown-ups (children's response) ²⁰	52	68
Licence to cycle on main roads alone (parents' response)	8	12
Licence to use local buses alone (children's response)	5	3
Licence to use local buses alone <i>other than a school bus</i> (parent's response)	11	11

Table 22: Percentage of primary school children granted each of the licences, by gender.

Licence	Girls	Boys
Licence to cross main roads alone (children's response)	99	98
Licence to cross main roads alone (parents' response)	95	94
Licence to travel to places other than school <i>within walking distance</i> alone	22-77 per cent (22 per cent answered 'usually goes alone, 55 per cent answered 'varies')	32- 90 per cent (32 per cent answered 'usually goes alone, 58 per cent answered 'varies')
Licence to travel home from school alone	85	91
Licence to go out alone after dark	19	31
Licence to cycle to places without any grown-ups (children's response) ²¹	93	92
Licence to cycle on main roads alone (parents' response)	43	37
Licence to use local buses alone (children's response)	64	52
Licence to use local buses alone <i>other than a school bus</i> (parent's response)	86	87

Table 23: Percentage of secondary school children granted each of the licences by gender.

²⁰ Questions about the licence to cycle on main roads were asked of children who owned bicycles; 90 per cent of primary school girls and 91 per cent of primary school boys owned bicycles.

²¹ Questions about the licence to cycle on main roads were asked of children who owned bicycles; 76 per cent of secondary school girls and 87 per cent of secondary school boys owned bicycles.

4.4.3 The impact of socio-economic status

Analysis of the socio-economics of our sample is provided below. The analysis was based on a classification of parents' jobs on a simplified version of the NRS social grade scale (see Table 24). Parents were asked to provide both their job title and that of their husband / wife / partner (if they had one). The household was then coded according to the parent with the highest social grade.

Grade	Social class	Chief income earner's occupation
A	Upper middle class	These are professional people, very senior managers in business or commerce, or top-level civil servants
B	Middle class	Middle management executives in large organisations, with appropriate qualifications. Principal officers in local government and civil service. Top management or owners of small business concerns, educational and service establishments
C1	Lower middle class	Junior management, owners of small establishments, and all others in non-manual positions. Jobs in this group have very varied responsibilities and educational requirements
C2	Skilled working class	All skilled manual workers, and those manual workers with responsibility for other people.
D	Working class	All semi-skilled and un-skilled manual workers, apprentices and trainees to skilled workers
E	Those at the lowest levels of subsistence	All those entirely dependent on the state long-term, through sickness, unemployment, old age or other reasons. Those unemployed for a period exceeding six months (otherwise classify on previous occupation). Casual workers and those without a regular income.

Table 24: NRS social grades provided by the Market Research Society.²²

The four groups that parents and their partners were coded into were AB, C1, C2, and DE. However, this analysis of socio-economic grouping should be treated with caution for two reasons:

- The socio-economic classification was deliberately kept simple in the hope that this would reduce the number of parents who failed to return the survey due to concerns that it was overly-long or intrusive. Because of this, a simplistic socio-economic classification system was adopted.
- The response rate from parents (551 parents of 1,028 children – 54 per cent of parents – participated in the study) means that there are limitations on the robustness of these data. 73 per cent of primary school parents returned their questionnaire, but only 36 per cent of secondary school parents did so.

The areas where the socio-economic groupings of the children's families have the most obvious impact are, unsurprisingly, in the ownership of bicycles and cars. A lower percentage of the children

²² The most recent NRS Social Grades are available at:
<http://www.mrs.org.uk/publications/publications.htm#occupation>

of families in the lowest socio-economic group (DE) own bicycles than in the other three groupings, as shown in Figure 24. In addition, household access to cars increases with socio-economic group, as shown in Figure 25.

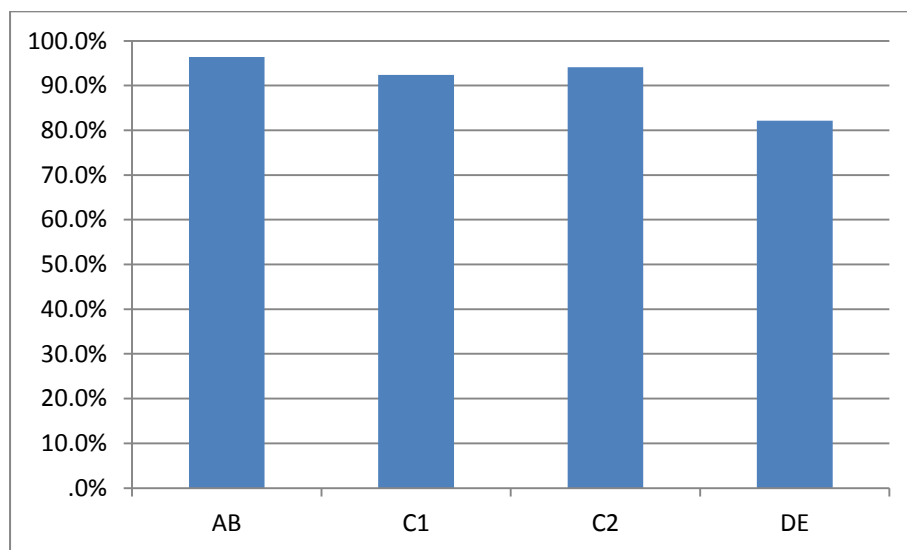


Figure 24: Percentage of children who own bicycles, by socio-economic group

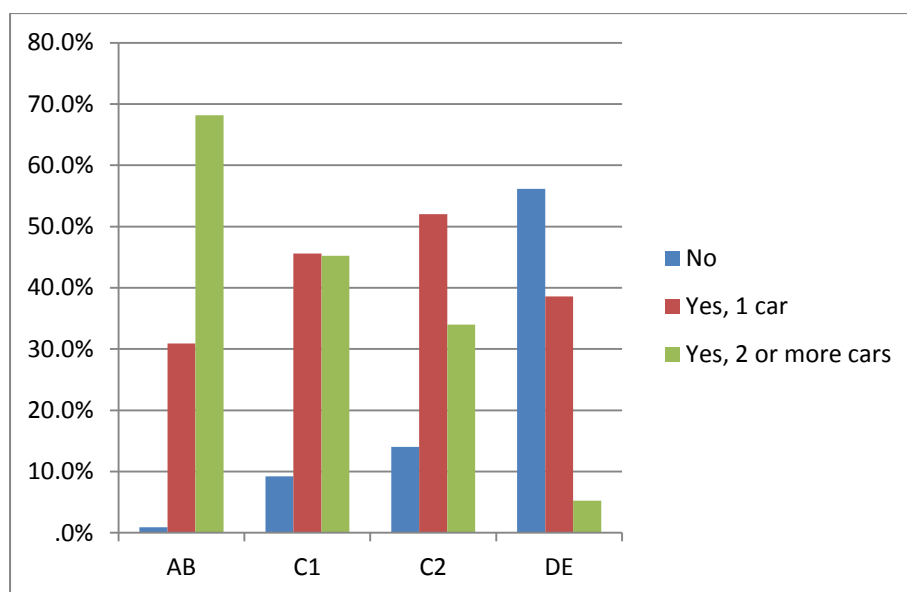


Figure 25: Percentage of families who have regular access to a car, by socio-economic group

However, from the data that are available, there do not seem to be consistent trends in the granting of licences to children based on their socio-economic status (although this may be due to the limitations of how the data was collected, as detailed above). This is an area that would benefit from more detailed investigation in the future.

4.4.4 The impact of perceptions of safety

Children and parents were asked about their perceptions of their local area and its safety as this could be an important factor explaining the levels of independent mobility granted.

When asked about their feelings of safety in their local neighbourhood:

- 75 per cent of primary school children indicated they feel either 'very safe' or 'fairly safe' when out on their own in their local area compared to 9 per cent who felt 'not very safe' or 'not at all safe'.
- 91 per cent of secondary school children indicated they feel either 'very safe' or 'fairly safe' when out on their own in their local area compared to 8 per cent who felt 'not very safe' or 'not at all safe'.

These perceptions of safety seem to indicate that day-to-day dangers are not a major concern for either primary or secondary school children.

	Very safe	Fairly safe	Not very safe	Not at all safe	Not allowed out on my own
Primary school respondents	35	40	5	4	16
Secondary school respondents	37	54	7	1	1

Table 25: Percentage of children responding to the question 'How safe do you feel *on your own* in your local neighbourhood?' by type of school.

In response to a *prompted* list of questions about potential threats in their local areas, primary school children were fairly evenly split on whether getting lost or bullying was a concern but were much more worried by strangers. A minority were concerned about knowing what to do if talked to or not feeling old enough to travel about on their own (Table 26).

Type of concern	Yes	No	Don't know
Strangers	60	28	12
Getting lost	44	48	8
Bullying	43	47	11
Not knowing what to do if someone speaks to me	35	47	17
Traffic	27	59	14
Do not feel that I am old enough to go about on my own	24	59	17

Table 26: Percentage of primary school children responding to the question 'When you are outside *on your own or with friends* are you worried by any of the following?'

For secondary school children very few children were concerned about getting lost, bullying, not feeling old enough to travel about on their own, or being spoken to. Concern about strangers was

the only worry that seemed to concern secondary school children, splitting them nearly evenly (Table 27).

Type of concern	Yes	No	Don't know
Strangers	41	46	12
Not knowing what to do if someone speaks to me	20	68	12
Bullying	17	75	8
Getting lost	15	81	4
Traffic	11	82	7
Do not feel that I am old enough to go about on my own	6	90	5

Table 27: Percentage of secondary school children responding to the question 'When you are outside *on your own or with friends* are you worried by any of the following?'

Question 11c in the children's questionnaire asked 'Is there anything else you are worried about when you are outside on your own or with friends?'. 24 per cent of children responded in the affirmative. The concerns raised are shown in a 'word cloud' in Figure 26 and Figure 27 with more frequently used words larger²³. This provides a rather crude representation of complex answers, but is interesting nonetheless. Variations on the word 'kidnap' were used by a large proportion of the children who responded. It can be seen that strangers were the predominant concern of children followed by dogs.

When the responses of the children are coded into common categories, abduction is still the predominant concern of primary school children with 43 per cent who indicated a concern citing it (9 per cent of the total sample of primary school children), and 24 per cent who responded citing fear of people or assault in some form (5 per cent of total sample). It is interesting to note that only 1.5 per cent explicitly cited a fear of traffic (0.3 per cent of the total sample).

No concern other than assault (23 per cent of respondents and 5 per cent of the total sample) was cited by more than 5 per cent of secondary school children.

²³ These plots were generated using 'Wordle' a tool for generating word clouds with greater prominence given to words appearing more frequently. See <http://www.wordle.net/> for details.

4.4.5 The impact of perceptions of safety by gender

Responding to a prompted list of possible worries, a greater percentage of primary school girls than boys were concerned about all issues apart from 'not feeling old enough to go about on my own'. The difference between secondary school girls' and boys' worries about strangers is particularly

marked, with nearly double the number of girls (53 per cent) being concerned about strangers than boys (27 per cent).

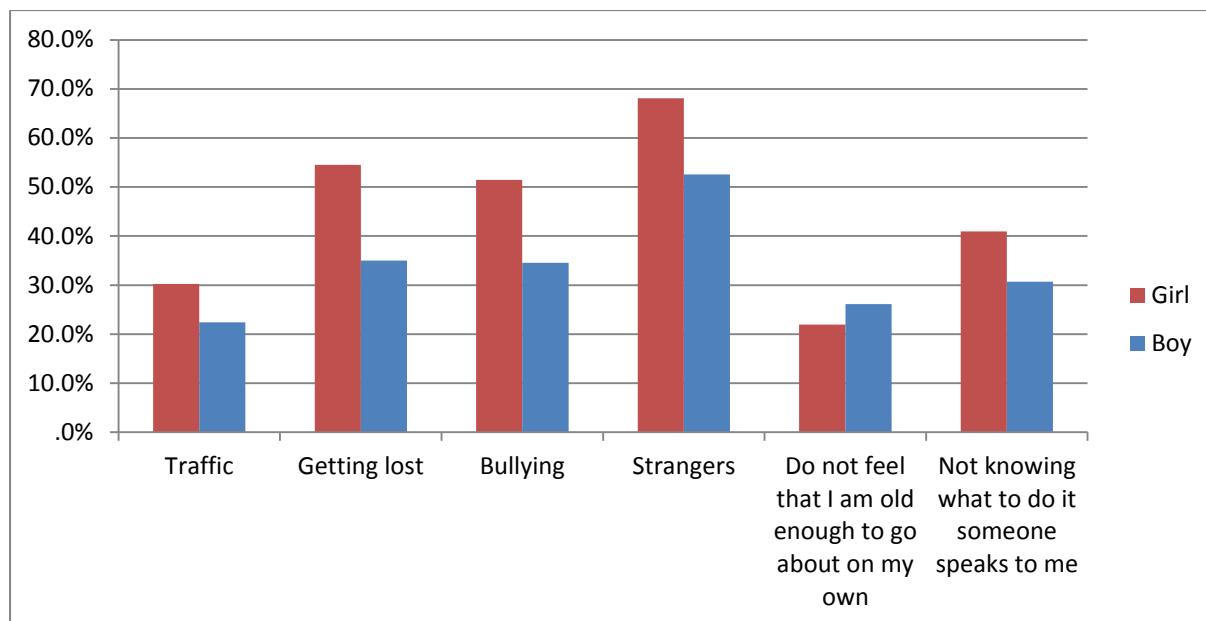


Figure 28: Percentage of primary school children who stated that they were worried about a prompted factor when they were outside on their own or with friends, by gender

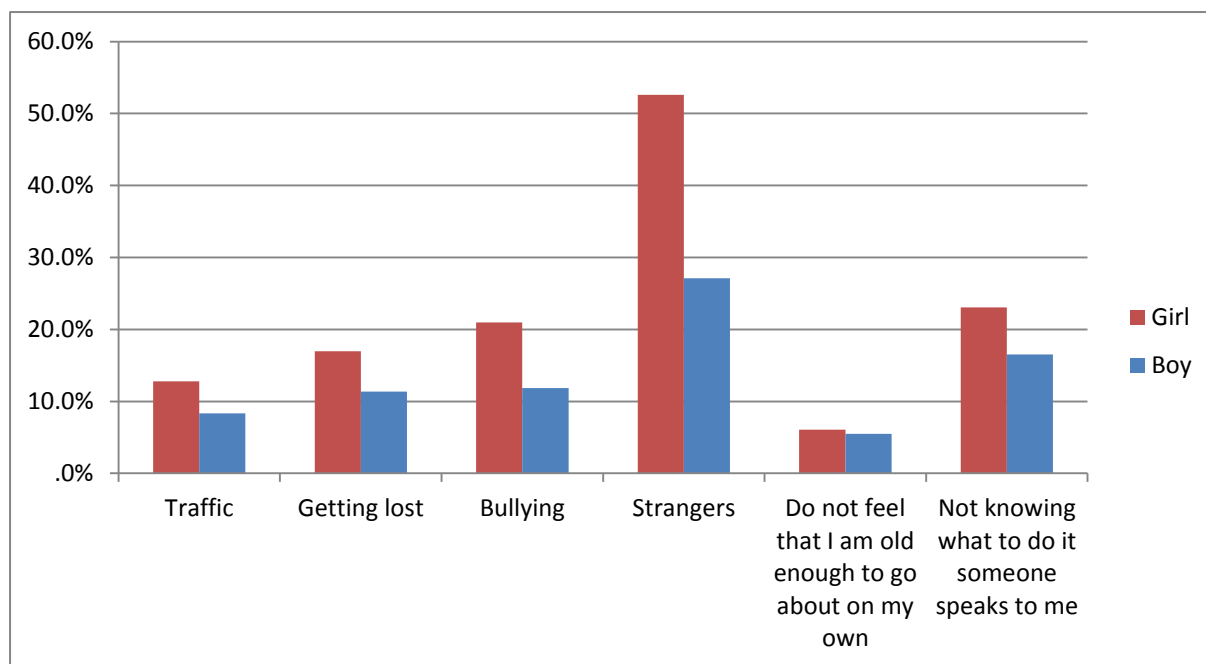


Figure 29: Percentage of secondary school children who stated that they were worried about a prompted factor when they were outside on their own or with friends, by gender

These responses may help to explain some of the trends in independent mobility. Firstly, compared with boys, the greater levels of stated fear among both primary and secondary school girls would help to explain why girls are more likely to travel by walking with another child, as they may feel safer doing so – or they may be required to do so by their parents, who may be more likely to impart

these fears to their daughters. This is also reinforced by the importance of sociability among girls, as can be seen in the literature review – for example, Valentine (1997), O'Brien et al. (2000).

Another interesting possibility raised by these responses – particularly the fear of strangers, and the responses given to the unprompted question about other fears – is the possibility that some children may not desire or aspire to having independent mobility, because of their fears – thus reducing pressure on their parents to grant them permission to travel independently. Whether this is the case cannot be determined by the results of these surveys but would be an interesting topic for further research.

4.4.6 The impact of perceptions of safety among parents

It is parents who grant their children the licences of independent mobility. Parents' concerns about allowing their children to travel independently and reasons for any restrictions they might impose were obtained through four questions.

The first (Q1c) asked parents to indicate the three main reasons for picking up their child from school (or, if they no longer collected their child, their reasons when they previously collected them). Nine prompted responses were given as well as space for other reasons to be given. A mixture of positive and negative reasons were given for children being picked up from school as shown in Figure 30 and Figure 31. It can be seen that:

- Two out of the three most frequently selected answers were positive reasons for picking up their child ('opportunity to spend time with my child' and 'opportunity for exercise or to get out of the house'). Concern about traffic danger was the main reported concern for both primary *and* secondary school parents.
- Positive reasons were also given for not allowing their child to come home alone. These include: the journey represents an 'opportunity to spend time with the child', to 'get some exercise' or to 'meet people'. Social aspects of collecting children from school appear to be important for parents.
- Trip linking (i.e. parents going onto another destination following the collection of their child) appears important for parents of secondary school children. Whether this is an onward journey for the child's specific benefit, e.g. swimming or other after school class/activity or some other purpose is not revealed by the questionnaire responses.

There may be some element of social desirability bias in the answers given by parents, where they seek to appear to be 'good parents' to the surveyors and respond to indicate what they think is considered desirable by broader society. Further work would be required to explore this but it should be borne in mind when examining these responses.

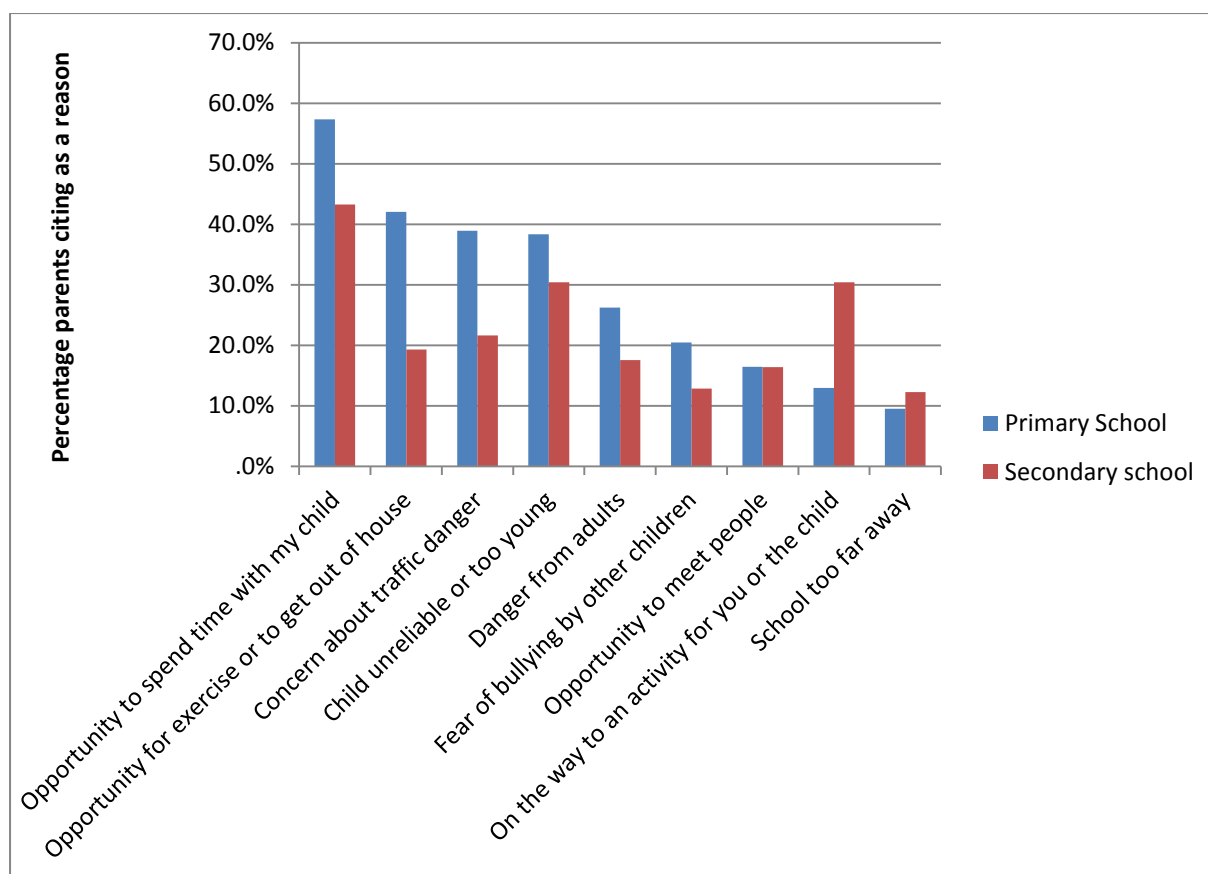


Figure 30: Percentage of parents responding to the question: 'What are the main reasons for picking your child up from school (even if you no longer do)?' by prompted responses. Totals exceed 100 per cent as multiple answers were allowed.

The second question (Q4b) asked those who did not allow their child out after dark – 98 per cent of primary school parents and 76 per cent of secondary school parents – to state their (unprompted) main reason for doing so. The reasons given for this are indicated in Figure 31.

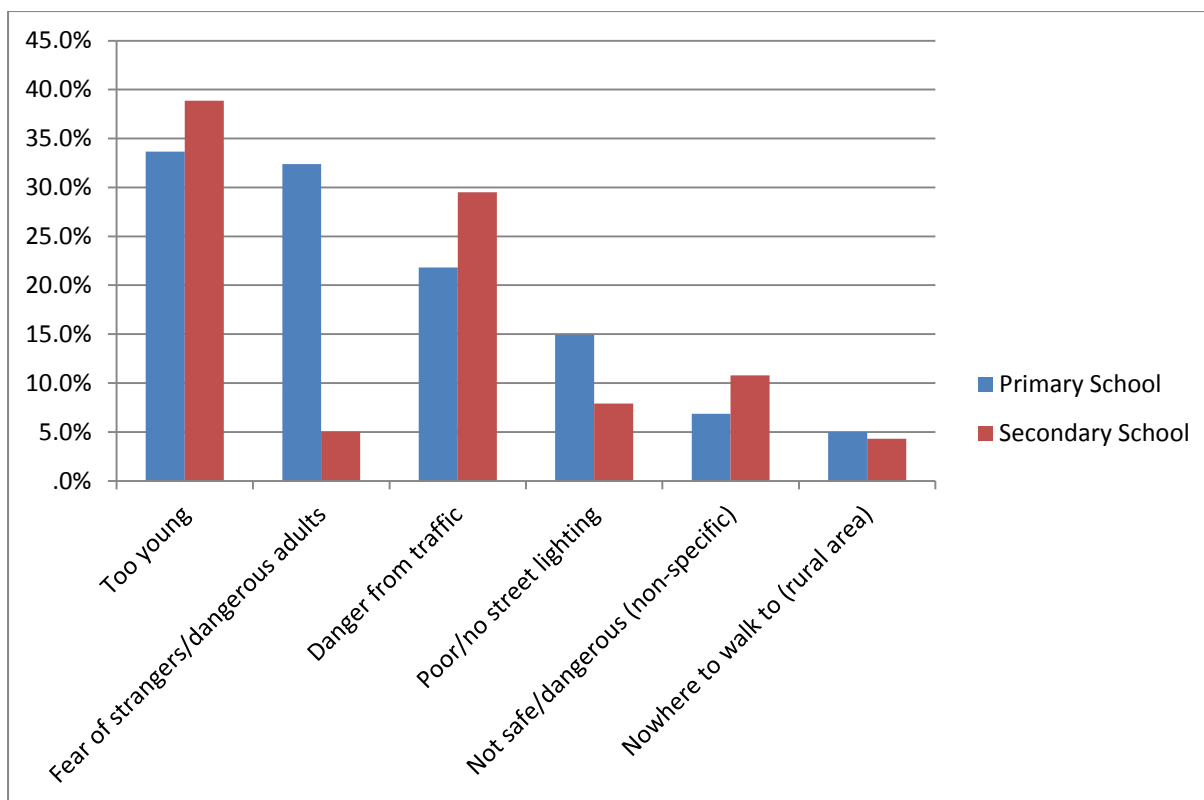


Figure 31: Percentage of parents responding to the question 'What is the main reason your child is not allowed to go out alone after dark?' by coded categories of unprompted responses where at least 5 per cent or more of parents who answered chose the option. (Totals exceed 100 per cent as multiple answers allowed).

Parents were able to write in a short explanation for why their child was not allowed out after dark. Some of these responses are reproduced below to give an indication of the nature of concerns.

- "She is too young and there is no need for her to be out after dark except if there is an activity to attend. Then she will be transported." *Secondary school number 4, parent of a year 7 child (11-12 year old)*
- "Too scared something bad might happen to her. Besides everything she would need is at home". *Secondary school number 3, parent of a year 7 child (11-12 year old)*
- "Why do you think, small children out and it is too dangerous." *Primary school 3, parent of a year 6 child (10-11 year old)*
- "He has nowhere he wants or needs to go after dark that is within walking distance." *Primary school 5, parent of a year 6 child (10-11 year old)*
- "Because there isn't nothing out for him, unless he is doing after school activity, but still I will be taking them there." *Primary school 3, parent of a year 6 child (10-11 year old)*
- "Her safety and I do not believe in children roaming aimlessly around the streets." *Primary school 4, parent of a year 6 child (10-11 year old)*
- "Doesn't go anywhere alone, dark or not." *Primary school 3, parent of a year 5 child (9-10 year old).*

It is clear from these responses, which are broadly representative of the responses given by parents who do not allow their child out after dark, that there is a fear of what might happen to children after dark, and that there is also a view that there is *no need* for children to go out after dark (or sometimes even before dark). If there is a need to travel then children will be transported by their parent or another adult. A fear of strangers and traffic is apparent from the responses. Whether these latter concerns also relate to the other of the children's licences, rather than just going out alone after the dark, is not clear.

The third question about parental concerns (Q8) asked how worried parents were that their child might be injured crossing the road. It can be seen (in Figure 32) that danger from traffic is a significant concern for all parents – a majority of both primary and secondary school parents were very or quite concerned – but that this diminishes for the parents of secondary school children. 40 per cent of the parents of primary school children were very worried compared to only 23 per cent of secondary school parents. These figures are consistent with the proportion of parents citing traffic as a reason for picking up their child from school (Figure 30).

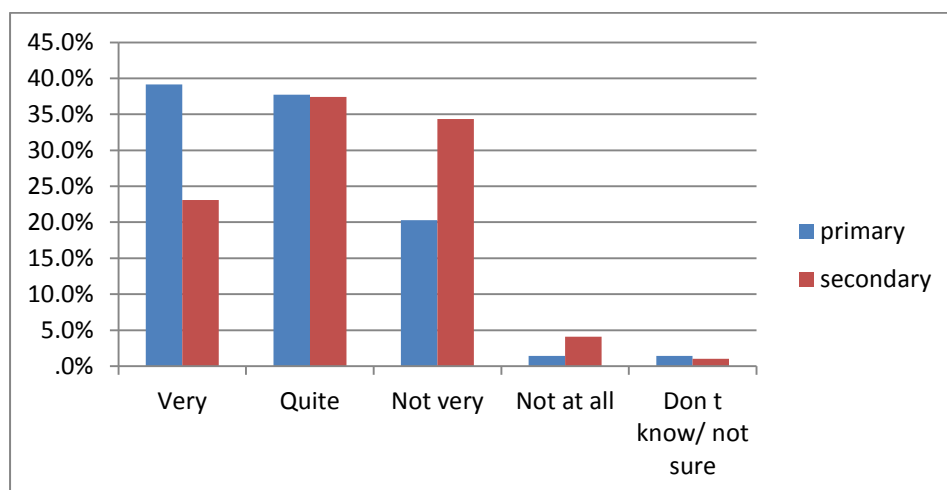


Figure 32: Percentage of parents responding to the question 'How worried are you about the risk of your child being injured in a traffic accident when crossing a road?' by type of school.

The final question on perception of safety and the reasons for restricting independent mobility (Q10) asked parents to indicate the extent to which they agreed or disagreed with two statements related to their local area. The first statement was 'Most adults who live in the neighbourhood look out for other people's children in the area'. 60 per cent of primary school parents and 50 per cent of secondary school parents agreed or strongly agreed with this statement, and 18 per cent of primary and 24 per cent of secondary school parents disagreed or strongly disagreed.

While a majority of parents felt that other adults will look out for children, parents were more evenly divided about whether they were concerned by a smaller number of children and adults in the local area. The second statement that parents were asked to agree or disagree with was 'Some young people and adults in the area make you afraid to let your children play outdoors'. 39 and 35 per cent of primary and secondary school parents (respectively) agreed or agreed strongly with this statement, whilst 38 and 35 per cent of primary and secondary school parents (respectively) disagreed or disagreed strongly.

There are clear differences between the five areas that were sampled in England. For the first statement ('Most adults who live in the neighbourhood look out for other people's children in the area'), the more rural areas had far better perception of their neighbourhood. In Oxfordshire (the most rural area), nearly 95 per cent of primary school parents and 70 per cent of secondary school parents 'strongly agreed' or 'agreed'. In Winchester (the second-most rural area), nearly three quarters of primary school parents and 57 per cent of secondary school parents 'strongly agreed' or 'agreed'. This compares to approximately four out of ten primary and secondary school parents who 'strongly agreed' or 'agreed' in all other areas.

For the second statement ('Some young people and adults in the area make you afraid to let your children play outdoors') a similar pattern emerges (Table 28), with the most densely populated areas having the largest percentage of parents who 'strongly agree' or 'agree' with this statement. The only exception is that the area where least parents 'strongly agree' or 'agree' is Winchester (the second-least populated area), which is then followed by Oxfordshire (the least populated area).

	Oxfordshire	Winchester	Stevenage	Nottingham	Islington
Primary school	21	15	51	57	67
Secondary school	29	16	43	52	47

Table 28: Percentage of parents who 'strongly agree' or 'agree' with the statement 'Some young people and adults in the area make you afraid to let your children play outdoors'. The areas are arranged from least densely (on the left) to most densely populated (on the right).

4.4.7 Concerns about safety by gender

Parents of both boys and girls who did not allow their children outside after dark gave similar unprompted answers to the question 'What is the main reason your child is not allowed to go out alone after dark?'. Similar answers were given for girls and boys in both primary and secondary school in relation to the two statements about their local area: 'Most adults who live in the neighbourhood look out for other people's children in the area' and 'Some young people and adults in the area make you afraid to let your children play outdoors'. When asked 'How worried are you about the risk of your child being injured in a traffic accident when crossing a road?' nearly identical answers were given for both boys and girls in primary school.

It is only among secondary school children (see Figure 33) that a significant difference appears by gender, with parents of secondary school boys being far more concerned about their child being injured in a traffic accident than parents of girls.

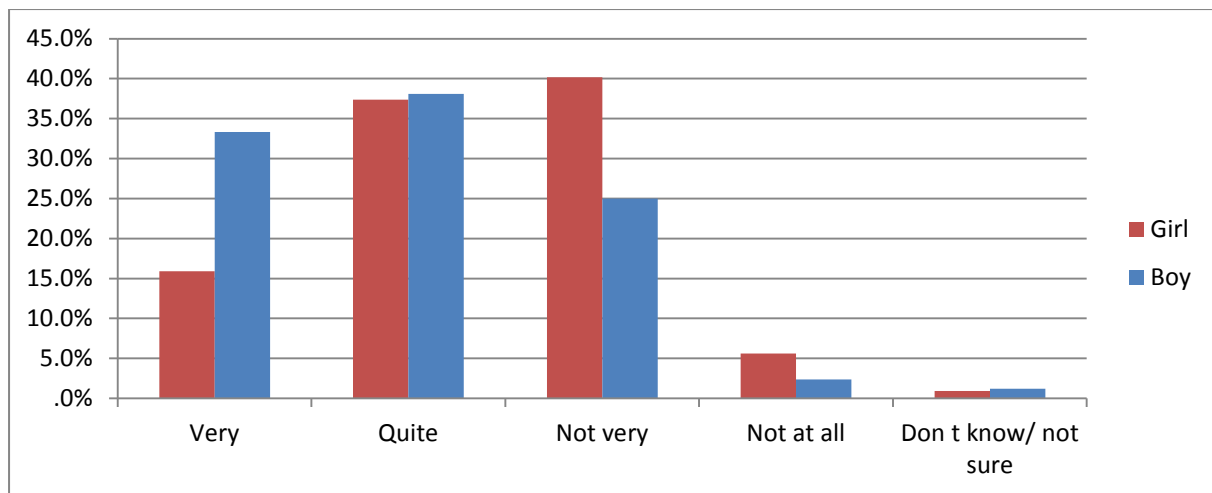


Figure 33: Percentage of secondary school parents responding to the question 'How worried are you about the risk of your child being injured in a traffic accident when crossing a road?'

While the responses to the question about the risk of crossing a road (Figure 33) showed parents to be more concerned about secondary school boys crossing the road compared to girls, this does not seem to have been reflected in the levels of the licence granted (Table 23) which are similar for boys and girls.

4.4.8 The impact of household access to cars

To understand the impact that household access to cars might have on children's independent mobility the granting of the licences of independent mobility was cross-tabulated first against household access to a car and, secondly, the number of adults in the household who held a driving licence. While access to a car and the number of adults holding a driving licence does not seem to affect all licences of independent mobility, there are some exceptions.

Children being granted the licence to use buses alone are more common in households which do not have regular access to a car. This is true of both primary and secondary school children, and is illustrated in Figure 34.

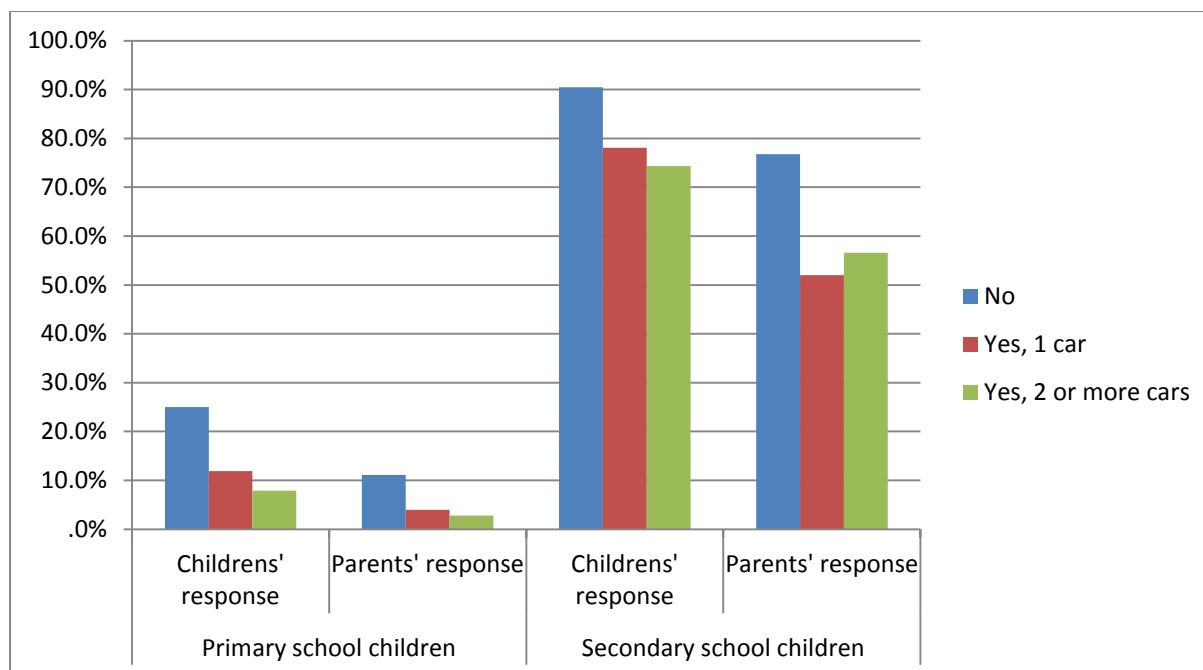


Figure 34: Percentage of primary and secondary school children and their parents responding that their child is allowed licence to travel on buses alone, by household access to a car

In addition, secondary school children living in a household with no regular access to a car were more likely to be granted the licence to go outside alone after dark. It is not unexpected that these licences were affected. They indicate a practical response from both parents and children to a lack of access to cars – which consequently may make it more difficult and time consuming for the parent to escort their child to destinations. It is also possible that a lack of access to a car would result in parents escorting their children on buses. This would allow parents the opportunity of educating their children in the use of these modes, giving them confidence that their children could use them safely and consequently increasing parents' willingness to grant this particular licence.

Depending on the cross tabulation under consideration there seems to be either a weak link or no link between car ownership/adult holding of driving licence and the percentages of children granted the licence to cross roads alone and the licence to travel to places within walking distance, other than school. Again this is not an unexpected result. Parents may realise that their children will need these skills whether they own a car or not. It should be noted that a small proportion of the cross tabulations suggest a link between car ownership/access/holding of driving licence and increased levels of some of the independent mobility licences, but the majority of cross tabulations support the link with reduced levels.

Car ownership or access to cars and the adult holding of a driving licence seem to be related to lower levels of some of the licences of children's independent mobility. However, it is not clear whether these lower levels are due to car use displacing children's independent mobility which children could otherwise engage in, or whether these children live in areas in which independent mobility is not easily exercised, e.g. children living a long distance from school are less likely to travel home from school alone. Certainly when the percentage of children who are accompanied to school is displayed against the approximate distance to school (worked out using the distance from the child's postcode

to the school along the local road network) it is clear that, as would be expected, children from further from the school are more likely to be accompanied to school (Figure 35).

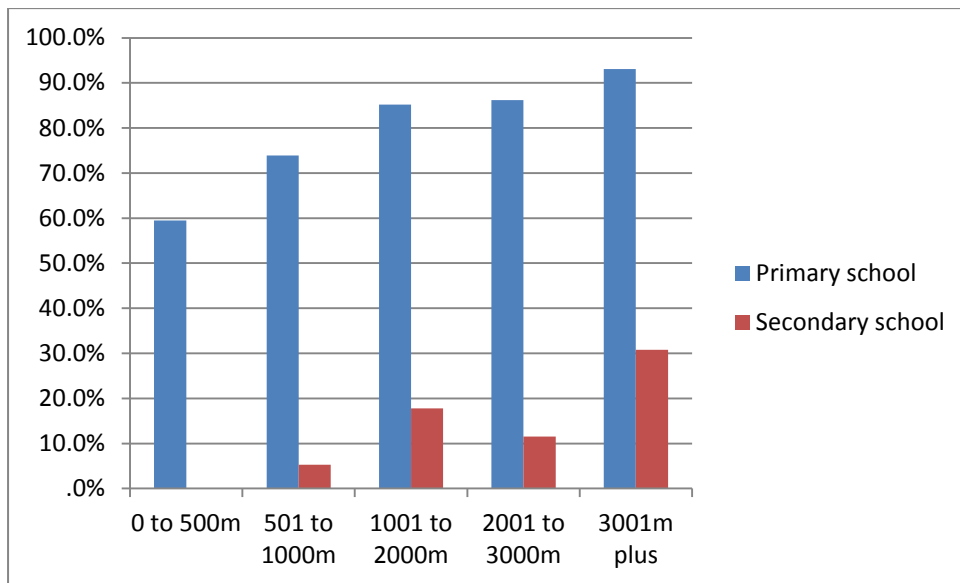


Figure 35: Percentage of children who are accompanied to school by a parent or other adult, by distance to school

4.4.9 The impact of areal characteristics

In simple terms, increasing distance to school seems to reduce the granting of the licence to come home from school alone (Figure 36).

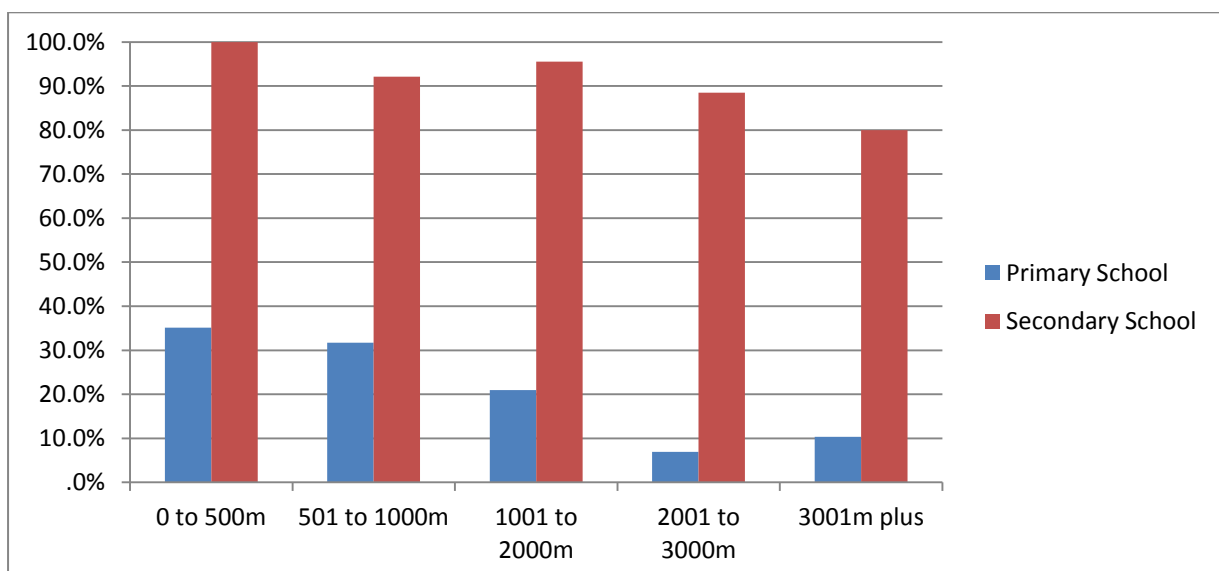


Figure 36: Percentage of parents reporting that their child has been granted the licence to travel home from school alone, by distance to school

In relation to the different areas surveyed, it is hard to see any distinct trends in the variation in licences granted for either primary or secondary school children. No one area shows consistently higher or lower levels. This is not to be unexpected as local characteristics are likely to affect the granting of licences significantly. For example, pedestrian crossings may make roads safer to cross

(in perception or in reality) but fast-moving traffic and large volumes of traffic may make cycling on roads dangerous; and these characteristics will vary from area to area.

To illustrate this point, it is notable that, for secondary school children, Nottingham shows a level of granting the licence to go alone to places other than school that is 10 per cent lower than any other area (Figure 38); Stevenage has a much lower level of the licence to go out alone after dark, 13 per cent lower than any other area (Figure 40); and Islington and Winchester have lower levels of permission to use bicycles alone (Figure 41).

For primary schools, Oxfordshire has the highest levels for three of the licences, crossing roads (Figure 37), going to places other than school (Figure 38) and riding bicycles (Figure 41) but it also has the lowest levels for going out after dark (Figure 40) and using local buses alone (Figure 42). Conversely, Islington has the highest level of licence to use public transport for primary and secondary children, as might be expected given London's high quality public transport system.

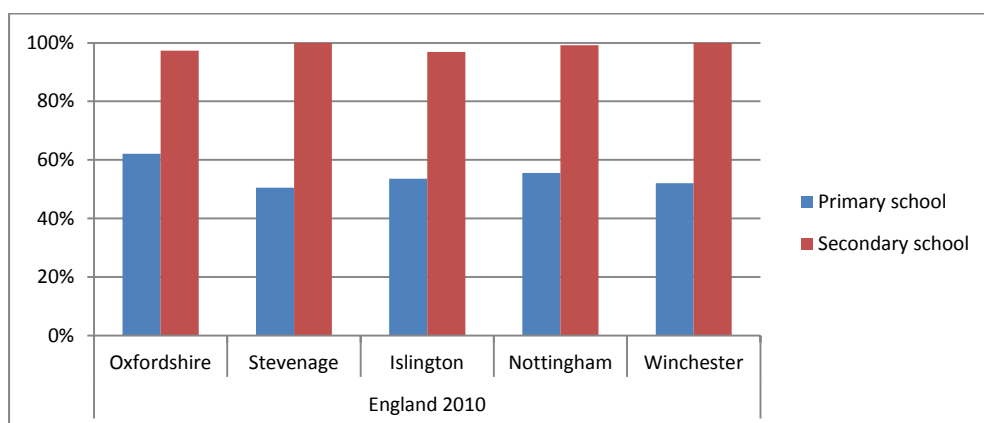


Figure 37: Percentage of children reporting that they have a licence to cross roads on own, by area

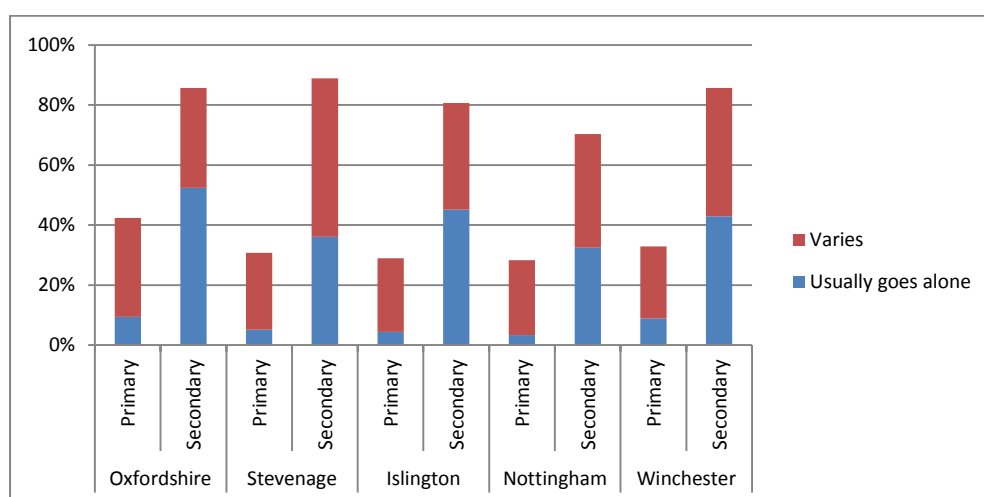


Figure 38: Percentage of parents reporting that they allow their child to go to places other than school, by area

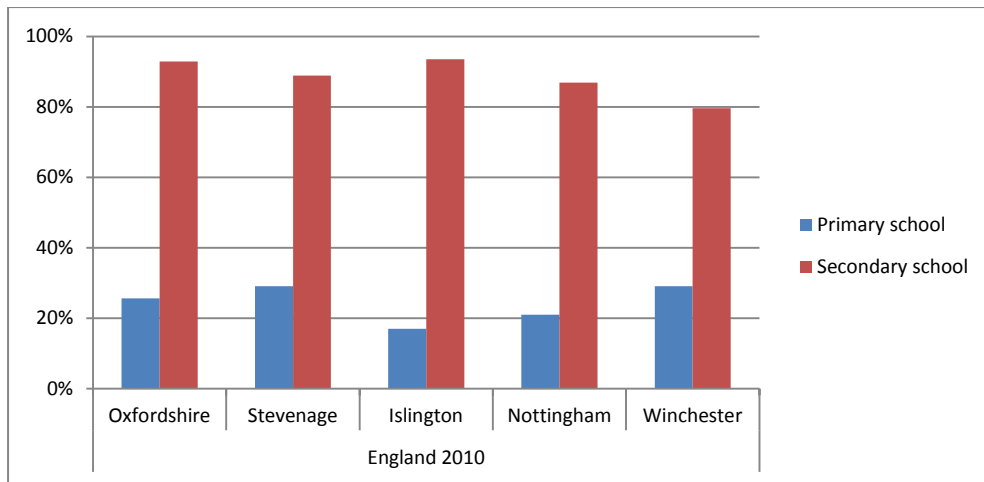


Figure 39: Percentage of parents reporting that they allow their child to travel home alone from school, by area

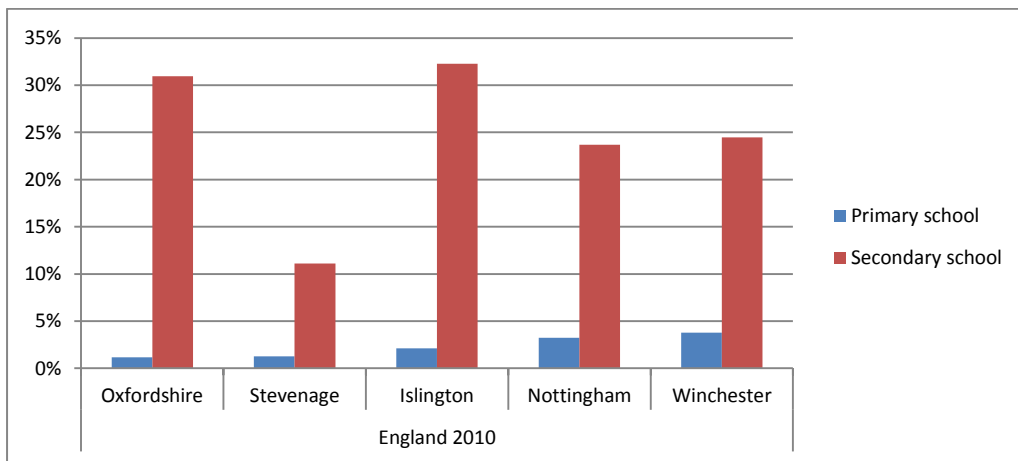


Figure 40: Percentage of parents reporting that they allow their child to go out after dark, by area

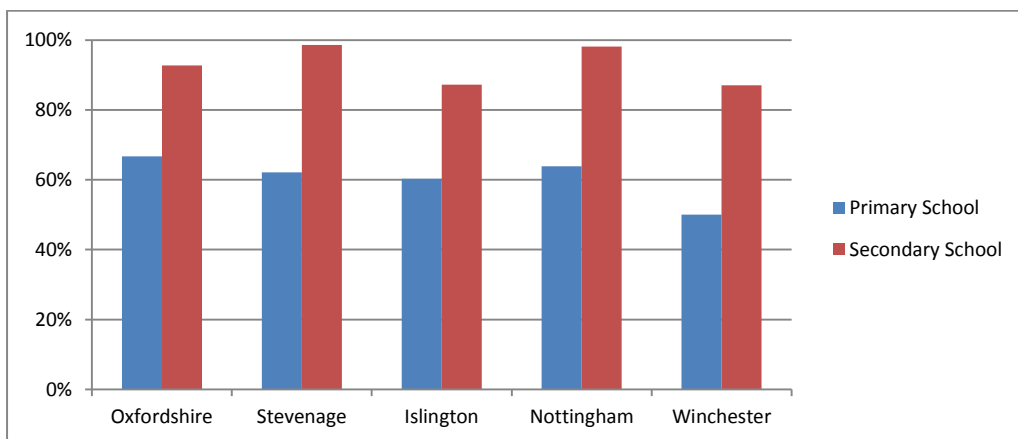


Figure 41: Percentage of children who own a bicycle reporting that they are allowed to cycle to places alone, by area

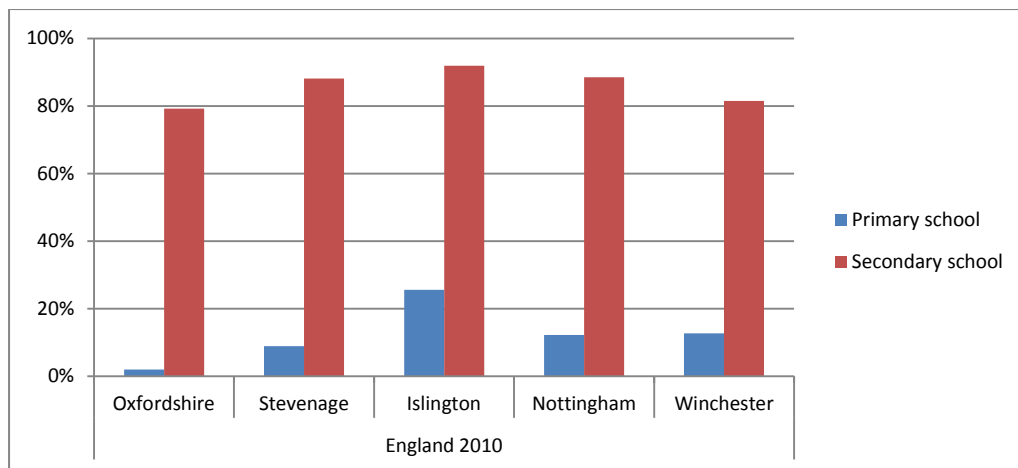


Figure 42: Percentage of children reporting that they are allowed to use local buses alone, by area

There is a clear variation by area in the mode used by children to travel to school as shown in Figure 43 and Figure 44. The most notable features are:

- the high level of walking in Islington and low use of car
- the relatively low level of walking among Winchester and Oxfordshire secondary school children, and
- the high level of car use among secondary school children in Winchester and high levels of school bus use in Oxfordshire.

The high level of school bus use in Oxfordshire is unsurprising, as during interviews with senior staff in the school it was made clear that the local authority pays for a large number of school buses to bring children to school from outlying villages.

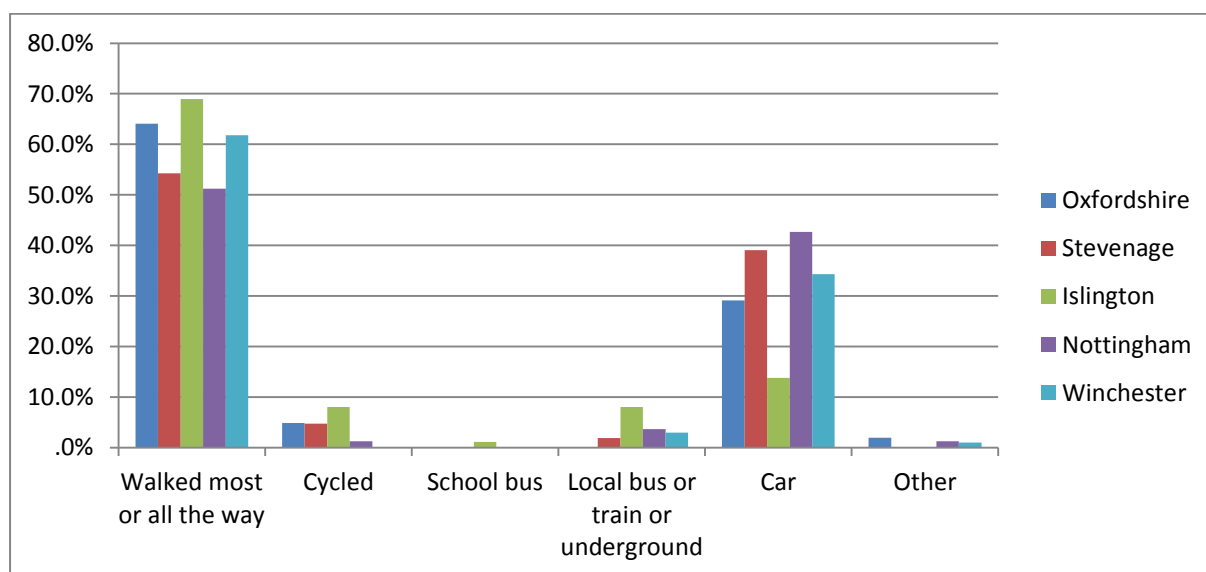


Figure 43: Percentage of primary school children reporting their mode of travel to school, by area

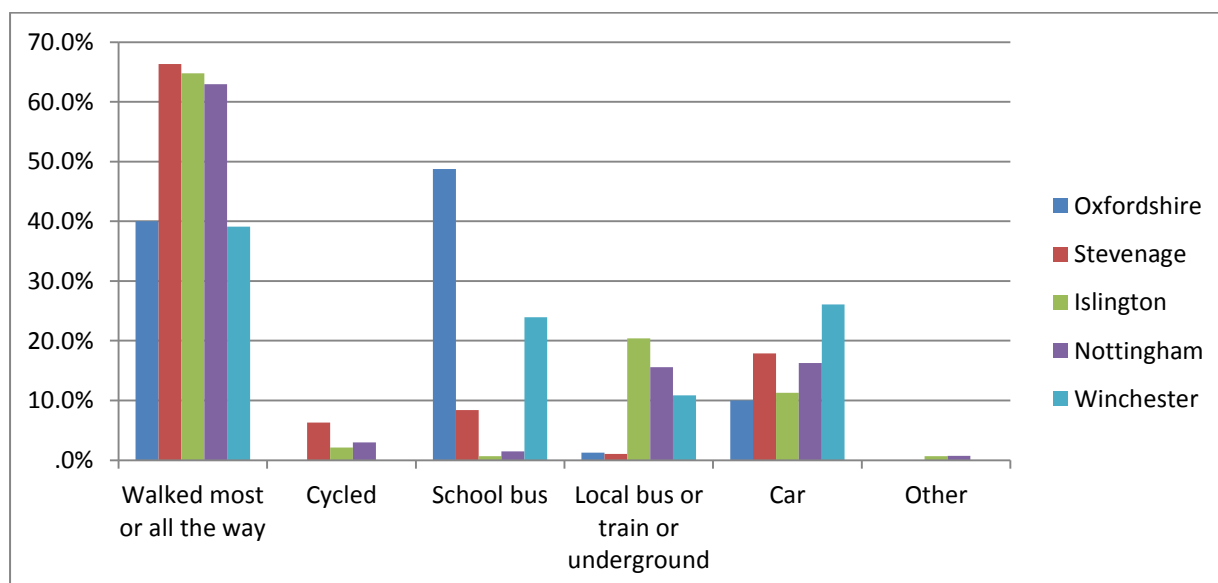


Figure 44: Percentage of secondary school children reporting their mode of travel to school, by area

Parents were asked to indicate how concerned they were about the risk of their child being injured in a traffic accident while crossing the road (Figure 45). Concern by area varies widely; Oxfordshire shows the lowest levels of concern with 22 per cent of primary school parents and 24 per cent of secondary school parents 'very' worried, and Islington the highest level with 72 per cent of primary school parents and 43 per cent of secondary school parents 'very' worried.

When both 'very' and 'quite' worried are considered together, over 70 per cent of primary school parents are 'very' or 'quite' worried. Islington has the highest level of concern with 93 per cent of primary school parents 'very' or 'quite' worried. These figures drop markedly among secondary school parents. Nevertheless, over 50 per cent of secondary parents in all areas are 'very' or 'quite' worried; again Islington is the highest, with 73 per cent of secondary school parents 'very' or 'quite' worried. This is not surprising given the high traffic volumes in this area and the fact that it is located in the largest city in the UK.

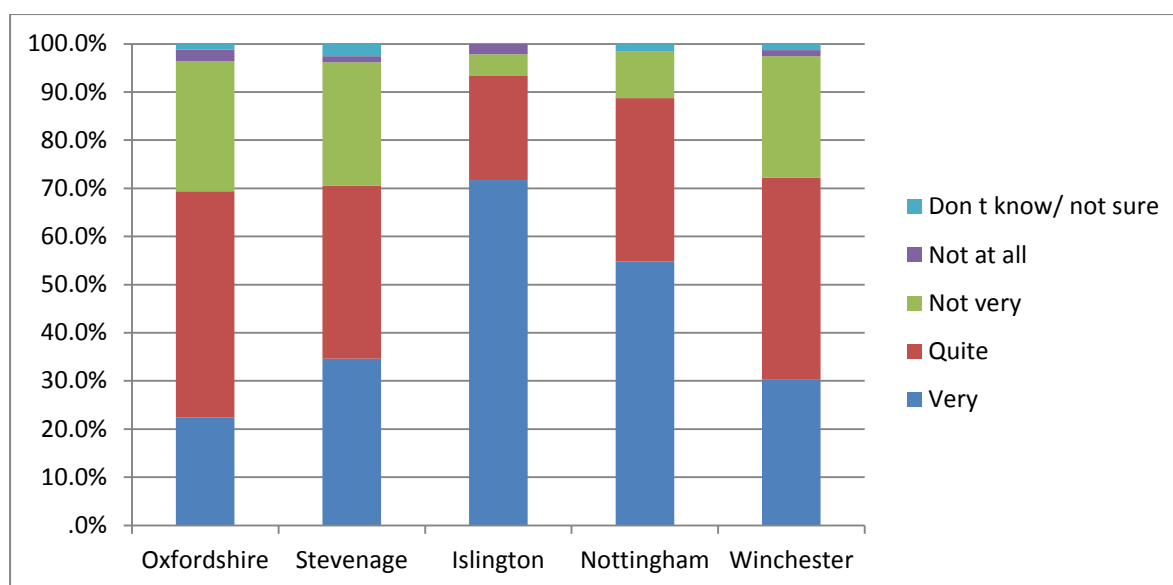


Figure 45: Percentage of primary school parents responding to the question 'How worried are you about the risk of your child being injured crossing a road?', by area

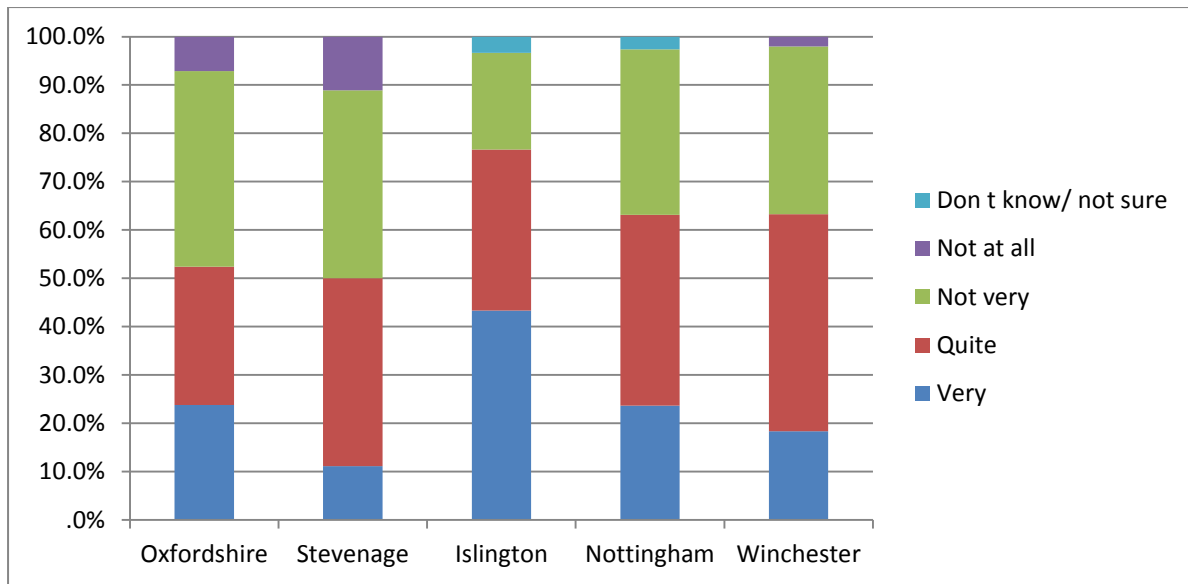


Figure 46: Percentage of secondary school parents responding to the question 'How worried are you about the risk of your child being injured crossing a road?', by area

4.5 Summary of findings in England in 2010

The survey results given in this section give an interesting insight into the travel and activity patterns of children aged 7-15 in five areas of England and the degree of independent mobility these children have. Further insight is gained from the answers to the questions about their travel preferences and both the children's and parents' attitudes and concerns about travelling around their local area.

The surveys showed that primary school children in 2010 had limited independent mobility. A majority were allowed to cross roads alone. But none of the other licences, except cycling, were granted to more than a quarter of primary school children. Sixty per cent of these children said that they could use bicycles to get to local places but only 10 per cent of parents indicate that their child was allowed to cycle on main roads. Only 5 to 12 per cent of primary school children were allowed to use local buses alone. The lack of licence from parents to ride on main roads indicates a significantly low level of independent mobility as the bicycle and local public transport were their only form of independent mechanised transport, allowing them to get about on their own beyond the obvious geographical and time limitations of walking.

Secondary school children, as might be expected, were granted the licences in larger numbers but still had restrictions placed on their independent mobility, particularly in relation to going out after dark where (according to parents) only one in four children were allowed to do so, and in relation to cycling on main roads, which less than half were allowed to.

A majority of primary and secondary school children walked to school. The next most frequently used method after that was, for primary school children, to be driven by car (32 per cent) and for secondary school children, school buses or public transport (25 per cent). This modal split is in spite of the high levels of car ownership – only 16 per cent of the households of primary school children surveyed and 22 per cent of secondary school children did not have access to a car. It is notable that only a very small proportion of children cycled to school (4 per cent primary; 2 per cent secondary) in spite of children's very high ownership of bicycles. A large majority (72 per cent) of primary school children were accompanied by a parent on the journey to school, in contrast to only 17 per cent of secondary school children.

Given the high proportion of children walking to school, the desire children expressed to use active modes of travel, and current low levels of independent mobility on the journey to and from school there would seem to be the considerable scope for increasing independent mobility without necessarily having to focus on the additional challenge of a modal shift away from cars. i.e. through an increase in children's independent travel via walking or cycling.

In relation to children's and parents' concerns about their local area, 75 per cent of primary school children indicated they felt 'very safe' or 'fairly safe' and 9 per cent felt 'not very safe' or 'not at all safe'. 91 per cent of secondary school children indicate they felt 'very safe' or 'fairly safe' and 8 per cent felt 'not very safe' or 'not at all safe'. These figures would seem to be relatively encouraging in relation to the percentage of children feeling safe but it should be highlighted that this still leaves nearly one in ten children who did not feel safe in their local area, and girls tended to feel less safe than boys. Strangers, abduction and dogs seemed to be the main unprompted concerns of children about being outside alone.

Parents were asked for their reasons for picking up children from school. Interestingly, this revealed that there were positive as well as negative reasons for picking up children. For primary school children positive reasons – such as the opportunity to spend time with their child, and opportunity to get out of the house – were given more frequently by parents than danger from traffic, the child being unreliable, or danger from adults. A much smaller proportion of secondary school children were collected from school and after 'opportunity to spend time with child', concerns about child unreliability, distance to school and traffic were the most frequently raised reasons for picking up children from school.

When asked specifically about the risk of their child being injured in a traffic accident when crossing the road, 70 per cent of the parents of primary and just under 60 per cent of parents of secondary schoolchildren were very or quite worried. Interestingly, 20 per cent of primary and nearly 35 per cent of secondary school parents were 'not very worried'. This may be because their child is not allowed out alone.

The reasons given by parents for not letting their child out after dark provide an interesting but incomplete insight into parental concerns and attitudes to independent mobility. There was a clear perception that streets were unsafe, that there was not actually a need for children to go out, and that if they did so, then it should not be when they are alone and that all a child's needs could be catered for at home. Parents who did allow their child out after dark were not asked a question about their concerns and this might have provided a balance to these negative responses. Responses to a question about lack of granting of the licences in hours of daylight may also have generated different responses.

4.5.1 Factors impacting on independent mobility

Age was the main factor accounting for increased independent mobility, as measured with the six licences – all the licences increased with increasing age. Our analysis shows that other factors are less influential.

In relation to gender, the differences between the levels of licence that boys and girls were granted are relatively small for most licences. At primary school, boys were slightly more likely than girls to be granted the licences. This gap between boys and girls closed at secondary school, however: for some licences girls overtook boys (for example, the licence to use local buses and to ride bicycles on main roads). The exception to this is going out after dark, for which girls were significantly less likely to be allowed.

There was little variation by gender for the mode of travel to school. A larger proportion of boys travelled alone to school than did girls – a greater proportion of whom travelled with each other. In relation to their preferred mode of travel to school, there was little variation between boys and girls at primary school. With the move to secondary school, the preference for walking increased and the preference for cycling decreased for both boys and girls - although the drop in preference for cycling was much more marked for girls. The preference for active travel in secondary school children is encouraging (59 per cent girls and 68 per cent boys) but, given the considerable increase in independent mobility that it provided as compared with walking, the drop in interest in cycling should be of concern.

There are clear differences in the granting of the licence between the areas surveyed. However, the variations in granting of the different licences are not consistent across the areas, making explanation of the differences difficult in the absence of further data.

A discussion of the factors affecting children's independent mobility and the policy response that may be appropriate in light of them are discussed later in the report. Firstly, though, the changes over time in levels of independent mobility in England are examined.

5. Children's Independent Mobility in England 1971-2010

5.1. Introduction

In the previous section the findings from the 2010 surveys on the levels of children's independent mobility were reported, along with the children's patterns of travel and the factors that may have influenced these. In this section these findings are compared with the surveys conducted in the English schools in 1971 and 1990, to allow a consideration of the longer term trends in children's independent mobility.

Firstly the variations in the six licences of children's independent mobility are examined over this 40-year period. Variations in the modes used to travel to school, levels of accompaniment on this journey and household car ownership are then considered. Finally, children's travel to destinations other than school, and parental attitudes to independent mobility are examined.

The most important finding from this longitudinal analysis is that the most significant change to children's independent mobility happened between 1971 and 1990, when there was a large reduction in the four licences that comparable data is available for; and this reduction saw large reductions in licences particularly among primary school children. Between 1990 and 2010 there were relatively small changes in children's independent mobility. This is not to say that there are not some interesting and important changes, but these are overshadowed by the much larger reduction in independent mobility that occurred between 1971 and 1990.

It should be noted that the 1971 surveys were based on a more limited set of questions and a full dataset is not available to compare with all the questions asked in the 1990 and 2010 surveys. Data from 1971 has been included where they are available and comparable. In 1971 only primary school children and their parents were surveyed in a manner comparable with the later surveys. Teenagers (13-18 years old) were surveyed in 1971 but this age range is different to that of the later surveys in 1990 and 2010 and misses out the important age group of 11-12 year olds. Moreover, less information was sought on teenagers' independent mobility; their questionnaires were completed at home (rather than in school), and some of the older teenagers had left home and were in employment. As such the findings for older children in 1971 are not directly comparable with the later surveys.

There are also some differences, mainly small, between the 1990 and the 2010 questionnaires, as several questions were modified and additional questions added. We have highlighted wherever we have compared questions that are amended or different. These differences are recorded in more detail in the methodology section and Annex 3.

5.1.1. Changes in the areas over time

The areas surveyed in 1971 and 1990 were revisited to allow a longitudinal exploration of how children's independent mobility has changed over time. Changes were likely to have taken place in the five areas surveyed in terms of socio-economic characteristics and patterns of land use and development.

To assess the degree to which these changes might affect the surveys' findings, current and historical maps from each of the survey areas were examined to identify major road or building

developments that might affect the results of the survey. Interviews with senior members of staff at the schools were also used to establish if there had been recent major developments in the areas. No fundamental changes in the surveyed areas were identified – for example, the building of dual carriageway roads; new large scale development; or changes to the layout of transport infrastructure.

In some of the areas, inevitably some development has taken place near to the schools. This is likely to have created increased flows of traffic but does not appear to have fundamentally changed the character of the areas. Three of the schools surveyed in 1990 in England could not be re-surveyed in 2010; one in Stevenage and two in Winchester. In Stevenage the previously surveyed secondary school was in the process of being closed. A replacement was identified, adjacent to the previous school surveyed, with children's routes to school likely to be along many of the same roads. In Winchester, the schools originally surveyed did not take part in the study, but the replacement schools used were selected to be as similar as possible, a factor which needs to be borne in mind in the discussion below. The choice of schools is covered in more detail in the methodology section of this report.

5.2. The Six Licences in 1971, 1990 and 2010

The changes in the granting of the six licences over the last four decades are summarised below in Table 29 for primary school children and Table 30 for secondary school children.

5.2.1 Changes in the licences for primary school children - summary

Overall, for primary school children **there has been a large reduction in independent mobility since 1971. The main part of this reduction took place between 1971 and 1990**, with the percentage of children being granted the four licences (for which we have comparable data) dropping between 21 and 57 per cent.

Between 1990 and 2010, there was a small drop in the percentage of primary school children being granted one licence (travel home from school alone), with a second licence also seeing some drop (travel to places other than school alone), though the exact amount is unclear due to the rephrasing of the question (in 2010, 26 per cent of parents said their granting of the licence to go to places other than school alone 'varies', while only 7 per cent said their children were 'allowed' to do so. In 1990, parents only had a binary choice – either to say that their child usually 'goes alone' to places other than school or 'is taken').

Two licences remained stable – the licence to go out alone after dark (hardly any primary school children were granted this licence in 1990 or 2010), and the licence to use public transport (where again, only between 5 per cent and 15 per cent of children were granted this licence in 1990 and 2010).

Two licences saw an increase in the percentage of primary school children being granted the licence, although for one of these (cycling on main roads) the problematic wording of the relevant question in 1990 and 2010 is the most likely explanation for this change. For the final licence, children's responses to questions about crossing main roads alone indicate a small increase in the percentage of children allowed to do so, with parental responses indicating a slightly greater increase. This suggests a possible real increase though that runs counter to the trend of the other licences.

Licence	1971	1990	2010
Licence to cross main roads alone (children's response)	72	51	55
Licence to cross main roads alone (parents' response)	-	22	36
Licence to travel to places other than school <i>within walking distance</i> alone	In the 1971 surveys primary school children were asked about their independence to travel to multiple destinations; depending on the destination, between 63 and 94 per cent of children were allowed to go alone.	37	Between 7 and 33 per cent (7 per cent of children usually travelled alone, while for a further 26 per cent it 'varies')
Licence to travel home from school alone	86	35	25
Licence to go out alone after dark	-	2	2
Licence to cycle to places without any grown-ups (children's response)	-	25	68
Licence to cycle on main roads alone (parents' response)	-	-	11
Licence to use local buses alone (children's response)	48	15	12
Licence to use local buses alone <i>other than a school bus</i> (parent's response)	-	7	5

Table 29: Percentage of primary school children granted the six licences of independent mobility, England, 1971, 1990, and 2010.

5.2.2 Changes in the licences for secondary school children - summary

For secondary school children, insufficiently comparable data were collected in 1971. Between 1990 and 2010 very little change can be observed for four of the licences. For the remaining two, the percentage of secondary school children being granted the licence to cycle on main roads has increased, but the licence to go places other than school has remained static or dropped (the trend of the latter depends on how one interprets the response parents gave, as we discuss below. In 2010, a significant proportion of parents said that whether they allow their children to travel to places other than school alone 'varies').

Licence	1990	2010
Licence to cross main roads alone (children's response)	97	99
Licence to cross main roads alone (parents' response)	90	95
Licence to travel to places other than school <i>within walking distance</i> alone	84	Between 42 and 83 per cent (42 per cent of children usually travelled alone, and for a further 43 per cent it 'varies')
Licence to travel home from school alone	87	88
Licence to go out alone after dark	24	25
Licence to cycle to places without any grown-ups (children's response)	77	84
Licence to cycle on main roads alone (parents' response)		51
Licence to use local buses alone (children's response)	84	87
Licence to use local buses alone <i>other than a school bus</i> (parent's response)	66	59

Table 30: Percentage of secondary school children granted the six licences of independent mobility, England, 1971, 1990, and 2010.

5.2.3 Licence 1: Licence to cross main roads alone (1971 to 2010)

In both 1990 and 2010, children and their parents were asked the same question about this licence – e.g. 'are you / is your child allowed to cross main roads alone?' As the responses from children and parents are significantly different for this licence, we examine them separately.

Children's responses

When children's responses are grouped by primary and secondary school, it is apparent that after a sharp drop in the percentage of primary school children allowed to cross main roads alone between 1971 and 1990, the percentage of children being granted the licence to cross roads has changed little between 1990 and 2010, as shown in Table 48, Table 30 and Figure 47. According to the responses from children, 72 per cent of primary school children were allowed to cross main roads alone in 1971, but by 1990 and 2010 just over 50 per cent of primary school children were granted this licence.

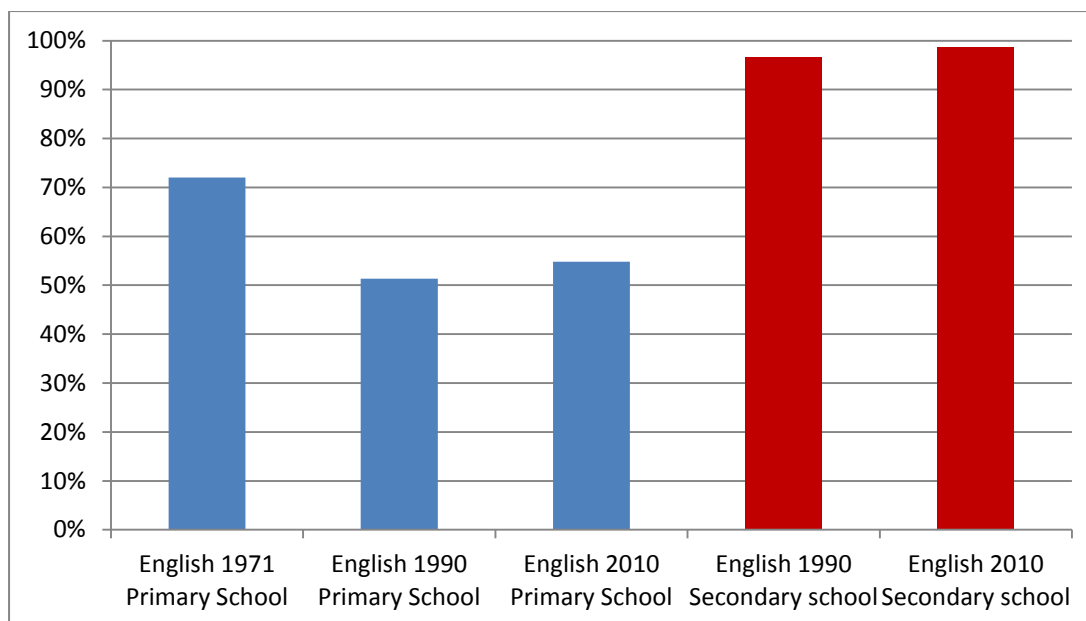


Figure 47: Percentage of children reporting that they are allowed to cross main roads alone, by type of school, from 1971 – 2010

When examining the responses by area (Figure 48) three of the five areas saw a large reduction in granting of the licence to cross roads for primary school children since 1971 (and one area – Winchester – has seen a small reduction) – almost all of which took place between 1971 and 1990. One of the two exceptions is Islington, which was notable for its low level of licence-holding in 1971, perhaps related to the likely higher traffic density of an inner city area, even in 1971. Between 1990 and 2010 the granting of the licence varied little in each of the areas, except for Nottingham where only 38 per cent of primary school children reported that they could cross main roads alone in 1990, which had changed to 56 per cent of primary school children in 2010. The 1990 figure for Nottingham would seem to be anomalously low.

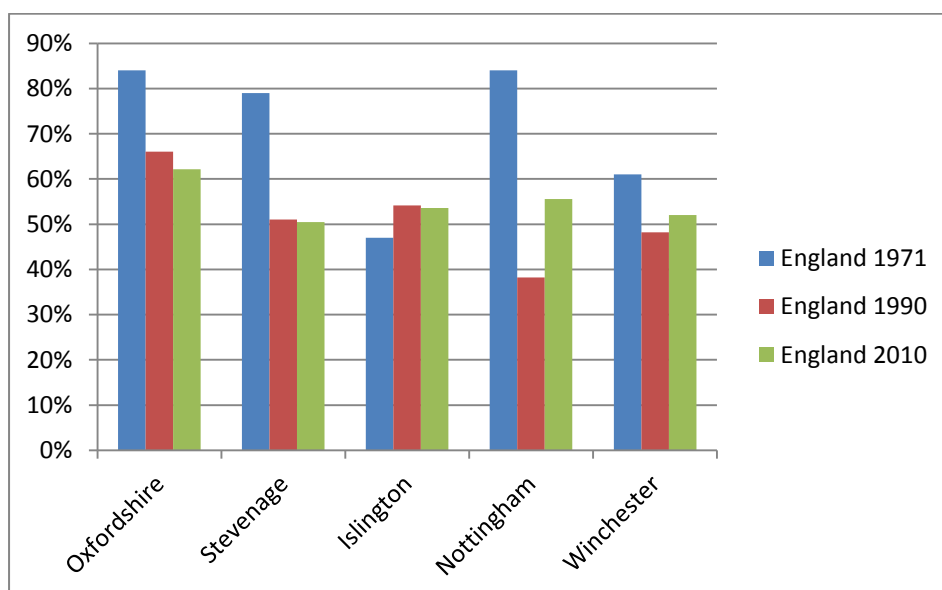


Figure 48: Percentage of primary school children reporting that they are allowed to cross main roads alone, by area, from 1971 - 2010

Parents' responses

Examination of the granting of the licence to cross roads according to parental responses (although derived from a significantly smaller sample than the responses from the children in 2010 – see Methodology section), reveals a lower overall level of licence-holding in 1990 and 2010 among both primary and secondary school children according to the parents' answers, compared to their children's answers to a similar question (Table 29). It also shows a general increase in the percentage of children being granted the licence to cross main roads alone between 1990 and 2010 for all ages of children except seven year olds (Figure 50) and in every area except the Stevenage secondary school.

For secondary school children as a whole, only a small increase can be observed in the granting of the licence between 1990 and 2010 (Table 30). Virtually all secondary school children in 1990 and 2010 stated that they can cross main roads (Figure 49). However, parent's responses (Figure 50) indicate that the licence was being granted at an earlier age in 2010 than it was in 1990.

One possible interpretation of these results is that the 1990 results represented a low point in granting of this licence to primary school children, and that since 1990 there has been some increase in granting of this licence for all children except the 7 year olds. However, further data are needed to confirm if this trend is real – and if so what accounts for it. Possible factors for future research include improvement in road conditions and/or reduced perception of the risk that crossing the road alone presents, or the impact that various training initiatives have had on children's ability to cross roads independently and/or parents' willingness to let them do so.

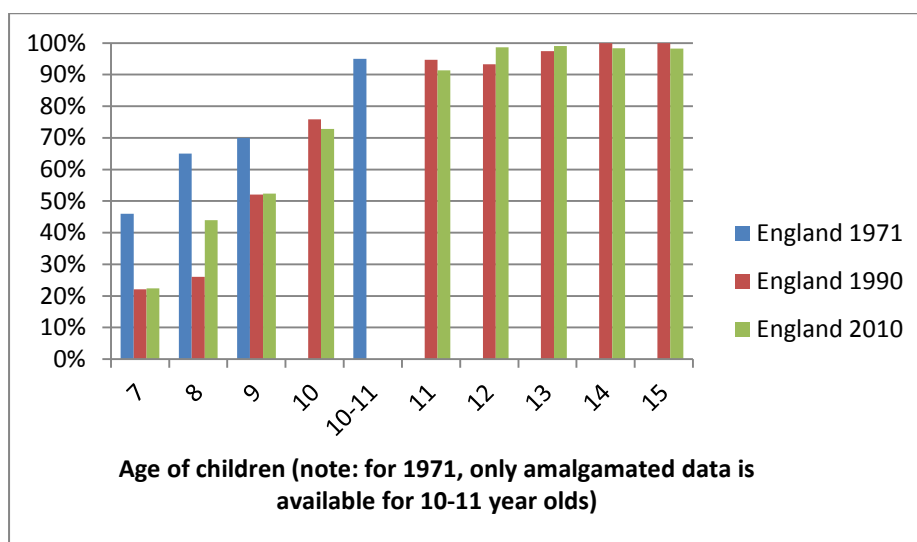


Figure 49: Percentage of children reporting that they are allowed to cross main roads alone, by age, from 1971 - 2010.

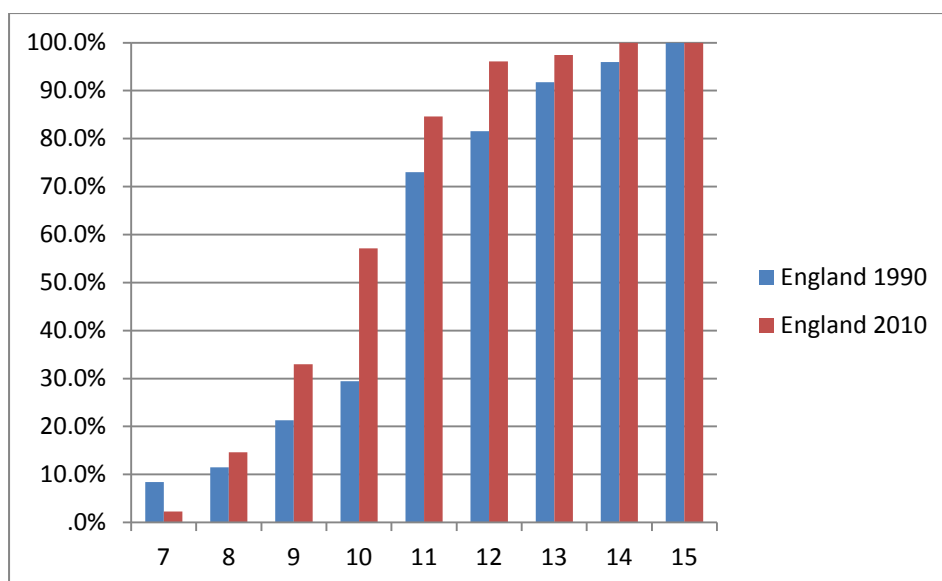


Figure 50: Percentage of parents reporting that they allowed their children to cross main roads alone by age, 1971 - 2010

5.2.4 Licence 2: Licence to travel alone to places other than school alone (1971 to 2010)

The questions relating to the licence to go to places other than school alone were phrased in a different way in the 1971 and 1990/2010 surveys.

In the 1971 surveys primary school children were asked multiple questions in relation to their independent journeys to shops; playgrounds, parks etc.; social visits; lessons/clubs etc.; and leisure facilities. 94 per cent of the primary school children replied that they were allowed to go to shops alone, and 90 per cent of primary school children were allowed to go alone to 'playground, parks, etc.' 63 per cent of children were allowed to go alone on journeys to places for paid entertainment and leisure activity, which were likely to be further away than playgrounds.

Activity	Percentage of children allowed to travel to destination alone
Shops	94
Playgrounds, parks etc.	90
Social visits	85
Lessons/clubs etc.	68
Leisure facilities	63

Table 31: Levels of independently mobility for non-school journeys for primary school children 1971.

In 1990, the children's parents were simply asked if their children were allowed to go to places other than school (within walking distance) alone, or if they were taken. While the 1971 and 1990 questions were asked in different ways the figures do seem to indicate a significant drop in the licence to make these journeys between 1971 and 1990.

As previously noted, the parent's question asking if their child was allowed to go to places other than school (within walking distance) alone had an additional response of 'varies' added to it in 2010. This complicates the direct comparison of the results from 1990 and 2010. If a child is sometimes allowed to go alone this would seem to be a conditional granting of the licence and so 'usually goes alone' and 'varies' taken together could be seen to represent the maximum level of this licence having been granted in 2010. On this basis, there has only been a very slight drop in the licence since 1990

for both primary and secondary school children (Figure 51). However, a greater drop, obscured by the change in wording, may have occurred.

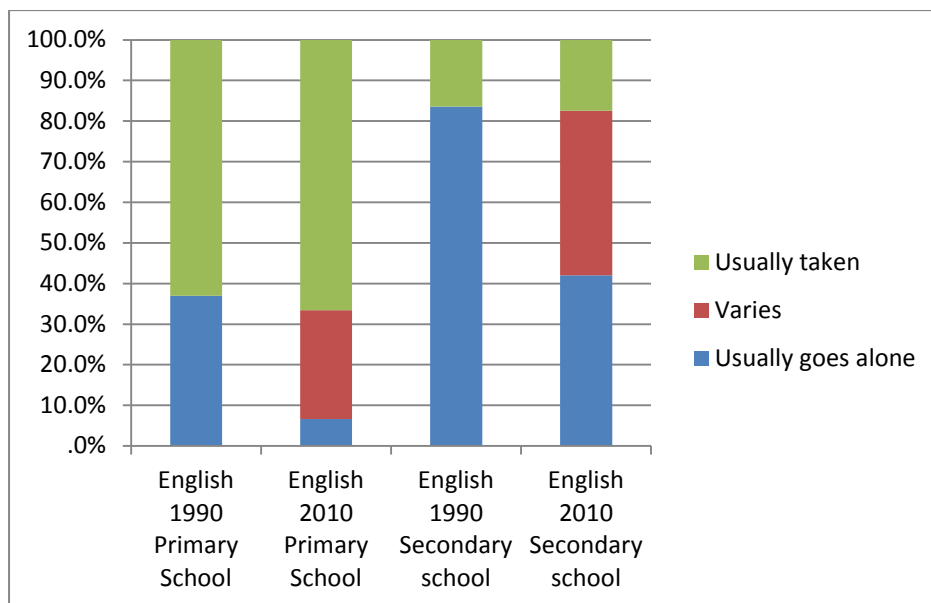


Figure 51: Percentage of parents reporting that their children are allowed to travel to places other than school that are within walking distance, by type of school, from 1990 - 2010

5.2.5 Licence 3: Licence to travel home from school alone (1971 to 2010)

In 1971, 86 per cent of the parents of primary school children surveyed said that their children were allowed to travel home from school alone. By 1990, this had dropped very sharply to 35 per cent, and there was a further drop to 25 per cent of primary school children being granted this licence by their parents in 2010 (Figure 52).

When examined by age, it can be seen that the drop is due to younger children no longer being allowed to travel home from school alone. In 1971, 80 per cent of parents of 7 and 8 years olds reported that their children were allowed to travel home from school alone, but by 1990 this had fallen to 19 per cent of parents. In 2010 only 6 per cent of parents of 7 and 8 year olds allowed their children to do so (Figure 53).

For secondary school children, the percentages of children granted the licence to travel home from school has seen little change between 1990 and 2010.

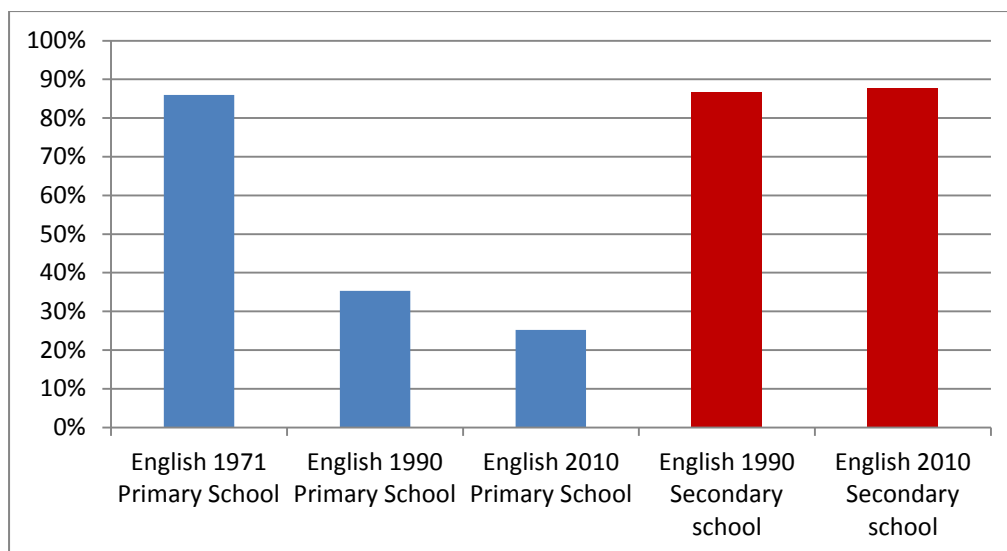


Figure 52: Percentage of parents reporting that their children are allowed to travel home from school alone, by type of school, 1971 – 2010

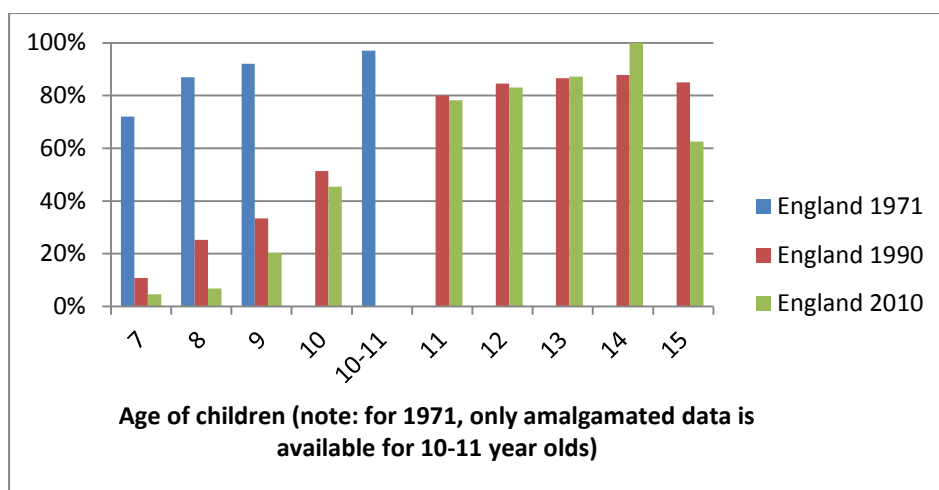


Figure 53: Percentage of parents reporting that their children are allowed to travel home from school alone, by age, 1971 - 2010

5.2.6 Licence 4: Licence to go out alone after dark (1990 to 2010)²⁴

Between 1990 and 2010 there was virtually no change in the percentage of primary and secondary school children who were granted the licence to go out alone after dark (Figure 54). Only parents' responses are available for this question, as children were not asked about this licence in 1990 or 2010. Hardly any primary school children (2 per cent) and less than one in four secondary school children were allowed to go out after dark in either 1990 or 2010. When the licence to go outside alone after dark is analysed by age (Figure 55) it can be seen that a lower percentage of the older secondary school children (13 and 15 year olds) were granted the licence in 2010 than in 1990, although the small sample of parents of 15-year old children in 2010 makes this result less reliable.

²⁴ Questions about the licence to go outside after dark were not asked in the 1971 surveys of either parents or children.

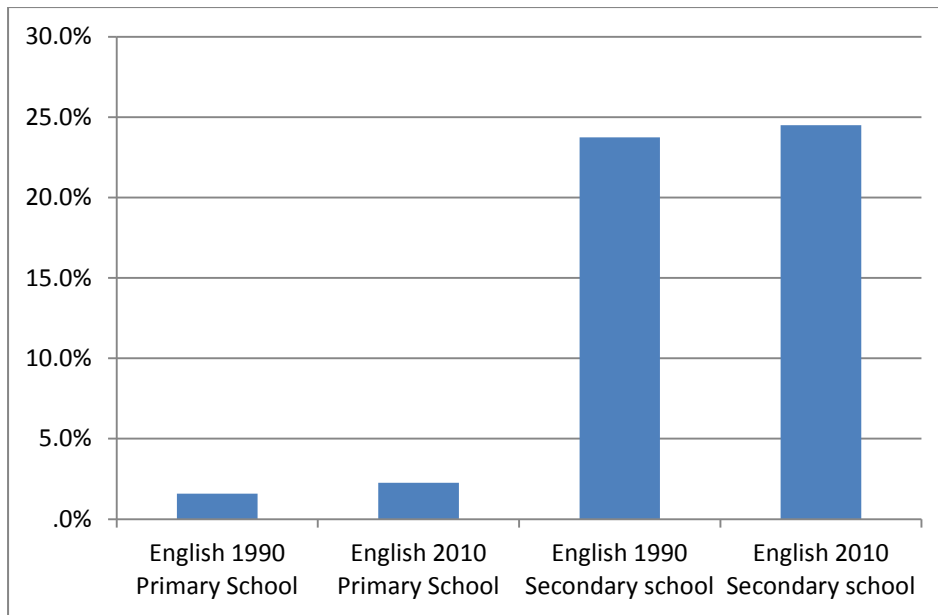


Figure 54: Percentage of parents reporting that their children are allowed to go out after dark without an adult, by type of school, 1990 - 2010

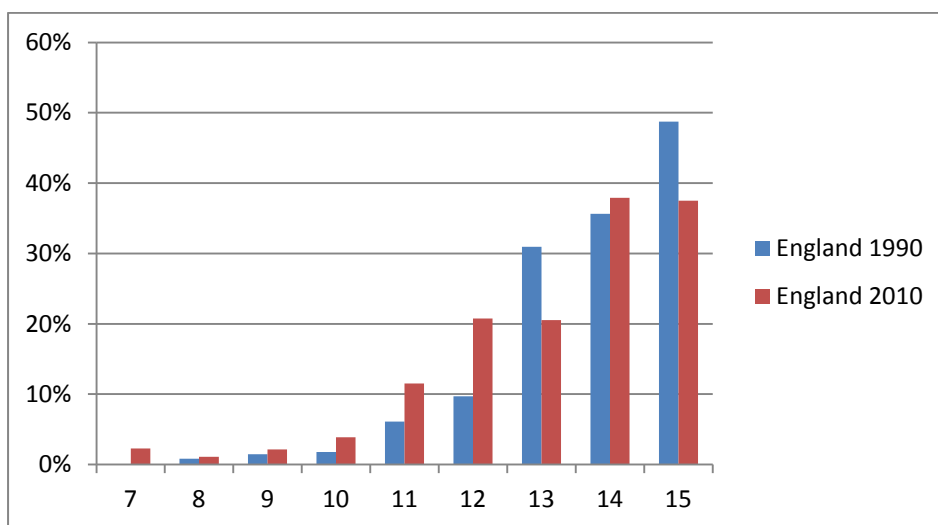


Figure 55: Percentage of parents reporting that their children are allowed to go out after dark without an adult, by age, from 1990 - 2010

For secondary school children there are significant variations in the granting of this licence by area (Figure 56). Oxfordshire and Islington saw large increases in the percentage of secondary school children granted the licence to go outside after dark whereas Stevenage and Nottingham saw large decreases. The reasons for these changes are not clear from the data that is available.

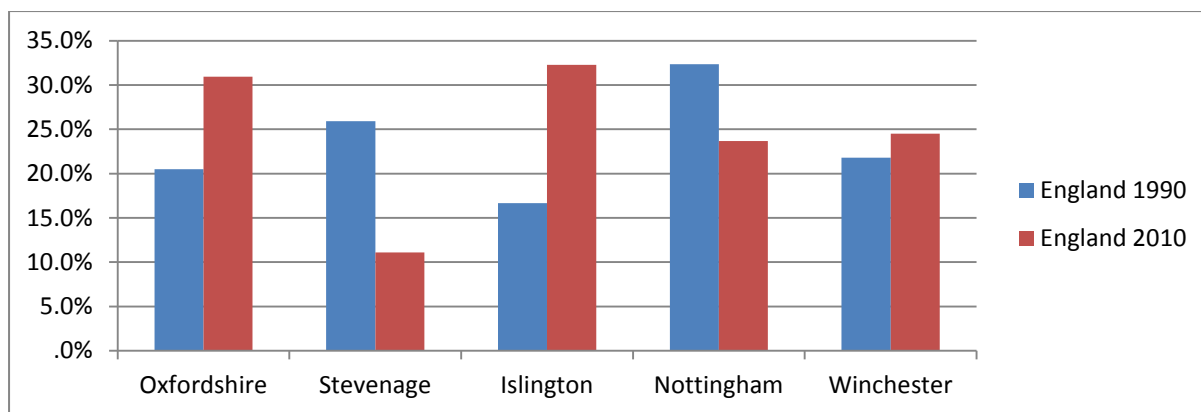


Figure 56: Percentage of parents of secondary school children who report that their children are allowed to go outside after dark, by area, from 1990 - 2010

5.2.7 Licence 5: Bicycle ownership, and Licence to cycle on main roads

Bicycle ownership (1971 - 2010)

Questions about the licence to cycle on main roads were answered only by children who owned bicycles. It is therefore important to define this group. Among *primary school* children, bicycle ownership was higher at all ages in 1990 and 2010 than it was in 1971 (Figure 57). In 1971, 65 per cent owned a bicycle, increasing to 90 per cent in 1990 and 91 per cent in 2010.

Comparable data are not available for *secondary school* children in 1971. In both 1990 and 2010, bicycle ownership among secondary school children was lower than among primary school children, with the percentage declining as the age of the secondary school children increased.

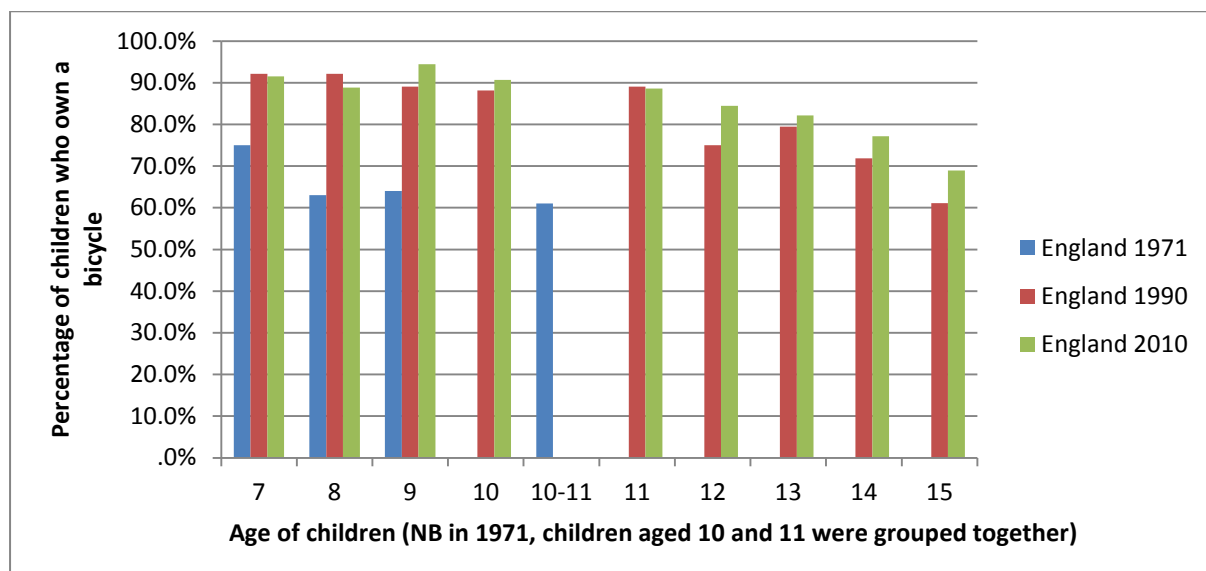


Figure 57: Percentage of children who own bicycle, by age of children

There was some variation in bicycle ownership in the five areas surveyed in 1971, 1990 and 2010. Among primary school children (Figure 58), ownership increased in all five areas between 1971 and 1990, but remained at roughly similar levels between 1990 and 2010. The only notable increase

between 1990 and 2010 was in Winchester, but this may relate to a different school being surveyed in 2010.

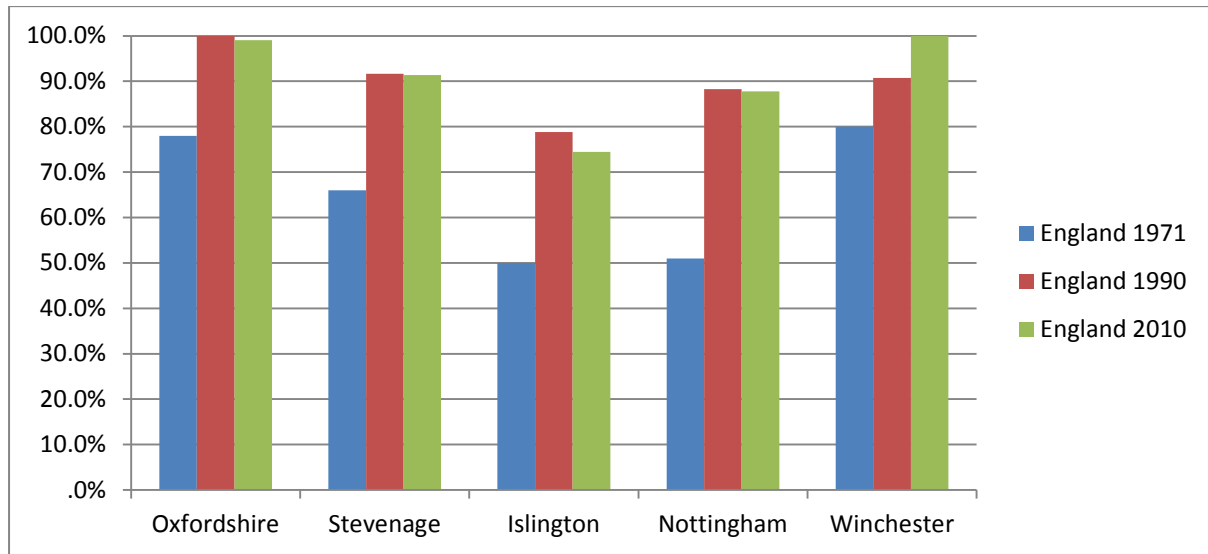


Figure 58: Percentage of primary school children who own bicycles, by area.

The picture is similar among secondary school children, with bicycle ownership lower in all areas among secondary school children than in their equivalent primary schools, but with levels of ownership roughly consistent between 1990 and 2010. The only exception is Islington, which has seen a large increase in bicycle ownership among secondary school children from 43 per cent in 1990 to 70 per cent in 2010.

There is no great divide in bicycle ownership between boys and girls. Among primary school children, fewer girls owned bicycles in 1971, but by 1990 bicycle ownership for both sexes was at about 90 per cent, and remained at these levels in 2010. In secondary school (Figure 59) it is noticeable that the gap between the percentage of girls who own bicycles and the percentage of boys has narrowed between 1990 and 2010. However in 2010, there was still a gender gap – with 76 per cent of secondary school girls owning bicycles, compared to 87 per cent of boys.

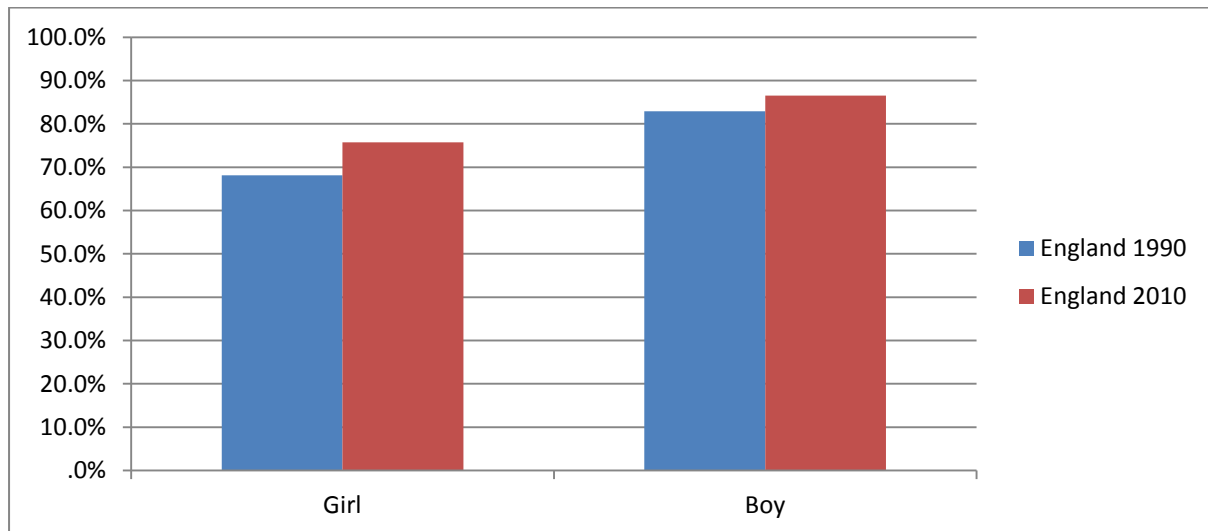


Figure 59: Percentage of secondary school children who own bicycles, by gender

*Licence to cycle (1990-2010)*²⁵

In the 1990 survey, the licence to cycle on roads was derived from the question 'Are you allowed to cycle on main roads?', which was only answered by children who owned bicycles. For the 2010 survey, it was felt that this was not sufficiently explicit about whether the child was cycling on a main road with or without adult supervision. The question 'if you have a bicycle, are you *allowed* to ride it to go to places (like the park or friend's houses) *without any grown ups*?' was therefore added to the 2010 questionnaire. A comparable question was also added to the parents' questionnaire in 2010, which asked 'Is your child allowed to cycle on main roads alone?'.

When conducting our longitudinal analysis, though, we can only compare the questions included in both the 1990 and 2010 questionnaires. Therefore, despite the lack of clarity on adult accompaniment, in this section the question 'Are you allowed to cycle on main roads?' in the children's questionnaire is used as the measure for the licence to cycle on roads.

There were very substantial changes in the percentage of children allowed to cycle on main roads between 1990 and 2010; the greatest change shown in any of the licences, as shown in Figure 60. In 1990, 25 per cent of primary school children who owned a bicycle said that they were allowed to use it on main roads, but by 2010 this had more than doubled to reach 68 per cent of primary school children. A less dramatic but still notable increase can be seen among cycle-owning secondary school children, with 77 per cent stating that they were allowed to cycle on main roads in 1990, rising to 84 per cent in 2010.

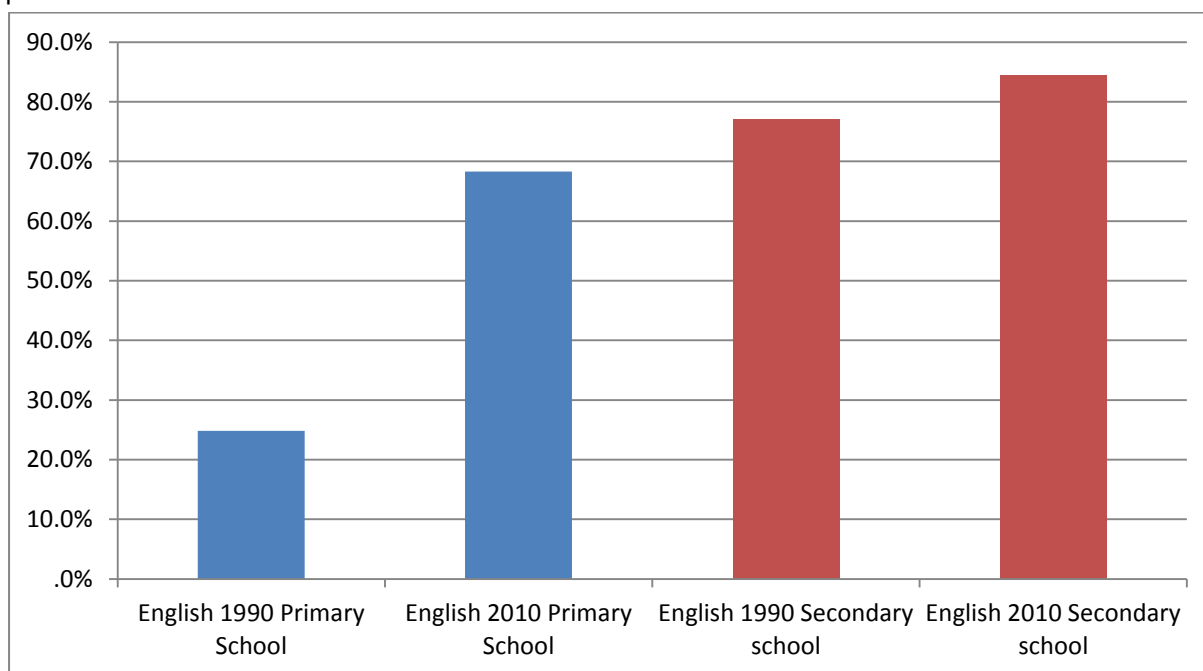


Figure 60: Percentage of children that owned bicycles stating that they were allowed to cycle on main roads, by type of school, England 1990-2010.

²⁵ No equivalent question on the licence to cycle on main roads was asked in either the parent or child questionnaires in 1971.

While this initially indicates a large change, further analysis of these results by age (Figure 61) casts doubt on this interpretation. The 2010 results show that at least 64 per cent of the children of all ages state that they are allowed to cycle on main roads, including over 70 per cent of 7 year olds.

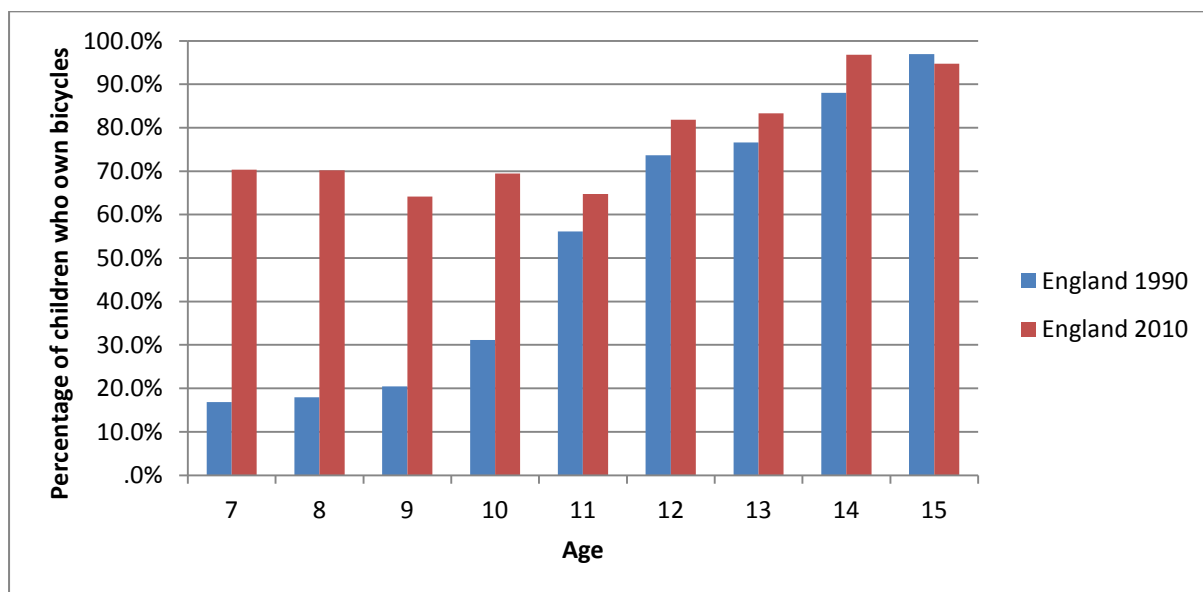


Figure 61: Percentage of children owning bicycles who stated that they were allowed to cycle on main roads, by age.

The increase in the licence to cycle on main roads does not seem to align with the other results of the 2010 survey. When parents in 2010 were asked ‘is your child allowed to cycle on main roads alone?’, the answers differed considerably from the children’s responses, and matched more closely the pattern of the other licences, with a gradual increase in licence-holding with age. Similarly, the children’s answers to the question ‘if you have a bicycle, are you allowed to ride it to go to places (like the park or friend’s houses) without any grown ups?’ shows 28 per cent of 7-year old children being granted this licence – more in line with the figures from 1990 and the pattern shown in other licences in 2010.

It could be that confusion over what constitutes a ‘main’ road, and a lack of clarity in the original question about cycling *alone* also contributed to very variable answers. Another possibility is that the juxtaposition of questions in the 2010 survey – one of which was explicit about accompaniment and one which was not – affected the answers. In the absence of any additional data from 1990 to compare these figures with, we can only assume that the ambiguity of the question led some of the children in 2010 to answer positively when their cycling activities are actually fairly limited. A lack of experience of cycling may also contribute to this; a low level of cycling is reported on the journey to and from school in both 1990 and 2010, and parents rarely chose cycling as their usual mode of transport on journeys to destinations other than school. The English 2010 section of the report contains further analysis based on the additional questions added in 2010.

5.2.8 Licence 6: Licence to use travel on local buses alone (1971-2010)

Between 1971 and 1990, there was a sharp drop in the percentage of children reporting that they were given the licence to use buses alone. In 1971, 48 per cent of primary school children reported that they were allowed to do so. By 1990 this had dropped to 15 per cent and by 2010 to 12 per cent (Figure 62). Among secondary school children, the percentage reporting that they were allowed to

travel on buses alone had not changed much between 1990 and 2010, with no comparable data available for 1971.

In both the 1990 and 2010 surveys, a comparable question was also asked of children about whether their children were allowed to travel on buses alone. The results show a similar trend to their parents' answers, although a greater percentage of children indicated that they held this licence than their parents did. In 1990, 7 per cent of primary school parents said their children were allowed to do so, compared to 5 per cent in 2010. Among secondary school parents in 1990, 66 per cent reported that their children were allowed to use buses alone, compared to 59 per cent in 2010.

When the children's answers are examined by area, large differences can be seen (Figure 64). Considerable investment has been made in bus services in London in recent years and the consequent improved quality is likely to have contributed to this rise in the percentage of children reporting that they were allowed to travel on buses alone in Islington. Outside London, the levels of bus use/granting of licence to use them may reflect the quality of public transport services in the different areas as much as parental granting of licence – although this is an area for further investigation in future research.

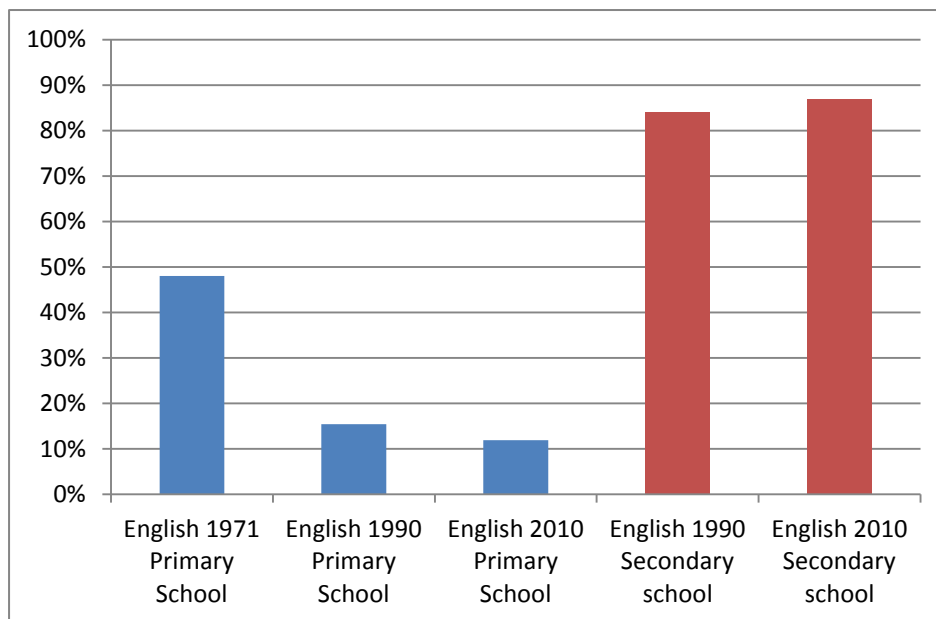


Figure 62: Percentage of children reporting that they are allowed to travel on local buses alone, by type of school, 1990 - 2010

Capital S for School in last two columns

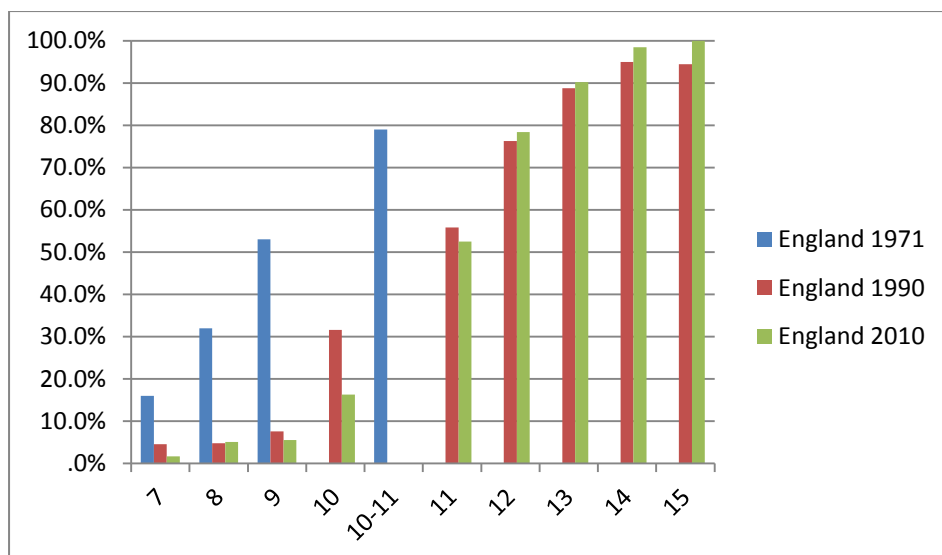


Figure 63: Percentage of children reporting that they are allowed to travel on local buses alone, by age, 1990 - 2010

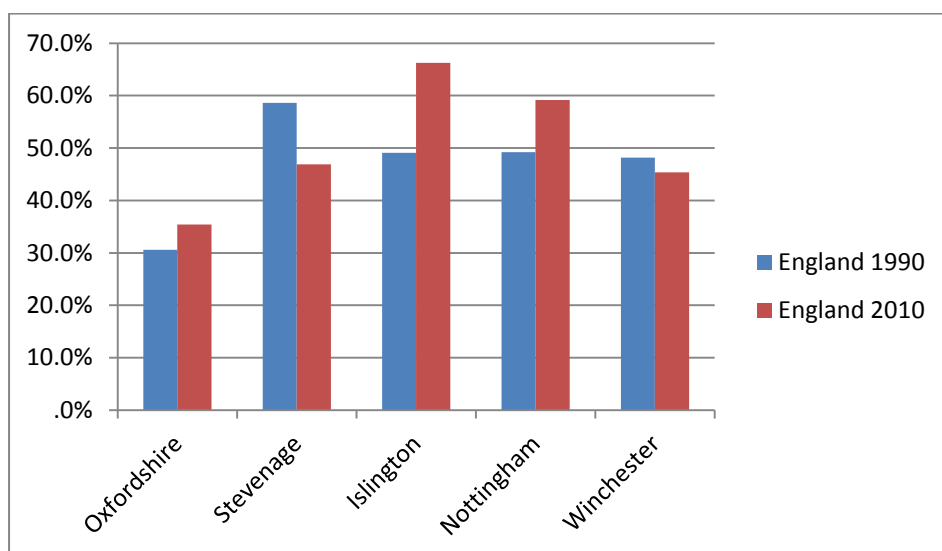


Figure 64: Percentage of children reporting that they are allowed to travel on local buses alone, by area, from 1990 – 2010.

5.3 Children's travel and activities

5.3.1 The journey to and from school

Mode of transport to school (1971-2010)

For primary school children the most marked change in the mode of transport used to travel can be seen between 1971 and 1990 (see Table 32). The proportion of children walking to school dropped from 81 to 63 per cent, while the percentage being taken in cars rose nearly four-fold from 9 per cent of primary school children to 34 per cent, and the percentage of children using public transport or a school bus dropped from 9 per cent to 3 per cent. However, there has been little change since 1990: in both 1990 and 2010 just over 60 per cent walked to school and just over 30 per cent were driven (Table 59). Only a very small proportion used public transport or cycled to school, although the proportion of primary school children cycling seems to have grown a little from 1990 to 2010.

For the secondary school children, the proportions walking or being driven to school both increased since 1990, at the expense of public transport/school buses. As with primary school children, very few cycle to school.

	English 1971 Primary School	English 1990 Primary School	English 2010 Primary School	English 1990 Secondary School	English 2010 Secondary School
Walk	81	63	60	51	57
Cycle	1	1	4	2	2
Public transport/school bus	9	3	3	39	25
Car	9	34	32	9	16
Other	-	-	1	-	0

Table 32: Percentage of children travelling by different modes of transport to school, as reported by children from 1971-2010. In 1971 and 1990, children were not given the option of writing 'other'.

Mode of transport to school by area – primary school children (1971-2010)

When examined by area the changes are more variable (Table 33). In Stevenage, Nottingham and Islington the percentage of primary school children walking to school has steadily decreased from 1971 to 2010. In Winchester it fluctuated, and in Oxfordshire it actually increased – although this could be explained by the unusually high percentage of children taking public transport or a school bus in Oxfordshire in 1971, and the decline in bus and public transport use in 1990 and 2010.

	Oxfordshire (% of primary school children)			Stevenage (% of primary school children)			Islington (% of primary school children)			Nottingham (% of primary school children)			Winchester (% of primary school children)		
	1971	1990	2010	1971	1990	2010	1971	1990	2010	1971	1990	2010	1971	1990	2010
Walk	50	57	64	95	76	54	89	76	70	95	71	51	74	44	62
Cycle	1	0	5	2	2	5	0	0	8	0	0	1	1	1%	0
Public transport/school bus	39	9	0	2	0	2	6	3	9	3	2	4	1	1	3
Car	10	34	29	1	22	39	6	21	14	3	27	43	23	54	34
Other	-	-	2	-	-	0	-	-	0	-	-	1	-	-	1

Table 33: Percentage of primary school children reporting that they travelled to school by a specific mode of transport on the morning of the survey, by area.

Car use increased from 1971 levels in all areas; this is unsurprising given the growth in national car ownership and trends in car use. Notably, though, the levels of car use reported on the day of the surveys stabilised between 1990 and 2010 in Oxfordshire, and actually decreased in Winchester and Islington in the same period. While Winchester still has a relatively low level of walking to school, it would be interesting to explore further whether these changes between 1990 and 2010 are the intentional results of action taken - whether at the schools concerned, or at the local authority level.

Some schools have seen a small increase in the proportion of primary school children cycling between 1971 and 2010: in Islington (no children cycled in 1971 and 1990, but, by 2010, 8 per cent did so), Stevenage (2 per cent of children cycled in 1971 and 1990, rising to 5 per cent in 2010) and Oxfordshire (only 1 per cent cycled in 1971 and 1990, rising to 5 per cent in 2010). Whether these

increases are due to active interventions would be interesting to explore further. The levels of cycling are still very low, especially given the high ownership of bicycles recorded in the surveys, but it demonstrates that it is possible to increase the percentages of children cycling to school

Mode of transport to school by area – secondary school children (1990-2010)

There are clear changes in the mode used by secondary school children to travel to school on the day of the survey between 1990 and 2010 (Table 34). The percentage using a car increased in all five areas, but in four of them the percentage of children walking also increased. In the remaining area, Nottingham, the percentage of children walking to school in 1990 was exceptionally high, at 86 per cent of the Nottinghamshire secondary school children. The overall pattern (with the exception of Nottingham) is a shift away from the use of public transport or school buses, with an increase in walking or using the car. The levels of cycling fluctuated across the areas, but remain very low – the highest can be seen in Stevenage where 6 per cent of secondary school children cycled in 2010. In Oxfordshire and Winchester, no secondary school children cycled in 2010.

	Oxfordshire (% of secondary school children)		Stevenage (% of secondary school children)		Islington (% of secondary school children)		Nottingham (% of secondary school children)		Winchester (% of secondary school children)	
	1990	2010	1990	2010	1990	2010	1990	2010	1990	2010
Walk	33	40	58	66	55	65	86	63	32	39
Cycle	1	0	3	6	0	2	4	3	2	0
Public transport /school bus	63	50	22	10	39	21	4	17	59	35
Car	3	10	18	18	6	11	7	16	8	26
Other	-	0	-	0	-	1	-	1	-	0

Table 34: Percentage of secondary school children reporting that they used a specific mode to travel to school on the morning, against the areas surveyed.

Mode to school by gender (1990-2010)

When the journey to school is analysed by gender (Table 35) few differences between primary school children are apparent in 1990 or 2010. Around two thirds of boys and girls walked or cycled to school in both 1990 and 2010, with almost all of the remaining third travelling by car. Hardly any used public transport or school bus.

	England 1990		England 2010	
	Girl	Boy	Girl	Boy
Walk	62	63	64	56
Cycle	0	1	2	6
Public transport/school bus	4	3	2	5
Car	34	33	31	33
Other	-	-	1	0

Table 35: Percentage of primary school children travelling by a specified mode of transport to school on the morning of the survey, by gender.

Roughly similar results were recorded from the responses of secondary school boys and girls (Table 36), with little difference in the modes used by either gender 1990 or 2010. Notably, there has been an increase in walking among girls (from 48 per cent of girls walking in 1990 to 59 per cent walking in 2010) which means that a larger percentage of girls now walk to school than boys. Overall levels of bicycle use still remained low for both genders, though it can be seen that more boys than girls cycled.

	England 1990		England 2010	
	Girl	Boy	Girl	Boy
Walk	48	53	59	54
Cycle	0	3	1	4
Public transport/school bus	41	36	24	26
Car	10	8	17	15
Other	-	-	0	1

Table 36: Percentage of secondary school children travelling by a specified mode of transport to school on the morning of the survey, by gender.

5.3.2 Car ownership

Levels of car ownership in the households of primary and secondary school showed little change between 1990 and 2010 (Figure 65). A large majority of the surveyed households had access to at least one car in both 1990 and 2010 and around 40 per cent to two or more cars. The most notable difference can be seen in a small increase in the number of the households of secondary school children with no access to a car from 15 per cent in 1990 to 22 per cent in 2010.

Looking at household car ownership in each of the areas individually reveals large changes. In four of the five areas the proportion of households with no access to a car dropped between 1971 and 2010 (Figure 66). Virtually all surveyed Oxfordshire households had access to a car in 2010 and a large majority had access to two or more.

The only exception was in Islington, where the percentage of households with no access to a car was marginally higher in 2010 than it was in 1971, but where there was a much lower percentage of

households with no access to a car in 1990 (Figure 66). The increase in proportion of households with no cars in Islington would seem to account for the change in the overall increase in households with no access to a car, shown in Figure 65. Nottingham saw a sharp drop in the number of households with no access to a car between 1971 and 1990, but this percentage rose slightly in 2010.

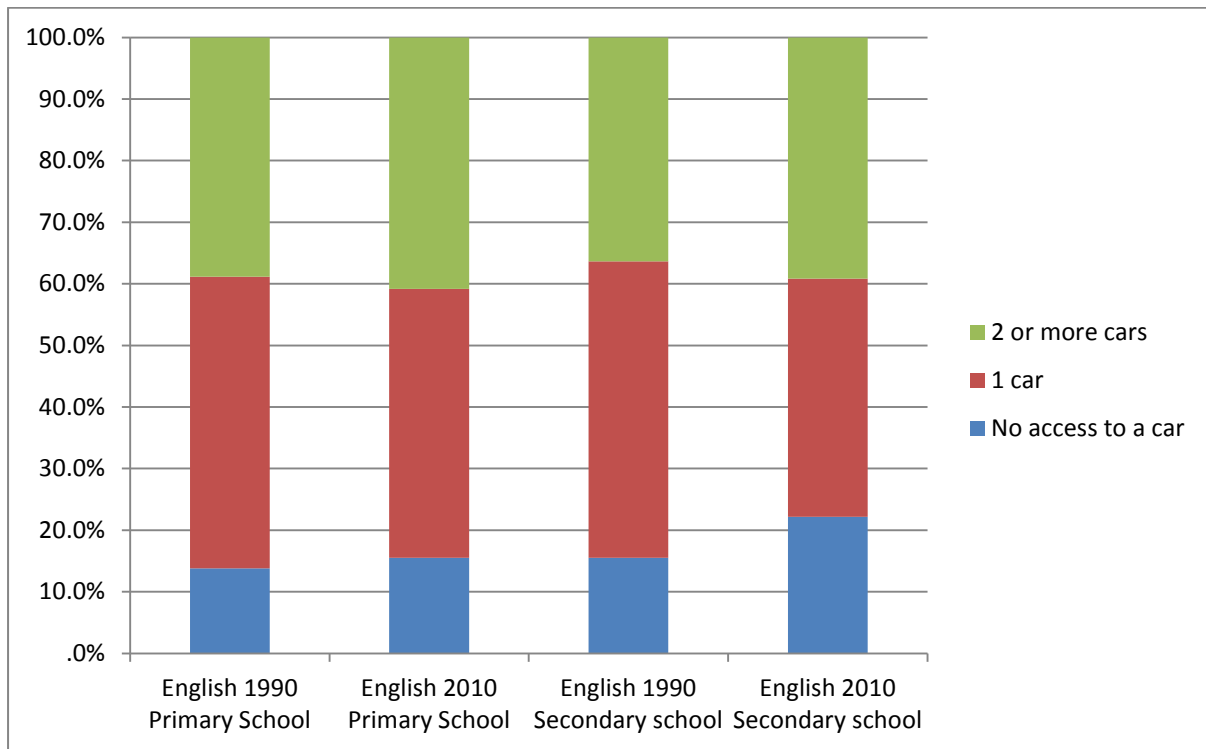


Figure 65: Percentage of parents reporting their household access to a car, 1990 and 2010, by school type.

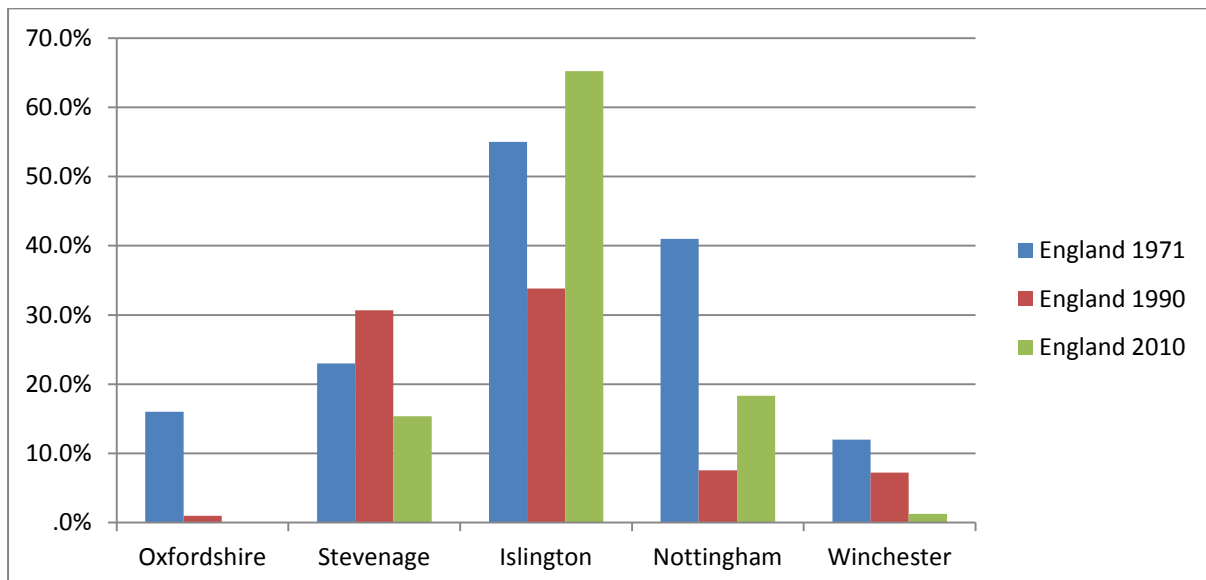


Figure 66: Percentage of households with no access to a car, reported by parents of primary school children, 1971-2010.

5.3.3 Accompaniment to and from school

In 1990, given the observed modal split of transport to school on the day of the survey, and in the absence of changes to that split, at least 34 per cent of primary school children had to be accompanied by an adult as they were driven to school. Similarly, 32 per cent of primary school children were driven to school in 2010.

In fact, in 1990 64 per cent of primary school children were escorted to school (Figure 67); of these, half were taken in a car and most of the rest were escorted by parents or other adults walking with them. In 2010, this level of accompaniment had risen to 77 per cent of primary school children being taken to school (Figure 67). Of these, 41 per cent went by car and 52 per cent walked with them.

Of the primary school children who walked to school, 47 per cent were accompanied by a parent or other adult, but by 2010 this had raised to 67 per cent of the primary school children who walked to school. In the secondary schools in both 1990 and 2010, by comparison, only 1 per cent of the children who walked were accompanied.

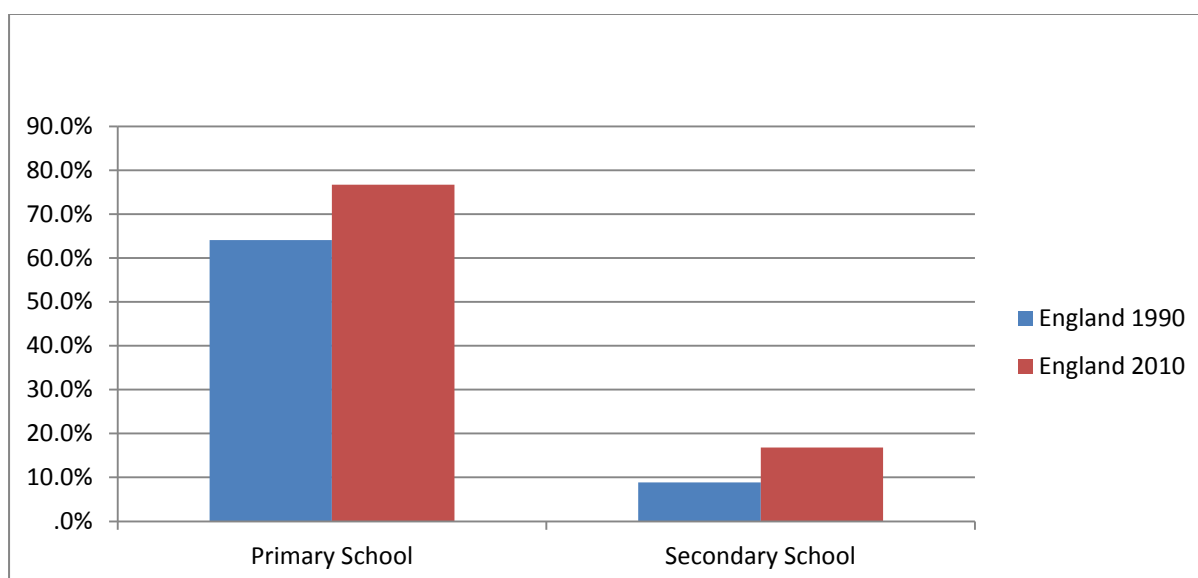


Figure 67: Percentage of children reporting that they are accompanied to school by a parent or other adult, by type of school.

It can also be seen that among primary school children the gender gap narrowed between 1990 and 2010 (Figure 22). Only 3 per cent more girls than boys were accompanied to school than boys in 2010, compared to 14 per cent more in 1990. Among secondary school children the gap between genders also slightly narrowed.

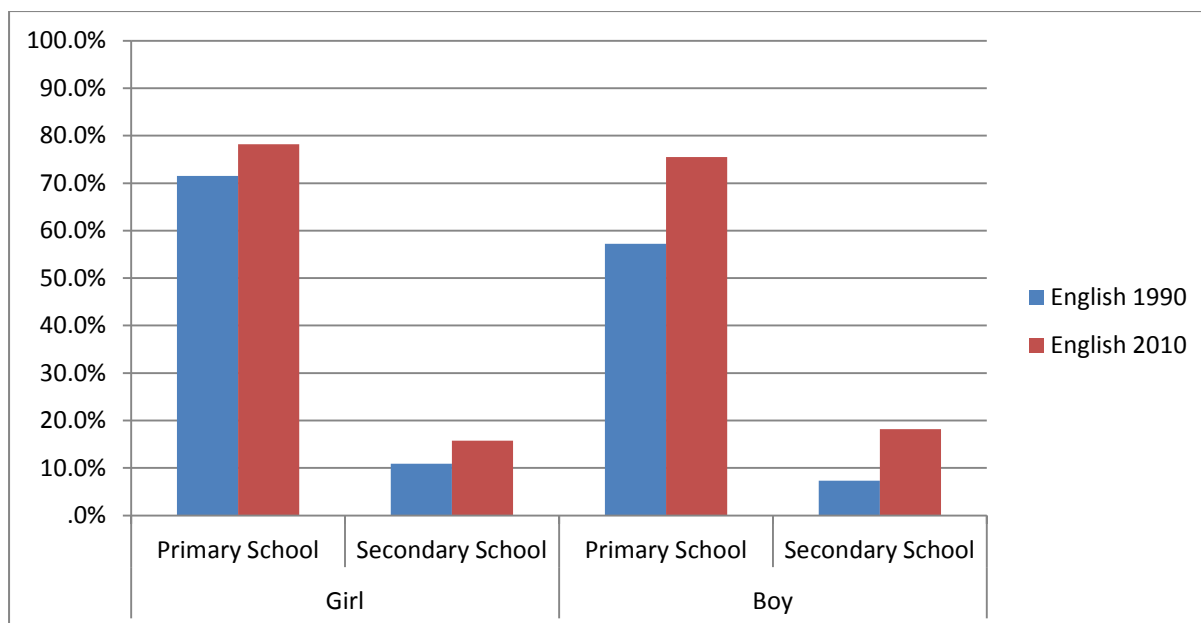


Figure 68: Percentage of children reporting that they are accompanied to school by a parent or other adult, by gender.

The figures for accompaniment home *from* school are very similar to those on the journey *to* school, but a greater percentage of parents collected their children from primary school every day (Figure 23).

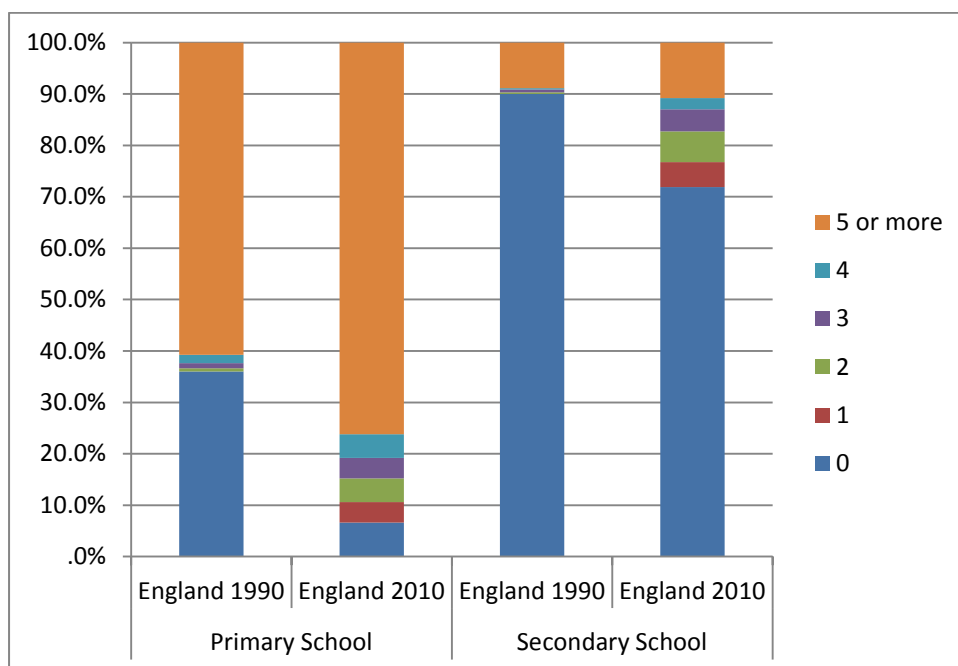


Figure 69: Number of days that parents report their children are collected from school by an adult, by type of school

5.3.4 Journeys to destinations other than school and accompaniment – primary school children

Looking at journeys to destinations other than school ('non-school journeys') and accompaniment on them over time, it can be seen that the average number of journeys that primary school children undertook at the weekend dropped since 1971, but recovered a little since 1990. The percentage of weekend journeys that were undertaken with parents increased from 41 per cent of journeys in 1971 to 62 per cent in 2010, as shown in Table 37 (which could reflect an increased unwillingness of parents to leave their children at home alone). It is also notable that in 1971 primary school children engaged in at least twice as many unaccompanied journeys to weekend activities compared to the primary school children in 1990 and 2010.

	Unaccompanied weekend journeys		Accompanied weekend journeys		Total number of weekend activities
	Mean number undertaken	% total activities	Mean number undertaken	% total activities	
1971	3.4	59	2.4	41	5.8
1990	2.2	54	1.9	46	4.1
2010	1.5	38	2.5	62	4.1

Table 37: Number of and accompaniment on weekend journeys, primary school children.

5.3.5 Journeys to destinations other than school and accompaniment – secondary school children

Only a small difference can be seen between the average number of journeys to weekend activities undertaken by secondary school children in 1990 and 2010.

	Unaccompanied weekend journeys		Accompanied weekend journeys		Total weekend activities
	No.	%	No.	%	
1990	3.9	78	1.1	22	5.0
2010	3.2	74	1.1	26	4.3

Table 38: Number of and accompaniment on weekend journeys, secondary school children.

5.4 The influences on independent mobility

5.4.1 The impact of gender

For all six licences of independent mobility the gap between the percentage of primary schools boys and the percentage of girls granted each licence has narrowed between 1990 and 2010. While in 1990 a higher percentage of boys were granted all six licences, in 2010 there was little difference between the levels of independent mobility among primary school boys and girls. This reflects girls being granted greater independence and more girls being granted the licences of mobility, as opposed to a decrease in the independence of boys.

Licence	1990			2010		
	Girls	Boys	Difference between boys and girls	Girls	Boys	Difference between boys and girls
Crossing roads (children's response)	42	60	18	50	59	9
Crossing roads (parents' response)	16	29	13	34	37	3
Travel to places other than school	30	43	13	32	35	3
Travel home from school	26	44	18	23	28	5
Go out after dark	0	3	3	2	3	1
Cycle to go places (children's response)	12	37	25	64	72	8
Use public transport	10	20	10	11	11	0

Table 39: Percentage of primary school children being granted each of the licences of independent mobility, by gender, 1990 and 2010.

Among secondary school children the gaps between the percentage of boys and girls granted the six licences were smaller than primary school children in 1990, and these small gaps between genders have remained consistent to 2010.

Licence	1990			2010		
	Girls	Boys	Difference between boys and girls	Girls	Boys	Difference between boys and girls
Crossing roads (children's response)	97	96	-1	99	98	-1
Crossing roads (parents' response)	90	89	-1	95	94	-1
Travel places other than school	81	86	5	83	81	-2
Travel home from school	83	90	7	85	91	6
Go out after dark	19	29	10	19	31	12
Cycle to go places (children's response)	74	80	6	81	88	7
Use public transport	84	84	0	87	87	0

Table 40: Percentage of secondary school children being granted each of the licences of independent mobility, by gender, 1990 and 2010.

5.4.2 The impact of perceptions of safety

Parents/children's concerns about area and risk of accident

In both 1990 and 2010, parents were asked "How worried are you about the risk of your child being injured in a traffic accident when crossing a road?". When the results are split into primary school and secondary school (Figure 70) it can be seen that parent's worries decreased between 1990 and 2010. A lower percentage of secondary school parents were worried about this than primary school parents in both 1990 and 2010.

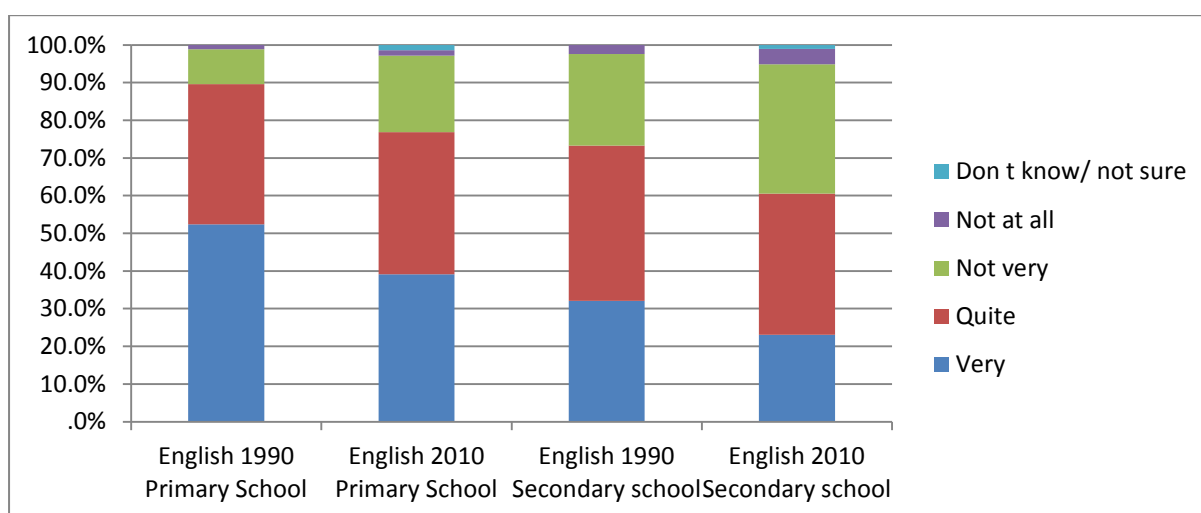


Figure 70: Percentage of parents responding to the question 'How worried are you about the risk of your child being injured in a traffic accident when crossing a road?', by type of school.

When analysed by area, it can be seen that there were particularly visible drops in concern in both Oxfordshire and Stevenage, with over 30 per cent fewer parents in each area stating that they were 'very' worried about their child being injured by traffic, and the number of parents saying that they were 'not very' worried rising from around 10 per cent in both areas to around 30 per cent. Concern about traffic danger actually rose in Islington, with 40 per cent of parents stating that they were 'very' worried in 1990, rising to 61 per cent in 2010. That said, the percentage of parents in this area stating that they were either 'very' or 'quite' worried has remained stable at around 85 per cent.

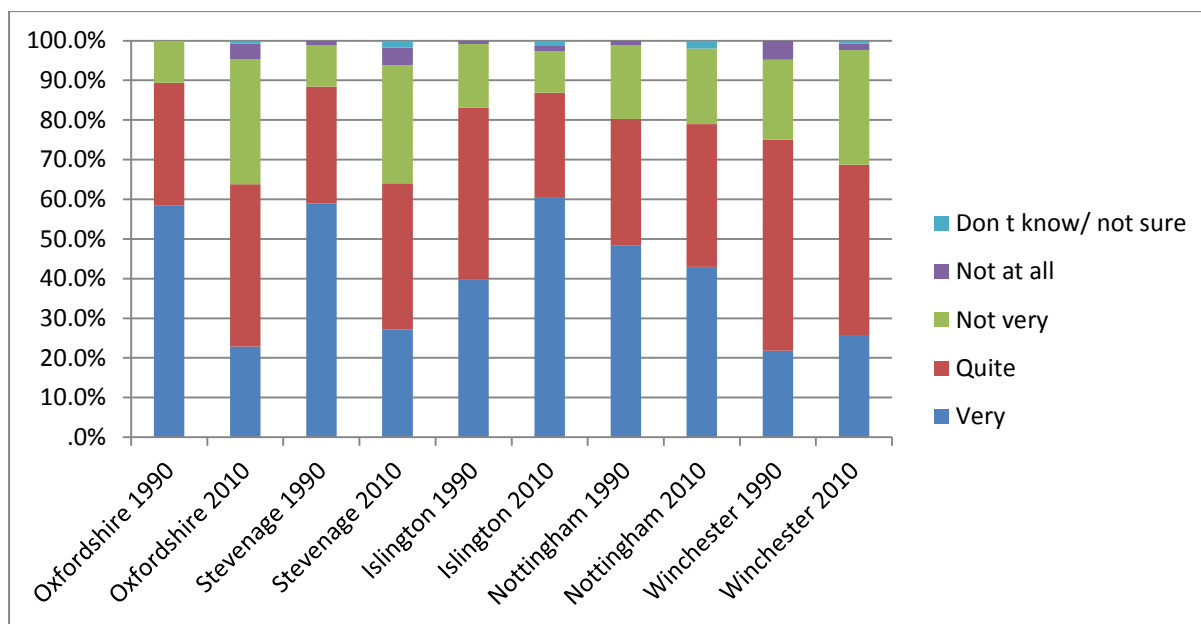


Figure 71: Percentage of parents responding to the question 'How worried are you about the risk of your child being injured in a traffic accident when crossing a road?', by area.

When analysed by gender, primary school parents' concerns regarding boys and girls in 2010 are similar to the attitudes of primary school parents in 1990 (Figure 72). In 2010, though, the parents of secondary school boys are twice as likely to be 'very' worried than those of girls (33 per cent of parents of boys, compared to 16 per cent of parents of girls). This is an increase in gender disparity from the parents who were 'very' worried about their children in 1990, as can be seen in Figure 73. This could reflect the larger percentage of boys (than girls) who cycle to school, or the larger percentage of boys who travel to and from school unaccompanied by a parent or other adult. Alternatively, it could reflect different cultural attitudes to boys and girls.

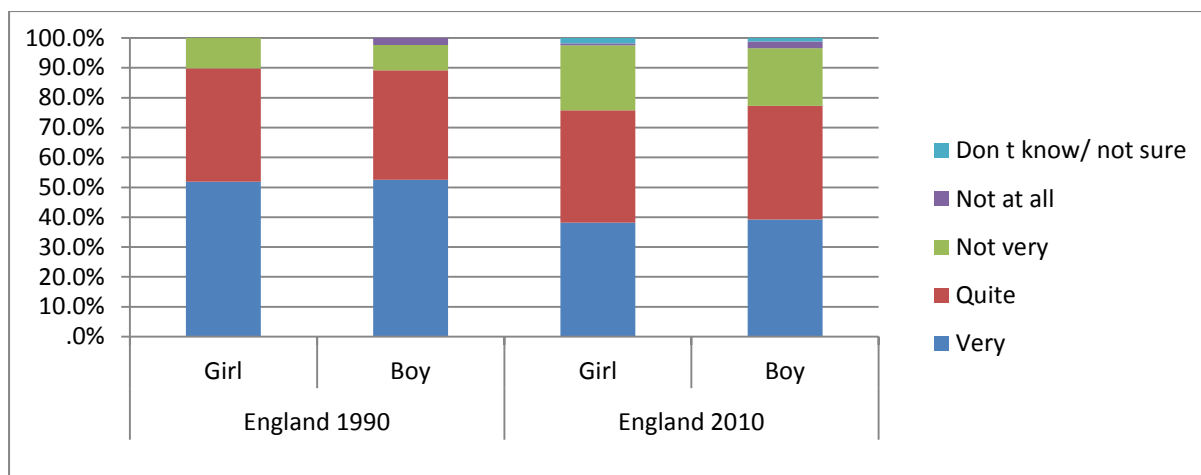


Figure 72: Percentage of primary school parents responding to the question “How worried are you about the risk of your child being injured in a traffic accident when crossing a road?”, by gender.



Figure 73: Percentage of secondary school parents responding to the question “How worried are you about the risk of your child being injured in a traffic accident when crossing a road?”, by gender.

5.5 Summary of findings

Below we summarise the main findings from the comparison on the English surveys in 1971, 1990 and 2010.

5.5.1 Changes in the licences for primary school children - summary

Overall, the independent mobility of primary school children in England **has declined to a considerable extent since 1971. The main part of this reduction took place between 1971 and 1990**, with the percentage of children being granted the four licences for which data is available covering the four decades dropping by between 21 and 57 per cent.

Between 1990 and 2010 there was no clear trend in the granting of the licences for primary school children, but the changes that were apparent were small compared to those that occurred between 1971 and 1990. In 2010, the licences to use buses, travel home from school and travel to places other than school all show a drop although, for some of these licences, the drop was small. No change was observed in the licence to go out after dark; although, in 2010, this licence could hardly drop any further as barely any primary school children were granted this licence in 1990. For

crossing roads and cycling, however, there was an increase in the percentage of primary school children being granted these licences reported – though, the changes to the way the cycling questions were asked between 1990 and 2010 obscure this change. Although children's responses indicate a large increase in the granting of this licence, the parent's response in 2010 suggest that it is small. Both parents and children's responses for the licence to cross roads suggest a possible real increase, but one which goes against the trend of the other licences.

5.5.2 Changes in the licences for secondary school children - summary

For secondary school children, comparable data were not collected in 1971. Between 1990 and 2010, very little change was found for four of the licences. For the remaining two, the percentage of children being granted the licence to cycle dropped, and the percentage of children being granted the licence to go places other than school has remained static or dropped. So, at best, no improvement was found between 1990 and 2010 in secondary school children's independent mobility and for some of the licences a slight drop may have occurred.

5.5.3 The impact of gender

For all six licences of independent mobility there was a closing of the gap between primary school boys and girls between 1990 and 2010: in 1990 a higher percentage of primary school boys were granted all six licences than girls, in 2010 relatively little difference was found. Among secondary school children the gaps between the percentage of boys and girls granted the six licences were smaller than between the primary school boys and girls in both 1990 and 2010.

5.5.4 Mode to and from school

For primary school children the most marked change in the mode of transport to school was from 1971 to 1990, during which period the proportion walking to school fell from 81 to 63 per cent, while the percentage taken by car increased considerably (from 9 per cent of primary school children to 34 per cent) and the percentage using public transport or a school bus fell from 9 per cent to 3 per cent. Since 1990 there was little change in the mode of transport used to travel to school: in both 1990 and 2010 a little over 60 per cent walked to school and a little over 30 per cent were driven. Only a very small proportion used public transport or cycled to school, although the small proportion cycling did grow slightly. Very little difference was found by gender for the journey to school in 1990 and this had not changed in 2010.

For secondary school children, we have little data for 1971 but the proportions of children walking or being driven to school have both increased since 1990, at the expense of travel on public transport or school buses. As with primary school children only a few per cent cycle to school, and little difference was found by gender other than, between 1990 and 2010, a more pronounced shift for girls than boys towards walking to school and away from using public transport.

5.5.5 Car ownership

Household car ownership grouped by primary and secondary school shows little change between 1990 and 2010 (Figure 65). Car ownership in each of the areas surveyed has varied widely, with parents in Oxfordshire (the most rural area) reporting that no families have no access to cars in 2010, compared to Islington (the most urban area) where 65 per cent of parents reported that their family had no regular access to a car.

5.5.6 Accompaniment on the journey to school

For primary school children between 1990 and 2010 there is a trend towards an increasing level of adult accompaniment on the journey to school. In 1990, 64 per cent of these children were escorted to school, rising to 77 per cent in 2010. Even once the use of cars to transport children to school is taken into account, the percentage of children being escorted when they walked on foot has risen; 47 per cent were accompanied by a parent or other adult in 1990, but by 2010 this had risen to 67 per cent of the primary school children who walked to school. The gender gap for accompaniment narrowed between 1990 and 2010: only 3 per cent more girls than boys were accompanied to school in 2010 compared to 14 per cent more girls in 1990.

Accompaniment of secondary school children also increased between 1990 and 2010 (9 per cent of secondary school children being accompanied in 1990 to 17 per cent in 2010). The gap between genders narrowed from 1990 with the result that, by 2010, slightly more boys than girls reported being accompanied.

5.5.7 Journeys to destinations other than school and accompaniment – primary school children

The average number of journeys that primary school children undertook at the weekend has dropped since 1971, but has recovered a little since 1990. The percentage of weekend journeys with parental or other adult accompaniment has increased from 41 per cent of weekend journeys in 1971 to 62 per cent in 2010. It is particularly notable that, in 1971, primary school children engaged in at least twice as many unaccompanied journeys to weekend activities as they did in 1990 and 2010.

In 1971, 80 per cent of parents of 7 and 8 years olds reported that their children were allowed to travel home from school alone, but by 1990 this had fallen to 19 per cent of parents. In 2010 only 6 per cent of parents of 7 and 8 year olds allowed their children to do so (Figure 53).

For secondary school children a small drop in the average number of weekend journeys was observed with a small shift towards these children being accompanied on them.

5.5.8 Parents/children's concerns about area and risk of accident

The percentage of parents of both primary and secondary school children that are concerned about their child being injured when crossing the road has decreased between 1990 and 2010. And less concern about their child being injured continues to be expressed by the parents of secondary than primary school children. In this regard, the attitudes of primary school parents in relation to boys and girls in 2010 were similar to their attitudes in 1990. In 2010, parents of secondary school boys are twice as likely as the parents of the girls to be 'very' worried about their child being injured – 33 per cent of parents of boys, compared to 16 per cent of parents of girls. This represents an increase in gender disparity from the parents who were 'very' worried in 1990.

In Section 8 of this report we discuss the implications of these findings.

6 Children's Independent Mobility in Germany 1990-2010

6.1 Children's independent mobility in Germany from 1990-2010

This section presents detailed results from the German surveys conducted in 1990 and 2010. The levels of independent mobility observed among primary and secondary school children are reported first, as indicated by the six 'licences' of independent mobility reported by children and their parents. We then present information on the types of journey children make, the transport modes used and whether or not children are accompanied by an adult on them.

6.1.1 Primary school children

From the figures below (Table 41) it is possible to see that German primary school children in 2010 were less independent than their peers in 1990 for two of the six licences of independent mobility. The percentages of primary school children being granted the licence to cross main roads alone dropped from over 8 in 10 children to around two-thirds of children in 2010; similarly, the licence to travel home from school alone was nearly universal in 1990 but this had dropped to three-quarters of children in 2010.

For three of the other licences, the change is less clear. For the licence to travel to destinations other than school alone, and the licence to cycle on main roads, the change is obscured by a difference in the way that the licence was surveyed in 2010. Conflicting answers were given about the licence to use buses alone; while the parents' answers show a sharp drop in the percentage of children granted the licence, the children's answers to the very similar question show the percentage granted this licence remaining nearly constant between 1990 and 2010.

Very few primary school children (6-7 per cent) were granted the licence to go outside alone after dark in either 1990 or 2010.

Licence	1990	2010
Cross main roads alone (children's response)	84	61
Cross main roads alone (parents' response)	80	66
Travel to places other than school alone	71	Between 28 and 85 per cent (28 per cent of children usually travelled alone, while for a further 57 per cent it 'varies')
Travel home from school alone	93	76
Go out alone after dark	6	7
Allowed to cycle on main roads (children's response)	34 per cent of cycle owners (87 per cent own a bicycle)	11 per cent of cycle owners (94 per cent own a bicycle)
Cycle to go places (children's response)	-	76 per cent of cycle owners (94 per cent own a bicycle)
Use buses alone (children's response)	36	31
Use buses alone (parent's response)	61	25

Table 41: Percentage of primary children granted the six licences of independent mobility, 1990-2010.

6.1.2 Secondary school children

The changes between 1990 and 2010 in the percentages of children holding each of the licences have been much less marked among secondary school children (Table 42). The licence to cross main roads alone and the licence to travel home from school alone have remained near-universal, while the percentage of children being granted the licence to use local buses alone has either increased or remained constant, depending on whether the children's or the parents' answers are used.

For the licence to travel to destinations other than school alone and the licence to cycle on main roads, the change is unclear due to a change in the way the question was asked. The only licence where a significant drop occurred is the licence to go outside alone after dark. This has dropped from 36 per cent of secondary school children holding the licence in 1990 to only 24 per cent in 2010.

Licence	1990 %	2010 %
Cross main roads alone (children's response)	96	90
Cross main roads alone (parents' response)	98	95
Travel to places other than school alone	92	Between 56 and 95 per cent (56 per cent of children usually travelled alone, while for a further 39 per cent it 'varies')
Travel home from school alone	99	99
Go out alone after dark	36	24
Allowed to cycle on main roads (children's response)	81 per cent of cycle owners (89 per cent own a bicycle)	24 per cent of cycle owners (93 per cent own a bicycle)
Cycle to go places (children's response)	-	95 per cent of cycle owners (93 per cent own a bicycle)
Use buses alone (children's response)	87	95
Use buses alone (parent's response)	95	96

Table 42: Percentage of secondary children granted the six licences of independent mobility, 1990-2010.

Licence 1: Crossing main roads alone

The percentage of primary school children granted permission to cross main roads unaccompanied by parents or other adults declined by 13-14 per cent between 1990 and 2010, from 84 per cent to 61 per cent according to the children's answers (Figure 74) and from 80 per cent to 66 per cent according to their parents (Figure 75).

For secondary school children the reduction in the percentage of children allowed to cross main roads alone was much smaller, falling from either 96 per cent to 90 per cent of secondary school children (children's answers) or a smaller drop of 98 per cent to 95 per cent of secondary school children (parents' answers).

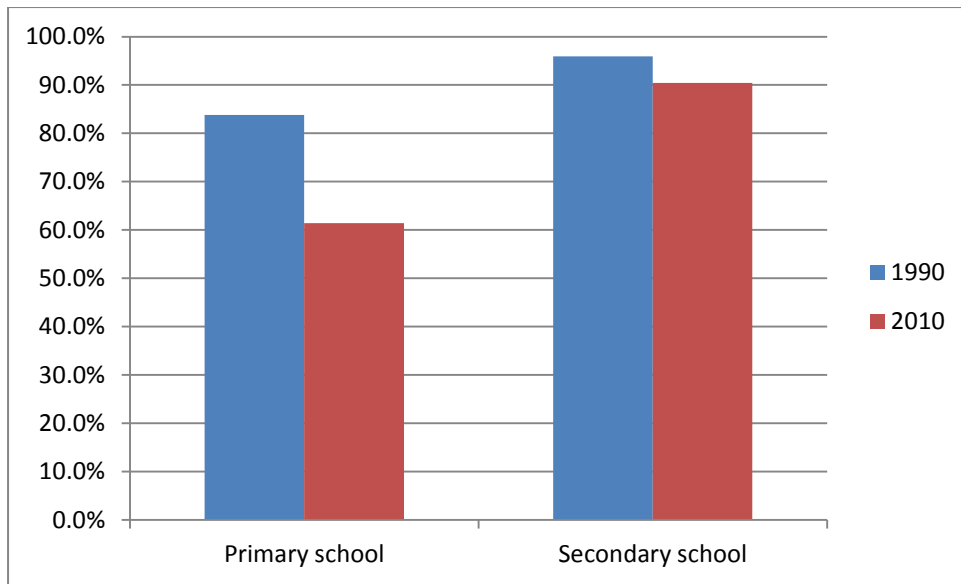


Figure 74: Percentage of children reporting that they are allowed to cross main roads alone, 1990-2010

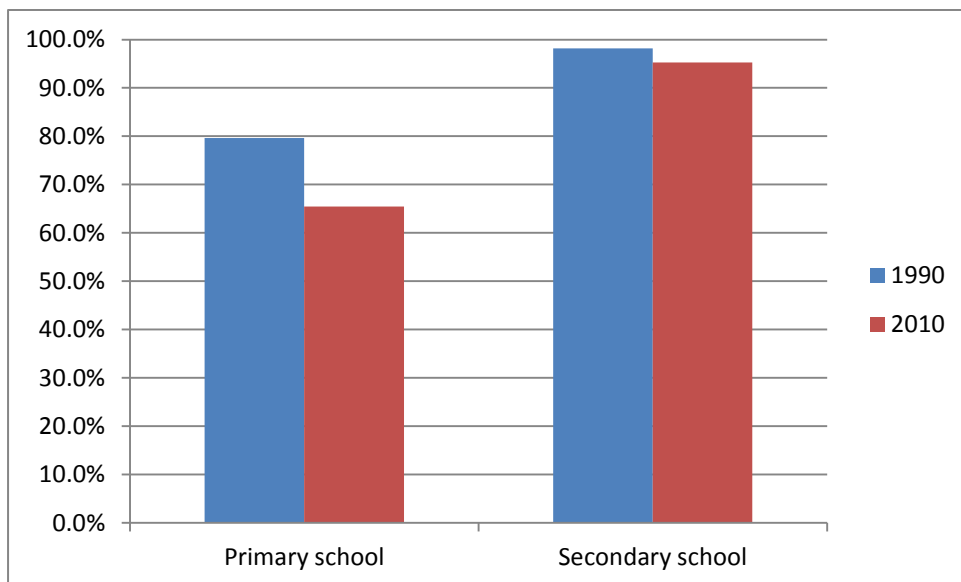


Figure 75: Percentage of parents reporting that their children are allowed to cross main roads alone, 1990-2010

When these changes are examined by area, it can be seen that the percentage of children being granted the licence to cross main roads alone dropped by varying amounts in each area. The parents' and children's answers vary somewhat but, according to both children and parents, Wuppertal has seen the smallest drop in the percentage of children being granted this licence.

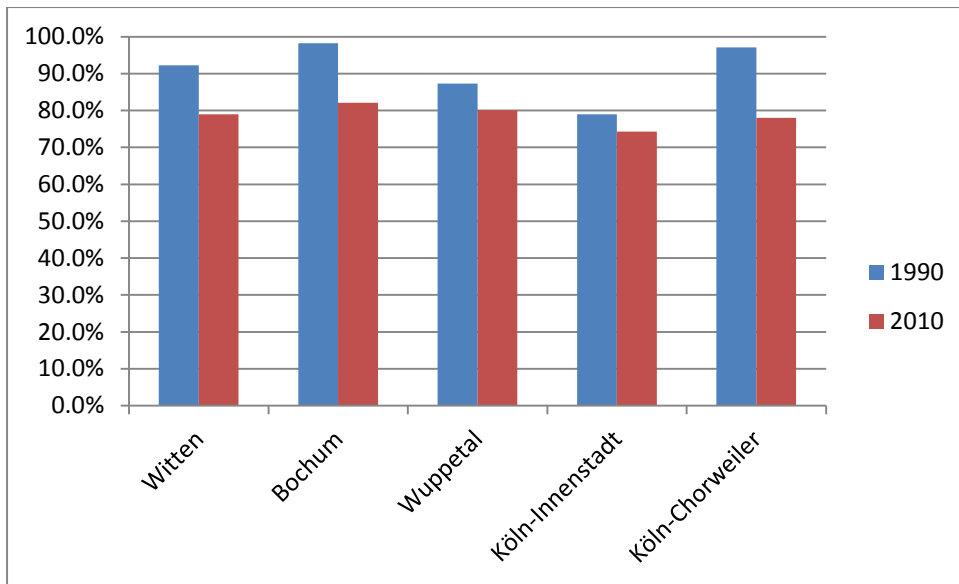


Figure 76: Percentage of children reporting that they are allowed to cross main roads alone, by area, 1990-2010

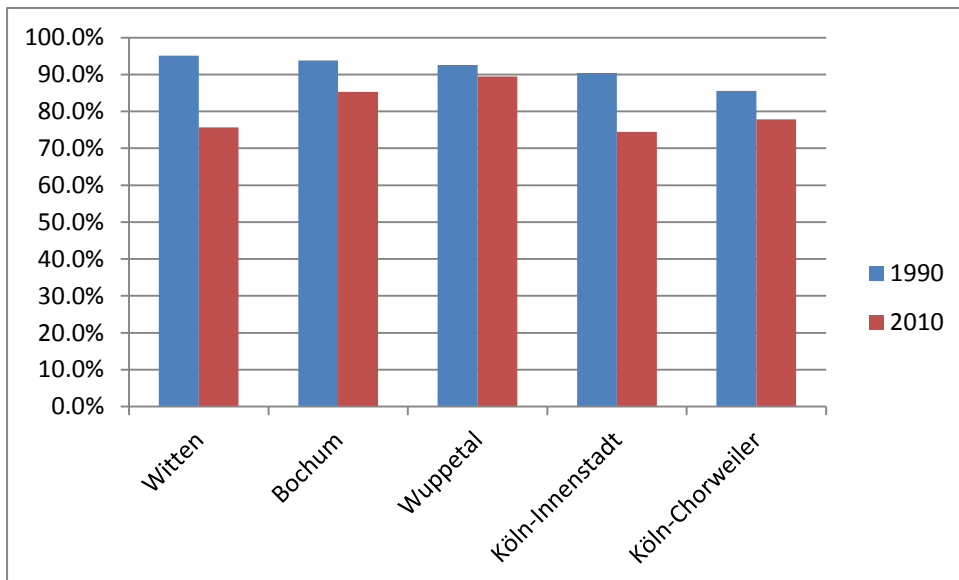


Figure 77: Percentage of parents reporting that their children are allowed to cross main roads alone, by area, 1990-2010

The different licences were examined against the year group of the children. As expected, the percentage granted the licence to cross main roads alone increased with the age of the children. The lowest levels of licence granting were at Year 2 in 2010 but according to both parents and children, by year 6, the level reaches the same as those reported in 1990 (Figure 78 and Figure 79).

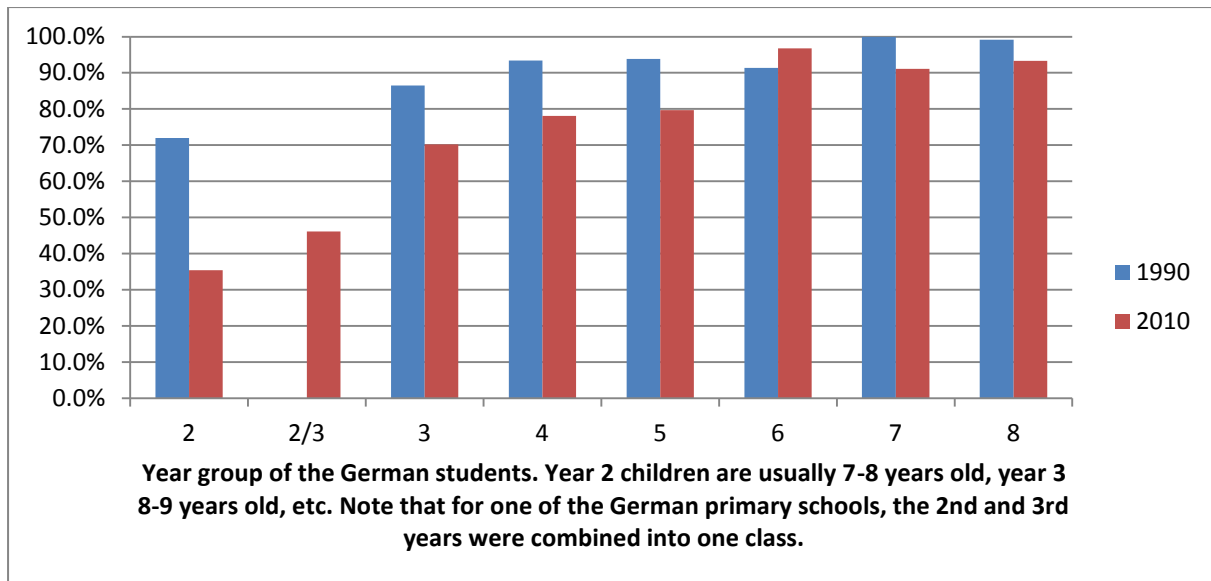


Figure 78: Percentage of children reporting that they are allowed to cross main roads alone, by year group, 1990-2010

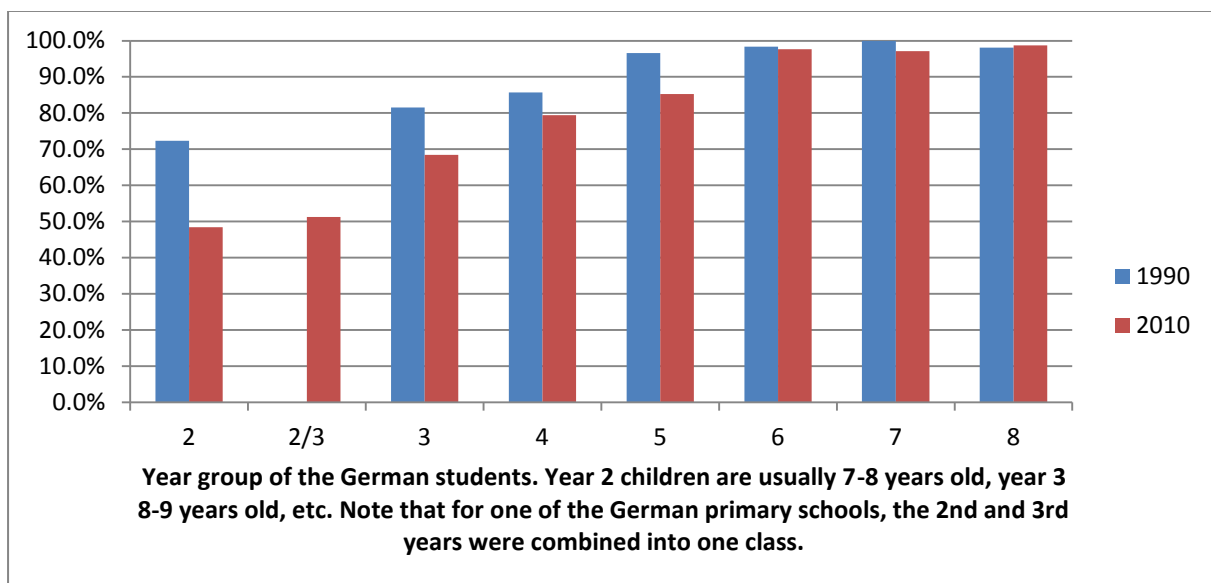


Figure 79: Percentage of parents reporting that their children are allowed to cross main roads alone, by year group, 1990-2010

Table 43 and Table 44 detail the average ages at which parents estimated their children were first allowed to cross main roads alone – or, if they currently do not cross main roads alone, the age at which parents estimated they would allow their child to do so. It can be seen that while the estimated age has remained the same in 2010 as in 1990, the actual age when children are allowed this licence has risen by one year – the median and mode increasing from 7 to 8 years old.

	1990 n= 67	2010 n=99
Mean value	10.03	10.53
Median	10.00	10.00
Mode	10	10
Minimum	4	8
Maximum	15	18

Table 43: Age at which parents *estimate* their child will be allowed to cross main roads alone.

	1990 n= 595	2010 n=643
Mean value	7.50	8.47
Median	7.00	8.00
Mode	7	8
Minimum	1	6
Maximum	70	13

Table 44: Age from which the child has been allowed to cross main roads alone (as estimated by their parent).

Licence 2: Licence to travel to places other than school alone

It is not possible to make a direct comparison of data from the 1990 and 2010 surveys relating to whether children are allowed to go to extracurricular activities within walking distance by themselves, due to changes in the way the question was asked. In 1990, parents were only given the options of 'yes' or 'no' but in pre-test trials of the 2010 questionnaire it became evident that a third category, 'it varies' was required and this was included in the final questionnaire. However, some indication of the changes in these permissions can still be established from this data.

Figure 80 shows that in 1990, the percentage of the parents of primary school children stating that their child was allowed to travel home from school alone was 71 per cent. In 2010, 28 per cent of parents stated that their child was allowed to do so, but a further 57 per cent of parents said that it 'varies'.

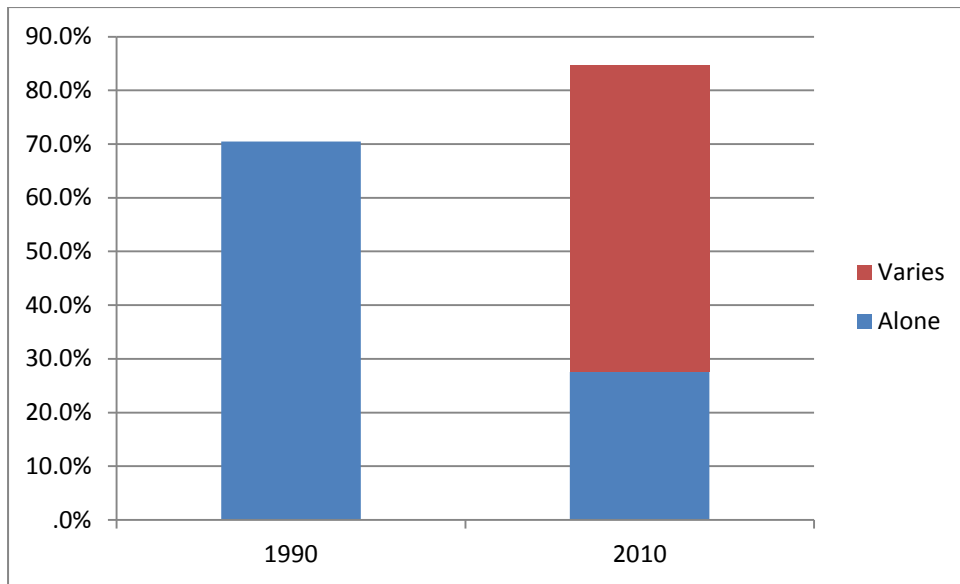


Figure 80: Percentage of parents of primary school children who report that their child is allowed to travel to places other than school without a parent or other adult, 1990-2010

92 per cent of secondary school parents in 1990 stated their child was allowed to travel to places other than school alone (Figure 81). In 2010 by comparison, 56 per cent of parents stated that their child was allowed to travel to places other than school alone, with a further 39 per cent stating that it 'varies'. Overall, this means that the number of parents declining permission had fallen slightly between 1990 and 2010.

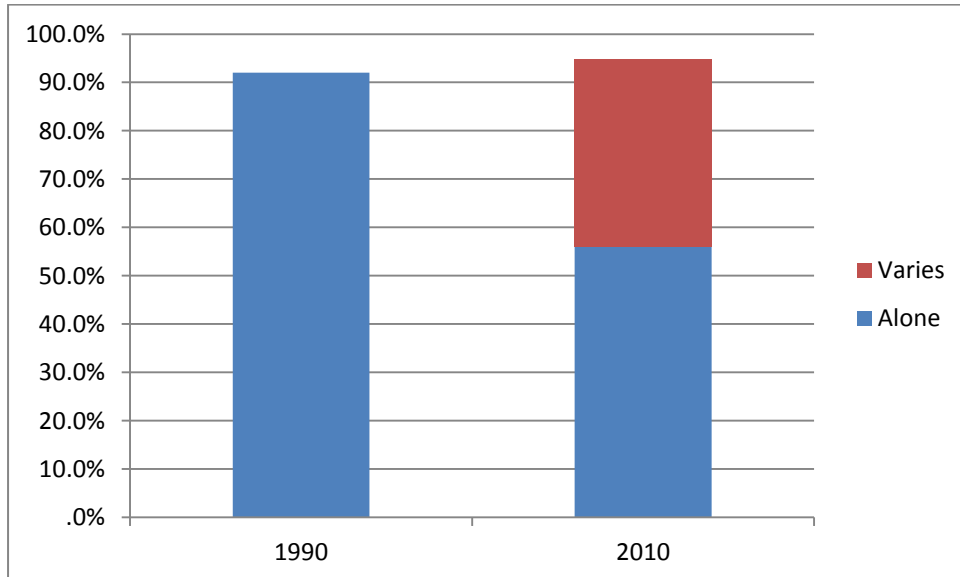


Figure 81: Percentage of parents of secondary school children who report that their child is allowed to travel to places other than school without a parent or other adult, 1990-2010

When the licences are analysed by area, it can be seen that there is a very mixed picture. Among primary school children (Figure 82), the percentage of parents that usually took their children to places other than school that are within walking distance declined in all areas. The percentages of children being granted the licences varied across the areas, with the pattern of licence holding largely reflecting the patterns seen in 1990 – with the lowest percentage of primary school parents

restricting their children in Bochum and the largest percentage restricting their children in Köln Chorweiler. Among secondary school children (Figure 83) the percentage of parents who usually took their children to places other than school within walking distance remained low in all areas both in 1990 and 2010.

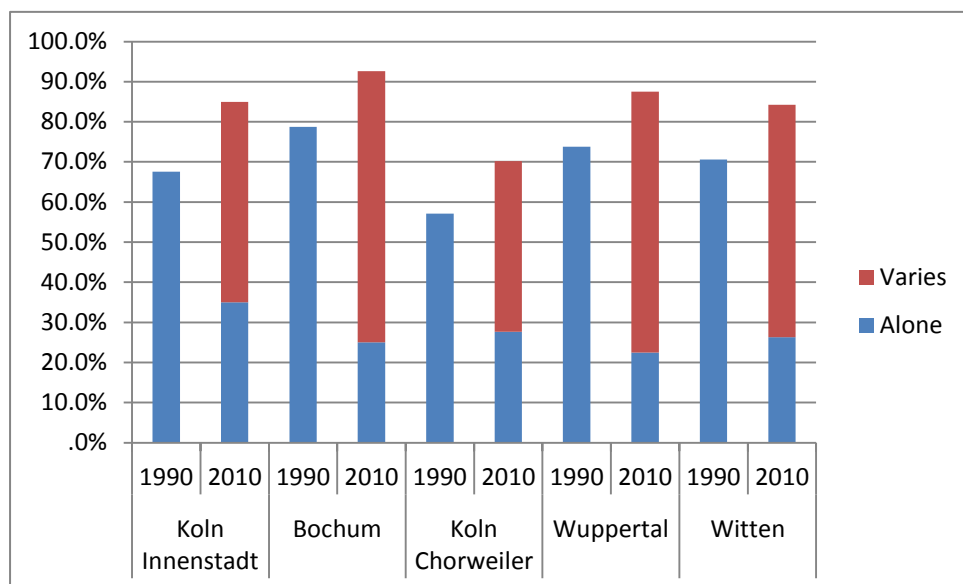


Figure 82: Percentage of parents of primary school children who report that their child is allowed to travel to places other than school without a parent or other adult, by area, 1990-2010

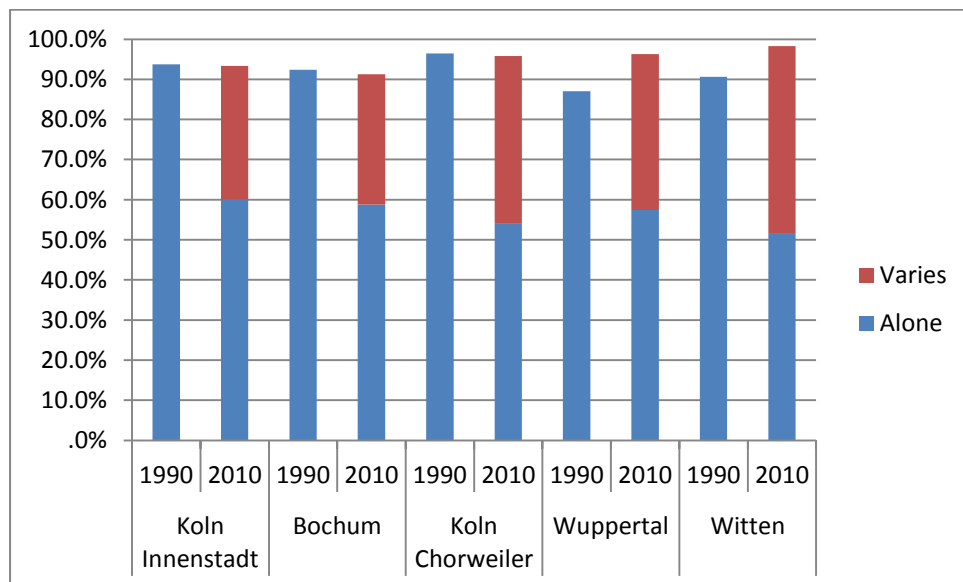


Figure 83: Percentage of parents of secondary school children who report that their child is allowed to travel to places other than school without a parent or other adult, by area, 1990-2010

Licence 3: Licence to travel home from school alone, and Accompaniment to/from school

As shown in Figure 84, the percentage of children being granted the licence to travel home from school alone was granted at a later age in 2010 than in 1990. In 2010, 24 per cent of the primary school children had not been granted permission to do so, compared to 7 per cent in 1990.

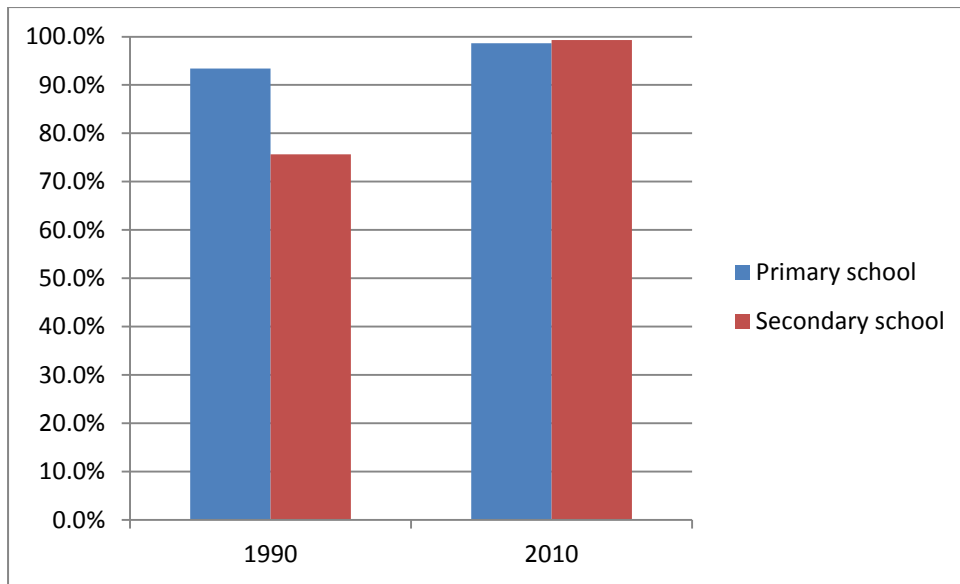


Figure 84: Percentage of children who have permission to come home from school alone, by type of school, from 1990-2010

Parents who allowed their child to come home from school alone were asked about the age at which they first allowed their child to do so. As can be seen from the results (Table 45), on average the permission to come home from school alone was being granted a year later in 2010 than in 1990.

	1990 n= 637	2010 n=500
Average value	6,88	7,83
Median	7,00	8,00
Mode	7	7
Minimum	4	5
Maximum	13	14

Table 45: Age from which the child has been allowed to come home from school alone (parents' answer).

When the percentage of children being granted this licence is segmented by year group, it is apparent that this drop in the average age that the licence is being granted has been because fewer younger children (year 2-3) are being granted this licence.

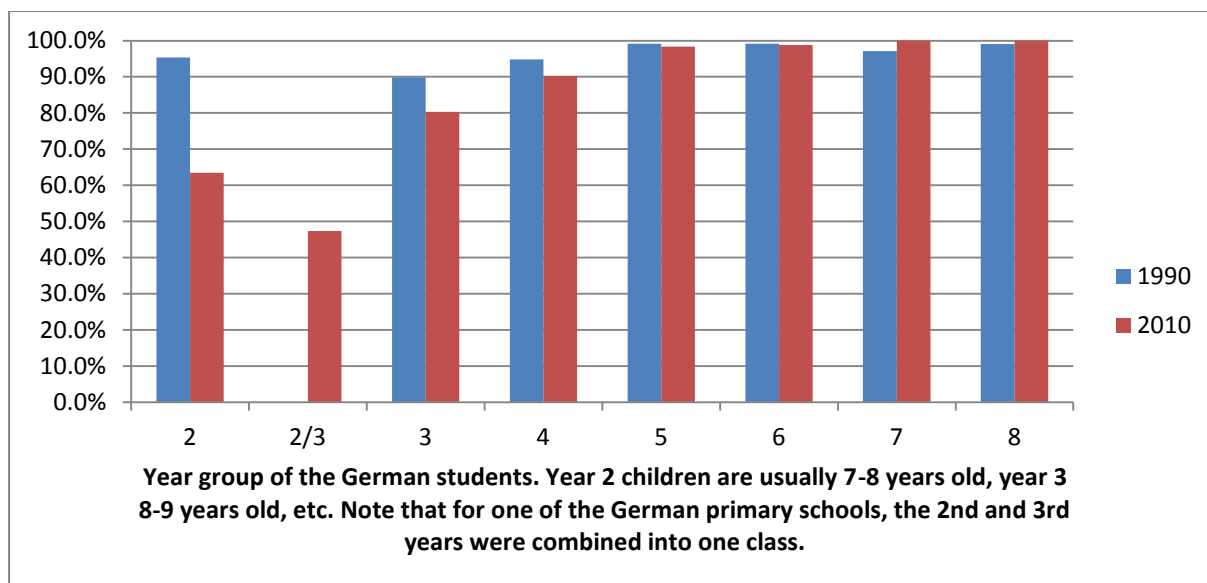


Figure 85: Percentage of parents reporting that their children are allowed to travel home from school alone, by year group, 1990-2010

Licence 4: Licence to go out alone after dark

The percentage of children who have been given permission to be outside after dark without an adult declined between 1990 and 2010, from an already low level. Figure 86 shows that the percentage has stayed at the same low level among primary school children but there has been a decline from 36 per cent of secondary school children being granted this licence in 1990 to 24 per cent in 2010.

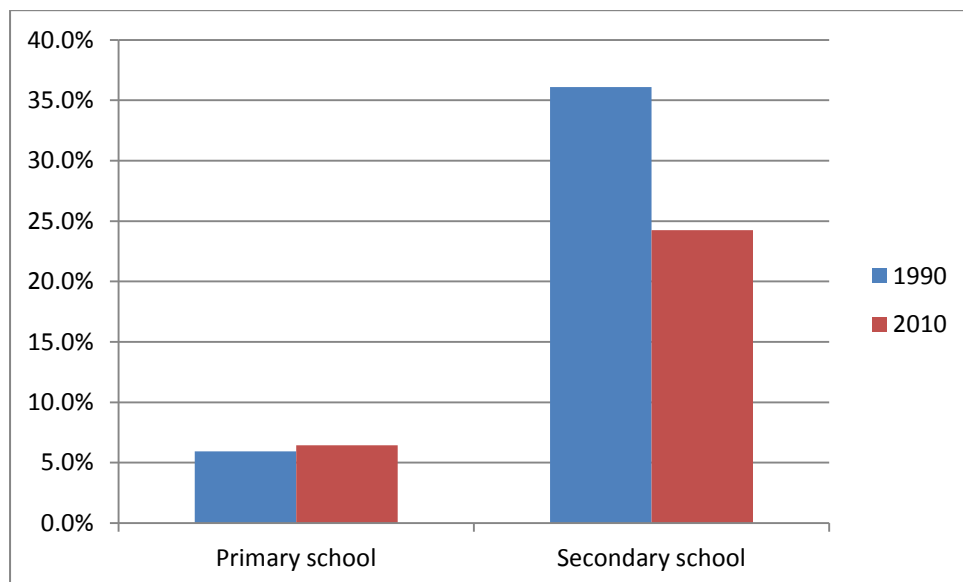


Figure 86: Percentage of parents reporting that their children are allowed to go outside after dark, 1990-2010

Very few children were granted the licence to go outside alone after dark in primary school in 1990 or 2010. Among secondary school children in 1990, there was a continual increase in the percentage of children being granted the permission to go outside alone after dark from Year 5 to Year 8, with significant increases between Years 5-6 and Years 7-8. The percentages of secondary school children being granted this licence in 2010 are much lower, particularly in years 6, 7 and 8.

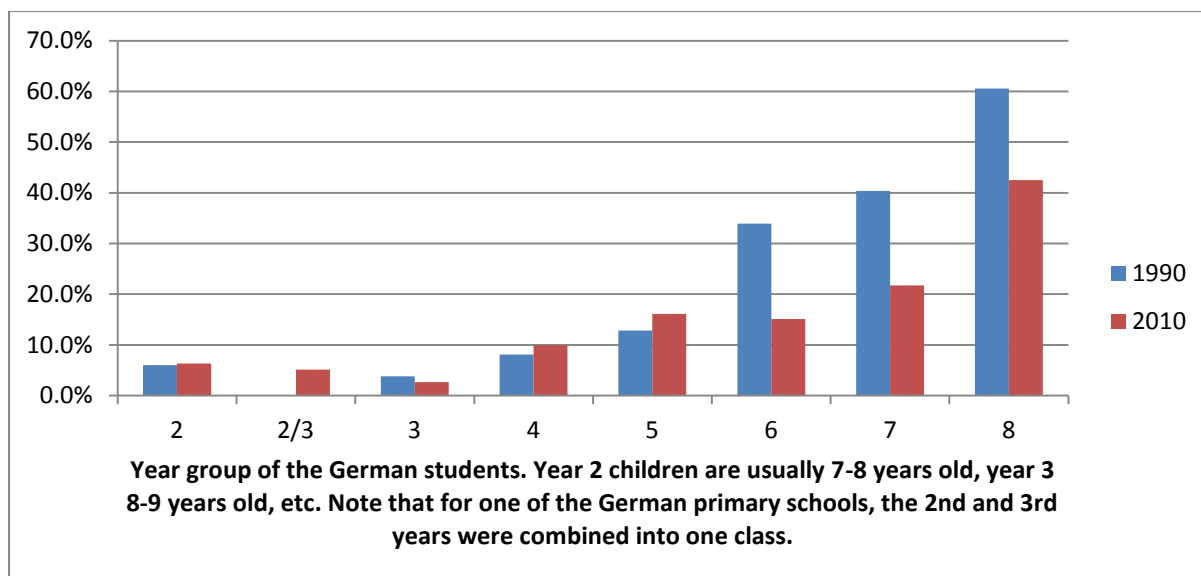


Figure 87: Percentage of parents reporting that their children are allowed to go outside after dark, by year group, 1990-2010

No local differences were observed in the levels of permission granting.

Licence 5: Bicycle ownership, and Licence to cycle on main roads alone

The questions about the licence to cycle on main roads alone were only asked of children who owned bicycles; therefore, before analysing the levels of licence-holding it is important to define this group. In 1990, 87 per cent of primary school children and 89 per cent of secondary school children owned bicycles. In 2010 this had risen in both groups – 94 per cent of primary school children and 93 per cent of secondary school children owned bicycles.

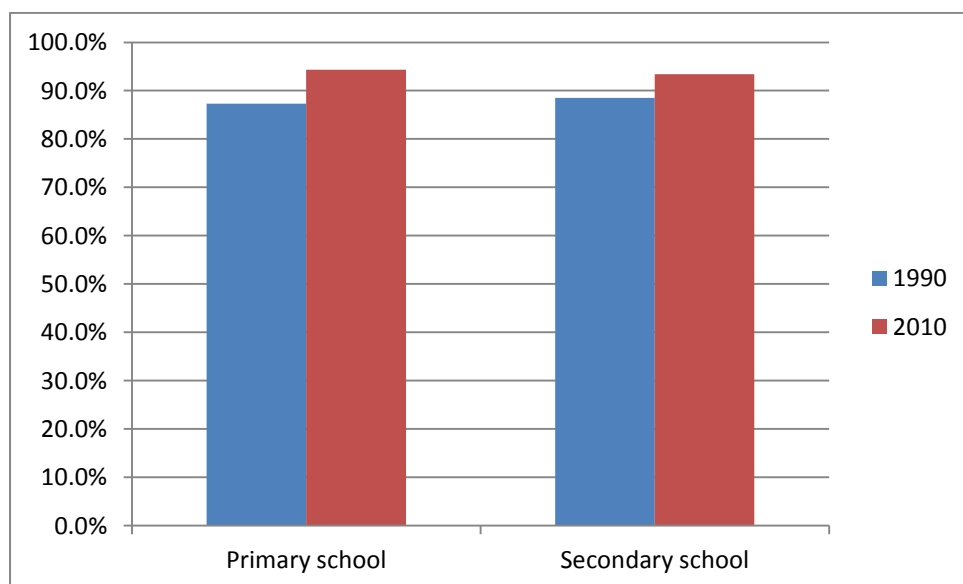


Figure 88: Percentage of primary and secondary school children who own bicycles, 1990-2010

The questions relating to the licence to cycle on main roads alone was changed on the German questionnaire in 2010. In 1990, the German children were asked 'are you allowed to cycle on main roads', and were given the choice of 'yes' or 'no' answers. In 2010, the question was changed to specify that the children should answer in relation to cycling *without an adult* (a more accurate

measure of independent mobility). In addition, the options available to children on the German questionnaire were expanded to 'I have no bicycle', 'when I am not with an adult I do not cycle alone', 'on the pavement', 'on cycle lanes', 'on roads with few cars' and 'on main roads'. For the purposes of the longitudinal comparison, the children who reported that they were allowed to cycle on main roads alone in 1990 via the binary yes/no question were compared with the children who reported that they were allowed to cycle 'on main roads' in 2010 (from a list of six choices). Caution should be taken in interpreting these results, though, as the change in the question is likely to have lowered the proportion of children specifically reporting that they were allowed to cycle on main roads – especially as in 2010 they had to specify that they were doing so *alone*.

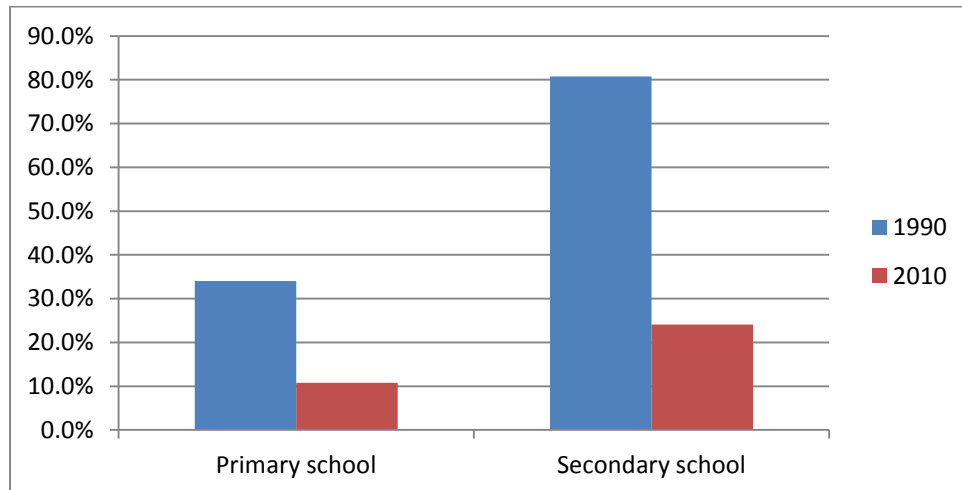


Figure 89: Percentage of children of primary and secondary school children who are allowed to cycle on main roads, 1990-2010

Using these measures, it can be seen that there have been significant changes between 1990 and 2010 in the level of permission granted to children to cycle on main roads. Although bicycle ownership in the locations surveyed in 2010 was over 90 per cent – higher than in 1990 – there has been a sharp decline in the number of permissions granted. This decline is especially marked in inner-city Köln. The highest level of permissions recorded in 2010 was at Köln-Chorweiler, which incidentally had the lowest value in 1990 (Figure 91).

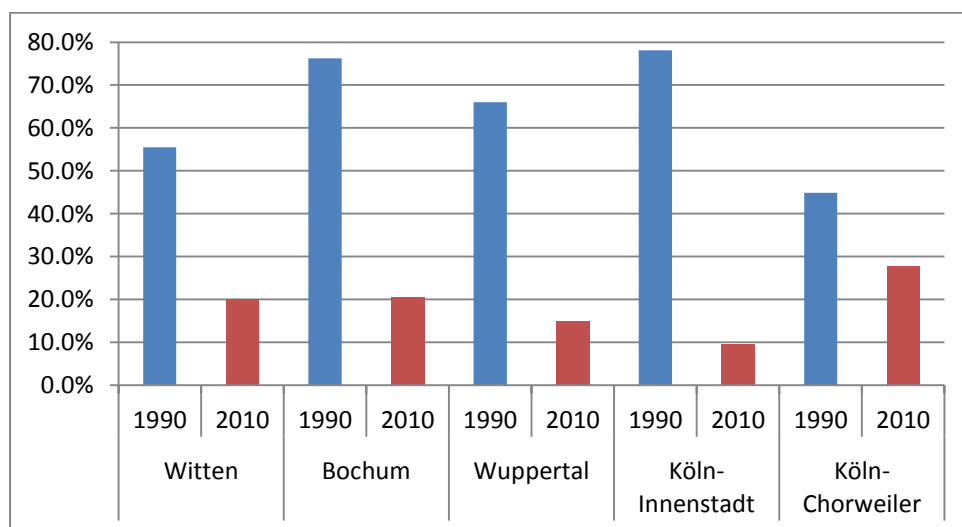


Figure 90: Percentage of children reporting that they are allowed to cycle on main roads, by area, 1990-2010

In the 2010 survey, an additional question was added to the children's questionnaire. This asked children if they were allowed to 'ride a bicycle without an adult – for example, to visit friends'. This question had three responses – 'yes', 'no' and 'I have no bicycle'. Excluding the children who do not own a bicycle, it is interesting to note that a far higher percentage of children reported being granted the licence to cycle to destinations without adult supervision than reported being able to cycle on main roads alone.

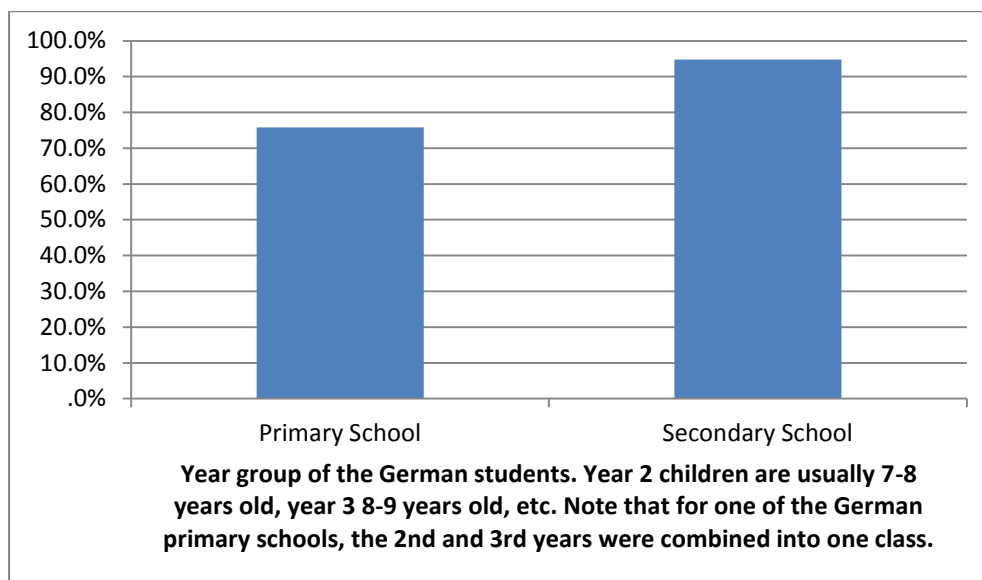


Figure 91: Percentage of children reporting that they are allowed to ride a bicycle without an adult - for example, to visit friends - by type of school

When this measure is examined by year group, it is notable that higher percentages of children reported being able to travel to destinations on bicycles without adults in all year groups, than reported having the licence to do so in 1990 or to cycle on main roads *alone* in 2010. This is unsurprising as children in Germany are legally required to cycle on the pavement until they are 8 and many do so until they are 10; they also have to get off their bikes to cross the road.

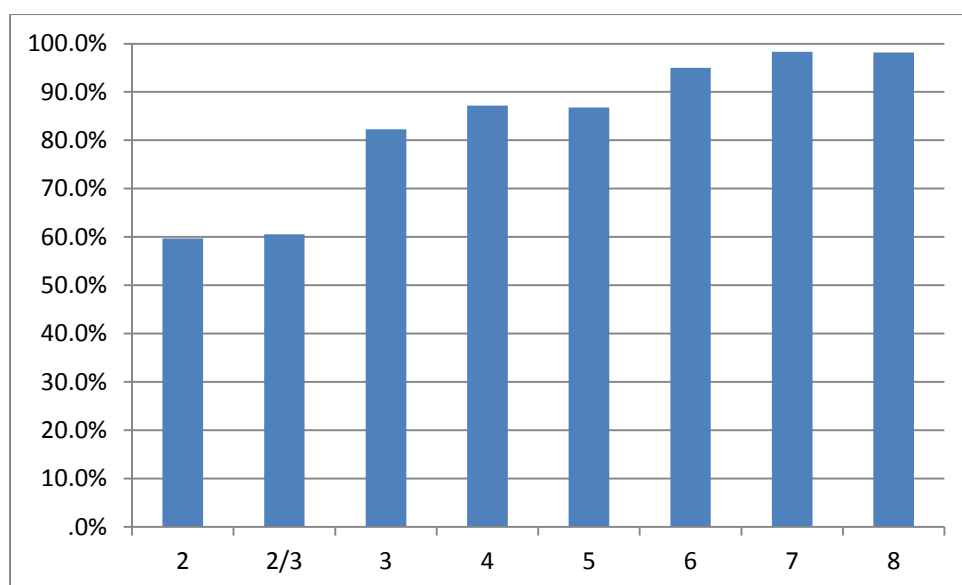


Figure 92: Percentage of children reporting that they are allowed to ride a bicycle without an adult - for example, to visit friends - by year group

The overall changes in the licence are therefore unclear due to the changes in the way the questions were asked (a limitation of the study).

Licence 6: Licence to use local buses alone

Similar questions were asked of both parents and children about the licence to use local buses alone, which provides a useful point of comparison. According to the parents, the percentage of children being granted permission to use local public transport unaccompanied by parents remained stable in the surveyed German secondary schools between 1990 and 2010, but there was a sharp decline among the German primary school children. Figure 98 shows that in 1990, 61 per cent of primary school children were allowed to use public transport unaccompanied by parents but this had declined to 25 per cent in 2010.

The children's answers were markedly different, with a much smaller drop in the percentage of primary school children holding the licence, from 36 per cent of primary school children in 1990 to 31 per cent in 2010. It should be noted that far fewer primary school children reported holding this licence in 1990 compared to their parents; 36 per cent of primary school children stated that they were allowed to use local buses alone in 1990, compared to 61 per cent of their parents. The reasons for this are not clear. Interestingly, a *higher* percentage of secondary school children reported holding the licence to use buses in 2010 (95 per cent) compared to 1990 (87 per cent).

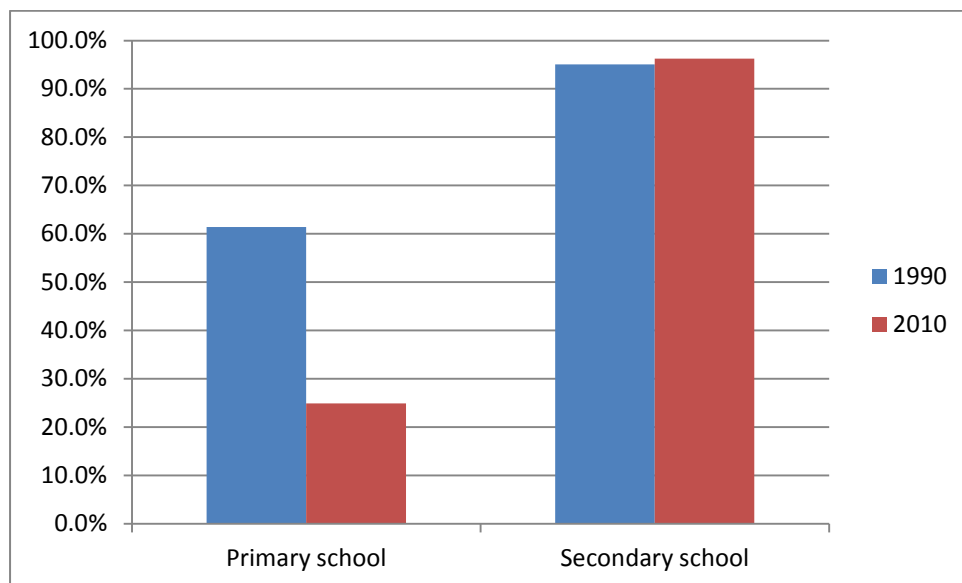


Figure 93: Percentage of parents reporting that their children have permission to use local buses alone, 1990-2010

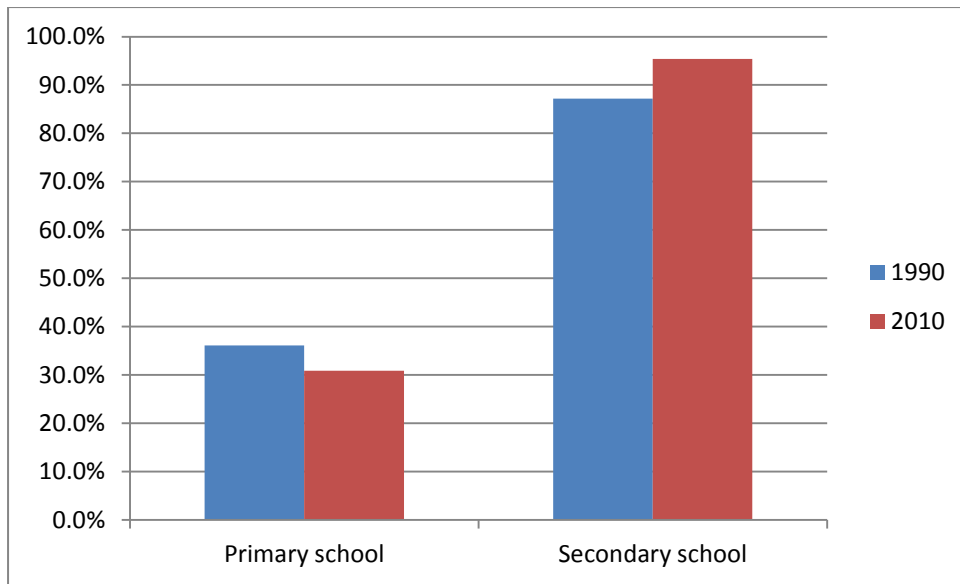


Figure 94: Percentage of children reporting that they have permission to use local buses alone, 1990-2010

In addition, for children who were allowed to use buses there has been an increase in the age at which parents estimate their children were first allowed to do so independently, by the average value of 0.61 years and an increase in the median age of one year (Table 46).

	1990 n= 496	2010 n=334
Average value	9,01	9,62
Median	9,00	10,00
Mode	10	10
Minimum	3	1
Maximum	15	13

Table 46: Age from which the child has been granted permission to use local public transport by themselves (parents' answer).

Parents who did not currently grant the licence to use local buses alone to their children were asked to estimate the approximate age at which they would allow their children to do so. This remained constant between 1990 and 2010 at approximately 10 years of age (Table 47).

	1990 n= 156	2010 n=198
Average value	10,87	10,62
Median	10,00	10,00
Mode	10	10
Minimum	8	7
Maximum	18	15

Table 47: Estimated age at which the child will be granted permission to use local public transport by themselves (parents' answer).

When the parents and children's responses are divided by area, they once again give a conflicting picture of the percentages of children holding the licence to use local buses alone. The parents reported no change between 1990 and 2010 in Wuppertal and Köln-Chorweiler, but in Witten and Bochum the level had declined by approximately 15 per cent and, in inner-city Köln, by more than 30 per cent (Figure 96).

However, the children reported far less change, with the percentage of children being granted the licence remaining stable in most areas, with a slight decrease in Bochum (from 79 per cent to 70 per cent) and an *increase* in Witten (from 67 per cent to 78 per cent of children). This may result from the provision of a school bus service for the primary school in Witten. The lack of significant change in contrast to the parents' answers is particularly noticeable in inner-city Köln (Figure 95).

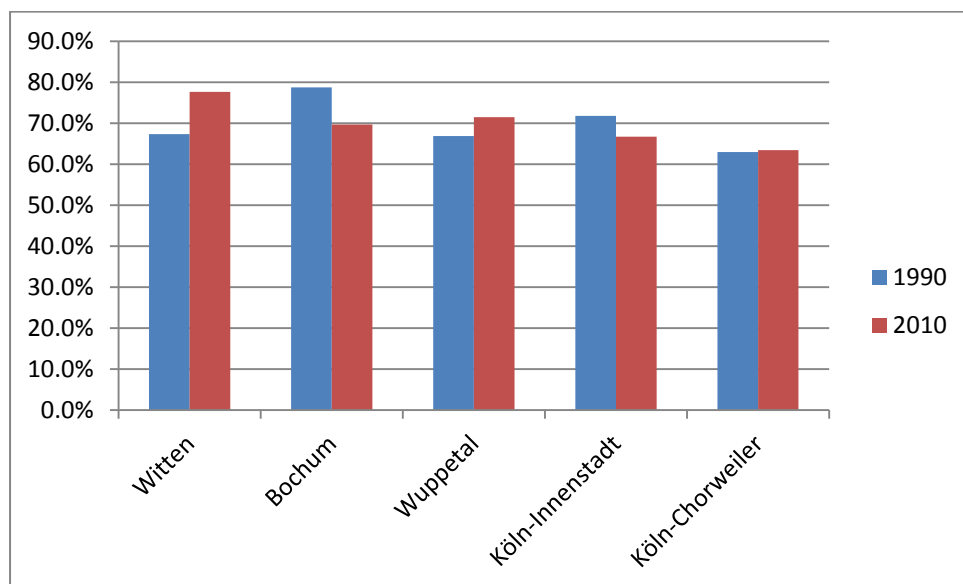


Figure 95: Percentage of children reporting that they are allowed to use local buses alone, by area, 1990-2010

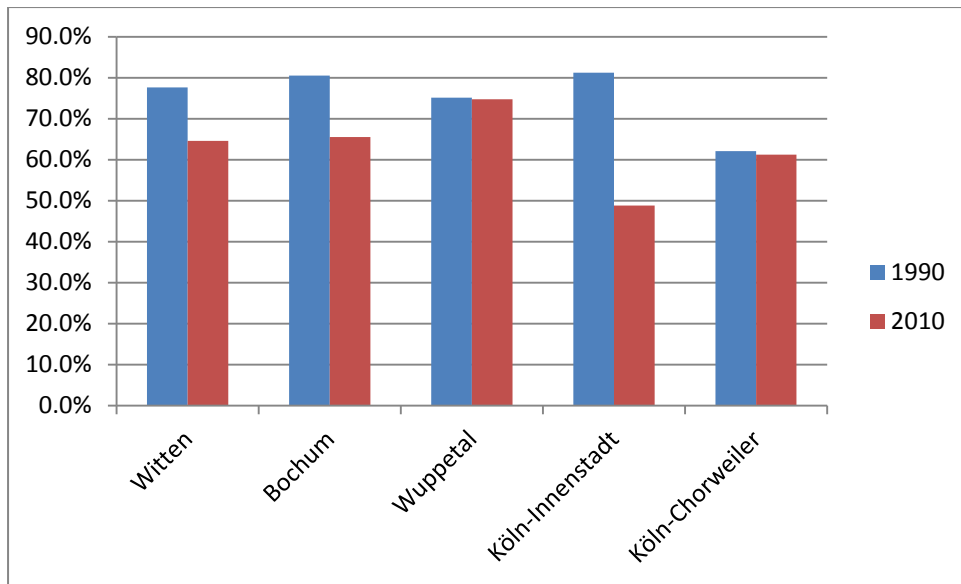


Figure 96: Percentage of parents reporting that their children are allowed to use local buses alone, by area, 1990-2010

When examining either parent or children's responses (Figure 97 and Figure 98), the step up from primary to secondary school is far more marked in 2010 than it was in 1990; approximately 40 per cent of Year 4 children at primary school (the oldest year) were granted the licence to use local buses alone, rising to 90 per cent in Year 5 (the start of secondary education).

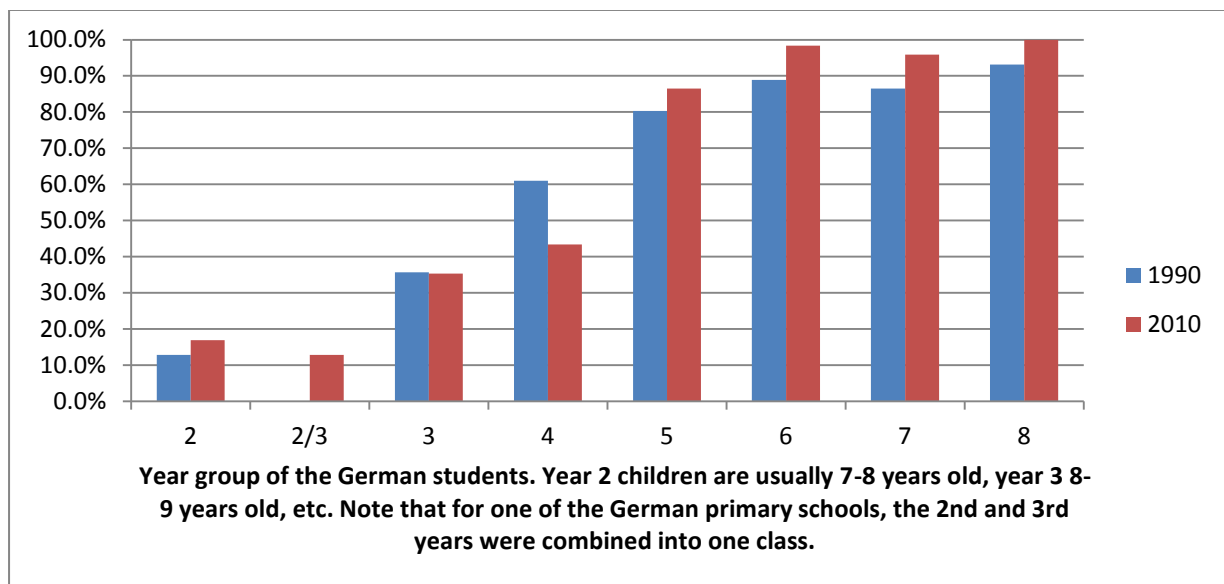


Figure 97: Percentage of children reporting that they are allowed to use local buses alone, by year group, 1990-2010

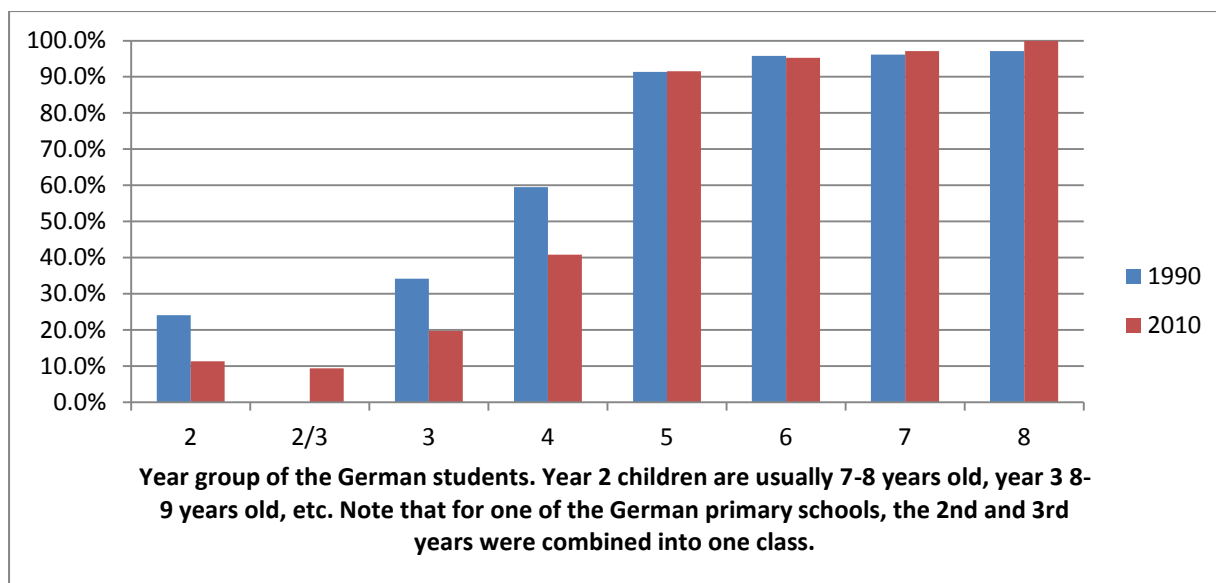


Figure 98: Percentage of parents reporting that their children are allowed to use local buses alone, by year group, 1990-2010

6.1.3 The journey to and from school

The following stages of analysis focus on the journey home from school, as this was the journey where children were more likely to be travelling unaccompanied. An assumption has been made that children who are, for example, allowed to walk home from school unaccompanied by adults have permission to do so and that other factors determine whether or not they make the journey to school unaccompanied.

6.1.4 Mode of travel

There are distinct differences in the modes used to travel to school among German primary and secondary school children. In 1990, nearly 9 out of 10 primary school children walked home from school, but this proportion had declined to two-thirds in 2010. This was accounted for the fact that the proportion of primary school children taken home from school by car tripled from 8 per cent of children in 1990 to 23 per cent in 2010.

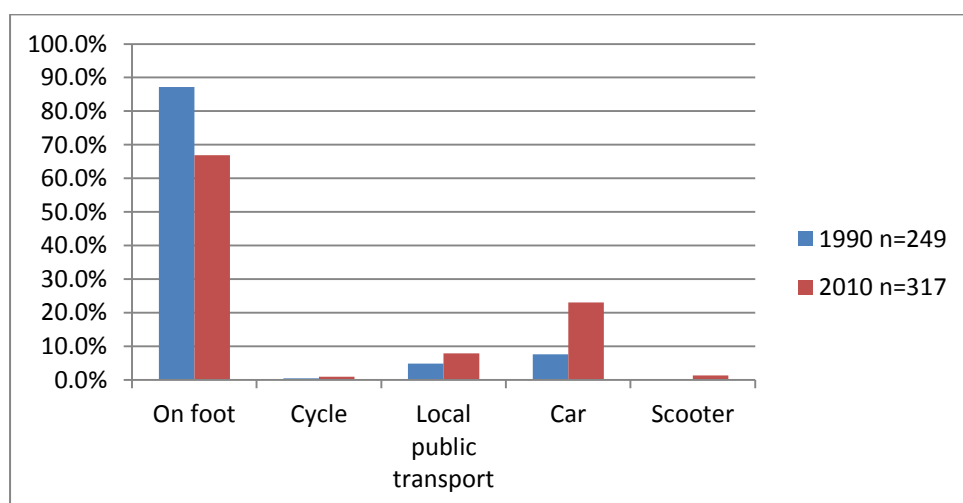


Figure 99: Percentage of primary school children travelling home from school by each mode, 1990-2010

Among secondary school children the modes used to travel home from school are starkly different to those used by primary school children. In 1990 one in two travelled by school bus or public transport, with most of the rest walking home from school. In 2010, the percentage travelling to school by school bus or public transport had actually increased to over two-thirds, at the expense of a drop in the percentage walking home from school.

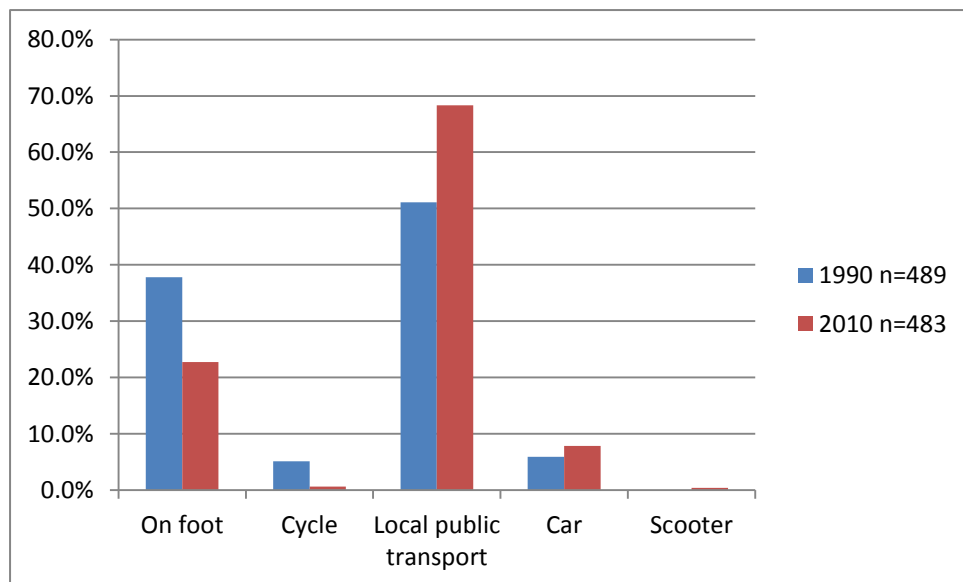


Figure 100: Percentage of secondary school children travelling home from school by each mode, 1990-2010

The individual cities show greatly differing values for the observed change (Figure 101). At the schools in Wuppertal and in inner-city Köln, the modal split has barely changed. In contrast, there were major differences in Bochum, Witten and Köln-Chorweiler, mainly relating to the transport modes used. As shown in Figure 101, the number of pedestrians in Witten declined in favour of travel by local public transport and by car; in Bochum, the decline in local public transport use was made up for by an increase in those travelling by car; and in Köln-Chorweiler, the massive reduction in the number of pedestrians has been balanced out by the increase in the percentage using local public transport and travelling by car.

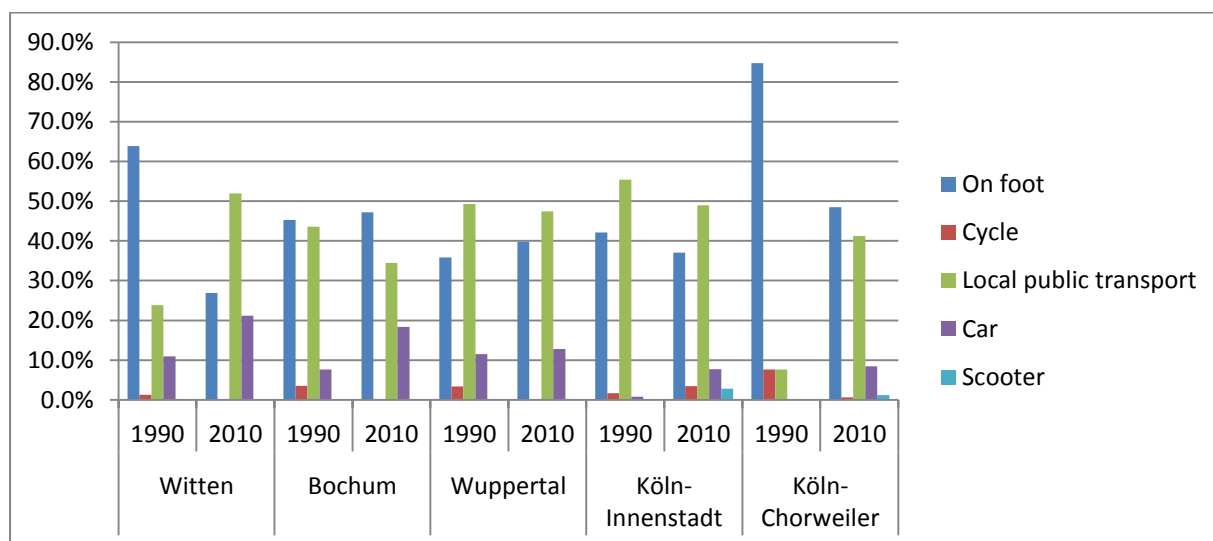


Figure 101: Percentage of children reporting that they travelled to school by a specific mode of transport on the morning of the survey, by area, 1990-2010

A closer analysis of the types of school in the five locations shows that the modal split varies considerably. The primary school in Witten has changed from a school whose students almost exclusively walked (in 1990) to one at which travel by car dominates, where 44 per cent of primary school children were taken to school by car in 2010, followed by walking and use of local public transport with roughly 33 per cent each. At the equivalent secondary school in Witten, there has been a decline in the percentage walking and travelling by car in favour of local public transport use.

At Bochum's schools, there has been an increase in car use, which, at the primary school, occurred at the expense of walking, and at the secondary school at the expense of using local public transport. The findings from the primary school in Köln-Chorweiler shows a slight shift away from walking and towards car use, while at the secondary school, a large move away from walking in favour of travelling by car can be seen. However, as this is a comparison of a Hauptschule in 1990 (roughly equivalent to the UK's former secondary modern schools) and a nearby Realschule in 2010, these results may have been distorted as a comparison has been made between different school types.

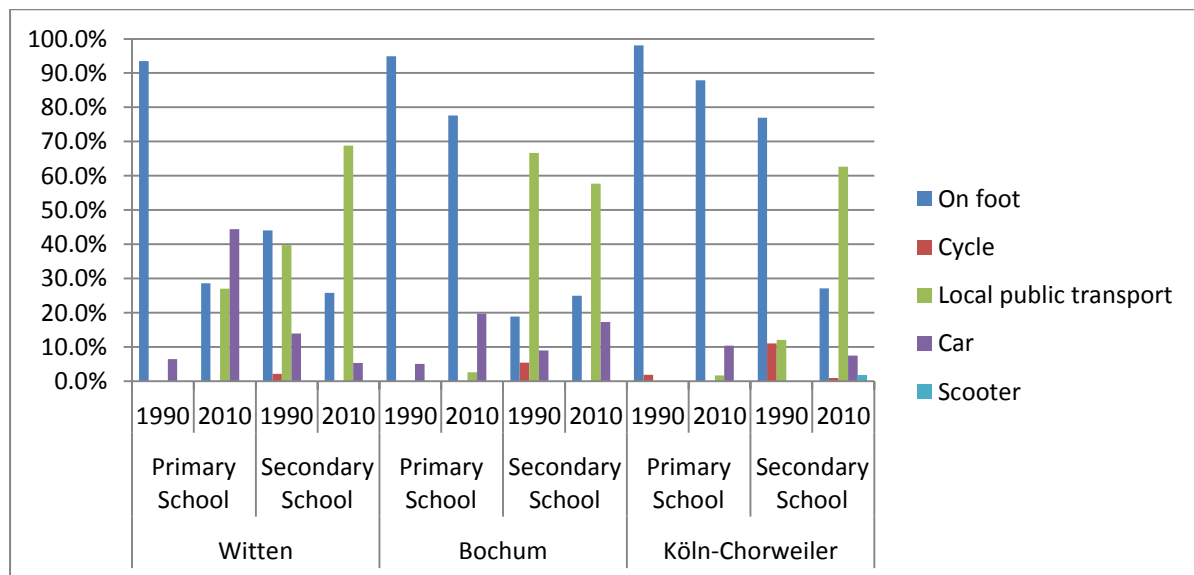


Figure 102: Percentage of children reporting that they travelled to school by a specific mode of transport on the morning of the survey in three of the surveyed areas, 1990-2010

6.1.5 Accompaniment to and from school

On the day of the survey, there was a mixed picture on the accompaniment of the children to and from school. On the journey to school (Figure 103) there was a slight rise in the percentage of primary school children travelling to school alone between 1990 and 2010, but the percentage of those travelling with a child of the same age or younger has dropped dramatically, while the percentage of those accompanied by a parent or other adult rose from 9 per cent of children in 1990 to 33 per cent in 2010.

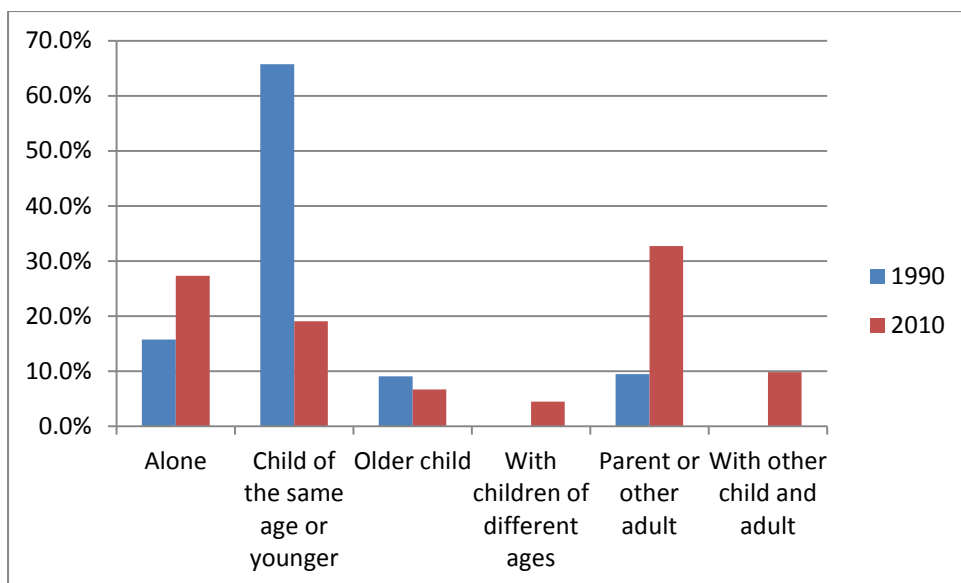


Figure 103: Percentage of primary school children accompanied to school, 1990-2010

Among secondary school children there has been far less change in accompaniment (Figure 104). The percentage of children travelling to school with a child of the same age or younger dropped between 1990 and 2010, but this has been compensated for by an increase in children travelling alone or with other children. The percentage of secondary school children being escorted by a parent (or, in 2010, a child and a parent) has seen a modest increase from 4 per cent of secondary school children in 1990 to 10 per cent in 2010.

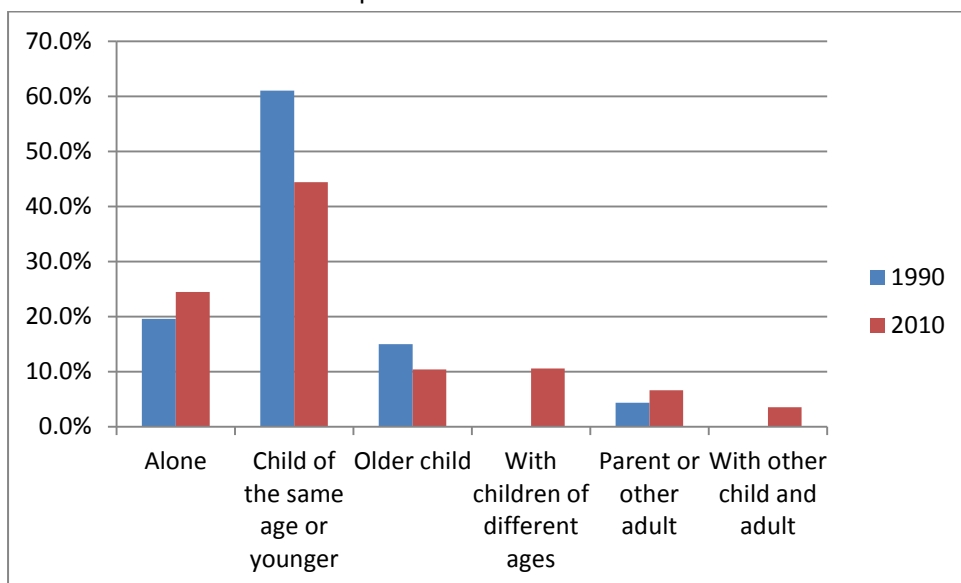


Figure 104: Percentage of secondary school children accompanied to school, 1990-2010

6.2 Concluding comments on the German 2010 findings

The data analysis above has revealed marked changes between 1990 and 2010 in the percentages of children who were granted the licences of independent mobility by their parents, in the travel modes they used and in their accompaniment by adults.

6.2.1 Primary school children

The most interesting changes have occurred at primary school, where the percentages of children being granted two of the licences (to cross main roads alone and to travel home from school alone) dropped between 1990 and 2010. For three of the other licences the picture is unclear, and for the remaining licence (to go outside alone after dark) very few primary school children were allowed to do so in 1990 or 2010.

The modal split has altered significantly, with fewer children travelling home from school on foot (down from 83 per cent of primary school children walking in 1990 to 61 per cent in 2010) and more travelling by car (12 per cent travelled by car in 1990, 30 per cent of primary school children did so in 2010).

The level of accompaniment on schools journeys has also seen some dramatic changes; on the journey to school the percentage of those travelling with a child of the same age or younger has dropped dramatically, and the percentage of those accompanied by a parent or other adult rose from 9 per cent of children in 1990 to 33 per cent in 2010.

6.2.2 Secondary school children

The changes in the percentages of children holding each of the licences has been much less marked among secondary school children between 1990 and 2010 (Table 42). The granting of most licences remained constant, with a possible increase in one licence (to use buses alone) and a small decrease in one other (to go out alone after dark).

There has been a significant shift away from walking and cycling to using public transport and school buses (up from 49 per cent of secondary school children in 1990 travelling to school by public transport or school bus to 64 per cent in 2010) and, to a lesser extent, cars (up from 9 per cent of secondary school children being brought home from school by car in 1990 to 14 per cent in 2010).

There have also been changes in accompaniment, although the percentage of children being escorted by a parent (or, in 2010, a child and a parent) has only seen a modest increase from 4 per cent of secondary school children in 1990 to 10 per cent in 2010.

6.2.3 Impact of area in Germany

Some further findings in this comparison of the data in 1990 and 2010 were the important differences between the areas surveyed. The characteristics of the areas appear to be a strong influence on the different levels of licence holding and modal split. Importantly, two specific types of primary school were identified which had low levels of independent mobility: a 'car school' or an 'accompanied walking school'. Two primary schools were identified which had low independent mobility. In Witten, the low independent mobility would seem to be accounted for by the high proportion of parents who transported their children home from school by car; 45 per cent of the children surveyed were collected from school by car on the day of the survey. Half of the children being taken by car did not attend the nearest school, which could be contribute to the need for parents to travel with their child by car, but this only partially explains the reason that so many of the children were transported by car.

In the second primary school in inner-city Köln, 80 per cent of the children travelled home from school on foot or on a scooter; however the proportion of children allowed to return home from

school unaccompanied was only 64 per cent. While at the other primary schools only around 10 per cent of pupils who walked home were accompanied, 30 per cent were allowed to do so in inner-city Köln. The key reasons that the 60 parents responding there gave for picking their child up were traffic danger (stated by 29 parents), spending time with the child (25 parents), danger from adults (21 parents) and 'trip-linking' with other activities (21 parents).

7 Children's Independent Mobility: Comparison of England and Germany, 1971-2010

7.1 Introduction and Limitations

In this section the levels of children's independent mobility in the surveyed schools in England and Germany are presented and compared. The main focus is on the comparison of the 2010 data – the differences between the English and German samples in the six licences of independent mobility; the mode of travel and level of accompaniment on the journey to school; journeys to destinations other than school and adult accompaniment on them.

As stated in the earlier sections describing the project methods the English and German areas were selected in 1990 to be as similar as possible in terms of settlement, residential density, and other socio-economic factors. While the areas were intended to be broadly comparable, they are, of course, not equivalent and only give a broad estimate of the national picture representative (see Limitations in section 2). However, the value of returning to these areas allows us to make longitudinal comparisons over 40 years in England and 20 years in Germany and reveal the trends over time.

In the following sections the observed differences between England and Germany are discussed and at the end of the chapter, and in the following chapter discussing the overall findings from the project, these findings are interpreted. First, though, a brief summary of the findings from the 1990 comparison of England and Germany is provided.

7.2 Findings from comparison of England and Germany in One False Move (1990)

The 1990 surveys documented in *One False Move* showed that, compared with their English counterparts, German children were more likely to have been granted the six licences of independent mobility (Table 48 and Table 49). This was true for all ages, with the differences narrowing with increasing age. The difference for the youngest children was very marked with, in 1990, over 60 per cent of surveyed German 7 year olds being allowed to cross roads alone compared to only a little over 20 per cent of English 7 year olds. There was little gender difference observed for the surveyed German children in 1990 (except that for boys, the ownership of a bicycle and the licence to ride it on main roads were higher). This contrasted with England in 1990 where the surveyed boys had greater independent mobility than girls.

The journey to school of the surveyed German children was also very different to that of the English children in 1990, with far fewer German children being taken to school by car and the great majority coming home from school on foot. However, even considering just the school journeys made on foot, there was far less parental accompaniment in Germany than in England. Three-quarters of German primary school children surveyed came home from school on their own or with another child, compared to only a third of English primary school children. Part of the explanation given for the difference was that the German children lived closer to their primary schools than English children. Outside school, the surveyed English and German children reported engaging in a similar number of journeys to weekend activities in 1990.

In the following sections the levels of children's independent mobility in England and Germany in 2010 are compared before the section is concluded by considering changes between 1990 and 2010.

7.3 The six licences of independent mobility in England and Germany, 1971-2010

The levels of licences granted to English children in 1971, 1990 and 2010 and to German children in 1990 and 2010²⁶ are summarised below – for primary school children (Table 48), and secondary school children (Table 49).

In 2010, German primary school children were granted all six licences in higher proportions than English children, and for every licence but one, in markedly higher proportions. It is also notable that German primary school children have higher levels of independent mobility than English children had in 1990 and in some cases are closer to those of the English children in 1971. However, as noted in the earlier chapter on the results from the German surveys, lower percentages of German primary school children were granted two of the licences of independent mobility in 2010 than in 1990.

Secondary school children in England and Germany in 2010 were granted all the six licences in broadly similar proportions. The most notable difference is in the licence to use public transport, where both the children's and parents' responses indicate a greater granting of the licence in Germany. A smaller difference is that fewer English children appear to be granted the licence to travel home from school alone (88 versus 99 per cent).

We discuss the trends in the individual licences in more detail in the following sections.

²⁶ Data were only collected for primary school children in 1971, and no equivalent data were collected in Germany in 1971 for either primary or secondary school children.

Licence	England 1971	England 1990	England 2010	Germany 1990	Germany 2010
Cross main roads alone (children's response)	72	51	55	75	61
Cross main roads alone (parents' response)	-	22	36	70	66
Travel to places other than school alone	63-94	37	7-33	70	27-85
Travel home from school alone	86	35	25	91	76
Go out alone after dark	-	2	2	5	7
Cycle to go places (children's response) – as a percentage of bicycle owners	-	-	60	-	76
Use buses alone (children's response)	48	15	12	31	31
Use buses alone (parent's response)	-	7	5	29	25

Table 48: Percentage of primary school children granted the six licences of independent mobility, England and Germany, 1971-2010.²⁷

Licence	England 1990	England 2010	Germany 1990	Germany 2010
Cross main roads alone (children's response)	97	99	96	90
Cross main roads alone (parents' response)	90	95	98	95
Travel to places other than school alone	84	42-83	92	39-95
Travel home from school alone	87	88	99	99
Go out alone after dark	24	25	37	24
Cycle to go places (children's response) - as a percentage of bicycle owners	-	93	-	95
Use buses alone (children's response)	84	87	87	95
Use buses alone (parent's response)	66	59	95	96

Table 49: Percentage of secondary school children granted the six licences of independent mobility, England and Germany, 1990-2010.²⁸

²⁷ A meaningful comparison for the changes between 1990 and 2010 in the licence to cycle in England and Germany is not possible due to changes to the way the question was asked in the different surveys.

²⁸ A meaningful comparison for the changes between 1990 and 2010 in the licence to cycle in England and Germany is not possible due to changes to the way the question was asked in the different surveys.

7.3.1 Licence 1: Permission to cross main roads alone (England 1971-2010 and Germany 1990-2010)

The percentage of children being granted the licence to cross main roads alone increases with age in both England and Germany in 2010 (as would be expected). Both children's (Figure 105) and parents' responses (Figure 106) indicate that German primary school children were granted the licence in higher proportions than English children until the age of 10. Beyond that age, marginally higher percentages of English children appear to have been granted the licence.

A comparable question about the licence was also asked of the surveyed children in 2010. Similar percentages of German parents and children reported the granting of the licence to cross main roads alone. However, in England (as discussed in the earlier section) a higher percentage of English children reported that they were granted the licence to cross main roads alone than their parents.

Gender also seems to have a possible impact on this licence. Both German and English primary school boys reported being granted the licence in larger proportions than did girls (approximately 10 per cent more), although parents' responses did not indicate a gender difference.

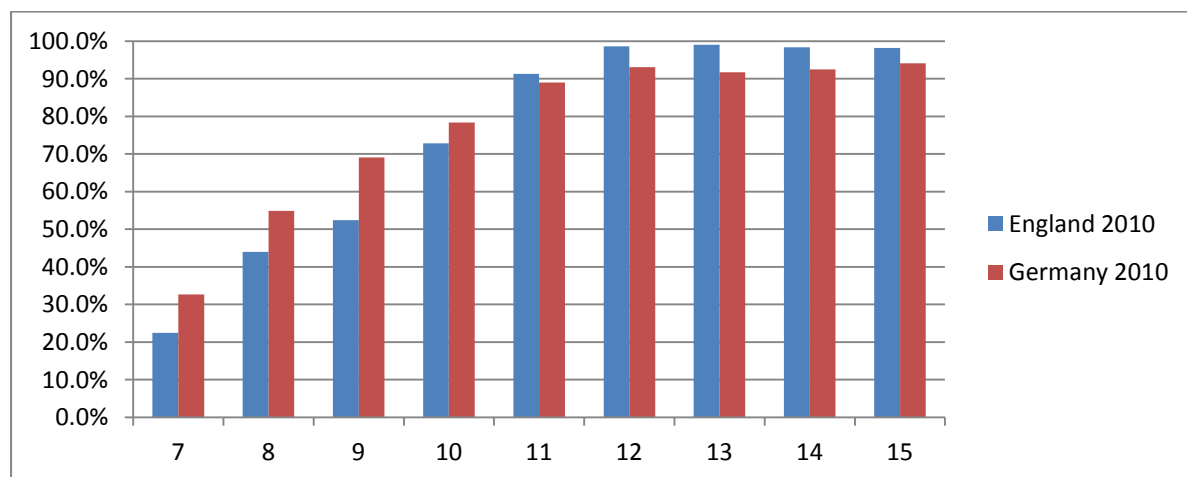


Figure 105: Percentage of children reporting that they are allowed to cross main roads alone, England and Germany in 2010

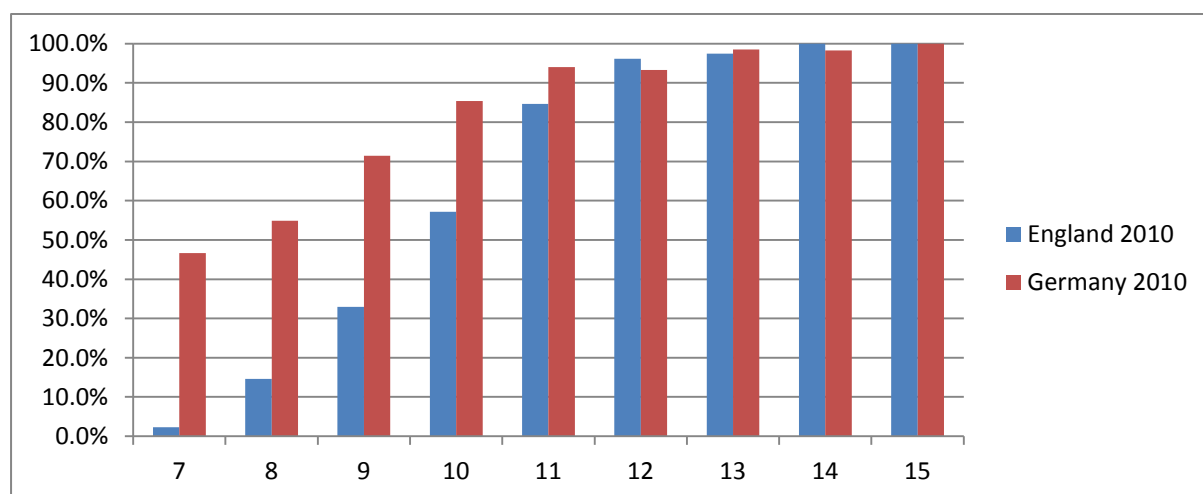


Figure 106: Percentage of parents reporting that their children are allowed to cross main roads on their own, England and Germany in 2010

The most interesting changes in this licence, though, are the longitudinal changes to the percentage of primary school children who are granted the licence to cross main roads alone in England (between 1971 and 2010) compared to those in Germany (between 1990 and 2010). In England, the percentage of children being granted the licence to cross main roads alone dropped sharply between 1971 and 1990. Between 1990 and 2010, the percentage of children being granted the licence has either stayed at the same levels (judging by children's responses) or increased slightly (according to parents' responses to the same question). Either way, from 1990 to 2010 in England between a quarter and one-half of the primary school children were allowed to cross main roads alone compared to nearly three quarters of primary school children in 1971.

Licence	England 1971	England 1990	England 2010	Germany 1990	Germany 2010
Crossing roads (children's response)	72	51	55	75	61
Crossing roads (parents' response)	-	22	36	70	66

Table 50: Percentages of primary school children being given permission to cross main roads alone, England and Germany 1971-2010.

In Germany, the percentage of primary school children being granted the licence to cross main roads in 1990 was equivalent to the percentage being granted the licence in England in 1971, with around three-quarters of the primary school children allowed to cross main roads alone. But in 2010, the percentage of children being granted these licences has declined slightly (between 9 and 14 per cent, according to parents and children's responses, respectively). This makes the percentages of primary school children being granted this licence in Germany in 2010 closer to the percentage of English children granted this licence in 1990 and 2010.

Among secondary school children, virtually all children are granted this licence in 1990 and 2010 in both England and Germany.

7.3.2 Licence 2: Permission to travel alone to places other than school that are within walking distance (England and Germany, 1990-2010)

As has been noted earlier, the comparison of the percentage of licences to travel alone to places other than school that are within walking distance in 1990 and 2010 is complicated by the addition of the response 'varies' to the question in 2010. This was added in recognition of the fact that granting of this licence may not be a binary choice – 'allowed' or 'not allowed' – given the diversity of journey destinations that children might travel to beyond the school run.

For this licence, we therefore have figures for 2010 which represent the range of children who are 'usually' and 'sometimes' granted this licence. For example, in England in 2010, 7 per cent of primary school children were usually allowed to travel alone to places that are within walking distance other than school; an additional 26 per cent of parents answered that it 'varies'. The level of 'licence holding' is therefore somewhere between these values (7-33 per cent).

Applying these data to analyse the licence for primary school children (Table 51), it seems that in England, the percentage of children being granted permission to travel alone to places that are within walking distance other than school has dropped between 1990 and 2010. In Germany by

contrast it is possible that the percentage of primary school children being granted this licence may have actually increased from 1990 - 2010, although the revised wording of this question makes it impossible to quantify these changes exactly.

	England 1990	Germany 1990	England 2010	Germany 2010
Granted licence	37	70	7-33	27-85
Usually taken	63	30	67	15
Varies	-	-	27	57
Usually goes alone	37	70	7	28

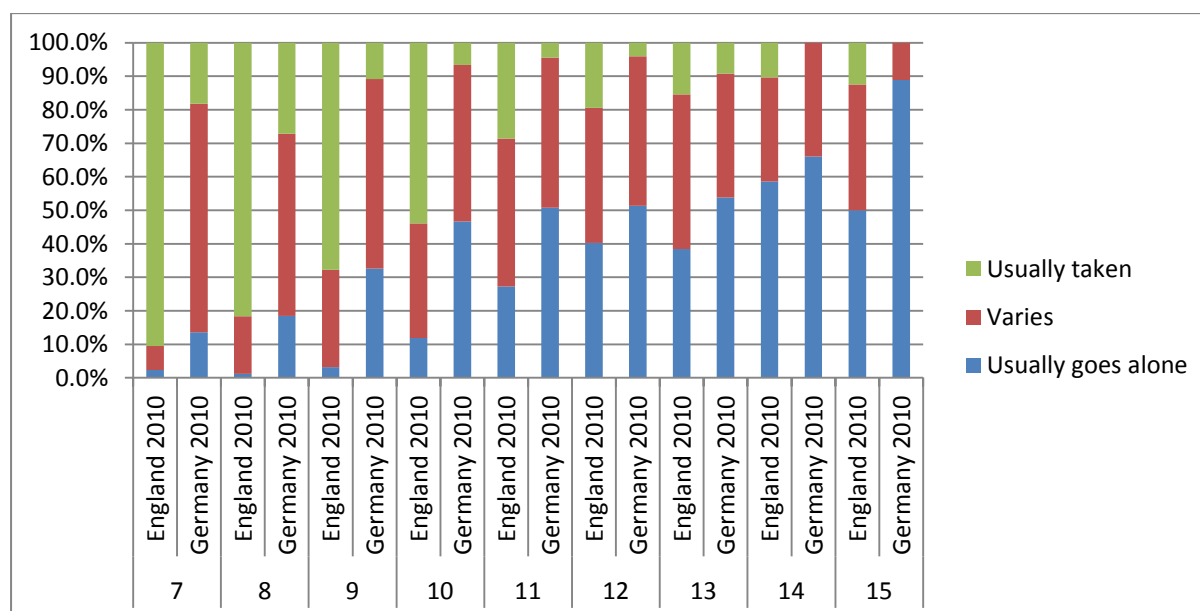
Table 51: Percentage of primary school parents reporting that their child has been granted the licence to travel to places other than school within walking distance, England and Germany, 1990 and 2010.²⁹

For secondary school children (Table 52) the percentage of children being granted this licence seems to have either stayed at the same levels or dropped for both English and German children, although again, the change in the wording of this question makes it impossible to quantify this exactly.

	England 1990	Germany 1990	England 2010	Germany 2010
Granted licence	84	92	42-83	39-95
Usually taken	16	8	17	5
Varies	-	-	41	39
Usually goes alone	84	92	42	56

Table 52: Percentage of secondary school parents reporting that their child has been granted the licence to travel to places other than school within walking distance, England and Germany, 1990 and 2010.³⁰

It is clear that in 2010, a higher proportion of English children were 'usually taken' to places within walking distance compared to their German peers, although this gap closes with age (Figure 107).



²⁹ The values given in the 'granted licence' row for England and Germany 2010 are derived rather than measured and the range is equal to the value of 'usually goes alone' to 'usually goes alone' plus 'varies'.

³⁰ As footnote 29.

Figure 107: Percentage of parents reporting that their child has the licence to travel alone to places within walking distance, by age, England and Germany 2010

The most striking contrast is for 7 year olds, with 90 per cent of English children 'usually taken' to places other than school that are within walking distance, compared to just 20 per cent in Germany. The 'usually goes alone' figure is also consistently higher for German children with nearly 90 per cent of 15 year olds in Germany usually going alone to places other than school compared to 50 per cent in England. The 'varies' component is also higher for the younger German children. However, as we have noted elsewhere in this report, the 'varies' category indicates that the licence is granted at least some of the time and, as such, is more likely to reflect granting of the licence than not. It would therefore seem that more German children are granted this licence at all ages.

According to parents' responses, the licence was held by more German primary school boys than girls (approximately 10 per cent greater). In England more secondary school boys than girls were granted the licence. For the other groups (primary school English children and secondary school German children) roughly the same percentage of boys and girls were granted the licence.

7.3.3 Licence 3: Permission to travel home from school alone (England 1971-2010 and Germany 1990-2010)

As shown in Table 53, in 2010, a markedly lower percentage of English primary school children were granted the licence to travel home from school alone than German children. This trend continues for older children with the licence converging with the increasing age of the older children (Figure 108) if the apparently anomalous figure for English 15 year olds is excluded due to small sample size.

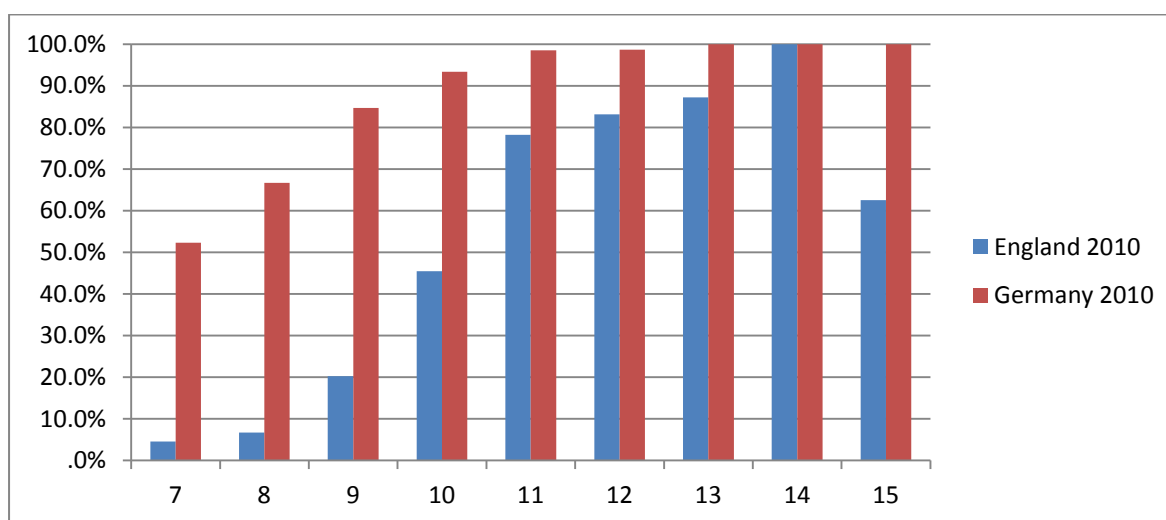


Figure 108: Percentage of parents reporting that their child is allowed to travel home from school alone, by age, England and Germany 2010

When the longitudinal data are examined (Table 53), it is apparent that there was a substantial drop in the percentage of English primary school children who were allowed by their parents to travel home from school alone between 1971 and 1990, with a further drop between 1990 and 2010. In Germany, the percentage of primary school children being granted permission to travel home from school alone has also dropped between 1990 and 2010; but while a small drop in the percentage of primary school children allowed to come home from school alone means that in 2010 only three-quarters of German primary school children have permission to travel home from school alone, in

England *only a quarter of the primary school children can do so*. This is a startling contrast between the two countries.

Licence	England 1971	England 1990	England 2010	Germany 1990	Germany 2010
Primary school - Percentage of children with the licence to travel home from school alone	86	35	25	91	76
Secondary school - Percentage of children with the licence to travel home from school alone	-	87	88	99	99

Table 53: Percentage of parents reporting that their child is allowed to travel home from school alone, England and Germany, 1971-2010.

According to parents' responses, somewhat more German primary school boys than girls would seem to be granted the licence (approximately 10 per cent greater). In England the difference between boys and girls was only 5 per cent.

7.3.4 Licence 4: Permission to go out alone after dark (England and Germany, 1990-2010)

Only very small proportions of children in both England and Germany were granted the licence to go out after dark before the age of 12. The differences between England and Germany are small for older children, except for 15-year olds where a very high proportion of German children appear to be granted the licence. Again, given the small sample size for 15 year olds in both England and Germany, caution should be taken in interpreting this result.

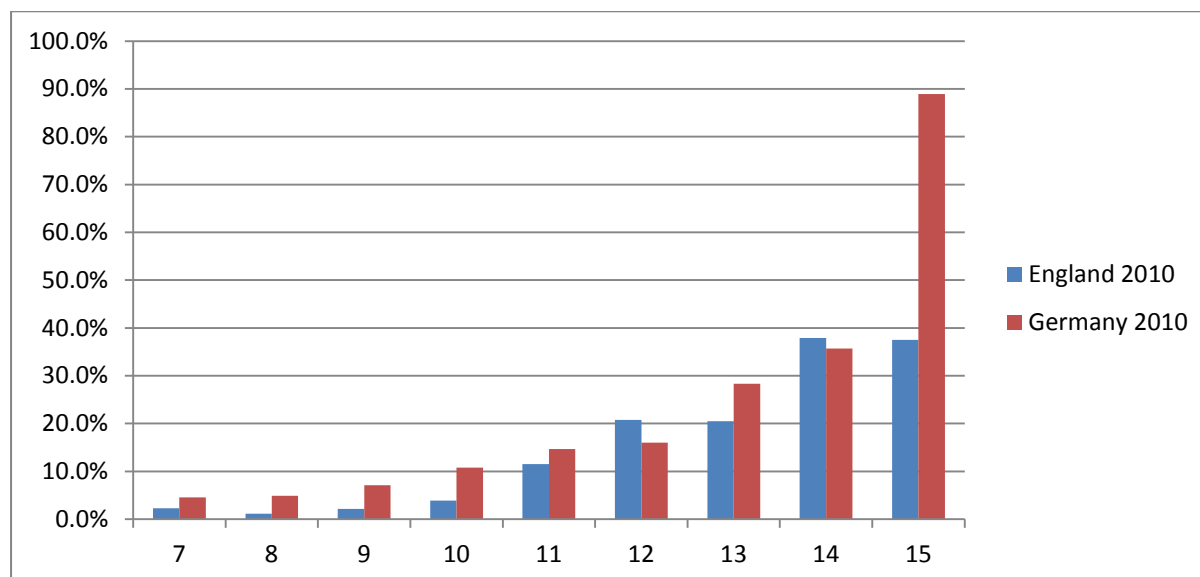


Figure 109: Percentage of parents reporting that their child is allowed to go out alone after dark, by age, England and Germany 2010

In both England and Germany, boys appear to be granted the licence to go out after dark in greater proportions than girls, with the difference being most marked for secondary school children (Figure 110).

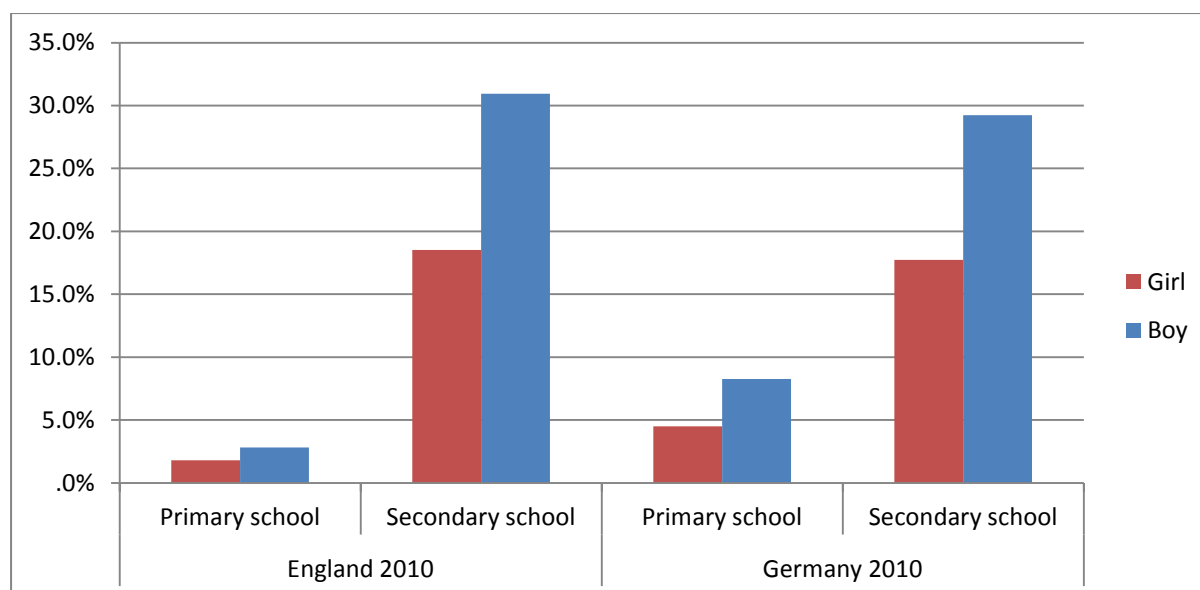


Figure 110: Percentage of parents reporting that their child is allowed to go out alone after dark, by gender and type of school, England and Germany 2010

When the data from 1990-2010 are reviewed (Table 54), little change can be observed in the percentage of primary school children allowed to go out alone after dark, with less than 1 in 10 primary school children allowed to do so in England and Germany in 1990 and 2010. The largest change can be seen in the percentage of secondary school children allowed out alone after dark. This has remained stable in England between 1990 and 2010 at around 1 in 4 children, but in Germany it has dropped from a higher level (37 per cent of children in 1990) to the same percentage of children being granted this licence in 2010 as in England.

Licence	England 1990	England 2010	Germany 1990	Germany 2010
Primary school children – licence to go out alone after dark	2	2	5	7
Secondary school children – licence to go out alone after dark	24	25	37	24

Table 54: Percentage of parents reporting that their children are allowed out alone after dark, England and Germany 1990-2010.

7.3.5 Licence 5: Permission to cycle to places alone (England and Germany 2010)

The questions that were asked about the licence to cycle to places alone were only asked of children who owned bicycles. As shown in Table 55, the percentage of children who owned bicycles has varied over time. Bicycle ownership has risen from 65 per cent of primary school children owning bicycles in England in 1971 to over 9 in 10 primary school children owning bicycles in 1990 and 2010; and in Germany there has been an increase in bicycle ownership between 1990 and 2010 among both primary and secondary school children. A lower percentage of secondary school children have owned bicycles than primary school children in both 1990 and 2010 in England. By contrast, levels of bicycle ownership are similar among primary and secondary school children in Germany in 1990 and in 2010.

	England 1971	England 1990	England 2010	Germany 1990	Germany 2010
Primary school	65	90	91	86	94
Secondary school	-	76	81	88	93

Table 55: Percentage of children who own bicycles, England and Germany 1971-2010.

When examining the percentage of children allowed to cycle on main roads without adults, it is not possible to make a meaningful comparison of the changes from 1990 and 2010 between England and Germany due to changes in the wording of the relevant questions between the surveys. However, some comparisons can be made *within* the two countries over time. These are discussed in page 116 for England and page 146 for Germany.

In addition, some comparison can be made between England and Germany in 2010. In both countries, the children were asked 'If you have a bicycle, are you allowed to ride it to go to places (like the park or friend's houses) without any grown-ups?' The results are given below in Table 56. At primary school, more German children were granted the licence to cycle alone than English children. By secondary school, the percentage of children being granted the licence to cycle to places without parents was nearly universal in both primary and secondary school.

Licence	England 2010 Primary school	Germany 2010 primary school	England 2010 secondary school	Germany 2010 secondary school
Cycle to go places without any grown-ups (children's response) – percentage of cycle owners	60	76	93	95

Table 56: Percentage of children granted the licence to cycle on main roads alone, England and Germany 2010.

When this data is divided by the age of the children in both England and Germany, it is apparent that larger percentages of German children were granted the licence to cycle to places alone at almost every age in primary school (Figure 111)

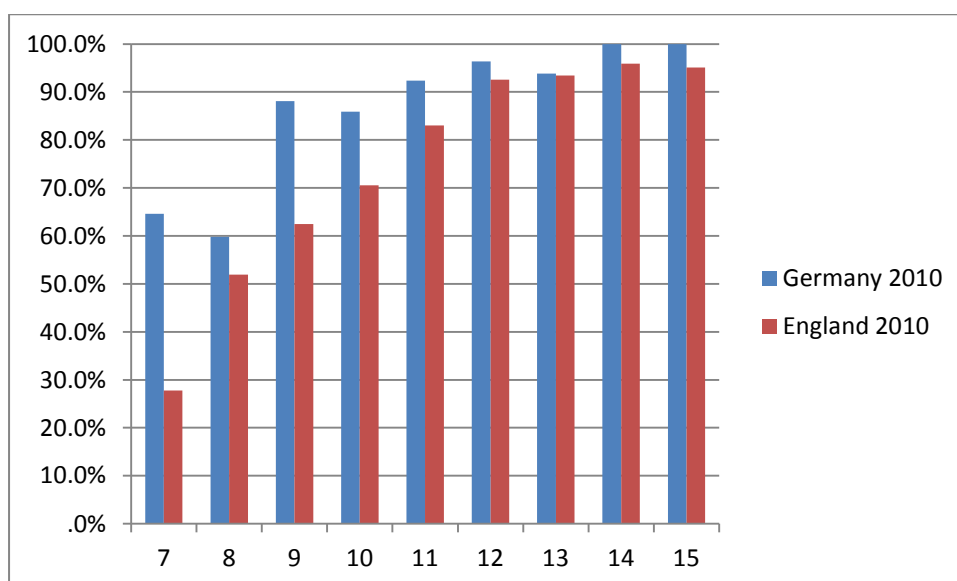


Figure 111: Percentage of children granted the licence to cycle on main roads alone, by age, England and Germany 2010

7.3.6 Licence 6: Permission to use local buses alone

German children appear to be granted the licence to use buses from an earlier age than English children (Figure 112 and Figure 113). Nearly all German children are allowed to use buses by age 11, as are significant proportions of younger children. English children are granted the licence later and in smaller proportions according to responses from both parents and children. The difference is particularly noticeable in parents' responses (Figure 113).

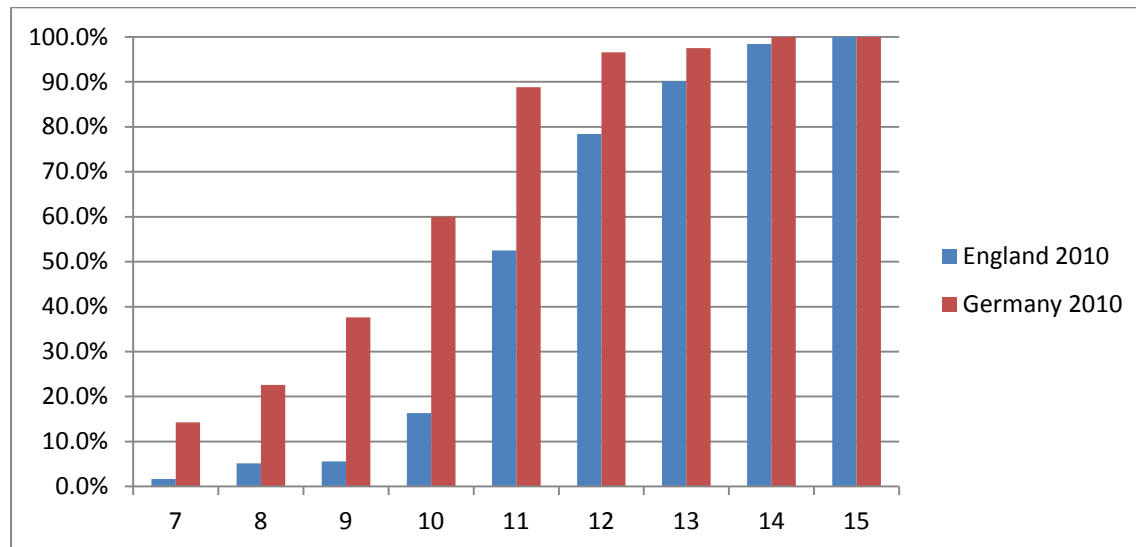


Figure 112: Percentage of children reporting that they are allowed to travel on local buses alone, by age, England and Germany 2010

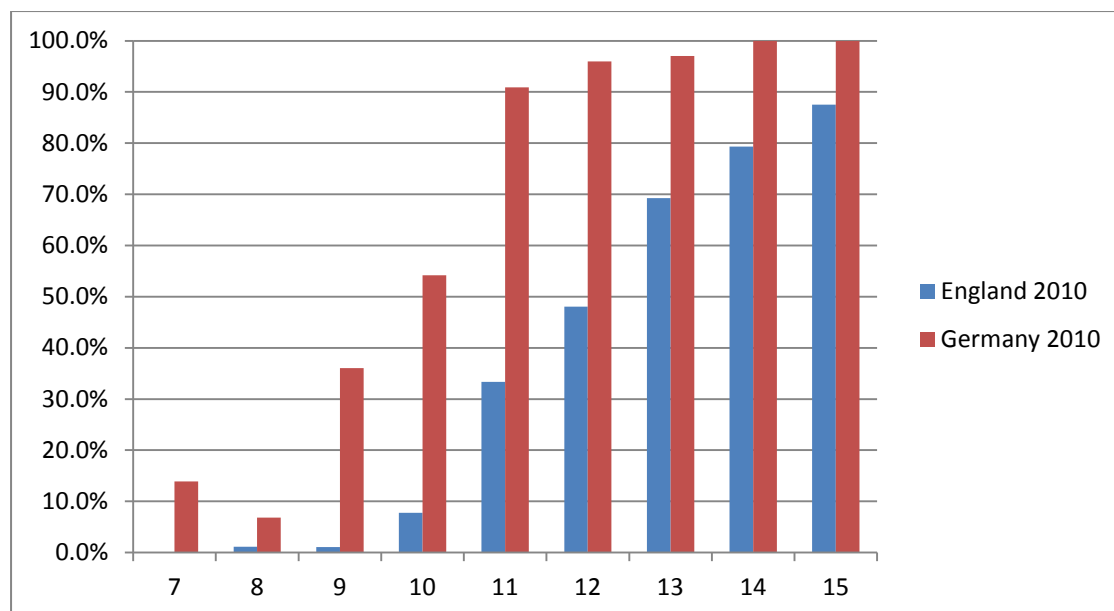


Figure 113: Percentage of parents reporting that their children are allowed to travel on local buses alone, by age, England and Germany 2010

When the longitudinal changes are examined, it is most noticeable that the percentage of primary school children in England being granted the licence to use buses alone dropped sharply between 1971 and 1990. The percentages of children being granted this licence have remained stable between 1990 and 2010 in both England and Germany, with only around 1 in 10 English primary

school children being granted permission to use local buses alone, compared to 3 in 10 German primary school children.

Licence to use buses alone	England 1971	England 1990	England 2010	Germany 1990	Germany 2010
Children's response	48	15	12	31	31
Parents' response	-	7	5	29	25

Table 57: Percentage of primary school children reporting that they have the licence to use local buses alone, England and Germany, 1971-2010.

Nearly all German secondary school children (87-96 per cent, depending on the measure used) were allowed to use local buses alone in 1990 and 2010. The answers from English parents and children vary widely. The children's answers suggest that similar percentages of English secondary school children were given permission to travel on local buses alone in 1990 and 2010 in comparison to Germany (84-87 per cent of children), but the parents' answers suggest that only two-thirds of children (significantly lower than Germany) were allowed to do so.

Licence	England 1990	England 2010	Germany 1990	Germany 2010
Use buses alone (children's response)	84	87	87	95
Use buses alone (parent's response)	66	59	95	96

Table 58: Percentage of secondary school children reporting that they have the licence to use local buses alone, England and Germany, 1990-2010.

7.4 Children's travel and activities

7.4.1 The journey to school

Primary school children

For primary school children in 2010, the modes of transport used to get to school were very similar in both England and Germany, with over 90 per cent of children either walking or being driven to school (Table 59). It is interesting to note the convergence between the figures from England and Germany from 1990 and 2010. While, in England, there has been very little change observed between 1990 and 2010, there has been a significant drop in the proportion of children walking to school in Germany between 1990 and 2010 (over one fifth) with the drop largely being accounted for by a shift to travel to school by car. This is comparable to the change that happened between 1971 and 1990 in England, when the percentage of children walking to school dropped and the percentage being driven to school trebled. In contrast to England between 1971 and 1990, though, the percentage of children taking public transport or a school bus to school increased between 1990 and 2010 in Germany.

	English 1971 Primary School	English 1990 Primary School	English 2010 Primary School	German 1990 Primary school	German 2010 Primary school
Walk	81	63	60	83	61
Cycle	1	1	4	1	1
Public transport or school bus	9	3	3	5	8
Car	9	34	32	12	30
Other ³¹	-	-	1	-	0

Table 59: Percentage of primary school children travelling to school by mode on the morning of the survey, in England and Germany from 1971-2010.

As shown in Table 60, the modes used by primary school children on the journey home from school in England in 2010 varied little from the journey to school (Table 59). In England in 1990 and Germany in 1990 and 2010, a larger percentage of children were dropped off at school by car than were picked up, with this being accounted for by more children walking home from school.

	English 1990 Primary school	English 2010 Primary school	German 1990 Primary school	German 2010 Primary school
Walk	67	60	87	68
Cycle	1	4	1	1
Public transport or school bus	3	4	5	8
Car	30	31	8	23
Other ³²	-	1	-	0

Table 60: Percentage of primary school children travelling home from school by a specific mode, England and Germany, 1990-2010.³³

Secondary school children

For secondary school children, on the other hand, there are marked differences between England and Germany on the journey to school (Table 61). For England the dominant mode is walking (57 per cent), with public transport/school bus coming second (25 per cent). In Germany this is reversed, with public transport being the dominant mode followed by walking. In England, there has been a relative decline in public transport/school bus use between 1990 and 2010 among secondary school children, accounted for by a shift to travel to school by walking or being driven. In Germany, there has been an increase in public transport or school bus use, accounted for by a decrease in children walking or cycling to school. The reasons for this difference would be interesting to explore in terms of the nature of public and private school provision in each country, the costs associated with use of public transport/school bus, and so on.

³¹ In 1971 and 1990, children were not given the option of writing 'other'.

³² In 1971 and 1990, children were not given the option of writing 'other'.

³³ No data is available for the journey home from school for England in 1971.

	English 1990 Secondary school	English 2010 Secondary school	German 1990 Secondary school	German 2010 Secondary school
Walk	51	57	37	23
Cycle	2	2	5	0
Public transport or school bus	39	25	49	64
Car	9	16	9	14
Other ³⁴	-	0	-	0

Table 61: Percentage of secondary school children travelling to school by mode, England and Germany 1990 and 2010.

Once again, there is little difference between the percentages of children travelling by each mode to school and *home from* school. There is a marginal shift from travelling to school by car to walking home from school (in England in 1990 and 2010) and to travelling home by public transport (in Germany in 2010).

	English 1990 Secondary school	English 2010 Secondary school	German 1990 Secondary school	German 2010 Secondary school
Walk	54	60	38	23
Cycle	2	2	5	1
Public transport or school bus	39	26	51	68
Car	6	11	6	8
Other ³⁵	-	0	-	0

Table 62: Percentage of secondary school children travelling home from school by mode, England and Germany, 1990 and 2010.

7.4.2 Household car ownership

The data on household car ownership are presented in Figure 114 and show only small differences between England and Germany in 2010. As noted previously, the increase in the percentage of households without access to a car in England between 1990 and 2010 appears to be largely related to only one of the areas surveyed (Islington, in inner-city London).

³⁴In 1971 and 1990, children were not given the option of writing 'other'.

³⁵In 1971 and 1990, children were not given the option of writing 'other'.

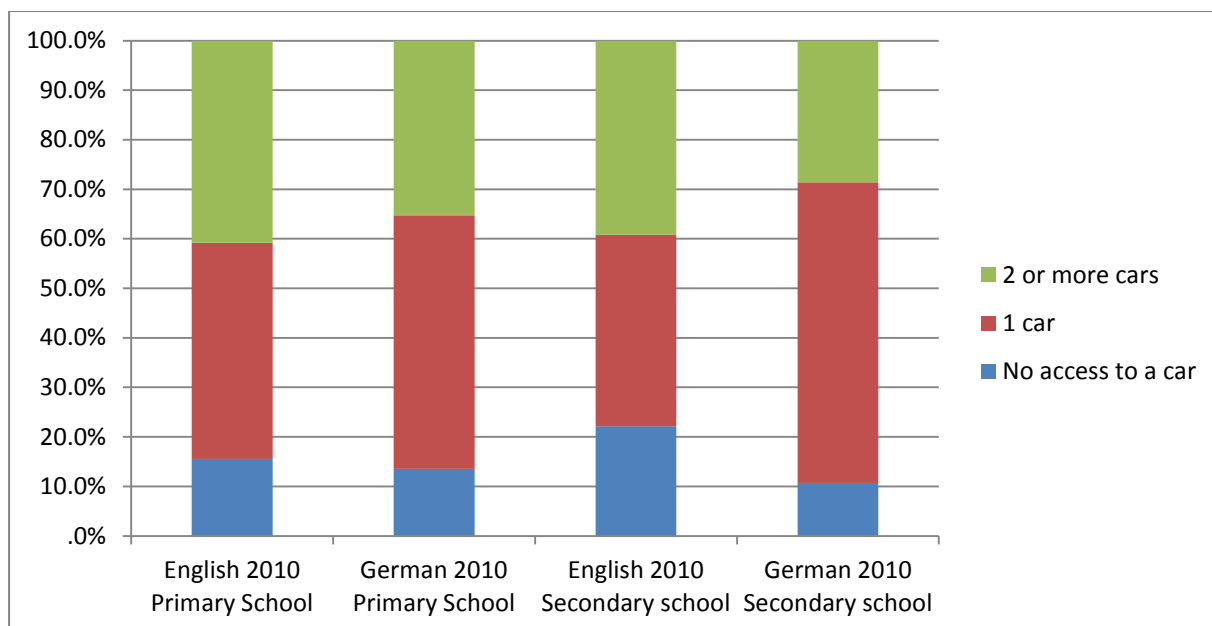


Figure 114: Percentage of parents reporting their household access to a car, by type of school, England and Germany 2010

7.4.3 Accompaniment on the journey to school

There is a marked contrast between England and Germany in relation to adult accompaniment on the journey to school on the day of the survey (Figure 115). Far fewer primary school children were accompanied to and from school by adults in Germany on the day of the survey in 2010 compared to England in 2010. The gap widens in relation to the journey home from school (Figure 116), with just under 60 per cent of German primary school children coming home from school unaccompanied, compared to a little over 20 per cent in England.

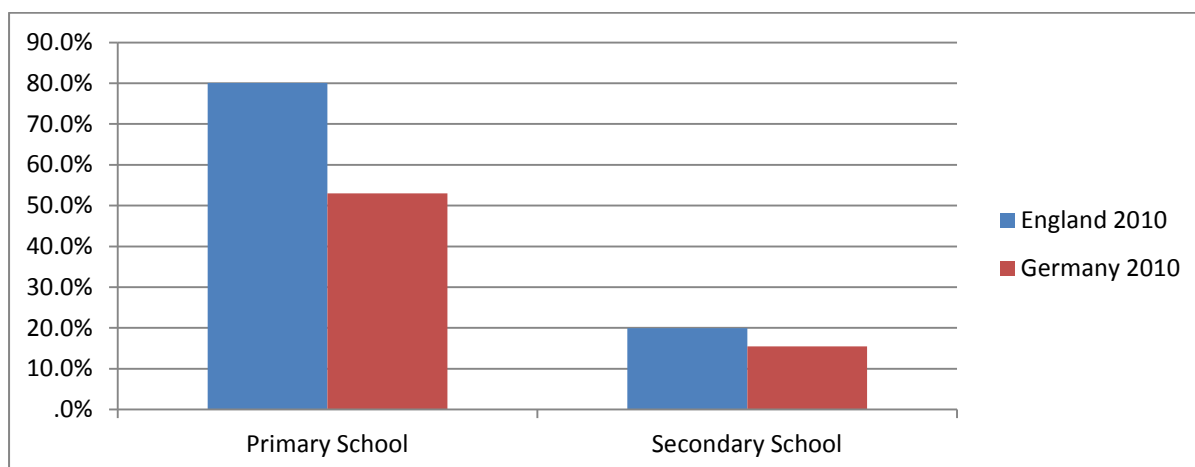


Figure 115: Percentage of children accompanied to school by parent or another adult (responses from children), by type of school, England and Germany 2010

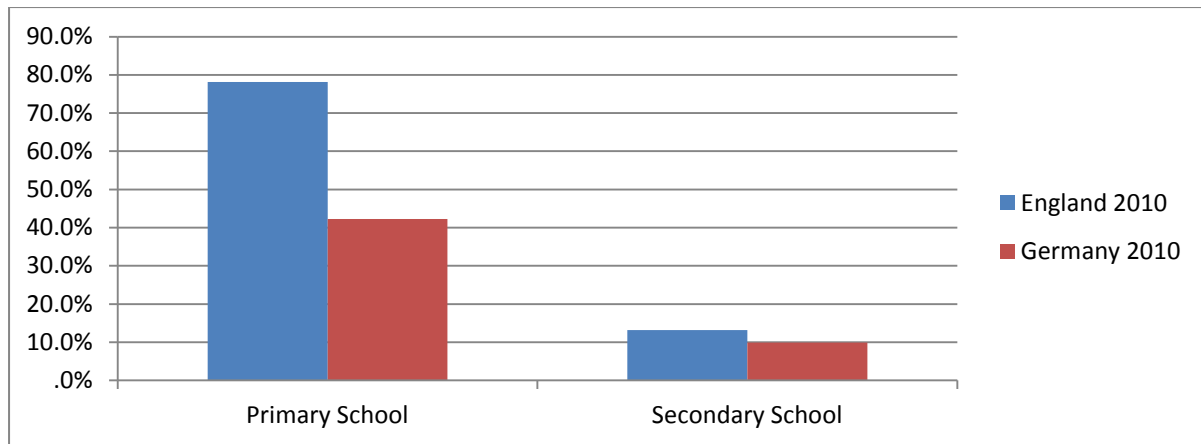


Figure 116: Percentage of children accompanied home from school by parent or another adult (responses from children), by type of school, England and Germany 2010

When analysed by age, it is striking that over 40 per cent of German seven year olds travelled to and from school without a parent or other adult on the day of the survey (Figure 117, which only shows the journey *home* from school but both are similar).

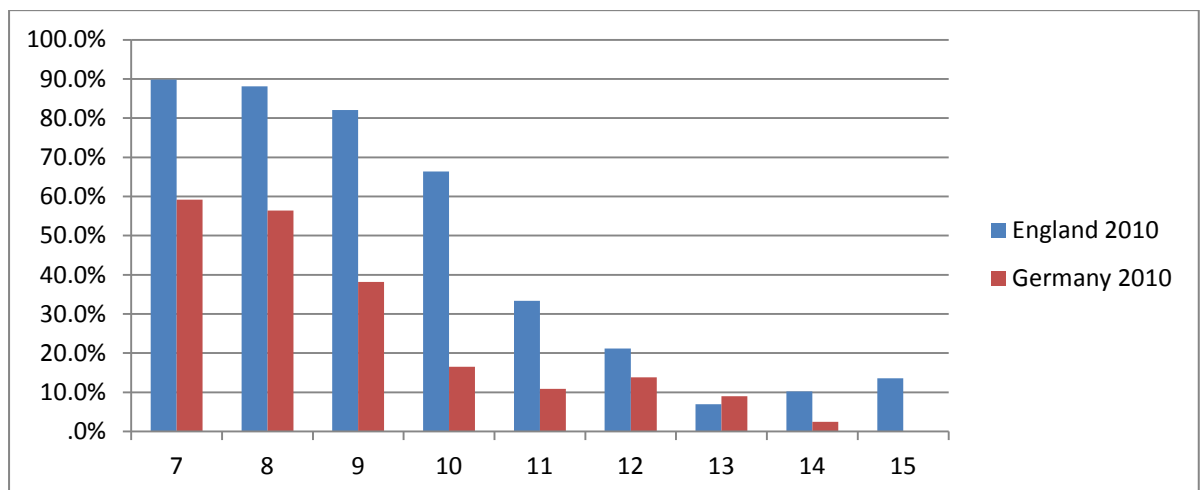


Figure 117: Percentage of children accompanied home from school by parent or another adult (responses from children), by age, England and Germany 2010

When these changes are examined over time, some startling changes in England and Germany are apparent (Table 63). In Germany, the levels of accompaniment to and home from school on the day of the survey were very low in 1990 among both primary and secondary school children. By 2010, the percentage of German primary school children being accompanied to and from school was three times as high as in 1990, and accompaniment to secondary school (although starting from a much lower base) had doubled.

	England 1990	England 2010	Germany 1990	Germany 2010
Primary school – accompaniment to school	64	77	17	53
Primary school – accompaniment home from school	62	78	12	42
Secondary school – accompaniment to school	9	17	8	15
Secondary school – accompaniment home from school	6	13	4	10

Table 63: Percentage of children being accompanied to and from school, England 1990-2010.

In England the changes have been much less dramatic, but far more children were accompanied by a parent or other adult on the day of the survey in both 1990 and 2010 in England than at any point in Germany. The percentage of children being accompanied to and from school were also larger in England in 2010 than in 1990, and by 2010 nearly 4 out of 5 primary school children were accompanied to and from school in England on the day of the survey.

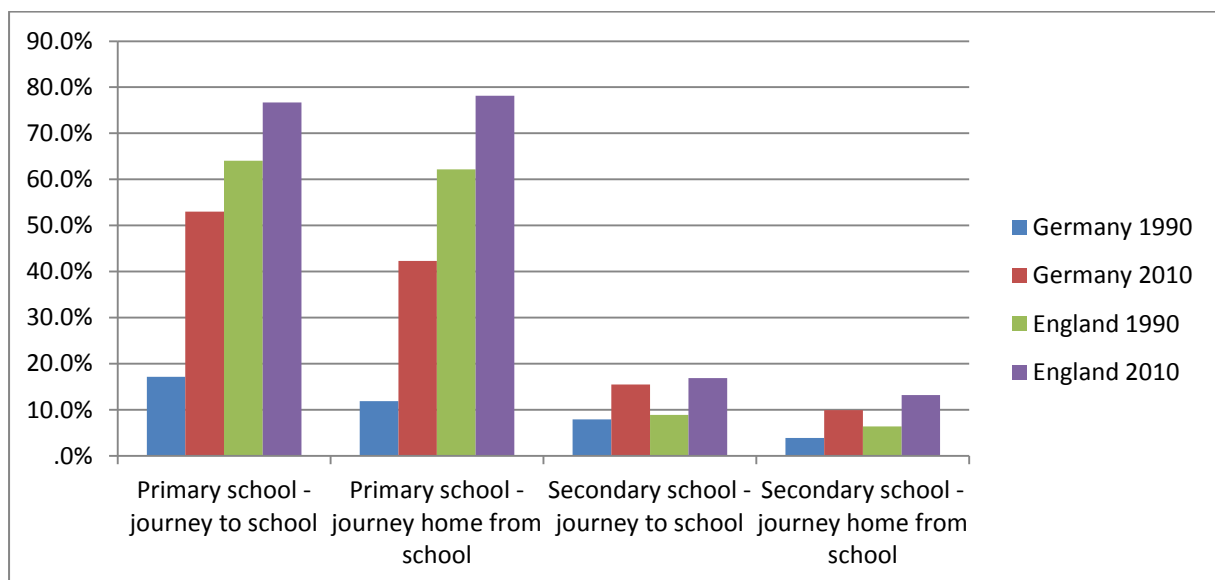


Figure 118: Percentage of children reporting being accompanied to and from school by a parent or other adult on the day of the survey, 1990-2010.

When the children accompanied home from school on the day of the survey are separated out by the mode of travel that they used (Figure 119) it is noticeable that a higher percentage of primary school children were escorted by foot to school in England in 1990 and 2010 than in Germany in 1990 and 2010. This could indicate that more English primary school parents believe it is necessary to escort their child to school even if the school run does not require a car journey.

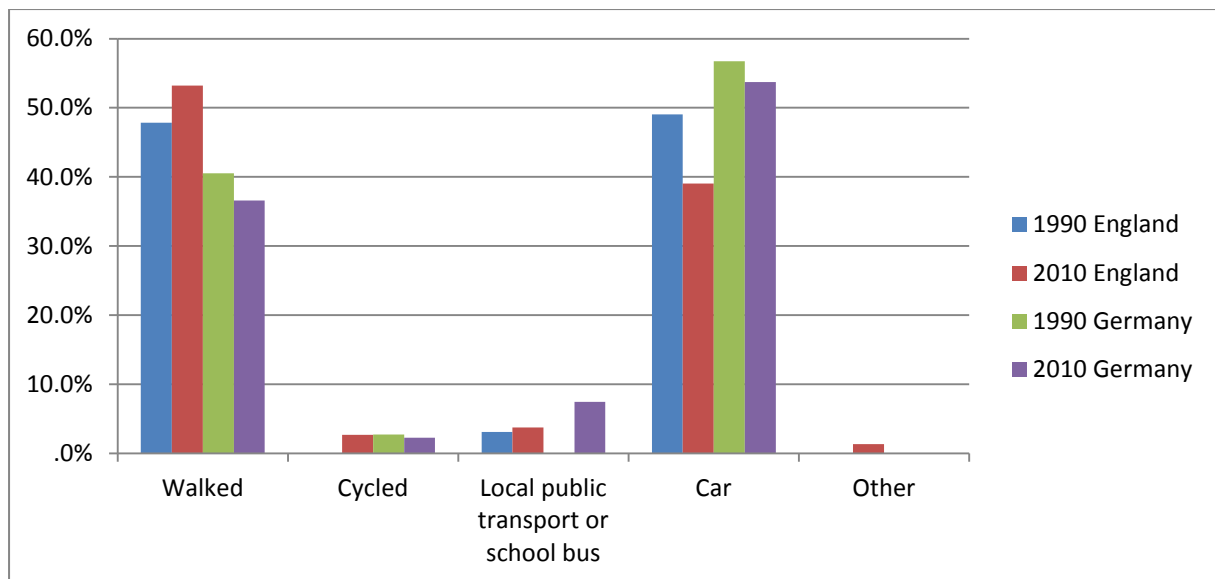


Figure 119: Mode used by primary school children who are accompanied home from school, England and Germany, 1990-2010

When the secondary school children who were accompanied on the day of the survey are divided out by mode (Figure 120), it shows that very few (less than 1 in 10) secondary school children in England or Germany in 1990 or 2010 travelled with a parent outside of being taken by car or other motorised transport.

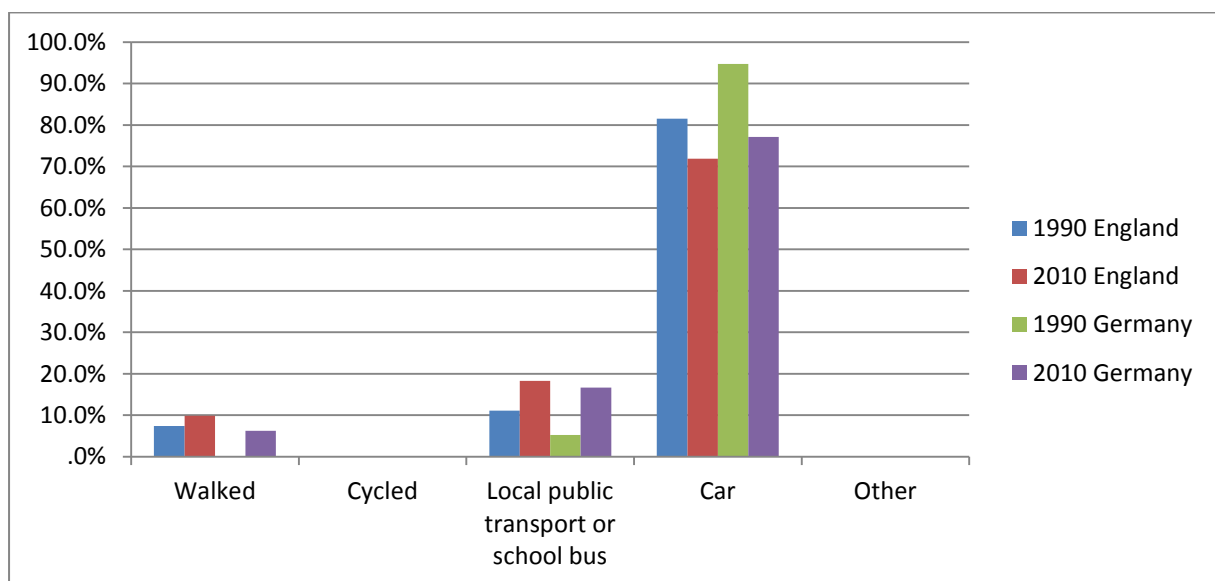


Figure 120: Mode used by secondary school children who are accompanied home from school, England and Germany, 1990-2010

7.4.4 Journeys to destinations other than school and accompaniment

The average *number* of weekend journeys to activities undertaken by primary school children in both England and Germany in 1990 was very similar and there was hardly any change from that observed in 2010. However, there is a marked increase in *accompaniment* on these journeys between 1990 and 2010.

	England 1971	England 1990	England 2010	Germany 1990	Germany 2010
Mean no. of activities at weekend	5.8	4.1	4.1	4.1	4.3
Mean number of activities accompanied	2.4	1.9	2.5	1.9	2.4
Percentage of total activities accompanied	41%	46%	62%	46%	56%
Mean number of activities unaccompanied	3.4	2.2	1.5	2.2	1.9
Percentage of total activities unaccompanied on	59%	54%	38%	54%	44%

Table 64: Average number of weekend journeys to activities per child, primary school children, England and Germany 1971-2010.

For secondary school children, the number of journeys to weekend activities undertaken by children is also similar for both England and Germany and there is a small but consistent shift in both England and Germany from unaccompanied to accompanied journeys between 1990 and 2010.

	England 1990	England 2010	Germany 1990	Germany 2010
Mean no. of activities at weekend	5.0	4.3	4.4	4.9
Mean number of activities accompanied	1.1	1.1	0.9	1.3
Percentage of total activities accompanied	22%	26%	21%	26%
Mean number of activities unaccompanied	3.9	3.2	3.5	3.6
Percentage of total activities unaccompanied on	78%	74%	79%	74%

Table 65: Average number of weekend journeys to activities per child, secondary school children, England and Germany 1990-2010.

7.5 Summary of findings

7.5.1 The 1990 study

In 1990, the main differences between the findings from the surveys in England and Germany were:

For the licences of independent mobility:

- German primary school children were granted all the licences in larger proportions than English children, and German secondary school children were granted between 4 and 6 of the licences earlier (depending on whether children or parents' responses were used) with a wide gap for the younger children narrowing with increasing age, i.e. German children were generally granted the licences earlier.
- English boys had greater levels of independent mobility than girls, (for all licences at primary school and for two licences at secondary school, going out after dark and cycling) but there was little difference according to gender in the granting of the licences in Germany, except for cycling.

For the journey to school:

- Far fewer primary school children were taken to school by car in Germany compared to England.
- Adult accompaniment to school for primary school children in Germany was much less than in England.
- In addition to the higher use of cars on the school journey for primary school children, there was also a higher level of accompaniment on the journeys on foot in England compared to Germany for primary school children.

For journeys to weekend activities:

- German and English children engaged in a similar number of activities at the weekend but there was a higher level of parental involvement in England for both primary and secondary school children (a quarter and a seventh more respectively).

7.5.2 The 2010 study

In 2010, German primary school children were still granted all the licences in greater proportions than their English counterparts, i.e. they were granted the licences at an earlier age. Although for the licence to cross roads, the gap has narrowed between England and Germany between 1990 and 2010, large differences still exist for the other five licences. For example, in 2010 in Germany compared to England, 51 percentage points more primary school children were allowed to come home from school alone, 30 percentage points more were allowed to cross roads alone (according to parents' responses; children's responses indicate a narrower gap) and 20 percentage points more were allowed to use buses. The gap between England and Germany for the licence to travel home from school alone also seems to have remained large.

For secondary school children in 2010, the consistently higher granting of the licences to German school children compared to their English counterpart, that was apparent in 1990, can no longer be seen. The differences are partly obscured by the changes in the wording of the questions for travelling to places other than school and cycling, but German secondary school children were

granted slightly higher licence to travel home from school alone and to travel to places other than school. The more notable difference, however, is that children's responses on the theme of permission to use buses were closer than those of their parents.

There is little difference in the granting of licences by gender in both England and Germany. The only exception is in relation to secondary school children for which significantly more boys than girls are granted the licence to go out after dark in both England and Germany. Additionally, secondary school boys in England seem to be granted the licence to use buses *less* than girls.

Little change has occurred to the journey to school for primary school children in England between 1990 and 2010. For English secondary schools, walking has actually increased, as has car use, with a significant drop being observed in local or school bus use. By 2010, German primary school children's level of walking had dropped over 20 per cent from 1990, from the very high level of 83 per cent, with higher car use accounting for most of the difference. The journeys of German and English primary school children in 2010 are therefore very similar in the proportions of different modes of transport used.

However, there has been a divergence between England and Germany in the modes of transport used to get to secondary school. Walking is the dominant mode of transport to school in England in contrast to the use of buses and school buses in Germany. The reasons for these differences cannot be determined from the surveys, but may be due to contextual factors, some of which may have been shaped by policy decisions, for example, differing approaches to the provision of bus services, the size of catchment areas for schools, or other initiatives to encourage walking/bus use by children. This aspect of the findings would benefit from further investigation.

For car use on the journey to school, there is very little difference between England and Germany at either primary or secondary school. This contrasts with 1990, when cars were far more frequently used in England than in Germany. Levels of car use on the journey to school in England and Germany converged between 1990 and 2010, but the level of adult accompaniment remains distinct, with fewer German children than English children being accompanied. While the difference is only small for secondary school children, for primary school children it is large (53 per cent accompanied in Germany compared to 80 per cent in England) and this gap increases on the journey home from school.

The number of weekend journeys to activities changed little between 1990 and 2010 with similar levels of activity being seen in both England and Germany for all ages. However, between 1990 and 2010 there has been a small trend towards increased accompanied travel in both England and Germany.

In summary, it would seem that German children are still granted the licences of independent mobility at an earlier age than English children. However, German children have seen some of the licences being granted at a later age in 2010 compared to 1990. There also seems to be an increasing use of cars on the journey to school between 1990 and 2010 in Germany, which brings car use for travel to school in Germany to similar levels to England (in both 1990 and 2010). There is a marked difference in the modes used to travel to secondary school in England compared to Germany with buses becoming dominant and walking and cycling decreasing in Germany but the opposite occurring in England.

8 Summary of findings and discussion of the implications of findings for policy and future research

The previous sections report in detail the findings emerging from the surveys conducted in England in 1971 and England and Germany in 1990 and 2010. In this section the main findings from the surveys are summarised, and these are followed by a discussion of the implications of these for policy and future research on children's independent mobility.

8.1 Summary findings – England 2010

In England in 2010...

Primary school children in 2010 had limited independent mobility. In 2010 a majority of primary school children were allowed to cross roads alone. But none of the other licences, except cycling, were granted to more than a quarter of primary school children (and even for cycling the licence was more limited when parent's responses were taken into account). A large majority of primary school children (72 per cent) were accompanied by a parent on the journey to school.

Larger percentages of secondary school children were granted the six licences than primary school children, but secondary school children in England in 2010 still had significant restrictions placed on their independent mobility. This was particularly in relation to going out after dark where (according to parents) only one in four children were allowed to go out alone after dark, and in relation to cycling on main roads, which less than half of children were allowed to. Thirteen per cent of secondary school children were accompanied by an adult on the journey to school.

A majority of primary and secondary school children walked to school but only a very small proportion of children cycled to school. The dominant mode of travel to school was walking (around 60 per cent of primary and secondary school children). After that the next most frequently used method was, for primary school children, to be driven by car (32 per cent) and, for secondary school children, school buses or public transport (25 per cent). This modal split was in spite of the high levels of car ownership – only 16 per cent of the households of primary school children surveyed and 22 per cent of the households of secondary school children did not have access to a car. Very small proportions of children cycled to school (4 per cent primary and 3 per cent secondary) in spite of very high levels of bicycle ownership among the children.

Most children reported feeling safe in their local area, suggesting parental concerns account for restrictions on children's independent mobility. A large majority of children indicated they felt 'very safe' or 'fairly safe' in their local area. As such it would seem that children's concerns did not account for the restrictions placed on their independent mobility. Strangers, bullying and getting lost were cited as concerns by over 4 in 10 primary school children, though, and strangers, abduction and dogs were the frequently cited unprompted concerns given by children about being outside alone.

Parental concerns were not the only reason for accompanying children on journeys. Parents gave positive and negative reasons for picking up children from school, with positive reasons including the opportunity to spend time with their child, get exercise or meet people. So while accompaniment may have reduced independent mobility on the journey home from school, the reasons for it are not all associated with fear of the consequences about letting children travel alone. However, we do not

have data which indicates whether this finding can be transferred to journeys and activities beyond collection of the children from school.

Parents had negative perceptions about the safety of their local environment after dark. The reasons given by parents for not letting their child out after dark provide an interesting but incomplete insight into parental concerns and attitudes to independent mobility. There was a clear and widespread perception amongst parents that streets are unsafe for children. Unprompted explanations for why parents did not allow their children out after dark included: there is not actually a need for children to go out; that if they do, then it should not be alone; and that all a child's needs can be catered for at home. Reasons for not granting the other licences in hours of daylight may be different.

8.2 Summary findings - England 1971-2010

In England between 1971 and 2010...

Overall, there has been a large reduction in independent mobility for primary school children in England between 1971 and 2010. The main part of this reduction took place between 1971 and 1990, with the percentage of children being granted the four licences that were surveyed in 1971, 1990 and 2010 dropping between 21 and 57 per cent.

There is a less clear trend in the changes in the independent mobility of primary school children between 1990 and 2010, with any changes being much smaller in scale than the large drop in licence-holding observed between 1971 and 1990. The percentage of primary school children holding the licence to use buses alone, travel home from school alone and travel to places other than school all showed a drop from 1990 to 2010, although for some of these the drop was small. No change was observed in the licence to go out after dark (although this licence was granted to very few children in either 1990 or 2010). For crossing roads and cycling on main roads an increase was reported although other measures of the licence to cycle which were inserted into the questionnaires used in 2010 cast doubt on this increase.

Between 1990 and 2010 there has been a slight drop in the percentage of secondary school children being granted some of the licences of independent mobility (No data was recorded for secondary school children in 1971). Very little change was observed for four of the licences. For the remaining two, the licence to cycle has reduced, and the licence to go to places other than school has remained static or dropped.

The gender gap in granting of the licences between primary school boys and girls has closed between 1990 and 2010. While in 1990 at primary school a higher percentage of boys were granted all six licences than girls, in 2010 there was little difference between the levels of independent mobility among primary school boys and girls.

A majority of primary school children still walk to school and this has changed little since 1990, but there has been an overall drop in walking to school since 1971. For primary school children the most marked change in the mode of transport used to travel to school was from 1971 to 1990, over which period the proportion of children walking to school dropped from 81 to 63 per cent, while the percentage being taken in cars increased nearly four-fold (from 9 per cent of primary school children to 34 per cent) and the percentage of children using public transport or a school bus dropped from 9

per cent to 3 per cent. For primary school children there has been little change since 1990 in the mode of transport used to travel to school: in both 1990 and 2010 a little over 60 per cent of children walked to school and a little over 30 per cent were driven. Only a very small proportion used public transport or cycled to school, although the proportion of primary school children cycling grew a little from 1990 to 2010. There was very little difference between the genders for the journey to school for primary school children in 1990 and this did not change in 2010.

A majority of secondary school children walked to school in 2010 and this proportion increased since 1990. For secondary school children, we have no data for 1971 but the proportions of children walking or being driven to school have both increased since 1990, at the expense of travel on public transport/school buses. As with primary school children only a few per cent cycle to school. There is little difference according to gender although the shift to walking and away from public transport is more pronounced for girls between 1990 and 2010.

More children were accompanied on the journey to school in 2010 than 1990. In 1990, 64 per cent of primary school children were escorted to school and in 2010 this had risen to 77 per cent. Accompaniment of secondary school children has also increased between 1990 and 2010 (9 per cent in 1990 to 17 per cent in 2010). The gender gap for accompaniment has narrowed between 1990 and 2010. There was only a 3 percentage point gap between the percentage of primary school girls accompanied to school and the percentage of primary school boys accompanied to school in 2010, compared to a 14 percentage point gap between the percentages of boys and girls being accompanied in 1990. Among secondary school children the gender gap also closed between 1990 and 2010 with more boys than girls reporting being accompanied (but only by a small amount).

There is also a trend towards increasing adult accompaniment of children on journeys to destinations other than school. In 1971, 80 per cent of parents of 7 and 8 years olds reported that their children were allowed to travel home from school alone, but by 1990 this had fallen to 19 per cent of parents. In 2010 only 6 per cent of parents of 7 and 8 year olds allowed their children to do so. The average number of weekend journeys that primary school children undertake has also dropped since 1971, but increased a little between 1990 and 2010. The percentage of weekend journeys that are undertaken by primary school-aged children with parental or other adult accompaniment increased from 41 per cent of weekend journeys in 1971 to 62 per cent of journeys in 2010. It is also notable that in 1971 primary school children engaged in at least twice as many unaccompanied weekend journeys compared with either 1990 or 2010. For secondary school children a small drop in the average number of journeys to activities was observed with a small shift towards these being accompanied.

Parents reported being less concerned by the risk of their children being injured in a traffic accident in 2010 than 1990. It seemed that parents' worries about their children being injured in a traffic accident decreased between 1990 and 2010 among parents of both primary and secondary school children. Secondary school parents continued to be less concerned about their child being injured by traffic than primary school parents. Primary school parents' attitudes to boys and girls were similar in 1990 and 2010. In 2010 though, twice as many parents of secondary school boys compared to parents of girls were likely to be 'very' worried about their child being injured in a road accident (33 per cent of parents of boys, compared to 16 per cent of parents of girls). This is an

increase in gender disparity from the secondary school parents who were 'very' worried about their children in 1990.

8.3 Summary findings – Germany 1990-2010

In Germany between 1990 and 2010...

Children's independent mobility for primary school children has reduced to some degree. For the two licences of crossing roads and travelling home from school there was a clear reduction in granting of the licences between 1990 and 2010. For three of the other licences the picture is unclear, and for the other licence (to go outside alone after dark) very few primary school children were granted this licence in either 1990 or 2010.

Fewer primary school children walked home from school and more were driven. Fewer primary school children travelled by foot home from school in 2010 than 1990 (83 per cent of primary school children walked in 1990, compared to 61 per cent in 2010) and more travelled by car (12 per cent of primary school children travelled to school by car in 1990, compared to 30 per cent in 2010). Some caution should be taken in generalising these results on mode as the changes are not consistent across areas and the drop in walking is particularly associated with two areas.

More primary school children were accompanied by an adult on the journey home from school. On the journey home from school the percentage of children travelling with a child of the same age or younger dropped dramatically between 1990 and 2010, and the percentage of children accompanied by a parent or other adult increased from 9 per cent of children in 1990 to 33 per cent of children in 2010.

For secondary school children there was little change in children's independent mobility. Most licences remained constant for secondary school children between 1990 and 2010, with a possible increase in one licence (to use buses alone) and a more significant decrease in another (to go out alone after dark).

Fewer secondary school children walked and cycled to school and more used public transport or school buses. For secondary school children, overall, there was a significant shift away from walking and cycling between 1990 and 2010 towards using public transport and school buses (from 49 per cent of secondary school children travelling to school by public transport or school bus in 1990 to 64 per cent in 2010). Travel to school by car also increased but to a lesser extent (up from 9 per cent of secondary school children being brought in by car in 1990 to 14 per cent in 2010).

There was no major change in the level of accompaniment on the school journey for secondary school children. The percentage of secondary school children being escorted by a parent (or, in 2010, a child and a parent) has only seen a modest increase from 4 per cent of secondary school children in 1990 to 10 per cent in 2010.

8.4 Summary findings – England compared to Germany

Comparing England to Germany...

In 2010, German primary school children were still granted all the licences in greater proportions than their English counterparts. While for the licence to cross main roads the gap narrowed

between England and Germany between 1990 and 2010, large differences still existed for other licences. For example, in 2010 in Germany compared to England, 51 percentage points more primary school children were allowed to come home from school alone, 30 percentage points more were allowed to cross roads alone (according to parents' responses; children's responses indicate a narrower gap) and 20 percentage points more were allowed to use buses alone. The gap between England and Germany for the licence to travel home from school alone also seems to have remained large.

There were less evident differences between English and German secondary school children. Any changes between 1990 and 2010 have been partly obscured by changes to the survey instruments in the way that the licence to travel to places other than school and licence to cycle were measured, but higher percentages of the German secondary school children had the licence to travel home from school alone and to travel to places other than school.

There was little difference in the granting of licences by gender in both England and Germany in 2010. The only clear difference was in relation to secondary school children for which significantly more boys than girls were granted the licence to go out after dark in both England and Germany. Additionally, secondary school boys in England seemed to be granted the licence to use buses *less* than girls.

The modes of transport used for the journey to school in 2010 were very similar for English and German primary school children. German primary school children's level of walking has dropped over 20 percentage points from 1990 from the very high level of 83 per cent, with higher car use accounting for most of the difference. Among English primary school children the percentage walking had dropped sharply between 1971 and 1990 (accounted for by an increase in the use of cars to transport children to school) but the modal split for primary school children had remained similar between 1990 and 2010. On average the journeys of German and English primary school children in 2010 were therefore very similar in the proportions of different modes of transport used. However, some care should be taken in generalising this finding as the variation in modal split was not consistent across all five areas in each country.

There was some divergence between English and German secondary school children in the modes of transport used to travel to school. However, walking remained the dominant mode of transport for students in the 2010 English secondary schools while buses/school buses remained predominant in Germany. This difference in mode used to travel to school is likely to be due to different approaches to school transport policy in the two countries.

Between 1990 and 2010, car use to take children to school in Germany has risen to English levels. For car use on the journey to school there is now very little difference between England and Germany at either primary or secondary school. This contrasts with 1990, when there was a much larger use of cars in England than Germany.

But the level of adult accompaniment to and from school is still lower in Germany than England. German children are still being accompanied to school in smaller proportions than English children. While the difference is only small for secondary school children, for primary school children it is large

(53 per cent accompanied to school in Germany compared to 80 per cent in England) and this gap increases for the journey home from school.

There is a trend from 1990 to 2010 towards increasing accompaniment on journeys to destinations other than school in both England and Germany. The number of weekend journeys has changed little between 1990 and 2010 with similar levels of activity being seen in both England and Germany for all ages. However, between 1990 and 2010 there has been a small shift towards increased accompanied travel.

In summary, German children in 2010 were still being granted the licences of independent mobility in 2010 at an earlier age than English children, as was the case in 1990. However, German children have seen some of the licences being granted to smaller percentages of children in 2010 than they were in 1990 (i.e. licences are being granted at a later age in 2010 compared to 1990). There also seems to be an increasing use of cars on the journey to school between 1990 and 2010 in Germany, which brings car use for travel to school in Germany to similar levels to England. There is a marked difference in the modes used to travel to secondary school in England compared to Germany with buses becoming dominant and walking decreasing in Germany, while the opposite occurred in England.

8.5 Factors affecting the granting of independent mobility in England and Germany

In summary, when comparing the data from England and Germany:

In England and Germany age is the key factor in the granting of independent mobility to children.

The granting of all the licences in independent mobility increased with age in both England and Germany, typically increasing, in England, from year 3 (7-8 year olds) and levelling-out in year 7 or 8 (11-12 and 12-13 year olds respectively, the first two years of secondary school) as it approaches 100 per cent. The exception to this is the licence to go out alone after dark, which was granted to low percentages of primary and secondary school children in both England and Germany in 2010. In Germany some of the licences are granted in significant proportions at an earlier age.

For the most part gender does not seem to be a major factor affecting the granting of independent mobility in 2010. While gender was identified as a significant factor in the *One False Move* study in 1990, the difference between primary school boys and girls in England closed between 1990 and 2010 leaving only small differences. For secondary school children in England, the main difference was that fewer girls than boys were allowed to go out alone after dark. English secondary school and German primary school boys seemed to have slightly more freedom than girls to travel home from school and to places other than school alone. It is not clear whether this is due to boys demanding this licence more than girls or instead a greater parental willingness to grant it to boys than girls.

Areal characteristics clearly affected the granting of the licences. In simple terms the level of accompaniment of children to school in England in 2010 increased with distance between home and school. The granting of licence to travel home alone from school reduced with increased distance from home to school for both primary and secondary school children. The granting of the licences also clearly varies across the areas surveyed in England and Germany, but the variations in each area

are not consistent across all the licences. This suggests the granting of licences is affected by a range of different areal factors.

The questions added to the questionnaire used in England in 2010 also allow some additional analysis of the factors that affect children's independent mobility. **In summary, the additional factors explored in the English 2010 data reveal that:**

While parents report a range of concerns related to the granting of children's independent mobility, the degree to which these different concerns affect the actual granting of the licences is not clear. Questions were asked of parents in the 2010 surveys in England about their perceptions of safety in the local area. These showed significant variations across the areas but do not appear to be reflected in the granting of the licences of independent mobility which are much less variable across the areas.

Parents reported fear of traffic as the main reason for picking up children (primary and secondary) from school and there seemed to be a clear relationship between the granting of the licence to cross roads and parents' concern about involvement in traffic accidents in relation to primary school.

The responses given to the questions about why children were not allowed out after dark³⁶ are suggestive of some significant concerns which seem to be fairly broadly held in the parents surveyed. For example there was a fear of what might happen to children after dark, and a view that there was *no need* for children to go out after dark (or sometimes even before dark); and if there was a need to travel then children will be transported by their parent or another adult. Care should be taken in reading too much in to these short comments made in response to a single question, but they are suggestive of a general fear of strangers (and traffic) and also a parental concern about why children may want or need to be independently mobile. Whether these latter concerns also relate to the other of the children's licences, rather than just going out alone after the dark, is not clear.

Parental concerns were not the only reason for accompanying children on journeys. Parents gave positive and negative reasons for picking up their child from school, with positive reasons including the opportunity to spend time with their child, get exercise or meet people. So while accompaniment may have reduced independent mobility on the journey home from school, the reasons for it are not all associated with fear of the consequences about letting children travel alone. However, we do not have data which indicates whether this finding can be transferred to journeys and activities beyond collection of the children from school.

Some weak evidence for links between lower economic status and increased granting of some of the licences was found. The socio-economic analysis conducted in this work to explore this aspect of independent mobility had significant limitations and did not allow us to draw conclusions about the impact of socio economic status on children's independent mobility. However, there are some suggestions from the surveys that factors often associated with lower socio-economic status, such as a lack of household access to a car, were linked with an increase in the granting of licences to use buses and go out after dark.

³⁶ Hardly any primary school children and 25 per cent of secondary school children were allowed out after dark, so a large majority of parents responded to this question.

In conclusion, the data we have available means we have been able to draw some links between the levels of independent mobility and the factors that affect them. It is unsurprising that there are many factors at play, as this is consistent with the findings from the literature review. Children's independent mobility is a complex phenomenon which results from a combination of factors including: children's capabilities and desires, the physical and social environment they live and move around in and parental perceptions of these factors.

8.6 Recommendations for further research

The surveys conducted in England and Germany mapped levels of children's independent mobility and have given some insights into the factors that affect it. However, it is clear that further investigation is required in order to better understand the links between observed levels of mobility and the factors that affect them. Qualitative research would be particularly useful in uncovering *why* we have observed the trends in children's independent mobility detailed above. In addition quantitative methods could provide further useful insights into children's independent mobility and the factors affecting it; a major consideration being the scale and focus of the research. While the factors behind the patterns in children's independent mobility can be usefully researched at the local level, the consequences of a lack of independent mobility and car-dependent lifestyles should also be investigated more broadly.

The following table shows a selection of research questions arising from the results presented here; some of which will be pursued by the authors of this study. In addressing these topics of research there should be a particular emphasis on understanding children's perspectives and desires, and also to understand whether there are factors that might be significant enablers of children's independent mobility which could be easily addressed.

Topic	Object of investigation
Local factors affecting granting of independent mobility	Detailed qualitative work to understand children's and parents' views on independent mobility; including the investigation of the effect of the physical environment on the school journey and other journeys and the location of the home; the effect of different institutional frameworks at play, such as the involvement of the school or external agents such as the police, road safety association, training initiatives or similar; social and cultural attitudes and socio-economic factors.
The development of attitudes to mobility and independence	How do parents and children develop their attitudes and behaviours to mobility and independence? To what degree do children want independent mobility? What influences (friends, media, etc.) are most important? To what degree do children inherit their parents' attitudes? Are certain life stages particularly important in the formation of attitudes and behaviours?
The impact of lifestyles on opportunities for independent mobility	How do current and developing lifestyles (parents and children's) affect children's opportunities for independent mobility? How do the trends towards busier lives and more structured activities affect independent mobility?
The impact of accident rates on independent mobility	Exploration of the overlap between factors affecting patterns in independent mobility (modal split, accompaniment by adult) and location-specific statistics for school journey accidents to clarify the connections between mobility levels and accident frequency.
Types of non-independent mobility and their causes	Further characterisation of different school types with low independent mobility, for example the German "car school" and the "accompanied walking school"; establishing the reasons behind the levels of mobility at these schools and the consequences for children's development.
Consequences of low and high levels of independent mobility	Children with 'high' and 'low' levels of independent mobility could be investigated to better understand the positive and negative consequences of low and high independent mobility. This would go some way in addressing what level of independent mobility is desirable.
An international comparison of independent mobility	Qualitative investigation of whether specific aspects of national culture affect levels of independent mobility and the degree to which this may affect the transferability of policy and practice between countries.

8.7 Implications of findings for policy

We have documented above the findings from the surveys conducted in England in 1971 and England and Germany in 1990 and 2010 on the trends in children's independent mobility and the factors that may affect it. In the literature review we considered evidence from other studies on these issues and also considered the broader context to why children's independent mobility is considered important.

Policy Studies Institute, the lead organisation in this work, conducts research to inform and shape the direction of policy and policy debate. With the aim of stimulating debate on how policy-makers and society more broadly should respond to these findings, some implications of the findings are explored below. These draw on the research documented above, the debates held during two workshops associated with this project and also observations of the research on the public policy and media debate relevant to children's independent mobility.

8.7.1 What level of children's independent mobility is desirable?

Our research has clearly documented a major reduction in children's independent mobility in England between 1971 and 2010 and a smaller reduction in Germany between 1990 and 2010. It has also shown that English children continue to have lower levels of independent mobility than their German peers. What should policy-makers response to these trends be? Do these reductions matter and should policy seek to reverse these trends to increase children's independent mobility and, if so, what level is appropriate?

On the basis of the material considered in the literature review there would seem to be two broad and strong justifications for developing and implementing policy interventions intended to increase children's independent mobility.

The first is based on the issue of the rights children should be able to enjoy. *The United Nations Convention on the Rights of the Child (1989)* articulates these and includes statements on the right of children to rest and leisure and to engage in play and recreational activities appropriate to the age of the child, and that States should promote this right and encourage provision to satisfy it (Article 31), and also that every child has the right to a standard of living that is good enough to meet their physical, social and mental needs (Article 27).

The second of these Articles leads to the second major justification for action to increase children's independent mobility, namely that the loss of children's independence has been having and continues to have adverse effects on their well-being, health and personal development. The links between these areas are complex. However, independent mobility is important because of the impact it can have on increased levels of children's physical activity, sociability and the acquisition of skills through active engagement and exploration in their local environment. When observations from other research are taken into account – for example, the finding that a person's physical activity levels get set early in life – children's independent mobility would seem to warrant significant action so that these benefits may be achieved.

In the workshops we held during the project with representatives from government departments, academia, NGOs and other civil society groups to discuss our initial findings, and from our broader observation of public and media debate, it was very apparent that increasing children's independent mobility is considered a desirable aspiration. However, from some perspectives, it could be

described as idealistic given the reality of the risks to which children may be exposed being seen as too great. Additionally, there is a view that children actually benefit from car-dependent lifestyles car ownership enables a greater range of activities to be accessed than would otherwise be possible.

There is also a prominent thread that runs through public debate and media reporting which suggests that parents who allow their children out alone are negligent and failing to deliver on their parental responsibilities (the degree to which this narrative is created and perpetuated by media would be an interesting area to explore further). Some high profile cases have pitted schools and/or local authorities against parents who grant their children independent mobility, with the threat of the involvement of social services if they do not accompany them on journeys to and from school.³⁷

Commentary on these cases has provoked heated debate and also a polarisation between those wishing to see a society in which children's independent mobility should be significantly increased and, on the other hand, those who see letting children out alone as dangerous and irresponsible and the curtailment of children's freedom as a necessary enabler of the wider benefits of a car-dependent society.

There would seem to be a tension between delivery of the benefits of independent mobility - which may be long-term and largely intangible now - and the very real fears of parents about the threats posed to their children when outside alone. These two perspectives lead to very different approaches to addressing the issue. The first has an emphasis on creating safer external conditions and environments in which children are enabled to develop and flourish; and the second is about managing and removing risks to prevent harm to children, or indeed removing children from the risk without addressing the risk. Both would seem to be valid perspectives, but it cannot be denied that children should be able to live in environments that allow them to develop without excessive risks. The limited options parents have to respond to these risks also need to be considered. Parents, not unsurprisingly, will remove their children from environments in which they perceive the risks to be too high. Additionally, the actions necessary to lower those risks are all too often beyond the control of individual parents, meaning coordinated community or policy-based action may be necessary in the longer-term.

8.7.2 How should policy respond to children's independent mobility?

The above findings, observations and reflections pose some major challenges for policy both in development of objectives and the policy interventions required to deliver them. It has already been noted that children's independent mobility is the result of the interaction of factors associated with children's capabilities, the influence of rising car ownership and use and government responses to this, the external physical and social environment they live in, parents' perceptions of these and cultural and social norms of behaviour. This range of factors present numerous possible loci for policy action and would also seem to require action that cuts across traditional policy categories such as education, health, transport, planning and policing.

³⁷ See, for example, the case of the Schonrock family in South-East London <http://www.telegraph.co.uk/comment/columnists/borisjohnson/7871753/Hail-the-heroic-parents-who-let-their-children-cycle-to-school.html> and <http://www.guardian.co.uk/lifeandstyle/2010/jul/11/cycling-school-child-safety-schonrock>

While action has been taken in these areas over the last 20 years that may increase children's independent mobility it has rarely been an explicit objective of policy. Many relevant initiatives can be cited. These include amongst others, safe routes to school; reduced speed limits in residential areas; information campaigns, for example, on the impact of increasing speed on the severity of injuries and likelihood of death in collisions between cars and pedestrians; and changes to the streetscape, whether the addition of speed humps, chicanes and other elements to reduce speed and reallocate roadspace or, conversely, the removal of all street furniture to create shared space for all road users. The last example has been pioneered in the Netherlands and is based on removing all road signage combined with common road surfacing. While perhaps counterintuitive, it works by transferring responsibility for safe road use to all road users rather than relying on warning signs, traffic lights and road markings. However, in spite of these and other initiatives the trends we have revealed in this research show a continuing decline in children's independent mobility suggesting more concerted action is required.

Arguments about a number of potential policy responses have been well rehearsed over the years but they are socially and politically challenging. For example, addressing the dominance of the car, which is reported by parents as a major concern in relation to their children's independent mobility, is engrained in attitudes, behaviour and, not least, infrastructure. However, if children's independent mobility is important, which the evidence suggests it is, then policies and practices need to be taken to reverse the decline in independent mobility we have documented over the last four decades. Furthermore, it should be noted that improving children's independent mobility would be likely to create benefits that would be enjoyed by society more widely and not just children.

We will return to this issue of what could be done to increase children's independent mobility and make much more specific policy recommendations in the reporting of a separate project. This is currently being conducted with 16 international partners who have collected similar datasets to the ones collected in England and Germany for this project. This study, funded by the Nuffield Foundation and the international partners, will present an international comparative analysis of trends in children's independent mobility. A set of case studies is also being compiled, documenting places where action has been taken to increase children's independent mobility. The lessons drawn from these will contain a much more detailed consideration of policy options and the packages of measures that are likely to be required to enhance children's independent mobility.

At this stage we hope our findings and observations are sufficient both to promote public and policy debate on the importance of children's independent mobility, and agreement that action will need to be taken if the downward trend in children's independent mobility that we have observed is to be reversed.

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Annexes

Annex 1: English children's and parents' questionnaires from 1971, 1990 and 2010

HOW YOU GET ABOUT






A questionnaire for children and young people 7 to 15 years old

- Please answer the questions as best you can – there are no right or wrong answers.
- We will not know who filled in this questionnaire, only the class it was completed in.
- Please ask if you have any questions.

TRAVELLING TO AND FROM SCHOOL



- 1) **How did you get to school this morning?**
(Only tick one box, to show the main method you used)

- ☐  Walked most or all the way
- ☐  Cycled
- ☐  School bus
- ☐  Local bus or train or underground
- ☐  Car
- ☐ Other please write in:






- 2) **Who did you travel to school with this morning?**
(Tick as many boxes as you need)

- ☐ Travelled on my own
- ☐ Parent
- ☐ Another adult
- ☐ Older child / teenager
- ☐ Child of same age or younger

- 3) **How long did it take you to travel to school this morning?**
(Only tick one box)

- ☐ Less than 5 minutes
- ☐ 5 to 15 minutes
- ☐ 16 to 30 minutes
- ☐ 31 to 45 minutes
- ☐ 46 minutes or more

4) How will you go home today?(Only tick one box)






- ☐  Walk most or all the way
- ☐  Cycle
- ☐  School bus
- ☐  Local bus or train or underground
- ☐  Car
- ☐ Other please write in:

5) Who will you travel home with today?

(Tick as many boxes as you need)

- ☐ Travelling home alone
- ☐ Parent
- ☐ Another adult
- ☐ Older child / teenager
- ☐ Child of same age or younger

6) How would you like to be able to travel to and from school?(Only tick one box)

- ☐  Walk most or all the way
- ☐  Cycle
- ☐  School bus
- ☐  Local bus or train or underground
- ☐  Car
- ☐ Other please write in:

WALKING

7a) Are you allowed to cross main roads on your own?

- ☐ YES (Please go to ➡ Question 7c)
- ☐ NO



7b) If you don't cross main roads on your own, would you like to be allowed to do so?

☐ YES

☐ NO

7c) How old were you when you first crossed main roads on your own?
(Please estimate if you are not sure)

Age

☐ Not allowed to cross roads on my own

CYCLING



8a) Do you have a bicycle?

☐ YES

☐ NO (Please go to ➡ Question 9)

8b) Are you allowed to cycle on main roads by your parents?

☐ YES At what age were you first allowed?

Age

☐ NO

8c) If you have a bicycle, are you allowed to ride it to go to places (like the park or friend's houses) without any grown ups?

☐ YES

☐ NO

☐ Don't have a bicycle

8d) How many times do you cycle in a typical week (both with and without parents) including the weekend?

☐ Once a week or less

☐ One or two days a week

☐ Three or more days a week

☐ Don't have a bicycle

BUSES

- 9) Are you allowed to go on local buses on your own (other than a school bus)?













☐ YES

☐ NO



AT THE WEEKEND

- 10) Which of these activities did you do this weekend (yesterday or on Saturday):
 (tick the first column if you did these things on your own or with another young person)
 (tick in the second column if you did them with a parent or other adult)

		On your own or with another young person	With a parent or other adult
	Visited a friend's home		
	Visited relatives or grown-ups		
	Went to a youth club (including Scouts, Guides, Cadets, Sunday school etc.)		
	Went to the shops		
	Went to a library		
	Went to a cinema		
	Spent time with friends outside after dark		
	Went to a playground, park or playing fields		
	Played sport or went swimming (individual or team sports or lessons)		
	Went for a walk or cycled around		
	Went to a concert or nightclub		
	Visited a place of worship		
	Other (please write in):		
	Other (please write in):		
	Other (please write in):		

WHERE YOU LIVE

- 11a) How safe do you feel on your own in your local neighbourhood?
(Only tick one box)

- ☐ Not allowed out on my own
- ☐ Very safe
- ☐ Fairly safe
- ☐ Not very safe
- ☐ Not at all safe

- 11b) When you are outside on your own or with friends are you worried by any of the following?
(Tick as many boxes as you need)

	Yes	No	Don't know
Traffic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Getting lost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bullying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strangers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do not feel that I am old enough to go about on my own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not knowing what to do if someone speaks to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 11c) Is there anything else you are worried about when you are outside on your own or with friends?

Please write in:.....

.....

.....

ABOUT YOU

- 12) How old are you?

Age

- 13) Are you...?

a Girl ☐ or a Boy ☐

Thank you very much for your help 😊

HOW YOUR CHILD GETS ABOUT

Questions for the father, mother or carer of a child 7 to 15 years old

THE FOLLOWING QUESTIONS ARE ABOUT YOUR CHILD

- This form should take about ten minutes to complete.
- Please only answer in relation to the child who gave you this form – do not answer about any other children in your household.
- Please answer the questions honestly and as best you can.
- Your answers will be made anonymous and will be kept confidential.

Coming home from school



1a) Does your child travel home from school alone?

- ☐ YES - When did you first let them travel home from school alone?

Age

- ☐ NO - At what age will you be likely to let your child travel home from school alone?

Age

1b) How many days a week is your child typically collected from school by an adult?

(Please insert number)

times each week

1c) What are your main reasons for picking your child up from school (even if you no longer do)?

(Please tick no more than three boxes)

<input type="checkbox"/>	1. Opportunity to spend time with my child
<input type="checkbox"/>	2. Opportunity for exercise or to get out of house
<input type="checkbox"/>	3. Concern about traffic danger
<input type="checkbox"/>	4. Child unreliable or too young
<input type="checkbox"/>	5. Danger from adults

<input type="checkbox"/>	6. Fear of bullying by other children
<input type="checkbox"/>	7. Opportunity to meet people (teachers, other parents etc)
<input type="checkbox"/>	8. On the way to an activity for you or the child (e.g. shopping, visiting a relative, after school club etc)
<input type="checkbox"/>	9. School too far away
<input type="checkbox"/>	10. Other, please write in:

- 1d) How long would it typically take you to get to your child's school?
(Insert a time however large or small, or tick 'Don't know / Not applicable')

On foot	<input type="text"/>	minutes	or	<input type="checkbox"/> Don't know / Not applicable
By car	<input type="text"/>	minutes	or	<input type="checkbox"/> Don't know / Not applicable
Public transport	<input type="text"/>	minutes	or	<input type="checkbox"/> Don't know / Not applicable

- 1e) Is the school the nearest one your child can attend?

☐ YES (Please go to ➡ Question 1g)

☐ NO

- 1f) If NO, what is the main reason for your child attending this school?
(Tick as many as you need)

<input type="checkbox"/>	1. No places available at nearest school
<input type="checkbox"/>	2. Did not want to send child to local school or preferred a specific school elsewhere
<input type="checkbox"/>	3. Wanted a specific type of school (faith school, performing arts, etc)
<input type="checkbox"/>	4. Moved home after child started at school
<input type="checkbox"/>	5. Travel easier
<input type="checkbox"/>	6. Other, please write in: <input type="text"/>

- 1g) Does your child have a long-standing illness, disability or infirmity?

☐ YES - Please give brief details (optional)

☐ NO

Other journeys

- 2a) When going to places other than school that are within walking distance, is your child taken there or allowed to go alone?

☐ Usually goes alone (Please go to ➡ Question 3)

☐ Usually taken





☐ Varies

- 2b) What is the approximate number of round trips made each week to accompany your child, excluding the journey to school?

(For example, travelling to the swimming pool and then home again would count as one round trip)

Round trips each week

2c) What is the method of travel most frequently used on these trips?*(Tick as many as you need)*

- ☐  Walk most or all the way
- ☐  Cycle
- ☐  Local bus or train or underground
- ☐  Car
- ☐ Other method, please write in:

Crossing roads**3) Is your child allowed to cross main roads alone?***Please note: this question is included for all parents of children aged between 7 and 15 years old. Please answer even if the answer seems obvious.*

- ☐ YES **What age was your child first allowed to do so?**

 Age

- ☐ NO **What age do you think you will allow your child to do so?**

 Age
Going out after dark**4a) Is your child usually allowed to go out alone after dark?**

- ☐ YES *(Please go to ➡ Question 5)*
- ☐ NO

4b) If NO, what is the main reason your child is not allowed to go out alone after dark?

Please write in:

.....

Cycling**5) Is your child allowed to cycle on main roads alone?**

- ☐ Does not own a bicycle
- ☐ YES - **At what age was your child first allowed to cycle on main roads alone?**

 Age

- ☐ NO - **At what age do you think you will allow your child to cycle on main roads alone?**

 Age


Buses



- 6) Is your child usually allowed to travel on local buses alone (other than a school bus)?

☐ YES

At what age was your child first allowed to travel on buses alone?

Age

☐ NO

At what age do you think you will allow your child to travel on buses alone?

Age

Mobile Phones



- 7a) Does your child have a mobile phone?

☐ YES

☐ NO (Please go to ➡ Question 8)

- 7b) If YES, does this give you more confidence about letting your child go out alone?

☐ YES

☐ NO

☐ Child does not go out alone

Traffic

- 8) How worried are you about the risk of your child being injured in a traffic accident when crossing a road?

☐ Very

☐ Quite

☐ Not very

☐ Not at all

☐ Don't know / not sure

The following questions are about you



- 9a) When you were a child aged 8 or 9, how did you usually travel to school?

(Only tick one box)

- ☐ Walked most or all the way
- ☐ Cycled
- ☐ School bus
- ☐ Local bus or train or underground
- ☐ Car
- ☐ Other. Please write in:

- 9b) How did the distance you had to travel to *primary* school compare with the distance your child has to travel to *primary* school?

Much less	Less	About the same	Further	Much further
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 9c) At about what age were you allowed to get about on your own?

Age

- 10) To what extent do you agree or disagree with the following two statements? Put a cross in the box which best matches your opinion.

	Agree strongly	Agree	Neither agree nor disagree	Disagree	Disagree strongly
10a) Most adults who live in the neighbourhood look out for other people's children in the area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10b) Some young people and adults in the area make you afraid to let your children play outdoors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Your household



- 11a) Does your household have regular use of a car (including car share)?

- ☐ No ☐ Yes, 1 car ☐ Yes, 2 or more cars

- 11b) How many adults in your household, including yourself, have a full driving licence?

Number

- 12) How many people live in your home, including yourself?

Children aged 10 years or less
 Children aged 11 to 15 years
 Everyone else aged 16 or more
 TOTAL

- 13) Does your family own your home or is it rented?

- ☐ Own home (with or without mortgage)
☐ Rented home from Council or Housing Association
☐ Private rented
☐ Live in a relative's home
☐ Temporary accommodation
☐ Other

- 14) Do you have access to outside space(s) where your children can play?
(Please tick all the relevant boxes)

<input type="checkbox"/>	1. Garden
<input type="checkbox"/>	2. Park which you can reach without crossing a main road
<input type="checkbox"/>	3. Park you reach by crossing a main road
<input type="checkbox"/>	4. Quiet residential road

<input type="checkbox"/>	6. Shared communal space
<input type="checkbox"/>	7. Other <i>please write in</i>
<input type="checkbox"/>	8. No suitable outside space available

- 15) Please write in your postcode

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

- 16a) How old are you?

Please tick the boxes for you and (if applicable) your partner

	You	Your husband, wife or partner (if applicable)
Under 30	<input type="checkbox"/>	<input type="checkbox"/>
30 to 44	<input type="checkbox"/>	<input type="checkbox"/>
45 or over	<input type="checkbox"/>	<input type="checkbox"/>

16b) What gender are you?*Please tick the boxes for you and (if applicable) your partner*

	You	Your husband, wife or partner (if applicable)
Male	<input type="checkbox"/>	<input type="checkbox"/>
Female	<input type="checkbox"/>	<input type="checkbox"/>

17a) Are you in paid work?

	You	Your husband, wife or partner (if applicable)
Yes, full-time	<input type="checkbox"/>	<input type="checkbox"/>
Yes, part-time	<input type="checkbox"/>	<input type="checkbox"/>
No	<input type="checkbox"/>	<input type="checkbox"/>

17b) If you are in paid work, do you work at home or elsewhere?

	You	Your husband, wife or partner (if applicable)
Home	<input type="checkbox"/>	<input type="checkbox"/>
Elsewhere	<input type="checkbox"/>	<input type="checkbox"/>

17c) What is your current or most recent job title?

You

Your husband / wife / partner

17d) If you are an employee, what is made or done at your place of work?

You

Your husband / wife / partner

Please seal this completed questionnaire in the accompanying envelope and give it to your child to take back to school tomorrow, the following day or as soon as possible after that.

If you would like to be entered into a prize draw for a £75 voucher of your choice, please fill in the attached form which follows the end of this survey.





Thank you very much for your help 😊

Annex 2: German children's and parents' questionnaires from 2010

«nr»

Schülerfragebogen





1) Wie bist du heute Morgen zur Schule gekommen?

- ☐  zu Fuß
- ☐  mit dem Fahrrad
- ☐  mit dem Bus oder der Straßenbahn
- ☐  mit dem Auto gebracht worden
- ☐ ? anders:.....

2) Wer hat dich heute Morgen auf dem Schulweg begleitet?
(mehrere Antworten sind möglich)






- ☐ niemand
- ☐ Mutter oder/und Vater
- ☐ eine andere erwachsene Person
- ☐ ein Kind, das älter ist als ich
- ☐ ein Kind, das jünger oder genau so alt ist wie ich

3) Wie wirst du heute von der Schule nach Hause kommen?

- ☐  zu Fuß
- ☐  mit dem Fahrrad
- ☐  mit dem Bus oder der Straßenbahn
- ☐  mit dem Auto abgeholt werden
- ☐ ? anders:.....

4) Wer wird dich heute auf dem Weg nach Hause begleiten?
(mehrere Antworten sind möglich)

- ☐ niemand
- ☐ Mutter oder/und Vater
- ☐ eine andere erwachsene Person
- ☐ ein Kind, das älter ist als ich
- ☐ ein Kind, das jünger oder genau so alt ist wie ich

- 5) **Wie würdest du am liebsten deinen Schulweg zurücklegen?**
- ☐  zu Fuß
- ☐  mit dem Fahrrad fahren
- ☐   mit dem Bus oder der Straßenbahn fahren
- ☐  mit dem Auto gebracht werden
- ☐ ? anders:.....
- 6) **Wie lange hast du heute für den Schulweg gebraucht?**
- ☐ weniger als 5 Minuten
- ☐ 5 bis 15 Minuten
- ☐ 16 bis 30 Minuten
- ☐ 31 bis 45 Minuten
- ☐ mehr als 45 Minuten
- 7) **Haben Deine Eltern mit dir den Weg zu deiner jetzigen Schule geübt?**
- ☐ ja
- ☐ nein
- 8) **Überquerst du Hauptstraßen ohne Erwachsene?**
- ☐ ja
- ☐ nein
- 9) **Hast du Angst Hauptstraßen ohne Erwachsene zu überqueren?**
- ☐ ja
- ☐ nein
- 10) **Hast du ein Fahrrad?**
- ☐ ja
- ☐ nein

11) Darfst du ohne einen Erwachsenen mit dem Fahrrad fahren, zum Beispiel um Freunde zu besuchen?

- ☐ ich habe kein Fahrrad
- ☐ nein
- ☐ ja

12) Wenn du ohne einen Erwachsenen mit dem Fahrrad fährst, wo fährst du dann?
(mehrere Antworten sind möglich)

- ☐ ich habe kein Fahrrad
- ☐ ich darf ohne einen Erwachsenen nicht Fahrrad fahren
- ☐ auf dem Bürgersteig
- ☐ auf dem Radweg
- ☐ auf Straßen mit wenig Autos
- ☐ auf Hauptstraßen

13) An wie vielen Tagen in der Woche fährst du Fahrrad?

- ☐ ich habe kein Fahrrad
- ☐ ich fahre nicht in jeder Woche Fahrrad
- ☐ an 1 oder 2 Tagen
- ☐ an 3 oder mehr Tagen

14) Benutzt Du beim Fahrradfahren immer einen Fahrradhelm?

- ☐ ich habe kein Fahrrad
- ☐ ja, immer
- ☐ manchmal
- ☐ nein, nie

15) Darfst du ohne Erwachsene mit dem Bus oder der Straßenbahn fahren?

- ☐ ja
- ☐ nein











- 16) Hast du ein Monatsticket für Busse, Straßenbahnen und U-Bahnen?
(z.B. Schokoticket oder Juniorticket)

- ☐ ja
☐ nein

- 17) Benutzt Du beim Fahren im Auto einen Kindersitz?

- ☐ ja, immer
☐ nur auf kurzen Strecken
☐ nur auf langen Strecken
☐ ich brauche keinen Kindersitz mehr

- 18) Was hast du am letzten Wochenende gemacht?
(mehrere Antworten sind möglich, auch nebeneinander)

		alleine oder mit einem anderen Kind	mit einer erwachsenen Person
	Freunde besucht	<input type="checkbox"/>	<input type="checkbox"/>
	Verwandte oder andere Erwachsene besucht	<input type="checkbox"/>	<input type="checkbox"/>
	Pfadfinder, Jugendtreff	<input type="checkbox"/>	<input type="checkbox"/>
	Einkaufen	<input type="checkbox"/>	<input type="checkbox"/>
	Bücherei	<input type="checkbox"/>	<input type="checkbox"/>
	Kino	<input type="checkbox"/>	<input type="checkbox"/>
	im Dunkeln draußen gewesen	<input type="checkbox"/>	<input type="checkbox"/>
	Spielplatz, Park	<input type="checkbox"/>	<input type="checkbox"/>
	Team- oder Einzelsport	<input type="checkbox"/>	<input type="checkbox"/>
	Spazieren gehen, Fahrrad fahren	<input type="checkbox"/>	<input type="checkbox"/>
	Sonstiges:	<input type="checkbox"/>	<input type="checkbox"/>
	Sonstiges	<input type="checkbox"/>	<input type="checkbox"/>

19) Was macht dir Angst, wenn du ohne Erwachsene draußen bist?
(mehrere Antworten sind möglich)

- ☐ Straßenverkehr
- ☐ dass ich mich verirre
- ☐ geärgert zu werden
- ☐ andere Leute
- ☐ dass mich ein Fremder anspricht
- ☐ andere Gründe: _____
- ☐ nichts

20) Hast du Angst, wenn du ohne einen Erwachsenen in deiner Nachbarschaft unterwegs bist?

- ☐ ich darf ohne einen Erwachsenen nicht durch die Nachbarschaft gehen
- ☐ nein
- ☐ ein bisschen Angst
- ☐ ja

21) Wie alt bist du?

_____ (Bitte schreibe das Alter auf die schwarze Linie!)

22) Ich bin ein... **Junge** ☐ **Mädchen** ☐

Vielen Dank für deine Mithilfe!

«nr»

Fragebogen für Eltern und Erziehungsberechtigte von Kindern zwischen 7 und 15 Jahren

- 1) **Darf Ihr Kind ohne einen Erwachsenen von der Schule nach Hause kommen?**
- ☐ ja: **Ab welchem Alter durfte Ihr Kind dies?**
 Jahre
- ☐ nein: **Ab welchem Alter werden Sie Ihrem Kind dies voraussichtlich erlauben?**
 Jahre
- 2) **An wie vielen Tagen in der Woche wird Ihr Kind durch einen Erwachsenen von der Schule abgeholt?**
 mal pro Woche
- 3) **Was sind bzw. waren die Hauptgründe dafür, dass Ihr Kind von der Schule abgeholt wird bzw. abgeholt wurde?**
(mehrere Antworten sind möglich)
- | | |
|--------------------------|--|
| <input type="checkbox"/> | 1. Möglichkeit, Zeit mit dem Kind zu verbringen |
| <input type="checkbox"/> | 2. Möglichkeit für eigene körperliche Bewegung |
| <input type="checkbox"/> | 3. Angst vor Gefahren für das Kind im Straßenverkehr |
| <input type="checkbox"/> | 4. Kind unzuverlässig oder zu jung |
| <input type="checkbox"/> | 5. Angst vor Gefahren für das Kind die von anderen Erwachsenen ausgehen |
| <input type="checkbox"/> | 6. Angst, dass das Kind durch andere Kinder geärgert oder belästigt wird |
| <input type="checkbox"/> | 7. Möglichkeit Leute zu treffen (Lehrer, andere Eltern) |
| <input type="checkbox"/> | 8. Praktisch für anknüpfende Tätigkeiten (Einkaufen, Verwandtenbesuch, Sportverein, etc) |
| <input type="checkbox"/> | 9. Distanz zwischen Schule und Wohnort zu groß |
| <input type="checkbox"/> | 10. andere Gründe:
..... |
- 4) **Haben Sie mit Ihrem Kind den Schulweg zu seiner aktuellen Schule geübt?**
- ☐ ja
- ☐ nein

5) **Wie lange würden Sie alleine mit folgenden Verkehrsmitteln zur Schule Ihres Kindes brauchen:**

- | | | | | |
|-------------------|----------------------|---------|--------------------------|---------------|
| zu Fuß | <input type="text"/> | Minuten | <input type="checkbox"/> | nicht bekannt |
| mit dem Fahrrad | <input type="text"/> | Minuten | <input type="checkbox"/> | nicht bekannt |
| mit Bus oder Bahn | <input type="text"/> | Minuten | <input type="checkbox"/> | nicht bekannt |
| mit dem Auto | <input type="text"/> | Minuten | <input type="checkbox"/> | nicht bekannt |

6) **Ist die von Ihrem Kind besuchte Schule die nächst gelegene, die es besuchen könnte?**

- ☐ ja (bitte bei Frage 8 weiter machen)
- ☐ nein

7) **Was ist der Hauptgrund, warum Sie nicht die am nächsten gelegene Schule für Ihr Kind gewählt haben?**

(mehrere Antworten sind möglich)

- ☐ 1. Keine Plätze an der nächst gelegenen Schule verfügbar
- ☐ 2. Wunsch nach Schule mit religiösem/konfessionellen Bezug
- ☐ 3. Wunsch nach Schule mit speziellem Profilschwerpunkt
(z. B. Musik, Sprachen, Computer, etc.)
- ☐ 4. Umzug nach Einschulung des Kindes
- ☐ 5. Schulweg ist einfacher
- ☐ 6. anderer Grund, bitte benennen:

.....

.....

8) **Wie gelangt Ihr Kind zu Orten in fußläufiger Entfernung (abgesehen von der Schule)?**

- ☐ es darf ohne Erwachsenen gehen (bitte bei Frage 11 weiter machen)
- ☐ unterschiedlich
- ☐ es wird gebracht

9) **Bei wie vielen Wegen - abgesehen vom Schulweg - begleiten Sie Ihr Kind jede Woche?**

(z.B. Schwimmbadbesuch, Begleitung zum Vereinssport)

mal pro Woche (Hin- und Rückweg zählen als ein Weg)

- 10) Auf welche Weise legen Sie die meisten dieser Wege zurück?**
(bitte nur eine Antwort ankreuzen!)
- ☐ zu Fuß
- ☐ mit dem Fahrrad
- ☐ mit Bus oder Straßenbahn
- ☐ mit dem Auto
- ☐ anders:.....
- 11) Erlauben Sie es Ihrem Kind grundsätzlich, Hauptstraßen ohne die Begleitung eines Erwachsenen zu überqueren?**
- ☐ ja **ab welchem Alter haben Sie Ihrem Kind dies erlaubt?**
 Jahre
- ☐ nein **ab welchem Alter werden Sie Ihrem Kind dies voraussichtlich erlauben?**
 Jahre
- 12) Erlauben Sie es Ihrem Kind grundsätzlich, sich im Dunkeln ohne Begleitung von Erwachsenen draußen aufzuhalten?**
- ☐ ja (bitte jetzt Frage **14** beantworten!)
- ☐ nein
- 13) Warum darf sich Ihr Kind nicht im Dunkeln ohne Begleitung von Erwachsenen draußen aufhalten?**
(Bitte nur eine Antwort ankreuzen!)
- ☐ ich habe Bedenken wegen Gefahren durch den Verkehr
- ☐ mein Kind ist zu jung bzw. nicht zuverlässig genug
- ☐ aus Angst vor Übergriffen und Belästigungen
- ☐ aus Angst vor Kindern, die das eigene Kind ärgern könnten
- ☐ aus anderen Gründen:.....

- 14) **Darf Ihr Kind grundsätzlich ohne Erwachsene Bus fahren?**
- ☐ ja **ab welchem Alter haben Sie Ihrem Kind dies erlaubt?**
 Jahre
- ☐ nein **ab welchem Alter werden Sie Ihrem Kind dies voraussichtlich erlauben?**
 Jahre
- 15) **Auf welchen dieser Wege darf Ihr Kind ohne die Begleitung eines Erwachsenen mit seinem Fahrrad fahren?**
(mehrere Antworten sind möglich)
- ☐ mein Kind hat kein Fahrrad *(bitte jetzt Frage 20 beantworten)*
- ☐ mein Kind darf ohne einen Erwachsenen nicht Fahrrad fahren
- ☐ auf dem Bürgersteig
- ☐ auf dem Radweg
- ☐ auf Straßen mit wenig Autos
- ☐ auf Hauptstraßen
- 16) **Falls Ihr Kind nicht auf Hauptstraßen Fahrrad fahren darf, ab welchem Alter werden Sie es ihm voraussichtlich erlauben?**
 Jahre *(falls nicht zutreffend bitte frei lassen)*
- 17) **Falls Ihr Kind auf Hauptstraßen Fahrrad fahren darf, ab welchem Alter haben Sie es ihm erlaubt?**
 Jahre *(falls nicht zutreffend bitte frei lassen)*
- 18) **Soll Ihr Kind immer einen Fahrradhelm tragen?**
- ☐ ja
- ☐ nein
- 19) **Tragen Sie immer einen Fahrradhelm, wenn Sie alleine oder mit Ihrem Kind Fahrrad fahren?**
- ☐ ja
- ☐ nicht immer
- ☐ nein

20) Wenn Ihr Kind in einem Auto mitfährt, benutzt es dann einen Kindersitz?

- ☐ ja, immer
- ☐ nur auf kurzen Strecken
- ☐ nur auf lange Strecken
- ☐ mein Kind braucht keinen Kindersitz mehr

21) Hat Ihr Kind ein Handy?

- ☐ nein (bitte mit Frage 23 weiter machen))
- ☐ ja

22) Gibt Ihnen das ein besseres Gefühl, wenn Ihr Kind alleine draußen ist?

- ☐ ja
- ☐ nein
- ☐ Kind darf nicht alleine raus gehen

23) Wie bewältigten Sie Ihren Schulweg, als Sie 8-9 Jahre alt waren?
(Bitte nur eine Antwort ankreuzen!)

- ☐ zu Fuß
- ☐ mit dem Fahrrad
- ☐ mit Bus oder Straßenbahn
- ☐ im Auto
- ☐ anders:.....

24) Wie lang war Ihr Schulweg im Vergleich zu dem Ihres Kindes?

viel kürzer	etwas kürzer	etwa gleich	etwas länger	viel länger
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

25) Hatten Sie oder eine Person in Ihrer Verwandtschaft einen schweren Verkehrsunfall?

- ☐ ja
- ☐ nein

26) Bitte bewerten Sie die folgenden Aussagen:

	trifft sehr zu	trifft zu	un-schlüssig	trifft eher nicht zu	trifft gar nicht zu
Die meisten Erwachsenen in meiner Nachbarschaft achten auf Kinder aus anderen Familien.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Es gibt Jugendliche bzw. Erwachsene in meiner Nachbarschaft, wegen denen ich Sorgen habe, meine Kinder draußen spielen zu lassen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

27) Wie viele Autos hat Ihr Haushalt regelmäßig zur Verfügung?

☐ keines ☐ 1 Auto ☐ 2 oder mehr Autos

28) Wie viele Personen in Ihrem Haushalt haben einen Führerschein der Klasse B bzw. Klasse 3?

Personen

29) Wie viele Personen (Sie eingeschlossen) der folgenden Altersklassen leben in Ihrem Haushalt?

Kinder im Alter bis 10 Jahren
 Kinder im Alter von 11 bis 15 Jahren
 Personen im Alter von 16 und mehr Jahren

30) Welche der folgenden Spielmöglichkeiten stehen ihrem Kind in der Nähe Ihrer Wohnung / ihres Hauses zur Verfügung?
(mehrere Antworten sind möglich)

<input type="checkbox"/>	1. privater Garten
<input type="checkbox"/>	2. Park oder Spielplatz, den man ohne das Überqueren einer Hauptstraße erreichen kann
<input type="checkbox"/>	3. Park oder Spielplatz, den man nur durch das Überqueren einer Hauptstraße erreichen kann
<input type="checkbox"/>	4. Spielstraße / ruhige Anliegerstraße
<input type="checkbox"/>	5. andere Spielmöglichkeiten:.....
<input type="checkbox"/>	6. keine geeigneten Flächen in näherer Umgebung vorhanden

31) Wohnen Sie zur Miete oder im Eigentum?

- ☐ im Eigentum (Haus oder Eigentumswohnung)
- ☐ zur Miete (einschließlich Genossenschaften)
- ☐ andere

32) Wie alt sind Sie bzw. Ihr Partner / Ihre Partnerin?

	Sie	PartnerIn (falls zutreffend)
unter 30	<input type="checkbox"/>	<input type="checkbox"/>
30 bis 44	<input type="checkbox"/>	<input type="checkbox"/>
45 und älter	<input type="checkbox"/>	<input type="checkbox"/>

33) Sind Sie weiblich oder männlich?

	Sie	PartnerIn (falls zutreffend)
weiblich	<input type="checkbox"/>	<input type="checkbox"/>
männlich	<input type="checkbox"/>	<input type="checkbox"/>

34) Sind Sie berufstätig?

	Sie	PartnerIn (falls zutreffend)
ja, in Vollzeit	<input type="checkbox"/>	<input type="checkbox"/>
ja, in Teilzeit	<input type="checkbox"/>	<input type="checkbox"/>
nein	<input type="checkbox"/>	<input type="checkbox"/>

35) Üben Sie Ihre Berufstätigkeit zu Hause oder woanders aus?

	Sie	PartnerIn (falls zutreffend)
zu Hause	<input type="checkbox"/>	<input type="checkbox"/>
woanders	<input type="checkbox"/>	<input type="checkbox"/>

Vielen Dank für das Ausfüllen dieses Fragebogens!
Bitte geben Sie ihn Ihrem Kind im verschlossenen Umschlag mit in die Schule.

Annex 3: Comparison of English questionnaires from 1971, 1990 and 2010

Children's questionnaire

1971	1990	2010
3.How did you come to school this morning? <ul style="list-style-type: none"> <input type="checkbox"/> Walk (all the way) <input type="checkbox"/> Cycle <input type="checkbox"/> Bus <input type="checkbox"/> Car 	1.How did you get to school this morning? (tick only one box) <ul style="list-style-type: none"> <input type="checkbox"/> Walked all the way <input type="checkbox"/> Cycled <input type="checkbox"/> Came by bus or train <input type="checkbox"/> Came by car 	1.How did you get to school <u>this morning</u>? (Only tick <u>one</u> box, to show the main method you used) <ul style="list-style-type: none"> <input type="checkbox"/> Walked most or all the way <input type="checkbox"/> Cycled <input type="checkbox"/> School bus <input type="checkbox"/> Local bus or train or underground <input type="checkbox"/> Car <input type="checkbox"/> Other please write in:
<p style="text-align: center;">No equivalent question</p>	2(a) Did you travel with someone else? <ul style="list-style-type: none"> <input type="checkbox"/> Yes <input type="checkbox"/> No (Skip to 3) 2(b) If YES, who was that? (tick only one box) <ul style="list-style-type: none"> <input type="checkbox"/> Parent <input type="checkbox"/> Another adult <input type="checkbox"/> Older child <input type="checkbox"/> Child of same age or younger 	2.Who did you travel to school with <u>this morning</u>? (Tick as many boxes as you need) <ul style="list-style-type: none"> <input type="checkbox"/> Travelled on my own <input type="checkbox"/> Parent <input type="checkbox"/> Another adult <input type="checkbox"/> Older child / teenager <input type="checkbox"/> Child of same age or younger
4.How are you going home? <ul style="list-style-type: none"> <input type="checkbox"/> Walk (all the way) <input type="checkbox"/> Cycle <input type="checkbox"/> Bus <input type="checkbox"/> Car 	3.How are you going home? (tick only one box) <ul style="list-style-type: none"> <input type="checkbox"/> Walk all the way <input type="checkbox"/> Cycle <input type="checkbox"/> Bus or train <input type="checkbox"/> Car 	4.How will you go home <u>today</u>? (Only tick <u>one</u> box) <ul style="list-style-type: none"> <input type="checkbox"/> Walk most or all the way <input type="checkbox"/> Cycle <input type="checkbox"/> School bus <input type="checkbox"/> Local bus or train or underground <input type="checkbox"/> Car

<p>5. Will someone come and collect you?</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p>	<p>4. Will you travel home with someone else?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No (Skip to 5)</p> <p>4(b) If YES, who will that be? (tick only one box)</p> <p><input type="checkbox"/> Parent</p> <p><input type="checkbox"/> Another adult</p> <p><input type="checkbox"/> Older child</p> <p><input type="checkbox"/> Child of same age or younger</p>	<p><input type="checkbox"/> Other please write in: ...</p> <p>5. Who will you travel home with <u>today</u>? (Tick as many boxes as you need)</p> <p><input type="checkbox"/> Travelling home alone</p> <p><input type="checkbox"/> Parent</p> <p><input type="checkbox"/> Another adult</p> <p><input type="checkbox"/> Older child / teenager</p> <p><input type="checkbox"/> Child of same age or younger</p>
<p>6. About how long will it take to get home, door to door (in minutes)?</p> <p><input type="checkbox"/> Up to 10</p> <p><input type="checkbox"/> 10 – 20</p> <p><input type="checkbox"/> 20 – 30</p> <p><input type="checkbox"/> More than 30</p>	<p>2. How far do you live from school?</p> <p><input type="checkbox"/> Up to half a km</p> <p><input type="checkbox"/> Half to one km</p> <p><input type="checkbox"/> One to two kms</p> <p><input type="checkbox"/> More than two kms</p>	<p>3. How long did it take you to travel to school <u>this morning</u>? (Only tick <u>one</u> box)</p> <p><input type="checkbox"/> Less than 5 minutes</p> <p><input type="checkbox"/> 5 to 15 minutes</p> <p><input type="checkbox"/> 16 to 30 minutes</p> <p><input type="checkbox"/> 31 to 45 minutes</p> <p><input type="checkbox"/> 46 minutes or more</p>
<p>14. Given the choice, how would you prefer to travel:</p> <p>To school</p> <p>To the shops</p> <p>Visiting friends</p> <p>Going to the park, cinema or swimming:</p> <p><input type="checkbox"/> Walk all the way</p> <p><input type="checkbox"/> Cycle</p> <p><input type="checkbox"/> Bus</p> <p><input type="checkbox"/> Car</p>	<p>No equivalent question</p>	<p>6. How would you <u>like</u> to be able to travel to and from school? (Only tick <u>one</u> box)</p> <p><input type="checkbox"/> Walk most or all the way</p> <p><input type="checkbox"/> Cycle</p> <p><input type="checkbox"/> School bus</p> <p><input type="checkbox"/> Local bus or train or underground</p> <p><input type="checkbox"/> Car</p> <p><input type="checkbox"/> Other please write in:</p>
<p>7. Do you have a cycle of your own?</p>	<p>6(a) Do you have a bicycle?</p>	<p>8(a) Do you have a bicycle?</p>

<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No (skip to 7)	<input type="checkbox"/> YES <input type="checkbox"/> NO (Please go to ⇒ Question 9)
No equivalent question	6(b) If YES, are you allowed to cycle on main roads? <input type="checkbox"/> No <input type="checkbox"/> Yes (skip to 6d) 6(d) Write in the box how old you were when you were first allowed to cycle on main roads Age	8(b) Are you allowed to cycle on main roads by your parents? <input type="checkbox"/> YES - At what age were you first allowed? Age <input type="checkbox"/> NO
No equivalent question	6(c) If NO, would you like to be allowed to? <input type="checkbox"/> No <input type="checkbox"/> Yes (now skip to 7)	No equivalent question
No equivalent question	No equivalent question	8(c) If you have a bicycle, are you allowed to ride it to go to places (like the park or friend's houses) without any grown ups? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Don't have a bicycle
No equivalent question	No equivalent question	8(d) How many times do you cycle in a typical week (both with and without parents) including the weekend? <input type="checkbox"/> Once a week or less <input type="checkbox"/> One or two days a week <input type="checkbox"/> Three or more days a week <input type="checkbox"/> Don't have a bicycle
8. Are you usually allowed to cross main roads by yourself? <input type="checkbox"/> No <input type="checkbox"/> Yes	7(a) Are you allowed to cross main roads by yourself? <input type="checkbox"/> No <input type="checkbox"/> Yes (skip to 7c)	7(a) Are you allowed to cross main roads on your own? <input type="checkbox"/> YES (Please go to Question 7c) <input type="checkbox"/> NO
	7(b) If NO, would you like to be allowed to?	7(b) If you don't cross main roads on your own, would

No equivalent question	<input type="checkbox"/> No <input type="checkbox"/> Yes (now skip to 8)	you like to be allowed to do so? <input type="checkbox"/> YES <input type="checkbox"/> NO
No equivalent question	7(c) If YES, write in the box how old you were when you were first allowed to do so Age	7(c) How old were you when you first crossed main roads on your own? <i>(Please estimate if you are not sure)</i> <input type="checkbox"/> Age <input type="checkbox"/> Not allowed to cross roads on my own
9. Do you go on buses by yourself? <input type="checkbox"/> No <input type="checkbox"/> Yes	8. Do you go on buses by yourself? <input type="checkbox"/> Yes <input type="checkbox"/> No	9. Are you allowed to go on local buses on your own (other than a school bus)? <input type="checkbox"/> YES <input type="checkbox"/> NO
12. How many of your friends can you visit on your own? On foot: <input type="checkbox"/> None <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> More By bus: <input type="checkbox"/> None <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> More <input type="checkbox"/>	9. Write in the box the number of friends you can visit on your own (answer only if you are allowed to do so on your own) Number	No equivalent question
13. How do you USUALLY travel when...	10. Which, if any, of these activities did you do,	10. Which of these activities did you do this weekend

<p>a) Going to the shops b) Visiting friends, relations, other grown-ups and so on c) Going to places where you play or pay to get in (park, swimming, football matches) d) Going to other places you go to (clubs, lessons outside school and so on)</p> <p>[For each option a - d]</p> <p>If you go by yourself:</p> <p><input type="checkbox"/> Walk (all the way) <input type="checkbox"/> Cycle <input type="checkbox"/> Bus</p> <p>If you go with friends:</p> <p><input type="checkbox"/> Walk <input type="checkbox"/> Cycle <input type="checkbox"/> Bus</p> <p>If you are taken:</p> <p><input type="checkbox"/> Walk <input type="checkbox"/> Bus <input type="checkbox"/> Car</p>	<p>yesterday or on Saturday: (tick in the first column if you did these things on your own) (tick in the second column if you were taken by an adult on the journey)</p> <table border="1"> <thead> <tr> <th></th> <th>On own</th> <th>Taken</th> </tr> </thead> <tbody> <tr><td>Playground</td><td></td><td></td></tr> <tr><td>Park or playing fields</td><td></td><td></td></tr> <tr><td>Swimming</td><td></td><td></td></tr> <tr><td>Played outside your home</td><td></td><td></td></tr> <tr><td>Went for a walk</td><td></td><td></td></tr> <tr><td>Cycled around</td><td></td><td></td></tr> <tr><td>Sunday school</td><td></td><td></td></tr> <tr><td>Visited your own friends</td><td></td><td></td></tr> <tr><td>Visited grown-ups</td><td></td><td></td></tr> <tr><td>Shops</td><td></td><td></td></tr> <tr><td>Library</td><td></td><td></td></tr> <tr><td>Club</td><td></td><td></td></tr> <tr><td>Cinema</td><td></td><td></td></tr> <tr><td>Football match</td><td></td><td></td></tr> <tr><td>Write down any other places you went to:</td><td></td><td></td></tr> <tr><td>1.</td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td></tr> </tbody> </table>		On own	Taken	Playground			Park or playing fields			Swimming			Played outside your home			Went for a walk			Cycled around			Sunday school			Visited your own friends			Visited grown-ups			Shops			Library			Club			Cinema			Football match			Write down any other places you went to:			1.			2.			3.			<p>(yesterday or on Saturday): (tick the first column if you did these things on your own or with another young person) (tick in the second column if you did them with a parent or other adult)</p> <table border="1"> <thead> <tr> <th></th> <th>On own or with another young person</th> <th>With a parent or other adult</th> </tr> </thead> <tbody> <tr><td>Visited a friend's home</td><td></td><td></td></tr> <tr><td>Visited relatives or grown-ups</td><td></td><td></td></tr> <tr><td>Went to a youth club (including Scouts, Guides, Cadets, Sunday school etc.)</td><td></td><td></td></tr> <tr><td>Went to the shops</td><td></td><td></td></tr> <tr><td>Went to a library</td><td></td><td></td></tr> <tr><td>Went to a cinema</td><td></td><td></td></tr> <tr><td>Spent time with friends outside after dark</td><td></td><td></td></tr> <tr><td>Went to a playground, park or playing fields</td><td></td><td></td></tr> <tr><td>Played sport or went swimming (individual or team sports or lessons)</td><td></td><td></td></tr> <tr><td>Went for a walk or cycled around</td><td></td><td></td></tr> <tr><td>Went to a concert or nightclub</td><td></td><td></td></tr> <tr><td>Visited a place of worship</td><td></td><td></td></tr> <tr><td>Other (please write in):</td><td></td><td></td></tr> <tr><td>Other (please write in):</td><td></td><td></td></tr> <tr><td>Other (please write in):</td><td></td><td></td></tr> </tbody> </table>		On own or with another young person	With a parent or other adult	Visited a friend's home			Visited relatives or grown-ups			Went to a youth club (including Scouts, Guides, Cadets, Sunday school etc.)			Went to the shops			Went to a library			Went to a cinema			Spent time with friends outside after dark			Went to a playground, park or playing fields			Played sport or went swimming (individual or team sports or lessons)			Went for a walk or cycled around			Went to a concert or nightclub			Visited a place of worship			Other (please write in):			Other (please write in):			Other (please write in):		
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<i>No equivalent question</i>	<i>No equivalent question</i>	neighbourhood? (Only tick one box) <ul style="list-style-type: none"> <input type="checkbox"/> Not allowed out on my own <input type="checkbox"/> Very safe <input type="checkbox"/> Fairly safe <input type="checkbox"/> Not very safe <input type="checkbox"/> Not at all safe 																												
<i>No equivalent question</i>	<i>No equivalent question</i>	11(b) When you are outside on your own or with friends are you worried by any of the following? (Tick as many times as you need) <table border="1"> <thead> <tr> <th></th><th>Yes</th><th>No</th><th>Don't Know</th></tr> </thead> <tbody> <tr> <td>Traffic</td><td></td><td></td><td></td></tr> <tr> <td>Getting lost</td><td></td><td></td><td></td></tr> <tr> <td>Bullying</td><td></td><td></td><td></td></tr> <tr> <td>Strangers</td><td></td><td></td><td></td></tr> <tr> <td>Do not feel that I am old enough to go about on my own</td><td></td><td></td><td></td></tr> <tr> <td>Not knowing what to do if someone speaks to me</td><td></td><td></td><td></td></tr> </tbody> </table>		Yes	No	Don't Know	Traffic				Getting lost				Bullying				Strangers				Do not feel that I am old enough to go about on my own				Not knowing what to do if someone speaks to me			
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<i>No equivalent question</i>	<i>No equivalent question</i>	11(c) Is there anything else you are worried about when you are outside on your own or with friends? Please write in:...																												
2. How old are you? <ul style="list-style-type: none"> <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 	11. Write in the box your age Age	12. How old are you? Age.....																												
1. Are you a boy or girl?	12. Tick in the box if you are:	13. Are you...?																												

<input type="checkbox"/> Boy <input type="checkbox"/> Girl	<input type="checkbox"/> Girl <input type="checkbox"/> Boy	<input type="checkbox"/> a Girl or <input type="checkbox"/> a Boy
10. Does you family have a car? <input type="checkbox"/> No <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> More	<i>No equivalent question</i>	<i>No equivalent question</i>
11. How many people in your family can drive a car? <input type="checkbox"/> No <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> More	<i>No equivalent question</i>	<i>No equivalent question</i>
15. How worried are you about the risk of a road accident: <input type="checkbox"/> When crossing main roads <input type="checkbox"/> When you are in a car <input type="checkbox"/> When you cycle (answer only if you own a bicycle) Very, Quite, Not very, Not at all	<i>No equivalent question</i>	<i>No equivalent question</i>
16. How safe do you think the main roads are round here? <input type="checkbox"/> Very <input type="checkbox"/> Quite <input type="checkbox"/> Not very <input type="checkbox"/> Not at all	<i>No equivalent question</i>	<i>No equivalent question</i>

1971	1990	2010
<p>1. Is your child usually allowed to come home from school alone?</p> <p><input type="checkbox"/> No (answer 2, then skip to 4)</p> <p><input type="checkbox"/> Yes (answer 3 onwards)</p> <p>2(c) If NO, Write down the age at which you intend to allow the child Age</p> <p>3(a) If YES, Write down the age when your child was first allowed to go alone Age</p>	<p>1(a) Is your child usually allowed to come home from school alone?</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes (skip to 1e)</p> <p>1(d) Write in the box the age at which you are likely to allow your child to go alone Age (skip to 1g)</p> <p>1(e) If YES, write down the age when your child was first allowed to go alone Age</p>	<p>1(a) Does your child travel home from school alone?</p> <p><input type="checkbox"/> YES - When did you first let them travel home from school alone? Age.....</p> <p><input type="checkbox"/> NO - At what age will you be likely to let your child travel home from school alone? Age.....</p>
<p>2(a) If NO, how many round trips a week is your child taken to or collected from school?</p> <p><input type="checkbox"/> Every day</p> <p><input type="checkbox"/> Some days</p> <p><input type="checkbox"/> Most days</p>	<p>1(b) If NO, write in the box the number of days a week you child is collected Number</p>	<p>1(b) How many days a week is your child typically collected from school by an adult? (Please insert number) times a week</p>
<p>2(b) If NO, What is the main reason for not allowing your child to go alone?</p> <p><input type="checkbox"/> Traffic danger</p> <p><input type="checkbox"/> Child unreliable or too young</p> <p><input type="checkbox"/> Fear of molestation by adult</p> <p><input type="checkbox"/> School too far away</p> <p><input type="checkbox"/> Fear of bullying by other children</p> <p><input type="checkbox"/> Other reason.....</p> <p>3(b) If YES, What was the main reason for not allowing</p>	<p>1(c) What is the main reason for not allowing your child to go alone? (tick only one reason)</p> <p><input type="checkbox"/> Traffic danger</p> <p><input type="checkbox"/> Child unreliable or too young</p> <p><input type="checkbox"/> Fear of assault or molestation by adult</p> <p><input type="checkbox"/> School too far away</p> <p><input type="checkbox"/> Fear of bullying by other children</p> <p>1(f) What was the main reason for not allowing your</p>	<p>1(c) What are your main reasons for picking your child up from school (even if you no longer do)? (Please tick no more than three boxes)</p> <p><input type="checkbox"/> Opportunity to spend time with my child</p> <p><input type="checkbox"/> Opportunity for exercise or to get out of house</p> <p><input type="checkbox"/> Concern about traffic danger</p> <p><input type="checkbox"/> Child unreliable or too young</p> <p><input type="checkbox"/> Danger from adults</p> <p><input type="checkbox"/> Fear of bullying by other children</p>

your child to go alone at an earlier age? <ul style="list-style-type: none"> <input type="checkbox"/> Traffic danger <input type="checkbox"/> Child unreliable or too young <input type="checkbox"/> Fear of molestation by adult <input type="checkbox"/> School too far away <input type="checkbox"/> Fear of bullying by other children <input type="checkbox"/> Other reason (please write down)..... 	child to go alone at an earlier age? (tick only one box) <ul style="list-style-type: none"> <input type="checkbox"/> Traffic danger <input type="checkbox"/> Child unreliable or too young <input type="checkbox"/> Fear of assault or molestation by adult <input type="checkbox"/> School too far away <input type="checkbox"/> Fear of bullying by other children 	<ul style="list-style-type: none"> <input type="checkbox"/> Opportunity to meet people (teachers, other parents etc) <input type="checkbox"/> On the way to an activity for you or the child (e.g. shopping, visiting a relative, after school club etc) <input type="checkbox"/> School too far away <input type="checkbox"/> Other, please write in:
8. How worried are you about the risk of your child, being injured in a road accident: When crossing the road? <ul style="list-style-type: none"> <input type="checkbox"/> Very <input type="checkbox"/> Quite <input type="checkbox"/> Not very <input type="checkbox"/> Not at all When your child is cycling? (answer only if child owns a cycle) <ul style="list-style-type: none"> <input type="checkbox"/> Very <input type="checkbox"/> Quite <input type="checkbox"/> Not very <input type="checkbox"/> Not at all 	1(g) How worried are you about the risk of your child being injured in a road accident when crossing the road? <ul style="list-style-type: none"> <input type="checkbox"/> Very <input type="checkbox"/> Quite <input type="checkbox"/> Not very <input type="checkbox"/> Not at all 	8. How worried are you about the risk of your child being injured in a traffic accident when crossing a road? <ul style="list-style-type: none"> <input type="checkbox"/> Very <input type="checkbox"/> Quite <input type="checkbox"/> Not very <input type="checkbox"/> Not at all <input type="checkbox"/> Don't know / not sure
9. Given a safer environment, how would you prefer your child to travel – To school? Visit friends? Park / swimming? To the shops?		

For each question: <input type="checkbox"/> Walk (all the way) <input type="checkbox"/> Cycle <input type="checkbox"/> Bus or train <input type="checkbox"/> Other (write down)	No equivalent question	No equivalent question
No equivalent question	1(h) How long (in minutes) would it take you to walk to the school? Time taken	1(d) How long would it typically take you to get to your child's school? (Insert a time however large or small, or tick 'Don't know / Not applicable') On foot Minutes or Don't know / Not applicable By car..... Minutes or Don't know / Not applicable Public transport Minutes or Don't know / Not applicable
No equivalent question	No equivalent question	1(e) Is the school the nearest one your child can attend? <input type="checkbox"/> YES (Please go to Question 1g) <input type="checkbox"/> NO
No equivalent question	No equivalent question	1(f) If NO, what is the main reason for your child attending this school? (Tick as many as you need) <input type="checkbox"/> No places available at nearest school <input type="checkbox"/> Did not want to send child to local school or preferred a specific school elsewhere <input type="checkbox"/> Wanted a specific type of school (faith school,

		performing arts, etc) <input type="checkbox"/> Moved home after child started at school <input type="checkbox"/> Travel easier <input type="checkbox"/> Other, please write in:
<i>No equivalent question</i>	<i>No equivalent question</i>	1(f) Does your child have a long-standing illness, disability or infirmity? <input type="checkbox"/> YES - Please give brief details (optional)..... <input type="checkbox"/> NO
4. Is your child usually taken to places other than school (such as children's clubs, Sunday school etc), to which the child would not otherwise be allowed to go alone? <input type="checkbox"/> No <input type="checkbox"/> Yes	2(a) When your child goes to places other than school that are within walking distance, is he/she allowed to go alone, or is he/she taken? <input type="checkbox"/> Taken <input type="checkbox"/> Alone (skip to 3a)	2(a) When going to places other than school that are within walking distance, is your child taken there or allowed to go alone? <input type="checkbox"/> Usually goes alone (Please go to Question 3) <input type="checkbox"/> Usually taken <input type="checkbox"/> Varies
4(c). And again if YES, what is the main reason for not allowing your child to go alone? <input type="checkbox"/> Traffic danger <input type="checkbox"/> Child unreliable or too young <input type="checkbox"/> Fear of molestation by adult <input type="checkbox"/> Fear of bullying by other children <input type="checkbox"/> Other reason	2(b) If taken, what is the main reason for not allowing your child to go alone? (tick only one box) <input type="checkbox"/> Traffic danger <input type="checkbox"/> Child unreliable or too young <input type="checkbox"/> Fear of assault or molestation by adult <input type="checkbox"/> Fear of bullying by other children	<i>No equivalent question</i>
4(a) If YES, about how many round trips a week have to be made to take and collect the child for these purposes? <input type="checkbox"/> One <input type="checkbox"/> Two or Three <input type="checkbox"/> Four or more	2(c) Write in the box the approximate number of round trips made each week for the purpose of accompanying your child – excluding school trips Number	2(b) What is the approximate number of round trips made each week to accompany your child, excluding the journey to school? (For example, travelling to the swimming pool and then home again would count as one round trip) Round trips each week
4(b) Again, if YES, what is the main method of travel	2(d) What is the method of travel most frequently	2(c) What is the method of travel most frequently

usually used? <ul style="list-style-type: none"> <input type="checkbox"/> Walk (all the way) <input type="checkbox"/> Cycle <input type="checkbox"/> Bus or train <input type="checkbox"/> Other (write down) 	used? (tick only one box or if 'Other' write in the space provided) <ul style="list-style-type: none"> <input type="checkbox"/> Walk all the way <input type="checkbox"/> Cycle <input type="checkbox"/> Bus or train <input type="checkbox"/> Car 	used on these trips? (Tick as many as you need) <ul style="list-style-type: none"> <input type="checkbox"/> Walk most or all the way <input type="checkbox"/> Cycle <input type="checkbox"/> Local bus or train or underground <input type="checkbox"/> Car <input type="checkbox"/> Other method, please write in: ...
5. Is your child usually allowed to cross main roads alone? <ul style="list-style-type: none"> <input type="checkbox"/> No (skip to 5b) <input type="checkbox"/> Yes (fill in 5a then 5c) 5(a) If YES, write down the age at which your child was first allowed: Age 5(b) If NO, write down the age at which your child be allowed to do so Age	3(a) Is your child usually allowed to cross main roads alone? <ul style="list-style-type: none"> <input type="checkbox"/> No <input type="checkbox"/> Yes (skip to 3c) (b) If NO, write in the box the age at which your child will be allowed Age (skip to 4a) (c) If YES, write in the box the age your child was first allowed Age	3. Is your child allowed to cross main roads alone? Please note: this question is included for all parents of children aged between 7 and 15 years old. Please answer even if the answer seems obvious. <ul style="list-style-type: none"> <input type="checkbox"/> YES - What age was your child first allowed to do so? Age.... <input type="checkbox"/> NO - What age do you think you will allow your child to do so? Age....
6. Is your child usually allowed to go out alone after dark? <ul style="list-style-type: none"> <input type="checkbox"/> No <input type="checkbox"/> Yes 	4(a) Is your child usually allowed to go out alone after dark? <ul style="list-style-type: none"> <input type="checkbox"/> No <input type="checkbox"/> Yes (skip to 5a) 	4(a) Is your child usually allowed to go out alone after dark? <ul style="list-style-type: none"> <input type="checkbox"/> YES (Please go to Question 5) <input type="checkbox"/> NO
6(a) If NO, what is the main reason? <ul style="list-style-type: none"> <input type="checkbox"/> Traffic danger <input type="checkbox"/> Child unreliable or too young <input type="checkbox"/> Fear of molestation by adult <input type="checkbox"/> Fear of bullying by other children <input type="checkbox"/> Other reason (please write down) 	4(b) If NO, what is the main reason? (tick one box only) <ul style="list-style-type: none"> <input type="checkbox"/> Traffic danger <input type="checkbox"/> Child unreliable or too young <input type="checkbox"/> Fear of assault or molestation by adult <input type="checkbox"/> Fear of bullying by other children 	4(b) If NO, what is the main reason your child is not allowed to go out alone after dark? Please write in:.....

<p>7. Is your child usually allowed to travel on buses alone?</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p> <p>7(a) If YES, write down at what age your child was first allowed to do so: Age</p> <p>7(b) If NO, write down at what age our child will be allowed to do so: Age</p>	<p>5(a) Is your child usually allowed to travel on buses alone?</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes (skip to 5c)</p> <p>(b) If NO, write in the box the age at which your child will be allowed Age</p> <p>(c) If YES, write in the box the age your child was first allowed Age</p>	<p>6. Is your child usually allowed to travel on local buses alone (other than a school bus)?</p> <p><input type="checkbox"/> YES - At what age was your child first allowed to travel on buses alone? Age.....</p> <p><input type="checkbox"/> NO - At what age do you think you will allow your child to travel on buses alone? Age.....</p>
<p><i>No equivalent question</i></p>	<p><i>No equivalent question</i></p>	<p>7(a) Does your child have a mobile phone?</p> <p><input type="checkbox"/> YES</p> <p><input type="checkbox"/> NO (Please go to Question 8)</p> <p>7(b) If YES, does this give you more confidence about letting your child go out alone?</p> <p><input type="checkbox"/> YES</p> <p><input type="checkbox"/> NO</p> <p><input type="checkbox"/> Child does not go out alone</p>
<p>13. When you were a child, how did you travel to junior school at the age of about 8 or 9 years?</p> <p><input type="checkbox"/> Walk (all the way)</p> <p><input type="checkbox"/> Cycle</p> <p><input type="checkbox"/> Bus or train</p> <p><input type="checkbox"/> Other (write down)</p>	<p>6. When you were a child, how did you travel to school at the age of about 8 or 9 years? (tick only one box or if 'Other' write in the space provided)</p> <p><input type="checkbox"/> Walked all the way</p> <p><input type="checkbox"/> Cycled</p> <p><input type="checkbox"/> Went by bus or train</p>	<p>9(a) When you were a child aged 8 or 9, how did you usually travel to school? (Only tick one box)</p> <p><input type="checkbox"/> Walked most or all the way</p> <p><input type="checkbox"/> Cycled</p> <p><input type="checkbox"/> School bus</p> <p><input type="checkbox"/> Local bus or train or underground</p> <p><input type="checkbox"/> Car</p>

		<input type="checkbox"/> Other. Please write in:...
<i>No equivalent question</i>	<i>No equivalent question</i>	9(b) How did the distance you had to travel to primary school compare with the distance your child has to travel to primary school? <input type="checkbox"/> Much less <input type="checkbox"/> Less <input type="checkbox"/> About the same <input type="checkbox"/> Further <input type="checkbox"/> Much further
10. How worried are you about the risk of being injured in an accident when crossing the road? <input type="checkbox"/> Very <input type="checkbox"/> Quite <input type="checkbox"/> Not very <input type="checkbox"/> Not at all	<i>No equivalent question</i>	<i>No equivalent question</i>
11. Have you ever been knocked down and / or nearly knocked down by a motor vehicle <input type="checkbox"/> Never <input type="checkbox"/> Nearly knocked down <input type="checkbox"/> Knocked down	<i>No equivalent question</i>	<i>No equivalent question</i>
11. Apart from road accidents, how worried are you about walking home alone? <input type="checkbox"/> Very <input type="checkbox"/> Quite <input type="checkbox"/> Not very <input type="checkbox"/> Not at all	<i>No equivalent question</i>	<i>No equivalent question</i>
16. How many people in your household have a full driving	7. Write in the box the number of people in your	11(b) How many adults in your household, including

licence? <input type="checkbox"/> None <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 or more 17. Do you have a full driving licence? <input type="checkbox"/> No <input type="checkbox"/> Yes	household, including yourself, with a full driving licence Number	yourself, have a full driving licence? Number.....
18. If YES, is there a car available for yourself to drive in the daytime during the week? <input type="checkbox"/> No <input type="checkbox"/> Yes, usually <input type="checkbox"/> Yes, occasionally	<i>No equivalent question</i>	<i>No equivalent question</i>
15. Does your household have the use of a car? <input type="checkbox"/> No <input type="checkbox"/> Yes 1 car <input type="checkbox"/> Yes 2 car <input type="checkbox"/> Yes 3+ cars	8. Does your household have the use of a car? <input type="checkbox"/> No <input type="checkbox"/> Yes, 1 car <input type="checkbox"/> Yes, 2 or more cars	11(a) Does your household have regular use of a car (including car share)? <input type="checkbox"/> No <input type="checkbox"/> Yes, 1 car <input type="checkbox"/> Yes, 2 or more cars
14. How do you think your child's opportunities for going out alone now compare with your own when you were a child of the same age? <input type="checkbox"/> Far more <input type="checkbox"/> More <input type="checkbox"/> The Same <input type="checkbox"/> Less <input type="checkbox"/> Far Less	9. Do you think you had more or fewer opportunities for going out on your own compared with your child today? <input type="checkbox"/> Far more <input type="checkbox"/> More <input type="checkbox"/> The same <input type="checkbox"/> Fewer <input type="checkbox"/> Far fewer	9(c) At about what age were you allowed to get about on your own? Age.....
		10. To what extent do you agree or disagree with the

<p><i>No equivalent question</i></p>	<p><i>No equivalent question</i></p>	<p>following two statements? Put a cross in the box which best matches your opinion.</p> <p>10(a) Most adults who live in the neighbourhood look out for other people's children in the area</p> <p><input type="checkbox"/> Agree strongly</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Neither agree nor disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Disagree strongly</p> <p>10(b) Some young people and adults in the area make you afraid to let your children play outdoors</p> <p><input type="checkbox"/> Agree strongly</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Neither agree nor disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Disagree strongly</p>
<p>19. Do you have other children below the age of 16 years?</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p> <p>19(a) If YES, state how many children</p> <p><input type="checkbox"/> Aged 10 and below.....</p> <p><input type="checkbox"/> Aged 11-15.....</p>	<p>10. Write in each box the number of people living in your home apart from yourself</p> <p>Child(ren) aged 10 years or less</p> <p>Child(ren) aged 11 to 15 years.....</p> <p>Spouse/partner and other adults.....</p>	<p>12. How many people live in your home, including yourself?</p> <p>.....Children aged 10 years or less</p> <p>.....Children aged 11 to 15 years</p> <p>.....Everyone else aged 16 or more</p> <p>.....TOTAL</p>
	<p>11. Does your family own your home or is it rented?</p> <p><input type="checkbox"/> Own home</p> <p><input type="checkbox"/> Rented home</p>	<p>13. Does your family own your home or is it rented?</p> <p><input type="checkbox"/> Own home (with or without mortgage)</p> <p><input type="checkbox"/> Rented home from Council or Housing Association</p> <p><input type="checkbox"/> Private rented</p>

		<input type="checkbox"/> Live in a relative's home <input type="checkbox"/> Temporary accommodation <input type="checkbox"/> Other
<i>No equivalent question</i>	<i>No equivalent question</i>	14. Do you have access to outside space(s) where your children can play? (Please tick all the relevant boxes) <input type="checkbox"/> Garden <input type="checkbox"/> Park which you can reach without crossing a main road <input type="checkbox"/> Park you reach by crossing a main road <input type="checkbox"/> Quiet residential road <input type="checkbox"/> Shared communal space <input type="checkbox"/> Other please write in <input type="checkbox"/> No suitable outside space available
<i>No equivalent question</i>	<i>No equivalent question</i>	15. Please write in your postcode
20. Please fill in the following details Age: <input type="checkbox"/> 16-24 <input type="checkbox"/> 25-44 <input type="checkbox"/> 45+	12. What is your age? <input type="checkbox"/> Under 30 <input type="checkbox"/> 30 to 44 <input type="checkbox"/> 45 and over	16(a) How old are you? Please tick the boxes for you and (if applicable) your partner You: <input type="checkbox"/> Under 30 <input type="checkbox"/> 30 to 44 <input type="checkbox"/> 45 or over Your husband, wife or partner (if applicable): <input type="checkbox"/> Under 30 <input type="checkbox"/> 30 to 44 <input type="checkbox"/> 45 or over <input type="checkbox"/>
20. Please fill in the following details	13. Please tick box	16(b) What gender are you?

<p>Sex:</p> <p><input type="checkbox"/> Male</p> <p><input type="checkbox"/> Female</p>	<p><input type="checkbox"/> Male</p> <p><input type="checkbox"/> Female</p>	<p>Please tick the boxes for you and (if applicable) your partner</p> <p>You</p> <p><input type="checkbox"/> Male</p> <p><input type="checkbox"/> Female</p> <p>Your husband, wife or partner (if applicable)</p> <p><input type="checkbox"/> Male</p> <p><input type="checkbox"/> Female</p>
<p>18. Do you go out to work?</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes, full-time</p> <p><input type="checkbox"/> Yes, part-time</p> <p><input type="checkbox"/> Yes, occasionally</p>	<p>14(a) Are you in paid work?</p> <p>Parent/guardian</p> <p>Male</p> <p><input type="checkbox"/> Yes, full-time</p> <p><input type="checkbox"/> Yes, part-time</p> <p><input type="checkbox"/> No</p> <p>Female</p> <p><input type="checkbox"/> Yes, full-time</p> <p><input type="checkbox"/> Yes, part-time</p> <p><input type="checkbox"/> No</p>	<p>17(a) Are you in paid work?</p> <p>You</p> <p><input type="checkbox"/> Yes, full-time</p> <p><input type="checkbox"/> Yes, part-time</p> <p><input type="checkbox"/> No</p> <p>Your husband, wife or partner (if applicable)</p> <p><input type="checkbox"/> Yes, full-time</p> <p><input type="checkbox"/> Yes, part-time</p> <p><input type="checkbox"/> No</p>
<p><i>No equivalent question</i></p>	<p>14(b) If paid work, do you work at home or elsewhere?</p> <p><input type="checkbox"/> Home</p> <p><input type="checkbox"/> Elsewhere</p>	<p>17(b) If you are in paid work, do you work at home or elsewhere?</p> <p>You</p> <p><input type="checkbox"/> Home</p> <p><input type="checkbox"/> Elsewhere</p> <p>Your husband, wife or partner (if applicable)</p> <p><input type="checkbox"/> Home</p> <p><input type="checkbox"/> Elsewhere</p>

<i>No equivalent question</i>	15. What is the name or title of the job of the main earner in your home? (please write in)	17(c) What is your current or most recent job title? You Your husband / wife / partner.....
<i>No equivalent question</i>	16. If the main earner works for an employer, what is made or done at the place of work? (please write in)	17(d) If you are an employee, what is made or done at your place of work? You Your husband / wife / partner.....

Annex 4: Comparison of German questionnaires from 1990 and 2010

Children's questionnaire

1990		2010		Notes
1.	How did you travel to school this morning? (single answer)	1.	How did you travel to school this morning? (single answer + open response)	Comparable
2(a)	Did you travel with somebody else? (single answer)	2.	Who accompanied you on your school journey today? (multi-response)	Question structured differently, but Comparable--> adjusted in 1990
2(b)	If yes, who with? (multi-response?)			
3.	How do you travel home? (single answer)	3.	How will you travel home from school today? (single answer + open response)	Comparable
4(a)	Are you travelling home with someone else? (multi-response?)	4.	Who will accompany you home from school today? (multi-response)	Question structured differently, but Comparable--> adjusted in 1990
4(b)	If yes, who with? (multi-response?)			
5.	On which street to you live (open response)	No equivalent question		
6(a)	Do you own a bike? (single answer)	10.	Do you own a bike? (single answer)	Comparable
6(b)	If yes, are you allowed to ride it on main roads? (single answer)	12.	If you ride your bike without being accompanied by a grown-up, where do you ride it? (tiered multi-response)	2010 tiered answers, 2010 "without parents" and actual activity foregrounded,
6(c)	If not, would you like to be allowed to? (single answer)	No equivalent question		
6(d)	How old were you when you were allowed to cycle on main roads for the first time? (age indication)	Only asked of parents --> 17. If your child is allowed to cycle on main roads, from what age onwards did you permit this? (age indication)		For better contrast with parents, emphasis in 2010 placed on actual behaviour; can only be compared through parents' answers in 2010
7(a).	Are you allowed to cross main roads by yourself? (single answer)	8.	Do you cross main roads without the help of a grown-up? (single answer)	For better contrast with parents, emphasis in 2010 placed on actual behaviour
7(b).	If not, would you like to be allowed to? (single answer)	No equivalent question		
7(c).	If yes, how old were you when you were allowed to do it for the first time? (age indication)	Only asked of parents --> 11. Does your child have your general permission to cross main roads unaccompanied by an adult? (single answer)		For better contrast with parents, emphasis in 2010 placed on actual behaviour; can only be compared through parents' answers in 2010

1990		2010	Notes
8.	Do you travel on the bus by yourself? (single answer)	15. Are you allowed to travel on the bus or tram without a grown-up accompanying you? (single answer)	Question concerns permission in 2010, in 1990, the activity
9.	How many friends can you visit by yourself? (number indication)	No equivalent question	
10.	Which, if any, of the following things did you do yesterday or on Saturday? (multi-response and open response)	18. What did you do last weekend? (multi-response)	Comparable
11.	How old are you? (age indication)	21. How old are you? (age indication)	Comparable
12.	Are you a boy or a girl (single answer)	22. I am a... (single answer)	Comparable
No equivalent question		5. How would you prefer to travel to school? (single answer + open response)	no comparison possible
No equivalent question		6. How long did your school journey take today? (single answer)	no comparison possible
No equivalent question		7. Have your parents practised the journey to your current school with you?	no comparison possible
No equivalent question		9. Are you afraid of crossing main roads without a grown-up?	no comparison possible
No equivalent question		11. Are you allowed to ride your bike without a grown-up accompanying you, for example to visit friends?	no comparison possible
No equivalent question		13. On how many days a week do you ride your bike?	no comparison possible
No equivalent question		14. Do you always wear your bike helmet when you ride your bike?	no comparison possible
No equivalent question		16. Do you have a monthly ticket for busses, trams, and underground trains?	no comparison possible
No equivalent question		17. Do you sit in a booster seat when travelling by car?	no comparison possible
No equivalent question		19. What are you afraid of when you are outside without any grown-ups?	no comparison possible
No equivalent question		20. Are you afraid when you are out and about in your neighbourhood without a grown-up?	no comparison possible

Parent's questionnaire

Parents' questionnaire 1990		Parents' questionnaire 2010	Notes
1(a)	Is your child usually permitted to come home from school unaccompanied? (single answer)	1(a) Is your child permitted to come home from school unaccompanied by an adult? (derived statement)	Question made more precise in 2010 via "unaccompanied by an adult"
1(b)	If not, on how many days a week is your child collected from school? (number indication)	2. On how many days a week is your child collected from school by an adult? (number indication)	In 1990, this question was only answered if children were not "usually" permitted to travel home from school "unaccompanied".
1(c)	What is the main reason for your child not being permitted to travel to school unaccompanied? (single answer)	3. What are/were the main reasons for your child getting picked up from school? (multi-response and open response)	Greater range in 2010 because of multi-response; in 1990, this question was only answered by those whose children were still being collected
1(d)	At what age do you intend to permit your child to travel to school unaccompanied? (age indication)	1(b) From what age onwards do you intend to permit your child to do this? (age indication)	Comparable
1(e)	If yes, how old was your child when it was first permitted to travel to school unaccompanied?	1(a) Is your child permitted to come home from school unaccompanied by an adult? (age indication)	Comparable
1(f)	What is the main reason for your child not being permitted to travel to school unaccompanied at an earlier age? (single answer)	3. What are/were the main reasons for your child getting picked up from school? (multi-response and open response)	Greater range in 2010 because of multi-response; in 1990, this question was only answered by those whose children were no longer being collected
1(g)	How great is your worry that your child will be injured in a road accident when crossing the road?	No equivalent question	
1(h)	How much time (in minutes. would it take you to walk to the school? (number indication)	5. How long would it take you to travel to your child's school by yourself using the following modes of transport? (number indication)	Additional modes of transport in 2010; comparison to 1990 only possible for walking
2(a)	If your child goes to extra-curricular events within walking distance, is it allowed to travel unaccompanied, or is it taken there? (single answer)	8. How does your child travel to locations within walking distance (apart from school)?	Answer in 1990 only differentiates between "taken" and "unaccompanied"; 2010 additionally has "it varies"

Parents' questionnaire 1990		Parents' questionnaire 2010	Notes
2(b)	If it is taken, what is the main reason for your child not being allowed to travel there unaccompanied? (Single indication)	No equivalent question	
2(c)	Excluding journeys to and from school, approximately how many journeys, including return journeys, must be made each week to accompany your child? (number indication)	9. On how many journeys - excluding the school journey - do you accompany your child each week?	In 1990, it wasn't made clear whether the journeys to and from school counted as a single journey or two.
2(d)	What is your most commonly used mode of transport for this? (single answer)	10. Which mode of transport do you use for the majority of these journeys?	Comparable
3(a)	Is Your child usually allowed to cross main roads unaccompanied? (single answer)	11(a) Does your child have your general permission to cross main roads unaccompanied by an adult? (can be derived)	Comparable
3(b)	If not, from what age onwards would you permit it to do so? (number indication)	11(b) From what age onwards do you intend to permit your child to do this? (number indication)	Comparable
3(c)	If yes, at what age did you first permit your child to cross main roads? (number indication)	11(a) From what age onwards have you permitted your child to do this? (number indication)	Comparable
4(a)	Is your child usually permitted to be outside the house unaccompanied after dark? (single answer)	12. Does your child have your general permission to be outside after dark unaccompanied by an adult? (single answer)	Comparable
4(b)	If not, what is your main reason for this? (single answer)	13. Why is your child not permitted to be outside after dark unaccompanied by an adult?	+ open response in 2010
5(a)	Is your child usually allowed to travel by bus unaccompanied? (single answer)	14. Does your child have your general permission to travel by bus unaccompanied by an adult? (can be derived)	Comparable
5(b)	If not, from what age onwards would you permit it to do so? (number indication)	14(b) From what age onwards do you intend to permit your child to do this? (number indication)	Comparable
5(c)	If yes, at what age was your child first allowed to travel by bus unaccompanied? (number indication)	14(a) From what age onwards have you permitted your child to do this? (number indication)	Comparable
6.	When you were a child of around 8 or 9 years old, how did you travel to school? (single answer +	23. How did you travel to school when you were 8-9 years old? (single answer + open	Comparable

Parents' questionnaire 1990		Parents' questionnaire 2010	Notes
open response)		response)	
7.	Please indicate the number of people in your household, including yourself, who own a driving licence (single answer)	28. How many people in your household own a Class B / Class 3 driving licence? (single answer)	Just "driving licence" in 1990
8.	Does your household have access to a car? (single answer)	27. How many cars does your household have regular access to? (single answer)	Comparable
9.	Do you believe that, compared to your child, you had more or fewer opportunities to leave the house unaccompanied?	No equivalent question	
10.	Please indicate the number of people living in your household, excluding yourself	29. How many people (including yourself. of the following age ranges live in your household?	"excluding you" in 1990, "including you" in 2010
11.	Does your family own its own home, or do you rent your accommodation? (single answer)	31. Are you a tenant or a home-owner? (single answer + open response)	Comparable
12.	In which age group are you?	32. How old are you/your partner?	only one person in 1990
13.	Please indicate with a cross (male/female)	33. Are you male or female?	only one person in 1990
14(a)	Are you in paid employment? (for both parents)	34. Are you in paid employment?	Comparable
14(b)	If yes, do you work from home or elsewhere?	35. Do you practise your occupation from the home or elsewhere?	only one person in 1990
15.	What is the occupation of the main earner in your household?	No equivalent question	
No equivalent question		4. Have you practised the journey to his/her current school with your child?	no comparison possible
No equivalent question		6. Is the school attended by your child the closest one it could attend?	no comparison possible
No equivalent question		7. What is the main reason for your not selecting the nearest school for your child to attend?	no comparison possible
No equivalent question		15. On which of these journeys is your child permitted to ride its bike unaccompanied by an adult?	no comparison possible
No equivalent question		16. If your child is not permitted to cycle on main roads, from what age onwards to you intend to permit it to do so?	no comparison possible
No equivalent question		18. Is your child expected to wear a bike helmet at	no comparison possible

Parents' questionnaire 1990	Parents' questionnaire 2010	Notes
	all times?	
<i>No equivalent question</i>	19. Do you always wear a bike helmet when cycling alone or with your child?	no comparison possible
<i>No equivalent question</i>	20. If your child is a passenger in a car, does he or she sit in a booster seat?	no comparison possible
<i>No equivalent question</i>	21. Does your child own a mobile phone?	no comparison possible
<i>No equivalent question</i>	22. Does this make you feel better when your child is outside unaccompanied?	no comparison possible
<i>No equivalent question</i>	24. How long was your journey to school compared to your child's?	no comparison possible
<i>No equivalent question</i>	25. Have you or a relative ever been involved in a serious road accident?	no comparison possible
<i>No equivalent question</i>	26. Please evaluate the following statements:	no comparison possible
<i>No equivalent question</i>	30. Which of the following opportunities for play are available to your child in the vicinity of your house/apartment?	no comparison possible