



# *Moving on*

The role of transport in the everyday mobilities  
of children and young people in urban  
Australia

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the degree of

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## **Statement of Authentication**

The work presented in this thesis, to the best of my knowledge and belief, is original except as acknowledged in the text. I hereby declare that I have not submitted this material, either in part or in full, for a degree at this or another institution.

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## **Abstract**

This grounded study explores the role of transport, broadly conceived, in shaping and differentiating the everyday mobilities of children and young people in contemporary urban Australia. Drawing on approaches from across urban, transport and children and young people's geographies, and the sociology of mobilities, the research investigated the everyday travel of 82 children, aged 9 to 12 years, and 176 young people, aged 13 to 15 years, living in Blacktown, Western Sydney who described their use of transport to a range of educational, social, cultural and recreational activities.

Blacktown epitomises many aspects of urban Australia. Blacktown is a local government area with a large, rapidly growing, comparatively youthful, culturally and socially diverse population of more than 300,000 people. It has a variety of urban forms and is serviced by a mix of public transport, local buses and rapid bus transit ways, and the metropolitan road and rail networks.

The research was conducted in government schools (five secondary and three primary schools) located in five different neighbourhoods. The neighbourhoods were distinguished by their location in relation to the Blacktown city centre, urban form and socio-economic characteristics. The research adopted a child-focussed methodology and a mixed method design. A variety of quantitative and qualitative data was derived from classroom discussions, local area walking tours with photography, video recordings, individual drawings, maps, travel and activity diaries and interviews.

From the materials produced this thesis illustrates how children and young people are negotiating their everyday mobilities afforded by the available transport network as well as by the dynamics of their own households. It argues that children's and young people's 'everyday mobilities' are irreducibly situated within the context of their households and urban spaces, which must be better understood and adequately addressed in policy and planning to achieve a more age-responsive, socially-inclusive urban transport policy and planning.

## **Acknowledgement of Country**

I wish to acknowledge that this research was conducted on the traditional lands of the Dharug peoples and pay my respect to their elders past, present and future.

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## Abbreviations and acronyms

ABS	Australian Bureau of Statistics
CBD	Central Business District
C40 CITIES	Cities for Sustainability – an international association of city governments committed to sustainability
HRSCHEH	House of Representatives Standing Committee on Environment and Heritage (Parliament of Australia)
HTS	Household Travel Survey
IPCC	Intergovernmental Panel on Climate Change
LGA	Local Government Area (Australia)
OECD	Organisation of Economic Cooperation and Development
SD	Statistical Division (a geographical unit used by the Australian Bureau of Statistics that is usually comprised of more than one LGA)
SLA	Statistical Local Area (a geographical parameter used by the Australian Bureau of Statistics that usually makes up a local government area and/or statistical division)
WCED	World Commission on Environment and Development
UN HABITAT	United Nations Human Settlements Programme
UNESCO	United Nations Education, Science and Culture Organisation
UNICEF	United Nations Children’s Programme

# PRELUDE

In 2007, the same year that the Intergovernmental Panel on Climate Change (IPCC) reported that evidence of global warming as a result of human activity is ‘unequivocal’ (IPCC 2007), cities became the habitat for more than half of the world’s population (UN Habitat 2008). At the end of the first decade of the twenty-first century, with the challenge of climate change upon us, the quest for ecological sustainability through reduced carbon emissions is a global imperative. The interaction between how cities have been configured and how we live in cities - or what might be called the nature of contemporary urbanism (Hodson and Marvin 2010) - has been a major contributor to the rapid increase in carbon emissions in recent decades (C40 Cities Climate Leadership Group 2011).

So much of everyday human activity in cities (and everywhere else for that matter) involves, indeed requires, physical travel that it almost goes without saying that urbanism, as a way of life in cities, is characterised by *where, how, when* and *why* we travel. We need to travel in order to connect with the people and places, goods and services - the things that enable us to meet our various and changing needs - that help us live our lives. *Where* we travel is related to our perceived and physical needs and our socially-constructed desires. *How* we travel depends on a complex array of conditions that ultimately make a particular mode of transport available for us to use, whether that be walking, wheeling, riding a bicycle, bus or train, driving a car or flying in a plane. It is *how*, and *how far*, we travel that has a direct impact on our environment. Our everyday travels in cities have had an increasing and profound effect on climate change because most travel in and around most cities involves the use of motorised transport (Giles-Corti, Kelty et al. 2009). Motorised transport, in all sorts of vehicles, is a major contributor to global greenhouse gas emissions because it relies predominantly on carbon fuel for energy. According to the IPCC 2007 report, the transport sector contributed 13.1 per cent of the total human-produced greenhouse gas emissions in 2004, the second largest share after the energy supply sector which contributed 25.9 per cent (IPCC 2007). As such, urban travel has become a central focus for action in the global sustainability agenda.

But not all cities are the same in the way people travel. The average mode split for motorised transport (that is the proportion of travel in public and private motor vehicles compared to travel by non-motorised means) is generally higher in richer countries than in poorer countries. At the beginning of the new millennium the average mode split for motorised transport was 81 per cent in higher income regions compared to 63 per cent in countries in lower income regions (Kenworthy 2003).

While economics has a dominant influence on urban *transport*, it is not the only factor to determine how people travel around their cities, that is, their urban *mobilities*. A primary interest of this thesis is to consider how our urban mobilities are influenced by *social* factors and the *spatial* configurations of urban transport. Transport, here, is broadly conceived as the systems, infrastructures, networks and services that enable physical movement of people and goods. As Alan Marshall (2000) suggests,

[d]ifferent transportation systems produce different types of cities, and the places within them, as effortlessly as different types of soils produce different sorts of shrubbery, flowers and trees (Marshall 2000, p xi).

While perhaps not quite so effortlessly as Marshall argues, transport nonetheless is fundamental to the interaction between how cities are planned and function and the complexities of urban life, of contemporary urbanism.

And not all places within the same city are the same in terms of transport. For example, roads have been largely unquestioned by Australian governments, at all levels, as necessary expenditure and are constructed, along with water, sewerage and electricity, as the basic utilities that transform an area of land into an urban settlement, whether it be a new subdivision, a new suburb or across a city. The same cannot be said for other transport infrastructures, modes or services. Construction of bicycle and pedestrian paths and crossings, establishment of public transport networks and services have frequently lagged behind the residential development and occupation of the land, leaving residents in some areas of cities, especially large cities like Sydney, poorly connected to the people, facilities and services they need to access.



Many people living in Western Sydney - a large, diverse and growing urban region and home to nearly two million people within the metropolitan area of Australia's largest city - have long felt that the metropolitan public transport system does not provide adequately for their travel needs. Western Sydney is frequently portrayed as a region of 'sprawling', low-density, poorly connected suburbs, where family households live sedentary lifestyles, relying on their cars for most of their travel including making long commutes on congested motorways. Such places are considered by many contemporary urban planners as the antithesis of sustainability and 'New Urbanist' ideals of grid-patterned, mixed-use, higher density compact cities where people (supposedly) walk and ride bicycles to work and live active, interesting lives. The structure and form of urban development in Western Sydney is therefore regarded as the cause of its 'transport woes', and has been stated by State transport officials as the excuse for not addressing them.

Having grown up in Western Sydney and worked with communities in the region for a long time, I am well aware of the constraints that a 'lack of transport' can impose on individuals and households. In 2004, the proclaimed 'Year of the Built Environment', and the year that the Australian parliament conducted an *Inquiry into Sustainable Cities* (HRSCEH 2005), I had the opportunity to undertake a study on transport and social exclusion in western Sydney for Western Sydney Community Forum, a not-for-profit community welfare agency (Hurni 2006). That study quantified the disproportionate distribution of public transport services across Sydney's urban area, and found that almost 60 per cent of areas that could be described as 'transport disadvantaged', that is, areas with fewer public transport options and less frequent services, were located in the Western Sydney region. The study also identified transport disadvantaged areas in which there were higher concentrations of socio-economically disadvantaged households.

Coming from a social policy perspective, rather than a conventional transport planning approach, my study into transport and social disadvantage involved qualitative methods, conducting focus groups, to explore the experience of transport disadvantage by people in transport disadvantaged areas. In one focus group with lone parents in outer south west Sydney, a young mother described how she had wanted to go to university but, although she had matriculated, her efforts had been

thwarted by the fact that, without a car, she would have had to travel many hours by public transport to attend classes and so she had decided to withdraw.

The young woman described how her daughter had just started school at the local public school and how she wanted to be home so she could walk her daughter to and from school each day. The group's conversation moved on to after-school activities, like sport or dancing, and the same young woman made the comment (cited in Hurni 2006 p 84) that:

*[After-school activities, like] team sports are out of the question if you don't have a car.*

It was this comment that made me wonder about the role of transport in everyday urban life in general, and the trajectories of children and young people, in particular. Maybe people's lives are influenced not only by where they live, but by the places they can and cannot get to.

This anecdote raises a number of questions about transport and urban living, not so much about the levels of car travel, emissions, travel times and costs or issues of congestion, that so preoccupy urban planning, transport and infrastructure agencies and environmentalists, important as these issues are to metropolitan and national productivity and sustainability. Rather it raises questions about the social and spatial dimensions of transport and the role of transport in everyday urban mobilities: what constitutes and is constituted by corporeal travel that so characterises different cities, different places and different ways of urban living?

By reflecting on the social and spatial dimensions of transport in people's everyday mobilities, it is possible, firstly, to consider the travel and transport needs of different households and communities in different locations within cities, and how these might change over time and the life course. Understanding travel and transport needs of people of different ages, abilities and backgrounds can help inform analysis of the social and spatial implications, or consequences, of different transport scenarios, not least the social impacts of reducing levels of car travel by one means or another. And who better to describe travel and transport needs of people than people themselves, and among them, children and young people, whose voices and views have been a glaring omission in much urban and transport policy world-wide.

Secondly, everyday mobilities reflect the interactions between people and place that can inform our understanding of how urbanism is spatially enacted, and, in turn how transport may be implicated in the socio-spatial differentiation of places within cities. Thirdly, choosing to undertake research with children and young people specifically, provides an opportunity to examine how transport might be differently conceived, as well as differentially effecting the mobilities of ‘non-drivers’ in what is after all a thoroughly car-dominated urban environment. And so in 2006, the same year that my son started school, I embarked on this learning journey to explore the role of transport in the everyday mobilities of children and young people in Blacktown, Western Sydney.

# Setting out

In Australia, where three out of four people live in cities, travel by, and for, children and young people comprises a substantial proportion of the urban transport task. Children and young people, like people of all ages, need to travel to fulfil their many and varied needs and wants, such as going to school, work, shopping, to participate in sporting, recreational and cultural activities, to socialise with friends and relations or to accompany others to all manner of places. These oscillations of everyday life, or ‘everyday mobilities’ (Urry 2007, p 47) both require and depend on *transport*, broadly defined as the systems of infrastructure, networks, modes and services that enable personal mobility and accessibility to the places and activities. The everyday mobilities of children and young people and the transport they use for their travels, have implications for their physical health and wellbeing but also enable their access to opportunities to participate in social, cultural and civic activities that provide important foundations for fulfilled adult lives and make positive contributions to civil society.

Recognition of the substantial volume and variety of urban travel associated with the everyday mobilities of children and young people, and the potential implications for their lives and livelihoods, has led to a resurgent interest by urban and transport geographers into understanding factors that influence how children and young people travel and their transport mode use. Yet the nature of children’s and young people’s everyday urban mobilities, in terms of the social, cultural and spatial dimensions of their travel, has been relatively under-researched by urban and transport geographers (Skelton and Gough 2013). More specifically, little attention has been paid in transport or urban geography to understanding the nature of children’s and young people’s everyday mobilities *in relation to* the prevailing configurations of transport, broadly conceived as the infrastructure, networks, systems and services that facilitate

urban passenger travel. Nor have their mobilities been adequately *situated* within the social and spatial contexts in which they live.

In Australia, as in other western countries, most travel in cities, has since the 1950s been by private car (Newman and Kenworthy 1989, BITRE 2009) and there has been a dramatic increase in rates of children and young people travelling by car and a parallel decline in both their ‘active’ travel (walking and cycling) and their independent mobility over the past three decades (van der Ploeg, Merom et al. 2007) (Fyhri, Hjorthol et al. 2011). A growing international awareness of the negative health and environmental impacts of high rates of car travel (see for example UNECE-WHO European Region 2008, Black and Black 2009) has generated many studies into children’s and young people’s mobilities devoted to identifying the health issues associated with ‘car-dependent mobility’ (Mackett 2013).

There are now a substantial number of studies that have sought to identify factors related to travel and transport and the health of children and young people (Hodgson, Namdeo et al. 2012). There is mounting evidence that features of the built environment, such as good street connectivity, footpaths (sidewalks) and low traffic volumes are associated with higher rates of physically active travel (walking and cycling) as a sustainable and healthy alternative to car travel (Garrard 2009, Giles-Corti, Kelty et al. 2009, Pont, Ziviani et al. 2009, Gunn, Lee et al. 2014).

There is a related stream of research on children’s and young people’s mobilities that has focussed on their independent mobility (Malone 2011; Carver, Watson et al. 2013). This body of research, emerging in children’s geographies and in the trans-disciplinary mobilities literature, has similarities with the health-related urban and transport research in its concern for the health and wellbeing implications of independent mobility for children and young people and a focus on identifying environmental determinants.

Both pathways of inquiry, one focussed on active travel and the other on independent mobility have tended to cast children and young people’s mobilities as predominantly school-bound, car-dependent, adult-determined and highly localised. Most studies have been based, rather narrowly, on studies with primary school aged children (under 12 years of age) and their journey to school, or within their local

neighbourhood by walking, cycling or by car. Less is known, however, about children's and young people's travel to activities other than school, beyond the neighbourhood scale or by different modes of public transport (bus, train and ferry). Few studies have considered how their mobilities might change as they progress through the life course from childhood through adolescence. Moreover, in much of the research, the voices and views of children and young people have been conspicuously silent. Consequently, the full scope and diversity of the travel and transport needs of children and young people have remained under-represented in geographical literature and neither fully considered nor provided for in Australian urban transport policy and planning.

This thesis goes some way to expand on these common pathways of inquiry on children's and young people's mobilities. It aims to augment the existing knowledge about mobilities of children and young people by exploring the mobilities of children and young people in contemporary urban Australia, from their own perspectives, and in relation to how the urban transport system enables or constrains their accessibility to a wider range of their everyday activities across the metropolitan area.

The thesis is based on qualitative research with children and young people living in different localities in Blacktown, Western Sydney which sought their perspectives about how they get to the places and activities that they usually go to and how important having access to these activities is for them. The research examined where those activities were located and some of the social, cultural and spatial factors that influenced the use of different modes of transport by the children and young people to travel to those destinations.

The thesis aims to contribute new knowledge on children's and young people's urban mobilities in that it considers how transport provides access to opportunities for learning, connecting, participating in, and contributing to, the social life of the city. Building upon the burgeoning scholarship at the disciplinary intersection of the sociology of mobilities and of transport geography (Shaw and Hesse 2010, Cresswell and Merriman 2011, Grieco and Urry 2011, Adey, Bissell et al. 2014) this thesis argues that children and young people are negotiating their everyday mobilities in more complex ways and at multiple scales than is often attributed to them.

This complexity arises in part because, firstly, the everyday mobilities of children and young people are indissolubly embedded within the dynamics of their households and local communities in which they live. Secondly, households and local communities are, in turn, situated within particular social and spatial contexts of the city. Thus, children's and young people's everyday mobilities are connected to the cultural and physical fabric of the city. Thirdly, children and young people's mobilities are mediated by, and through the spatial organisation of 'activity spaces' in relation to the transportation system that connects individuals, households, communities to resources and opportunities not just at the local scale but across the city.

The configurations and availability of urban transport systems and services, therefore, are likely to have an important structuring influence that shapes and differentiates children's and young people's everyday mobilities. This suggests that transport, in the way that it affords accessibility, has implications for the wellbeing and development of children and young people in contemporary urban Australia. The thesis asserts that transport exerts an underestimated influence on lives and life trajectories of children and young people that warrants closer scrutiny by scholars and urban and transport policy makers and planners. The research also underscores the value of understanding the nature of children's and young people's mobilities, from their point of view, so as to inform a more age-responsive and socially-inclusive urban transport system.

### **Why study the urban mobilities of children and young people?**

Under the 1990 United Nations Convention of the Rights of the Child, 'children' are defined as people aged under 18 years. In this study, however, a distinction is made between children and young people based on age to be consistent with the approach adopted by the New South Wales Commission on Children and Young People that refers to people aged between 12 and 18 years as 'young people' (NSW CCYP 2014). In this study, the children involved were aged 9 to 12 years and the young people were aged between 13 to 15 years.

For policy makers and planners concerned with designing urban transport systems to facilitate the movement of millions of people, and tonnes of freight, a study of

children's and young people's mobilities may seem rather mundane (Binnie, Edensor et al. 2007). Indeed, the travel needs of children and young people have tended to be overlooked in standard texts on transport geography, policy and planning. For example, texts by Thomsen and Green (2011), Rodrigue, Comtois et al. (2013), Vigar (2013) and Dimitriou (2013) make no mention of children or young people with reference to public transport. Even in a popular, socially-oriented text like Jarrett Walker's *Human Transit*, (Walker 2012), there is barely mention of the specific needs of children and young people. However, because children's and young people's urban mobilities have implications for their individual health and wellbeing, as well as for urban transport demand and management, understanding the nature of their mobilities is equally relevant to urban and transport policy and planning as it is to social welfare policy and health.

In Sydney, for example, travel by children and young people account for more trips than commuters. Estimates from the 2011-12 Sydney Household Travel Survey (HTS) suggest the four and half million people in the Sydney statistical division (SD) made over 16 million average weekday trips (BTS 2013). Around nine per cent of these trips were for education or child care purposes. In addition, 18 per cent of trips were to 'serve passengers' (the majority of passengers being under 18 years of age) together accounting for 27 per cent of all trips compared to 24 per cents of trips for commuters and for work-related business (BTS 2013). A considerable number of trips by children and young people would also contribute to the growing proportion of trips for social and recreational purposes.

From a transport perspective, urban and transport policy, planning and investment since the 1950s has overwhelmingly favoured the private car over other modes of travel, and commuter travel over the travel needs of other groups among the travelling public (Mees 2010). As a result, Australian cities are amongst the most 'car-dependent' in the world (Newman and Kenworthy 1989, BITRE 2009). The problem is that 'car-dependent' urbanism is now known (from a substantial body of research into the social, health and environmental impacts of transport) to be *unsustainable, un-'child-friendly'* and *inequitable*. That is, the high rates of car travel, has been shown to have detrimental impacts on the environment (Newman and Kenworthy 1999, McManus 2005, Newman 2005), pose risks to human health



and safety, in particular for children and young people (Mindell, Rutter et al. 2011, Milne 2012), and can exacerbate the spatial concentrations of social disadvantage and exclusion in cities (Church, Frost et al. 2000, Hine and Mitchell 2001, SEU 2003, Lucas 2004, Currie, Stanley et al. 2007, Hine 2009, Currie 2011, Lucas 2012). The need to transition to more sustainable transport and active mobility has become an urgent urban, transport and social policy imperative.

In response, to reduce high levels of car-dependency, urban and transport planners and policy makers in Australia and elsewhere are seeking to reconfigure urban environments and transport systems to make a transition towards ‘sustainable urbanism’ (Newton 2008) and alternative mobilities (Sheller 2011). These efforts are directed towards increasing rates of walking, cycling and use of public transport (also known as mass transit, buses, light rail and trains) as alternatives to car travel.

Collectively and individually, the everyday mobilities of children and young people in contemporary urban Australia are being influenced as much by the legacies of the ‘car-dependent’ urbanism of the past as by current efforts of urban and transport planners and policy makers to transition towards a more sustainable future. The paradox for children and young people, however, is, as John Urry pointed out in his seminal work on mobilities, that ‘much social life could not be undertaken without the flexibilities of the car’ (Urry 2000, p59). Urry states:

[t]he multiple socialities, of family life, community, leisure, the pleasures of movement and so on, are interwoven through complex jugglings of time and space which car journeys both allow, but also necessitate (Urry 2000, p59).

Any changes to the configurations of transport within cities, planned or otherwise, therefore, are likely to have wider social and spatial impacts for children and young people (and other social groups) than simply substituting active travel for car travel (Sheller 2011). Unless urban and transport policy and planning are underpinned by principles of accessibility and spatial justice efforts to reduce car-dependency and improve transport options will likely have uneven benefits, which may undermine their sustainability objectives. In other words, from a social justice perspective, transport policy should enable all people, wherever they live, to access the resources,

services, activities and facilities they need to live healthy and fulfilled lives and have the opportunity to participate fully in civic life.

It follows that to reduce the high levels of car-based travel, it is necessary to first understand the nature of everyday travel from the perspective of people (*who needs to travel, where, for what purpose?*). It is only then that transport systems may be made more responsive to the diversity of travel needs of urban populations and seek to provide practicable alternatives to the car. From a transport planning perspective Paul Mees (2010) states in his book *Transport for Suburbia: beyond the automobile age*:

[w]hile it is important to make correct decisions about fare levels and technologies, it is next to impossible to do so unless the context for these decisions has been set through a planning process based on people's needs (p166).

Therefore, for urban transport to become more sustainable and healthy, it is useful to first have an understanding of the specific needs of different groups of people (like children and young people) in different locations within cities. In this way a transition from the current car-dependent urbanism does not inadvertently immobilise people nor detract from their ability to access opportunities and resources essential to their wellbeing (Reardon and Abdallah 2013). To this end, this thesis seeks to enrich the understanding of everyday mobilities of children and young people in contemporary urban Australia, so as to inform the planning and provision of socially-inclusive and sustainable transport.

### **Considering the role of transport**

Although children and young people have tended to be neglected subjects in transport geography until recently, over the past decade there has been a burgeoning body of academic research into their travels. The growing number of transport studies that has coincided with a resurgent interest by urban geographers into environmental determinants of children and young people's transport mode use, the emergence of the separate sub-disciplines of children's and young people's geographies, the sociologies of childhood and youth and the interdisciplinary field

of mobilities research. Each academic field has a thematically different approach to children and young people's mobilities.

### *Children and young people in transport geography*

While not focussing on children and young people specifically, some transport geographers that have acknowledged the influence of social factors, such as socio-demographic characteristics of different population groups or households will influence travel patterns. William Black, for example, in his introduction to transportation geography identifies several recent social trends that impact on travel, including two that are relevant to this thesis: women's labour force participation and the increasing rates of single parenting (Black 2003). In a more recent text (van Wee, Annema et al. 2013) a range of other socio-economic characteristics associated with individual travel are identified. Transport geographers, Jon Shaw and Iain Docherty (2014), have gone further to consider how household travel is influenced by the different needs of household members.

On the whole, however, the nature of children's and young people's everyday urban mobilities, in terms of the social, cultural and spatial dimensions of their travel, remains relatively under-researched with the fields of urban and transport geography (Skelton and Gough 2013). More specifically, limited attention has been paid in transport or urban geography to the nature of children's and young people's everyday mobilities *in relation to* the prevailing configurations of transport, broadly conceived here as the infrastructure, networks, systems and services that facilitate urban passenger travel: that is, the movement of people in cities.

Instead, a large proportion of the research concerning children and young people and their every travel that has been produced in the past twenty years has focussed on primary school aged children and their journey to school<sup>1</sup>. Central to many of these health-based studies has been the concern with levels of physical activity, and the rates walking or bicycling for transport (referred to as 'active travel') as opposed to car travel undertaken by children and young people. Many of these types of studies have sought to identify features of the built environment that influence the way children and young people travel.

The recent interest in transport studies on investigating characteristics of the built environment that influence travel behaviour of children and young people has emerged from the reassertion of the connections between urban planning and public health in response to the rise of chronic diseases linked to sedentary life-styles and physical inactivity (McMichael 2000; Gebel, King et al. 2005; Capon 2007; Garden and Jalaludin 2009; McMichael, 2006). Studies pioneered by Lawrence Frank and associates (Frank 2006; Frumkin, Frank et al. 2004) show that features of the built environment are important factors that influence travel behaviour. The physical features most frequently identified in these studies are urban form (residential density), street connectivity (number of intersections), mix of land use (commercial and residential) and infrastructure to support pedestrian access. These features have been found to be associated with increased levels of active travel, physical activity and lower rates of diseases associated with sedentary lifestyles.

In Australia, the mounting body of evidence of the impact of the design of built environment on levels of physical activity and its associated health benefits has reinforced the strong assertion that higher residential densities in cities leads to reduced car travel and increased active travel. This has influenced government planning strategies since the 1990s.

A corollary to the studies on mode use has been research focussed on children's independent mobility. Although somewhat wider in geographic scope, these studies have still tended to be bounded in scale to the local neighbourhood and in focus on children in primary school age. Far fewer studies have investigated mobility among adolescents.

#### *Children and young people in mobilities literature*

An alternate view of children's and young people's mobilities can be found in the flourishing scholarship on mobilities. The mobilities literatures lies at the disciplinary intersection of sociology and geography (Grieco and Urry 2011; Shaw, 2010; Adey 2014; Cresswell 2011). While mobilities literature covers a wide gamut of travel experiences of children and young people, few mobilities studies have adequately *situated* their mobilities within the social and spatial contexts in which they occur. The conceptualisation of children's and young people's mobilities in this

work has still tended to be cast as being predominantly school-bound, car-dependent, adult-controlled and highly localised.

At one level, this study is about the spatial form of a city, its neighbourhoods and built form as well as the materiality of the transportation network that structures the urban space. At another level, this study is about the social geography of a city (Ley 1983) not just about the social characteristics of particular population groups (in this case, children aged 9 to 12 years and young people aged 13 to 15 years), but how their social practices are mobilised and spatially enacted (Mitchell, Marston et al. 2004) in different ways and in specific sites.

Geographies of children and young people are integral to, rather than separate from, other geographical pursuits (Pain, 2010) and therefore relevant to a critical understanding of broader social issues (Anderson et al. 2008; Horton and Kraftl 2006; Skelton 2009). An important distinction, however, is that children and young people's geographies set out to understand the world in which children and young people live, and in the case of this study, the nature of their everyday mobilities *from their own perspectives*.

#### *Child-friendly cities in Australia*

Giving children and young people a voice in the issues that affect their lives is acknowledged as a fundamental right under the 1990 UN Convention on the Rights of the Child (United Nations 1990). The Convention has precipitated a number of global initiatives to support children's and young people's rights to protection from harm, adequate provision for their needs and participation in society (Skelton 2007). Most relevant among these initiatives has been the development of the 'child-friendly cities' movement that seeks to ensure urban environments are conducive to children's health and development and encourages their participation in planning and policy making (Malone 2006).

In Australia there has been a small but concerted effort to increase children's and young people's participation in policy, planning, community-life. For example, in New South Wales by the Commission for Children and Young People (CCYP) (NSW CCYP 2001) undertook analysis of the impact of the built environment on

children and young people's social participation. This work drew mainly on studies by researchers of the 'child-friendly cities' movement (Freeman 2004; Malone 2004; Tranter 2004; Gleeson and Sipe 2006; Sipe, Buchanan et al. 2006).

The child-friendly cities agenda has been progressively endorsed by local governments around Australia, including Blacktown City Council where this research was conducted. Actions under this agenda include establishing youth advisory committees to inform councils about the needs and concerns of young people and consider issues affecting them, holding youth forums and events, and consulting young people in social planning processes. Such child/youth friendly participatory practices are less common in transport policy or planning, which in Australia, are mainly state and territory responsibilities.

An urban research agenda, following the child-friendly cities movement has emerged in the past decade (Woolcock, Gleeson et al. 2010). Studies under this mantle have drawn inspiration on early work by Kevin Lynch (Lynch 1976 (1990)) and subsequently by Louise Chalwa and colleagues (Chalwa 2002) in the UNESCO *Growing up in Cities* projects of the 1990s, and other similar benchmark projects in the development field working with children and young people in a participatory way (Hart 1997; Driskell 2002). Similar child/youth-centred research has been conducted by Gina Porter and her colleagues in Sub-Saharan Africa (Porter and Abane 2008; Porter, Hampshire et al. 2010; Porter, Hampshire et al. 2011). Their research shows how the participatory methods of the *Growing Up in Cities* studies can be applied to the field of transport geography. In general, though, transport research in Australia has tended to pursue conventional survey data analysis and economic modelling methodologies.

### **Aim of the research**

Adopting an approach consistent with children's and young people's geographies and the child-friendly cities agenda, the research for this thesis aimed to explore the role of transport in the everyday mobilities of children and young people living in contemporary urban Australia. Importantly, it sought to investigate mobilities with children and young people from their own perspective.

### *Research questions*

The analysis of the patterns of travel, as described by children and young people in Blacktown, for this thesis set out to consider the primary question: *what is the role of transport in the everyday mobilities of children and young people?*

In particular, the research specifically sought to discover how the everyday mobilities of children and young people are shaped and differentiated *socially, including by age, gender and socio-economic status*; as well as *spatially, including across localities distinguished by their built environment and by availability of transport options*.

Perhaps more importantly the research sought to investigate the views of children and young people themselves about where, how and why they travel as part of their everyday mobilities, including what aspects or activities were important to them and what factors made it easier or more difficult for them to get around.

### *Research in Blacktown, Western Sydney*

The research described in this thesis involved analysing the patterns of everyday travel to a range of activities and places as described by three groups of children aged 9 to 12 years and five groups young people aged 13 to 15 years living in different neighbourhoods in Blacktown, Western Sydney during the spring and summer months of October 2007 to March 2008.

Blacktown is a large, diverse and rapidly growing and changing local government area (LGA) in the Western Sydney urban region (see Figure 1). Because this study sought to explore not just mobility (the social dimensions of transport) but also accessibility (the spatial dimensions of transport in relation to social outcomes), it was important to choose a number of localities that were both socially and spatially distinct. Blacktown local government area was selected as the preferred research site because of its diverse demographic and socio-economic profile and built environment that encapsulates many aspects of urban Australia.

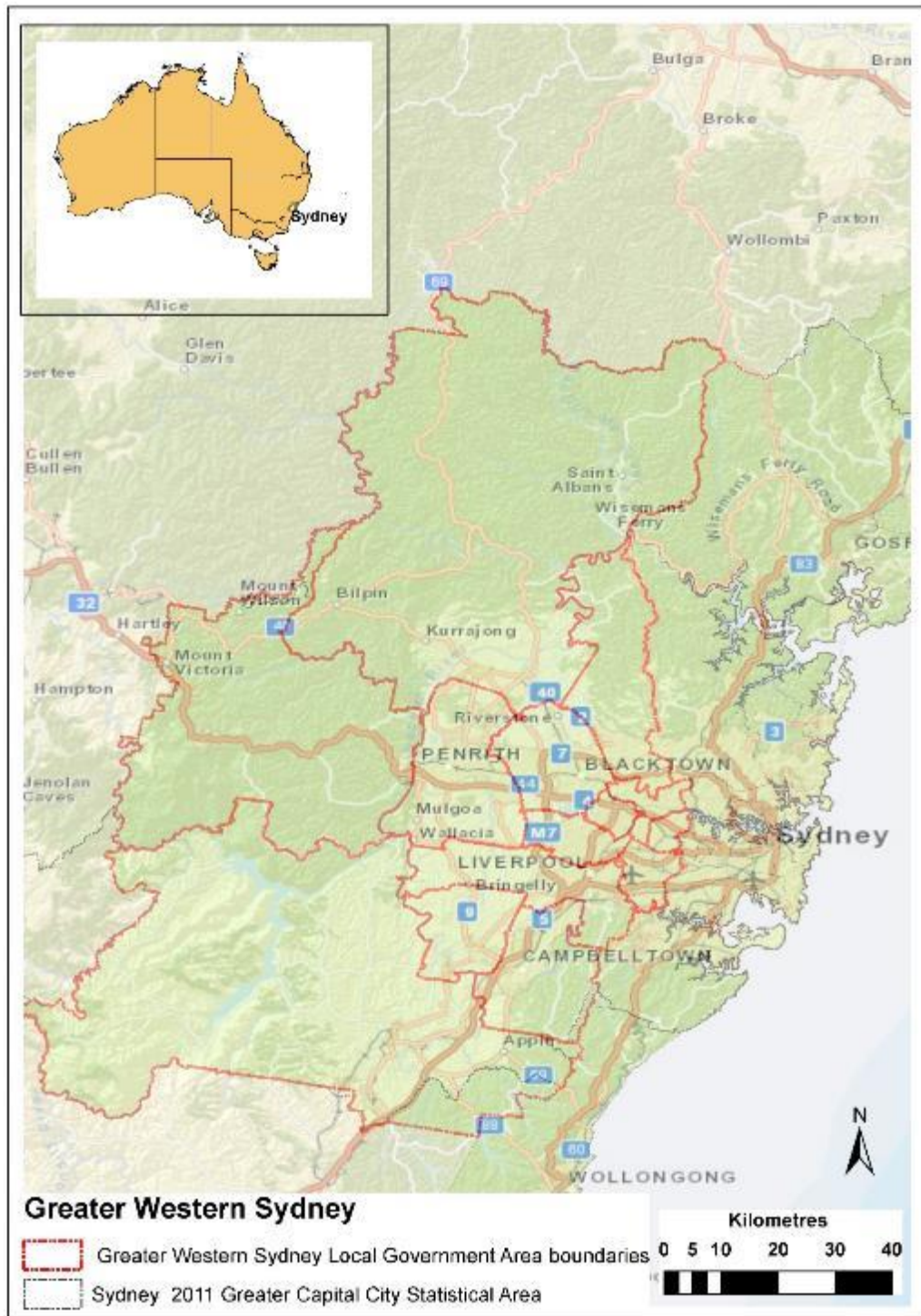


Figure 1 Map of Western Sydney Region

Blacktown, has a large, growing, socially and culturally diverse population. It also has a heterogeneous urban form including higher density apartment blocks, areas of



medium density urban consolidation, older established low-density detached housing and newer, mixed density residential estates. Its transport network includes a number of different modes of public transport services and an extensive network of roads as well as bicycle ways. The diversity of its built environments and its social and demographic profile made Blacktown an ideal setting for the research as it epitomises many aspects of urban Australia.

### **A child/youth focussed methodology**

In order to elicit children's and young people's perspectives, the study adopted a grounded approach to the research design and, what is known as, a 'child/youth centred' methodology. Child/youth focussed research has several core principles that are consistent with the intent of the 1990 UN Convention on the Rights of the Child (Skelton 2007; Malone 2006). Firstly and essentially, they provide an opportunity for children and young people to have a voice, to be able to express in their own terms and mediums, their perspectives, views, beliefs, experiences, values and meanings of the social and spatial interactions they encounter. Secondly, the perspectives of children and young people are regarded as of equal value to adult perspectives as data for research and evidence for theory, policy and practice. By adopting a child/youth focussed methodology, this study addressed a subsidiary, methodological question about *what can be learned from children and young people about the role of transport in their everyday urban mobilities?*

### **Adapting participatory methods**

In designing participatory projects, Kathrin Horschelmann and Lorraine van Blerk (2011, p 163) note that a 'particularly important aspect to consider is the degrees of participation that a project will offer those involved'. Participation, therefore, is not a singular concept, and the degree to which children and young people can participate in research is quite varied depending on what is permissible within the constraints of ethics, research timeframes and resources.

A good example of participatory research with children and young people in a transport study, one of the few, was conducted in Ghana, South Africa and India (see Lolichen, Shenoy et al. 2006; also Porter and Abane 2008). The research involved

the participation of 149 children and young people across the three locations in research and planning transport solutions for their local areas. The young participants were involved in all aspects of the research from developing the methods to analysing the results. The organising team of researchers, however, noted that there were many challenges for the young people including managing competing demands of the time involved in participation with school, home and work, facing ridicule from other children and resistance of adults to their becoming involved. The researchers concluded that:

Children's participation in research and social planning is not an end in itself, but rather it is a process that continuously needs to be re-evaluated, altered and evolved according to their needs (Lolichen, Shenoy et al. 2006, p 356-7).

Considering participation as a process suggests that there are various ways in which research can be participatory or degrees of participation. As Gina Porter and Albert Abane (2008) point out, much research that is described as 'participatory' is instead only 'consultative'. They state:

Much of the so-called child-centred academic research is actually conducted by adult researchers who work in a participatory way with child respondents, that is, children are consulted to ascertain their views (for instance, through in-depth interviews) but do not actively participate in research design as researchers. It would probably be more accurately termed as 'child-focused' than child-centred (Porter and Abane 2008, p.152).

The ideal child/youth-centred research scenario may well be to have young people actively participating in all aspects of the research process but the realities of doing research with children and young people often means that the opportunities for full participation are restricted by institutional requirements, time and resources.

This study took into consideration these various positions on participatory research and acknowledges that the level of participation was limited to them being 'informed and consulted' (Hart 1997, p 41). The research design for this study, therefore, could be described as a grounded mixed-methods design using child/youth focussed, participatory techniques.

As in any field, some research methods are more suited to particular research questions, and particular circumstances, than others. In social research, John Law (2004) has argued that different practices tend to produce different realities and, therefore, choice of methods becomes more complex. In the case of this study, the methods applied were primarily qualitative, adapted from children's and urban social geographies. The research design and methods drew inspiration from participatory action-research and urban planning projects with children and young people of the UNESCO 'Growing up in cities' projects as outlined in Chapter 2, namely, Richard Hart's (1997) *Children's Participation*, David Driskell's (2002) *Creating Better Cities for Children and Youth* and Louise Chalwa's (2002) *Growing up in an urbanising world*.

Similar to approaches described in these texts, this research involved a mixed-method design, combining a variety of methods conducted with children and young people to produce both quantitative and qualitative data.

#### *Comparing travel data generated by quantitative and qualitative methods*

The everyday travel patterns derived from the materials produced by children and young people in the Blacktown study created a set of data that had some similarities, but also some important differences, to data collected in standard travel surveys, like the Sydney Household Travel Survey (HTS). The Sydney HTS is a large and comprehensive source of personal travel data for the Sydney Greater Metropolitan Area conducted for the New South Wales state government (Transport Data Centre 2009). The 2007-08 Sydney HTS data is based on a continuous survey conducted since 1997-98 using face to face interviews with around 5,000 households annually. The 2007-08 Sydney HTS data included 3 years pooled data to June 2008<sup>1</sup>, aligning with the data collection time period for the Blacktown study.

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<sup>1</sup> The 2007-08 Sydney Household Travel Survey (HTS) data is drawn from a sample of 14,406 households approached over the three year period, of which 9,441 (66 per cent) responded. From these responding households, 24,178 people were interviewed giving a total of 103,891 trip records as the basis for the 2007-08 pooled estimates.

Travel surveys, such as the Sydney HTS, have long been important sources of information about trends in urban travel for geographers, planners and policy makers alike. Although travel survey methods are changing, through the increased use of Geographic Positioning Systems (GPS) and Geographic Information Systems (GIS) technologies these technologies are more like new tools for gathering and analysing quantitative data rather than producing new ways of understanding travel or mobilities (Inbakaran and Kroen 2011). The household travel data generated by using new technologies is still much the same as that collected using conventional travel survey methods, like the self-reported travel and activity diary used in the Sydney HTS (Stopher and Greaves 2007).

In the Blacktown study a modified version of the travel and activity diary was used. The drawings, travel and activity diaries produced by the young participants in Blacktown, generated quantitative data, similar to the types of data produced in the 2007-08 Sydney HTS, that is, the data enumerated the places the children and young people travel to (*destinations*), how they travel (*transport mode*) to particular destinations and the stated purpose for travelling to a particular destination (*trip purpose*). For this reason, some of the results from the 2007-08 Sydney HTS are considered in tandem with the travel patterns emerging from the Blacktown study.

Although important to understanding mobilities of populations, quantitative travel data is limited to the extent that they provide information on *where*, *how*, *when* and *how often* people travel, not *why* they travel in the manner that they do. In contrast, however, the qualitative methods used in the Blacktown study provided an opportunity to augment the quantitative information with the views of the children and young people about their travel patterns and transport mode use. Using qualitative methods meant that it was possible to explore with the children and young people, *why* they travel to particular destinations for what purpose, and why they use one mode rather than another. It was also possible to discuss the meanings that the children and young people attributed to the places to which they travel, as well as to gain an insight into the options they may have about the way they travel. It is notable that with the emergence of mobilities research noted above, there has been an

awakening of interest in the value of using qualitative methods in combination with travel surveys<sup>2</sup>.

The comparison between the information gathered from the children and young people in the Blacktown study and the 2007-08 Sydney HTS is not to suggest that one method is superior to the other. Rather, the comparison serves to illustrate what additional understandings about the everyday mobilities of children and young people may be gleaned by undertaking a more intensive, qualitative study.

Most importantly, the unique aspect of this research is that it analyses everyday mobilities from the perspective of children and young people. In this way the research aimed to enrich the descriptions of children's and young people's travel that are routinely derived from household travel surveys, and to critique the speculative interpretations of trends in children's and young people's travels that tend to be derived from such surveys.

### **Extending the pathways of inquiry**

The research shows, first and foremost, that the journey to school is an inadequate representation of the diversity and complexity of the everyday mobilities of children and young people. The emphasis on school travel in transport geographies overlooks the many trips that children and young people make to places and activities that are important for their health, wellbeing and development. These activities include many sporting, social and cultural activities that offer important opportunities for social participation. Moreover, from a transport perspective, the research suggests that mode use for the school trip is a poor indicator of mode use for travel to these other activities. Considering children's and young people's travel beyond the journey to school could help inform how transport services could be tailored to meet these needs.

The conversations with the children and young people in Blacktown about their independent mobility point to new ideas about how mobilities change over time,

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<sup>2</sup> Evident in the program of the most recent 10th International Conference on Transport Survey Methods, 16-21 November, 2014, Leura, Australia <https://www.regodirect.com.au/isctsc10/cms/771/Scientific%20Program>

space and across the life course (Stratford 2014). It shows that independent mobility is not a static attribute that is adult bestowed, but rather part of the negotiated and iterative process of transition to independence from childhood through adolescence. It seems that a step change in this process is the transition to high school. From a transport perspective, the transition to independent mobility can be facilitated by the availability of public transport, especially local buses. The availability and suitability of public transport for young people may be as important for facilitating independent mobility as having safe, walkable built environments.

### **Situated mobilities**

More broadly, the everyday travels described by the children and young people in this study show that their mobilities cannot be separated from the contexts in which they live. While the children and young people express preferences and make some decisions their mobilities are both enabled and constrained by the mobilities of other people in their households. What emerged from this study is that household composition and dissolution appear to have a profound effect on where children and young people travel and with whom.

The mobilities of children and young people are equally situated in the context of the location of their household(s) relative to the places they wish and need to travel within the wider metropolitan area. The study illustrates how the locations of opportunities for social participation in sporting and cultural activities are highly dispersed across the metropolitan area, which can constrain access to these opportunities for children and young people in households without a car or in locations poorly serviced by public transport, like Blacktown south west. This heightens the importance of considering accessibility in terms of travel purpose rather than simply access to transport services to better meet the needs of children and young people.

### **Structure of this thesis**

The common pathways of inquiry into children's and young people's mobilities are explained in Chapters 2 and 3 which provide an overview of the literature and methodological approaches in the field. Chapter 2 explains some of the intersections

between the geographical and sociological discourse around urbanism, transport and the mobilities of children and young people. Chapter 3 discusses in more detail the methodological approach and child-focussed methods adopted for the research. This is followed in Chapter 4 by a description of the spatial context for the study: Blacktown, in Western Sydney and the five localities in which the participating children and young people lived.

The next three chapters (5, 6 and 7) discuss the nature of children's and young people's everyday mobilities based on the research undertaken with children and young people in Blacktown. In Chapter 5, the various 'traversings', or patterns of everyday travel, of children and young people are described in answer to the question: *where do they usually go and how do they usually get there?* In this chapter, the main focus is on the various purposes for travelling and what transport modes the children and young people use to travel. The findings from the Blacktown study are considered in terms of the degree to which children and young people rely on car travel as compared to other 'active' modes of transport (walking, bicycle riding and using public transport). It then, discusses some of the reasons offered by the participants for their transport mode use. In particular, it questions the degree to which children and young people's mobilities are car-dependent.

The analysis then turns to a discussion of independent mobility in Chapter 6, including the variations by age and gender that emerged from analysis of the patterns of travel. Household level factors that influence children's and young people's everyday mobilities are explored in more depth in Chapter 6. These social factors are considered in terms of their implications for children and young people's transitions to independent mobility. These socio-cultural factors are then considered in their spatial context in Chapter 7, in particular, participation in sporting and cultural activities in respect to the distribution across the metropolitan areas of transport. It is these opportunities for social participation that have implications for young people's life trajectories and their contributions to society.

The thesis concludes with a summary in Chapter 8 of the findings related to the mobilities of children and young people and then in turn, the implications that this exploration of children's and young people's mobilities has for an enriched

understanding of transport and mobilities. The thesis concludes with a reflection on some of the advantages and limitations of using child/youth -focussed methods for transport research, and potential implications of the study for future urban and transport research, policy and planning more generally.

### **Moving on**

Setting out to explore the role of transport in everyday urban mobilities with children and young people in Blacktown, Western Sydney uncovered a number of as yet under-researched aspects to children's and young people's mobilities. What is revealed through this thesis is the rich tapestry the patterns of everyday travels of children and young people weave through the urban fabric. Secondly, that children and young people ought not to be treated as a homogenous group that is fixed into singular transport-user categories: such as car-dependent or active travellers, adult-dependent or independent travellers. Such categorical views of children's and young people's mobilities fail to recognise the dynamic nature of their everyday mobilities and the iterative processes through which children and young people negotiate and exercise independent mobility. Finally, the research opened a third pathway of inquiry which considers how children's and young people's mobilities are situated and spatially structured across the metropolitan area. This third pathway of inquiry suggests that it is the situated nature of their mobilities that may have a bearing on their life trajectories. By exploring the role of transport in the everyday mobilities of children and young people this study, therefore, aims to contribute not only to mobilities literature or that of geography of children and young people but to urban and transport policy and planning by highlighting the need to develop more flexible and age-responsive transport options as part of a socially-inclusive sustainability agenda.



## Pathways of inquiry

This study of the role of transport in the everyday urban mobilities of children and young people lies at the disciplinary intersection of geography and sociology. Positioned mainly within the field of geography, this study brings together three sub-disciplines of geography: urban, transport and children's/young people's geographies. At the same time, it is theoretically informed by the sociological discourses of urbanism, mobilities and childhood and youth. At the point where these disciplines intersect is a body of research concerned with the geography of children's and young people's urban mobility (Barker, Krafl et al. 2009, Skelton and Gough 2013). This chapter provides an overview of this body of research and the theoretical discourses drawn from this literature that underpin this study.

As is evident from this overview, there has been a long tradition of academic interest in the relationships between the health and welfare of children and young people and their urban environments, but the role of transport in these relationships, until recently, has received less attention by geographers. A more recent resurgence of interest by transport geographers into children's and young people's urban travel since the turn of the century has coincided with the burgeoning sociological literature on mobilities. Where children and young people are concerned in both the geographical and the mobilities literature in this more recent body of research the focus has been mainly on three themes or aspects of mobility. These themes are:

- *environmentally-determined mobility* as a focus for urban geographers
- *physically active mobility* in preference to *auto-mobility*, as a prominent theme of transport geographers
- *independent mobility* in preference to *adult-dependent* mobility as the key concern within the geographies of children and young people

These aspects of the mobility of children and young people are not mutually exclusive and often have been considered together, especially in the cross-disciplinary mobilities literature. To contribute new knowledge to this extant literature this study reconsiders and then extends each of these well-trodden pathways of inquiry of children's and young people's mobilities.

### **Health and social welfare concerns**

In common to all inquiry into children's and young people's mobilities is the underlying concern for their health and wellbeing. For this reason, a substantial amount of research on children's and young people's mobility is to be found in the health sciences literature. Most health-related studies have been directed towards understanding impacts of transport and mobility on the *physical* health of children and young people. Overtime, however, the specific emphasis of the health-related research has shifted from direct impacts, like injury and respiratory disease, to indirect impacts associated with a lack of physical activity that is related to chronic disease.

### **Impact of the urban environment**

The impact of the urban environment on the health, wellbeing and development of children and young people is a long standing research area of urban geography and planning. Indeed the calls to improve the living conditions of children and young people have been raised periodically over generations, especially at times of significant social change (Horschelmann and van Blerk 2011, pp85-86). In the late nineteenth and early twentieth century there was much public concern for the health of children in working factories, mines and living in inner urban slums (Marten 2004). During this period the main health problems were infectious diseases and respiratory illnesses.

The advocacy and action to improve urban environments for population health laid the foundations of the modern public health and urban planning professions (Frumkin, Wendel et al. 2011). The planning solutions, following Ebenezer Howard's Garden City ideals and the designs of the American City Beautiful movement, which prioritised low density living and access to open green space, set

the trend towards suburban development in cities that lasted until the late 20<sup>th</sup> century (Frumkin, Wendel et al. 2011). These UK and US urban planning trends were replicated in the new suburban developments that were rapidly expanding Australian cities in the decades following World War II driven by Government-encouraged immigration and high fertility rates.

By the 1960s and 1970s the post-war ‘baby boom’ and the degraded conditions of inner urban areas in countries in the industrialised North once again drew public attention to the lives of children and young people in cities, reinforcing the desirability of suburban living. Writing on the experience of urban childhoods in the United Kingdom and the United States, Colin Ward’s (1978) evocative phenomenology of the child in the city highlighted the suburbanisation of cities. Ward declared that the source of the persistent trend to suburban development was the ‘parental motive’ – ‘to buy more space for the family living while remaining within reach of work’ (Ward 1978 (1990) p.63). At that time, Ward observed that:

The first decision of any family with the luxury of choice has been to opt for suburbia, ‘for the safety of the children’. Today, when the devastated inner districts of any British or American city bear witness to the need for rebuilding at densities which take note of the needs of children, Ebenezer Howard’s vision of a many-centred city gains enormous relevance.’ (Ward, 1978 (1990), p.71).

As Ward points out, however, suburban living was enabled by ‘the transport revolutions’ of railway, tram, bus and private vehicle that opened up land for suburban development.

This connection between transport and ‘the urban condition’ (The Ghent Studies Team, Meyer et al. 1999) featured in the scholarship of urban sociology of the time, but was considered subordinate to other processes urbanisation. Leading urban social theorists Manuel Castells (1972) and Henri Lefebvre (1970 (English translation 2003); 1974 (English translation 1991)) made passing references to role of transport in their writings on cities. Castells conceived transport as one of the services of ‘collective consumption’ that were necessary for everyday life that required state intervention to be delivered (Castells 2000, p382). In Castells’ view, public transportation, as a social service, was regarded as a mechanism for the redistribution of wealth capital through state investment for public good, without

further reference to the spatial dimensions of transport, nor its utilitarian function of moving goods and people. Lefebvre (1974 (English translation 1991)), on the other hand, did refer to transport in relation to space. Lefebvre considered transport as part of the material flows and interactions that comprise the spatial practices of everyday life in the city. Such movement and interaction of people within the city renders the social reproduction of space. Neither Castells nor Lefebvre, however, elaborated on how transport might influence the structuring of the flows of people or of capital in a spatial sense.

The structuring nature of transport in the spatial distribution of resources in cities was examined more closely in David Harvey's (1973) *Social Justice and the City*. In this work Harvey (1973) highlights the importance of accessibility and proximity to the urban system. He states that:

Accessibility to employment opportunities, resources and welfare services can be obtained only at a price, and this is a price is generally equated to the cost of overcoming distance, of using time, and the like. ... It should be self-evident that as we change the spatial form (by relocating housing, transport routes, employment opportunities, sources of pollution etc.) so we change the price of accessibility and the cost of proximity for any one household (Harvey 1973, p57).

It is clear that Harvey suggests that transport has a role in structuring the city space in the way that it affects the patterns of accessibility, but this relationship is not further developed. Rather, Harvey's work emphasises the processes of relocation of employment and income away from areas of lower income housing. In Harvey's work, the socio-spatial structuring role of transport was evident but downplayed in favour of advocating intervention in housing markets. He goes on to state:

The process of relocation with the urban system has thus served to improve the options for the affluent suburbanite and cut down the possibilities for the low income family in the inner city. This situation could be partly counteracted by transport policy but by and large that policy has facilitated the existing trend rather than counteracted it. ...  
In general, the adjustments to transport systems have favoured suburban areas and neglected the needs of the inner areas as far as access to employment is concerned. ... This seems a classic case of the inflexibility of a city's spatial form generating almost permanent

disequilibrium in the city social systems. From the policy point of view it indicates the need for public interference in the housing market (Harvey 1973, pp 62- 63)

Subsequently, urban scholars, like Edward Soja (1989; 2010) and Susan Fainstein (2009; 2010), who have since developed Harvey's ideas, have similarly neglected the role of transport in the socio-spatial structuring of the city. In general, urban geography has continued to emphasise the (fixed) locations and spaces of activity (land uses like housing, education, employment, services, leisure) rather than the transport networks and services that connect these spaces, and the people who travel between them.

#### *Australian urban environments*

Although the processes of the redistribution of income associated with changes to location of employment occurred in much the same way in Australian cities, they had quite different spatial outcomes. In Australia, in the early twentieth century, similar approaches to urban planning responded to the calls for improved quality of life for poor urban children and their families, following Ebenezer Howard's Garden City ideals and the American City Beautiful designs, established the trend of suburban development, of low density living amidst green open spaces that characterised Australian cities in the twentieth century. Subsequently, the collective planning wisdom was that the types of environments that support child health, and protect them from the worst effects of the industrial inner city, were those that afforded clean air and planned, safe, recreational open space. The Cumberland Plan of 1946 clearly alludes to this ideal in its cover illustration.

By virtue of their different historical development and planning decisions, however, many of the outer suburban areas in Australian cities, where land was cheaper, became lower income neighbourhoods while manufacturing employment became increasingly dispersed and higher income employment increasingly concentrated in inner city areas. This means that some of the generalisations about the 'spatial form' of cities in North American and industrialised cities cannot be automatically applied to the Australian context.

The unique spatial form of Australian cities, and its implications for the mobilities of children and young people, was first evident in the work of urban geographer and planner Kevin Lynch. In the 1970s, Lynch engaged researchers in four countries in Argentina, Australia, Mexico and Poland to investigate the way of life of young people aged 13-15 years living in different urban areas, and how they use and value 'their home territory' (Lynch and Banerjee 1977). The research involved a variety of methods to engage the young people: the young people spoke about what they did there, drew maps and took the investigators on local walking tours. Their outdoor activities were recorded and their habitats described (Lynch 1976; 1990).

Lynch's seminal comparative study of the lives of children and young people in different cities, known as the 'Growing up in Cities' project, has inspired a tradition for urban geographers interested in the wellbeing of children and young people. The research design and methods have since been adopted in other studies of children and young people's experience of their environments and the project has been replicated by Louise Chalwa and a team of international researchers revisiting the same locations in the late 1990s (Chalwa 2002). Together the work of Lynch and subsequently of Chalwa provided the inspiration and informed the methodology for this study of children and young people's mobilities in Western Sydney.

#### *Children's and young people's mobilities in Australia cities*

Although Lynch did not have a specific interest in transport, nonetheless the mobility of young people was an unavoidable feature. Describing the range of mobility of young people in the Australian suburb of Braybrook, in the west of Melbourne, Lynch noted that 'the Australians are the most mobile of all, ranging over a ground of five kilometres on a side or more' (Lynch 1990 p177). This observation reflects the fact that Australian cities were, and still are, characteristically more dispersed than European cities. It could also reflect that, at the time, children and young people may have had a degree of freedom to roam around their neighbourhoods. This characteristic of urban life of young people in the 1970s, the freedom to roam without adult supervision, or independent mobility, and its apparent subsequent demise, has since become the subject of considerable discussion in urban geography literature, as will be discussed later in this chapter.

But before moving on to consider how the issue of independent mobility became a focus of children's and young people's mobilities research, it is worth noting that the observation of the wide ranging mobility of the Australian young people in Lynch's project came with some important qualifiers. On reflection, he conjectures:

While the Australians are the most mobile - judging from the numbers of cars, bikes, motorbikes, boards and horses shown in the photographs of their streets - they seem to be more restricted in the people they meet, their activities and places. They are less familiar with the city centre and less at ease in parts [of the city] unlike their own.

The important barriers to movement do not seem to be distance. Instead they are personal fear, a lack of spatial knowledge, the cost of public transport, social barriers, or in the case of the girls, parental controls. The boys are free to roam at least in theory. Some of the Melbourne boys do so, but mostly within the western working class suburbs (Lynch 1990, p 181).

The role of transport, as inferred in this observation, is that, although the young people had a certain degree of mobility around their neighbourhood, by virtue of personal vehicles, including bicycles, their accessibility was more constrained beyond the neighbourhood, in part due to the cost of public transport. This point suggests that children's and young people's mobilities by public transport may be uneven because of socio-economic factors in addition to environmental ones, and therefore worthy of further research.

There were some parallels with these observations that were evident in the follow up study in Braybrook in the 1990s conducted by Karen Malone and Lindsay Hasluck (Malone and Hasluck 2002), as well as in this study in Blacktown some thirty years later. In the 1970s Braybrook was a public housing estate in a new outer suburb. By the 1990s, Braybrook remained a low income housing estate but was by then 'juxtaposed between the inner and outer suburbs of Melbourne' (Malone and Hasluck 2002, p 83).

Extending the earlier study, Malone and colleagues developed a participatory project called 'Streetspace' which involved 50 students from the local secondary school to redesign a reserve of land designated for youth activities. Because the young participants had limited experience of these sorts of projects, an initial exercise involved taking them on a bus tour of some of Melbourne's parks and reserves. As

Malone and Hasluck noted, the ‘trip exposed the young people’s limited environmental literacy’ because many had not ventured far beyond their home territory of one or two blocks from home (Malone and Hasluck 2002, p91 and pp98-9). Indeed it was reported that most ‘had never been over the bridge that separates the industrial west from green leafy eastern suburbs’ (Malone and Hasluck 2002, p94).

These observations in Braybrook in 1970s and 1990s suggest that transport has a role in connecting young people to a range of activities and places across the city space at a metropolitan scale, rather than simply at the local scale. The Braybrook study highlights the point that, although children and young people’s urban mobilities are situated within their own neighbourhood spaces, they are simultaneously, and inseparably, situated within the spatial configuration of the city. It is how transport connects the two spaces that can facilitate (or inhibit) access for children and young people to opportunities outside of their neighbourhood.

This aspect of transport, as a facilitator of accessibility, and its potential social impact, however, has received considerably less attention in urban or transport geography because the focus of urban, child and youth studies turned to a more obvious and immediate concern: that of safety. Whereas previously in many industrialised cities concerns about the safety of children and young people had been related to infectious disease, then air pollution, by the 1970s the main safety concern for children and young people in their urban environments had become road safety associated with increasing volumes of traffic.

### **Car-dependent mobility**

Transport geography as a sub-discipline, has its roots in regional science, and has traditionally been concerned with economic and infrastructure questions (Shaw and Docherty 2014). Since the early 2000s, however, there has been more research attention devoted to the social dimensions of transport, coinciding with the rise of mobilities literature. Children and young people have featured in many of these articles, with a high volume published in the past five years. Of the estimated 984 articles published in the 41 volumes of the journal *Transport Geography* from 1993 to 2014, just under half (around 413 articles) include at least some mention of children



and young people travel but the majority have been published since the turn of the century. Before the research for this thesis commenced in 2006 there were only 89 articles in the journal *Transport Geography* that were specifically concerned with children and young people. More than half of all articles in that journal that have investigated the transport geography of children and young people specifically (231 articles) were published after 2011.

### *Road safety concern*

The inexorable rise in private motor vehicle ownership and travel, has been described as ‘one of the most salient features of twentieth century urban life’ (UN Habitat 2001, p37). In Australia, travel by cars surpassed public transport as the main mode of travel in cities around the 1950s (Cosgrove 2011). In the early 1950s car travel accounted for around 30 per cent of total share of metropolitan travel at the time but rising to over 70 per cent by the 1970s and has since remained above this rate. The total and per capita kilometres travelled by private vehicle in Australian continued to rise rapidly from the 1970s to the 2000s before tapering slightly from 2004 onwards (BITRE 2014).

The rapid growth of car travel brought with it an increasing toll of road fatalities and injuries. In Australia the road toll peaked in the 1970s. From this time, state and federal governments have implemented a series of safety measures to reduce the rate of road fatalities. Road safety has remained a primary concern of transport policy ever since. On average, four people are killed and 90 are seriously injured every day on Australia's roads (BITRE 2014). Road safety is one of the few aspects of transport policy and planning (as opposed to regulation) in Australia that has a national strategy<sup>3</sup> in place.

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<sup>3</sup> The National Road Safety Strategy 2011–2020 agreed to by all states and territories was released on 20 May 2011. The subsequent action plan (2015–20) sets out a series of initiatives to (1) ‘Prioritise and treat high-risk rural and urban roads, focusing on the main crash types and vulnerable road users’; to (12) ‘Create low-speed environments in areas with high pedestrian and cyclist activity and (17) Implement and promote a range of Safe System demonstration projects in urban settings, with a focus on the safety of vulnerable road users.’ Transport and Infrastructure Council (2014). National Road Safety Action Plan 2015–2017. Canberra, Commonwealth of Australia.

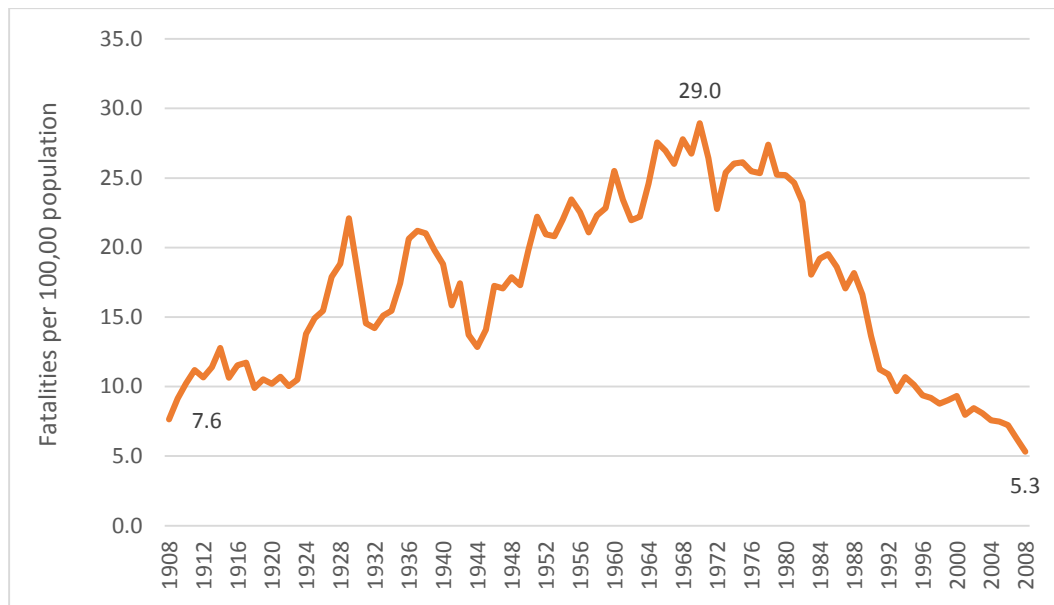


Figure 2 Road fatalities per 100,000 population

Source: BITRE 2014 National Road Fatalities Database

With transport policy focused on road safety, it is not surprising that where children and young people featured in transport studies, the concern has mainly related to preventing traffic injury. In the period between the 1970s and 1990s other health and environmental concerns related to the dramatic rise in car travel in cities were noise and air pollution (Dora and Phillips 2000).

A foundational study in the United Kingdom, by Mayer Hillman in 1990 drew greater attention to the impact of rising rates of car travel on children and young people and highlighted declining levels of independent mobility on their journey to school. Since then, however, almost 80 per cent of articles (259 articles) relate to children's and young people's journey to school. Among them, Paul Tranter and John Whitelegg's (1994) study of children in Canberra, which was based on the Hillman (1990) study.

### *Environmentally-determined mobility*

With improvements to road safety and engine technologies reducing road fatalities and air pollution, transport policy and research shifted its emphasis to consider the effects of transport for carbon emissions and climate change and the rise of chronic diseases linked to obesity and inadequate physical activity associated with declining rates of walking and cycling for transport (Haines 2000; Mindell, Rutter et al. 2011).

Many of these types of transport studies have sought to identify environmental determinants of levels of active travel among children and young people (Gebel, King et al. 2005; de Vet, de Ridder et al. 2010; Ding and Gebel 2012). Environmental factors relating to the urban form, such as higher density; street design and the presence of physical infrastructure to enable safe for walking and cycling have been scrutinised to determine their impact on transport and travel behaviour.

The growing concern about the negative impacts on public health and the environment associated with an overwhelming reliance on the automobile as the main mode of travel in cities generated new planning approaches and a growing international movement, known as 'The New Urbanism' (Giradet 1997; Kirdar 1997; UN Habitat 2001; UNECE-WHO European Region 2008). Based on findings from the research on environmentally-determined mobility, the New Urbanist approaches seek to reconnect transport with land use, promoting transit-oriented development where higher-density, mixed-use areas are built near transit systems to reduce reliance on car travel for mobility, or car-dependent mobility (Newman and Kenworthy 1996).

Car-dependent mobility presents many challenges for transport policy and planning. Not least among these challenges that will have a significant impact on travel and transport are the imminent peak in oil supplies (Newman, Beatley et al. 2009, Gilbert and Perl 2010) and reducing carbon emissions and adapting to climate change (Low, Gleeson et al. 2005; McManus 2005; Flannery 2008, Hodson and Marvin 2010). Alongside the concerns about the environmental impacts of car-dependent mobility have been concerns about the impacts of car travel on the health and wellbeing of children and young people.

There has been a growing understanding by governments and communities world-wide of the need to create urban environments and transport that are based on the foundational concept of ‘sustainable development’.

### *Physically-active mobility*

These environmental and public health concerns associated with car travel have attracted greater research attention to the co-benefits of reducing car travel (Mackett 2013). It is often assumed that the alternative to car travel for children and young people is for them to use physically active travel, walking or cycling. Based on this assumption there has been a number of studies that compare children and young people’s travel by car to that by walking and/ or cycling either within a particular place or over time

Of primary concern in Australian studies of children and young people’s travel over the past decade has been the relatively high rate of travel to school by car, and the decline in levels of ‘active travel’ (walking and cycling) to school (McDonald 2008; Yeung, Wearing et al. 2008; Kirby and Inchley 2009). Across the Sydney metropolitan area travel to education and child care represents about nine per cent of all trips. During the morning peak, however, the proportion of trips for education and childcare in Sydney doubles to 18 per cent of all trips, and this has a noticeable impact on morning peak traffic congestion. It is not surprising, therefore, that the journey to school is the most commonly studied trip in transport research concerning children and young people both in Australia (for example Tranter and Whitelegg 1994, Merom, Tudor- Locke et al. 2006, van der Ploeg, Merom et al. 2008) and internationally (Collins and Kearns 2001, McMillan 2007, Wilson, Wilson et al. 2007, McDonald 2008).

An early comparative study of children’s school travel in Canberra by Paul Tranter and John Whitelegg (1994) showed that Australian children were less independently mobile than their European counterparts and relied heavily on their parents to drive them to school and other activities (Tranter and Whitelegg 1994). More recently, a time-series analysis of school travel in Sydney from 1971 to 2003 by Hidde van der Ploeg and colleagues (2007) reported that walking to school by children 5 to 9 years declined from 57.7 per cent in 1971 to 25.5 per cent in 1999-2003. Over the same

period the percentage of children aged 5-9 that were driven to school by car increased from 22.8 per cent to 66.6 per cent. Similarly walking to school amongst children aged 10-14 declined from 44.2 per cent in 1971 to 21.1 per cent in 2003 while car travel to school increased from 12.2 per cent to 47.8 per cent over the same period. The study also found there were no major differences between boys and girls (van der Ploeg, Merom et al. 2007). Similar time-series analyses of children's school travel have been undertaken in the United States, Canada, United Kingdom, Ireland, New Zealand as well as in some European and Asian countries, all showing a decline in active travel to school and increases in car travel over the past quarter century (Garrard 2009, Lubans, Boreham et al. 2011).

It has been commonly inferred from such that the observed decrease in active school travel is correlated with an equivalent increase in the rate of obesity among children in Australia, and elsewhere over the past thirty to forty years (Gortmaker, Swinburn et al. 2011.) The van der Ploeg (2007) study, in particular, has been cited in many subsequent studies related to public health (for example Abbott, Macdonald et al. 2009; Leslie, Kremer et al. 2010; Wen, Merom et al. 2010) and sustainable transport (Iftekhhar and Tapsuwan 2010; Stanley and Barrett 2010; Stanley, Hensher et al. 2011).

In a comprehensive review of the mainly quantitative transport and health studies about levels of active travel among children and young people, Jan Garrard (2009) concluded that there many benefits to health and wellbeing that have been found to be associated with active school travel. While there is now substantial evidence to suggest that physically active children and young people are healthier, happier and more socially connected than children who have more sedentary lifestyles, (Whitzman 2012), the associations between active travel *to school* and obesity, more specifically, remain inconclusive. More recent research has noted that the associations between active travel and weight status may be clarified with further research and more consistent measurement (Schoeppe et al. 2013).

Nevertheless, concern about childhood and youth health and wellbeing, has directed a substantial amount of transport-related research into identifying possible determinants of children's and young people's active travel. Garrard's (2009) review

of active travel studies found the determinants of active travel were not clear, and concluded that ‘correlates of children's active travel are complex, with a large number of inconsistent findings ... in most studies about 70 per cent of the variance in active travel rates remains unexplained’ (Garrard 2009, p12). Similarly, another review of studies (Pont, Ziviani et al. 2009) investigating determinants of active travel among children and young people aged 5 to 18 years found a mix of social, economic and physical environmental factors had varying degrees of association with active travel. In particular, the latter review concluded that among the physical environmental factors, greater distance from origin to destination was most consistently found to be associated with lower rates of active travel while among the socio-economic factors studied, increasing household income and increasing car ownership were found to be consistently associated with lower rates of active travel among children and young people. On the other hand, having a ‘non-white ethnic background’ was found to have a convincing positive association with use of active transport modes, while having recreation facilities and walk or bike paths present in the neighbourhood were also noted to be possibly associated with higher rates of active travel (Pont, Ziviani et al. 2009).

Recognising the complexity of relationships between factors that might influence travel patterns has spurred a small stream of transport research which examines other social and spatial dimensions of children and young people’s mobility. In a recent notable exception to studies concentrating on environmental determinants of children’s and young people’s travel, Anatoli Lightfoot and Leanne Johnson (2011) analysed travel behaviour of children aged 5 to 14 using data collected in the Sydney Household Travel Survey between 2001 and 2006 focussing on the relationship between travel patterns and social exclusion. This study found that children and young people in socio-economically disadvantaged regions travelled significantly less for social and recreational purposes and that this was not related to car ownership nor dwelling structure. Although Lightfoot and Johnson’s analysis categorised locations by socio-economic measure they did not seek to take into account spatial characteristics such as differences in the urban form or transport provision across these locations. Because urban travel is about movement of people between places it is necessary to take greater account of the social and the spatial dimensions of

mobility if transport planning and provision is to contribute to the health, safety and wellbeing of children and young people in a more inclusive and age responsive way.

### **Child-friendly cities in Australia**

Today, three out of four children and young people in Australia are growing up in the context of an evolving urbanism. The cities in which they live are undergoing profound physical, economic, social, cultural and spatial transitions that are fundamentally changing the ways of living, including, perhaps most notably, the ways of travel and the configurations of transport that have characterised Australian urban life for the past half-century. The transitions that are occurring in cities in Australia and elsewhere are being driven simultaneously by global challenges including population growth, migration and demographic change; technological advancements; economic instability; and environmental degradation and climate change (see Newton 2008). As defined over two decades ago in the report of the World Commission on Environment and Development (WCED), sustainable development means:

development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED 1987, p43).

Implicit in this definition of sustainability is the welfare of children and young people and a view for their future. Heightened advocacy for the environment coincided with the Convention on the Rights of the Child in 1990. Not surprisingly then perhaps, there has been a groundswell of concern about how the societal and environmental changes are affecting the wellbeing and development of children and young people in tandem with the movement towards sustainable development.

Such concerns have drawn attention to issues affecting children and young people's physical health, especially the rising rates of overweight and obesity (John J. Reilly 2007, Stanton 2009); their family and social relations (for example Pocock 2006) and to persistent socio-economic disadvantage in some communities, especially for Indigenous children and young people (Stanley, Richardson et al. 2005, Stanley 2007).

Concurrently with concerns about the health and welfare of children and young people, geographers, sociologists along with social and health researchers, in particular, since the mid-1990s have reawakened interest in how children and young people are affected by their urban environments (for example Davis and Jones 1996, Malone and Hasluck 2002, Christensen and O'Brien 2003, Licari, Nemer et al. 2005, 2006, Sipe, Buchanan et al. 2006, Freeman, Quigg et al. 2007). Geographical studies on children and young people has generated new sub-disciplines of human geography: children's geographies and the geographies of young people (see Skelton and Valentine 1998, Aitken 2001, Horton, Kraftl et al. 2008) converging with emergent ideas from sociologies of childhood and youth (see Jenks 1996, James and Prout 1997, Christensen and O'Brien 2003, Prout 2005). There are a substantial number of studies that have shown that various facets of contemporary urbanism, comprising urban environments and urban ways of living, can affect children and young people's physical and psychological health and wellbeing.

In their analysis of the 'changing worlds' of children in the book *Children and their urban environments*, geographers Claire Freeman and Paul Tranter (2011) describe how the lives of children and young people in developed countries like Australia are 'undergoing vast changes reflective of the social and physical transformation of the societies in which they live' (Freeman and Tranter 2011). In line with other urban and children's geographers, Freeman and Tranter call for a better understanding of the physical and spatial implications of the urban transformations that children and young people are experiencing because:

[a]s well as being shaped by their social world, children are shaped by their physical world: the places and spaces in which they grow up (2011, p4).

Collectively and individually, children and young people in urban Australia face a future that will be greatly influenced not only by the legacy of past urban and transport policy and planning but also by the current actions of governments and communities to address multiple and complex urban challenges.

Tracing the groundswell of interest in children and young people and their use of space over the past decade or so, Freeman and Tranter (2011) have identified a shift from concerns over children's access to nature, to concerns about their rights to



utilise the public domain and a decline in independent mobility. They contend that one of the most dramatic changes in children's lives has been the reduction in the independent mobility of children.

### **Independent mobility**

Geographies of children and of young people have emerged from interests in population groups in social geography. Out of an estimated 416 articles in the 13 volumes of the journal *Children's Geographies*, since its inception in 1993, there have been 253 articles specifically concerned with children and/or young people in urban areas, just under half (200 articles) refer to their mobilities and less than a quarter (94 articles) were related to urban transport. As in urban and transport geographical studies, the majority of articles that were mobilities-related, examined school travel (140), but thematically, the main focus was independent mobility (111 articles).

In Australia, the interest in children and young people's independent mobility dates back to research by Tranter and Whitelegg (1994) which, as mentioned earlier, found that children in Canberra were less independently mobile than their British or German counterparts. In a recent follow up to the Hillman et al. (1990) study and the Tranter and Whitelegg (1994) comparative study, Carver et al (2013) reconfirmed the disparity between independent mobility among 10-12 year old children in Australia compared to children in England. A number of other international comparative studies have also pointed to the decline in active travel to school over the past three decades as representing a decline in independent mobility among children more generally (Malone and Rudner 2011; Fyhri et al. 2011).

Concern about declining independent mobility among children and young people has gathered momentum since the early 2000s, fuelled by debates in popular media about the children being overly protected by the parents (Fenech 2010) as opposed to being 'free range' (Whitzman, 2013, Skenazy 2010, 2012) or being allowed to more freely explore their urban environments (Olding 2010).

There are several good reasons for this concern about a decline in independent mobility among children and young people. Health and child development studies have shown that having the opportunity to be able to travel around local

neighbourhoods without adult supervision supports children's social, cognitive and physical development (Mackett 2013, Carver et al. 2012, Donita et al. 1999). Children and young people's independent mobility is considered an important indicator of a 'child-friendly city' as highlighted in much of the literature on child friendly cities (Malone 2004; Tranter 2004; Gleeson and Sipe 2006, Malone 2006, Sipe, Buchanan et al. 2006, Woolcock and Gleeson 2007, Rudner and Malone 2011, Whitzman 2013) to the extent that it has been referred to as a measure 'of the success and resilience of a city' (Freeman and Tranter 2011, p 182). By extension, enabling children and young people to travel without an accompanying adult, increases their physical activity associated with using active transport (walking and cycling) and/or use of public transport (Page et al. 2009) (Mitra 2013).

Independent mobility is a relevant issue to broader concerns about transport, urban mobility and sustainability, because if children and young people (up to the age of 17 years) can travel independently of an adult, they will almost certainly not be travelling by car. Equally, independent mobility is an important concern for children and young people themselves who, on the one hand, seek greater independence as they make their transition to adulthood but, on the other hand, express concerns about their personal safety and preferences for company when they travel (Nansen, Gibbs et al. 2014). Recent Australian research has considered how independent mobility can contribute to active civic participation of children and young people (Cook 2014).

Given that there are health, social and environmental benefits of children and young people having freedom to travel without adult supervision, much research attention has been devoted to identifying the factors that promote independent mobility (Alparone and Pacilli 2012). Similar to research on active mobility, much research on children's independent mobility has been directed towards identifying the modifiable physical characteristics within the built environment that influence levels of independent mobility (Giles-Corti, Kelty et al. 2009; Whitzman, Romero et al. 2012; Broberg, Salminen et al. 2013).

As with transport geographies concerned with children and young people's mobility more generally, the literature on independent mobility has tended to be narrowly

focused on primary school-aged children as the cohort of interest, school travel and the neighbourhood scale as the spatial realm and car travel as opposed to walking and bike riding as the main modal concern. The assumption that tends to permeate most studies on independent mobility is that it refers to travel only on foot or bicycle, and that walking and cycling ought to be, but is no longer, the norm for children in later primary school as their means of travel to school and around their immediate neighbourhood (Mitra 2013).

Taking a different perspective, research by Colin Pooley and colleagues (Pooley 2011) with children in Manchester and Lancaster compared descriptions of everyday travel patterns of children aged 10 and 11 years in the 1990s with historical patterns based on oral histories of older residents within the same neighbourhoods who were 10 or 11 years in 1940s. Pooley (2011) found that whilst there has been an increase in car use as well as a noticeable increased perception of risk over the two time periods, there was also much that remained the same for children over time. Pooley (2011) notes that:

[w]hat remained the same was the distance over which most moves took place, with the majority being very short in all time periods, the dominance of walking for short trips in urban areas (even though this has declined), and stability in the processes by which children and parents negotiated independent daily mobilities (Pooley 2011, p 273).

The relevance of the work by Pooley and his associates (2005; 2010; 2011) to this study is that it challenges the tendency of much of the transport literature on children's independent mobility to regard independent mobility as a singular attribute, that is, children and young people either are independently mobile or they are not. In contrast, research by Pooley et al (2005, 2010, 2011) exposes the complexity and contingency that is involved in children's and young people's independent mobility.

#### *Agency and vulnerability*

At the centre of debates about age and children's independent mobility, as with research on urban environments, transport and lives of children and young people more generally, is a concern for their safety. Indeed, the early work by Mayer

Hillman (1990) was instigated in response to public concern about traffic-related injuries and fatalities among children and young people. Subsequently, the concerns for safety have increasingly been related to parental fears that their children may be assaulted or abducted by predatory (adult) strangers, commonly referred to as ‘stranger danger’.

### **Transport and social inclusion**

What has tended to be neglected in the health-related research is the role of transport as one of the ten ‘social determinants of health’<sup>4</sup>. The social determinants of health are the social and economic factors, identified by the World Health Organisation (Wilkinson and Marmot 2003), that are known to cause the different health outcomes observed for people in different socio-economic circumstances. The social determinants of health are the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels (Wilkinson and Marmot 2003). The social determinants of health explain inequalities of health outcomes, that is, why people who are poorer are more likely to experience poorer health and die at a younger age than people who have higher incomes.

As a social determinant, transport has an impact on human health both directly and indirectly. An example of a direct impact is that people from lower income households are more likely to be injured in traffic crashes and suffer illnesses from poorer air quality and higher noise levels associated with road traffic. More indirectly, transport, or lack of transport, can inhibit access to resources opportunities, like education, employment, that are themselves social determinants of health.

The role of transport as a social determinant of health is related to another body of research that has investigated the relationship between transport and social exclusion and inclusion. A lot of the research in this area has been policy-driven, related the

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<sup>4</sup> The social determinants of health are the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels Wilkinson, R. G. and M. Marmot (2003). *Social determinants of health: the solid facts*. 2nd edition. Geneva, World Health Organisation.

work of the UK Social Exclusion Unit (SEU 2003) in the early 2000s. Work by leading researchers Julian Hine (Hine 2008, Hine 2009), Karen Lucas (Lucas 2012), John Preston and Fiona Raje (Preston and Raje 2009) have variously examined linkages between social exclusion of different groups within society and their transport access to education, employment, goods, services and social and recreational opportunities. In Australia, studies by Graham Currie and colleagues have identified the spatial inequities in the access to transport services and how these can impact on wellbeing and exacerbate social disadvantage (Currie 2011). Children and young people have not featured specifically in these studies.

### **Expanding the discourse**

Rather than pursue one of these existing pathways of inquiry singularly, this study takes a step back to reconsider each of these aspects of children and young people's mobilities in an exploratory way, from the point of view of the children and young people themselves.

Thus for the most part, transport studies related to children and young people's mobilities have focussed on children aged 9 to 12 years as subjects, the journey to school as the main trip purpose, the neighbourhood as the geographic scale, and use of cars as opposed to walking and cycling as the main mode of transport for children and young people.

In contrast this study sets out to investigate mobilities of two age cohorts, children aged 9 to 12 years and young people aged 13 to 15 years. It considers multiple destinations and trip purposes across all modes, including public transport buses and trains, and at the larger metropolitan scale. Importantly, it considers children's and young people's mobilities in terms of their accessibility to opportunities for social participation.

### **Accessibility**

Accessibility is a fundamental concept in transport geography (Gutiérrez 2009), where it has been defined as 'the measure of the capacity of a location to be reached by, or to reach different locations' (Rodrigue, Comtois et al. 2013). In transport

geography the emphasis of the discourse about accessibility has primarily been on the spatial arrangement of activities relative to transport network and services. In this view, the level of accessibility varies across cities according to the spatial arrangement of land uses relative to the transport system. As such, ‘the capacity and the arrangement of transport infrastructure are key elements in the determination of accessibility’ (Rodrigue, Comtois et al. 2013). In addition to the spatial arrangement of land uses and transport infrastructure, urban geographers and planners consider other physical characteristics, namely density, land use mix and urban design, among the determining factors of the variation of accessibility within urban regions (Badland and Schofield 2005). Rarely have the social dimensions of transport been considered in conventional Australian urban or transport geographical studies of accessibility (such as Parolin and Kamara 2003; Yigitcanlar, Sipe et al. 2007; Curtis 2011; Curtis and Scheurer 2012; Curtis, Scheurer et al. 2013).

Over the past decade, however, transport studies, especially those developed in the United Kingdom, have incorporated social dimensions into the notion of accessibility (Farrington 2007; Shaw and Sidaway 2010). The social approach to accessibility defines it in terms of the ease with which people can access the resources and opportunities that satisfy human needs, including work, education, shopping, health care, social interaction and recreational activities (Jones and Lucas 2012).

## **Conclusion**

What is evident from this overview of the literature is that many studies of children’s and young people’s mobilities have focussed at the neighbourhood scale, on the journey to school in particular. Demographically, a majority of studies have focussed on children aged between nine and 12 years. There has been a good deal of geographic research devoted to understanding the environmental factors that influence *children’s* mobility *to school, independently* or otherwise, by *active* mode or *car* travel. This study sought to go beyond these parameters to investigate where they travel *beyond* the journey to school; how their independent mobility *changes* as they get older; and what modes of *public transport* children and young people use for their everyday travels. By posing such questions, this study seeks to contribute

new knowledge by ‘sympathetically augmenting the literature rather than by bold critique’ (Anderson, pers. comm. 31/07/2014).

# Investigating mobilities *with* children and young people

In a study such as this, which straddles three sub-disciplines - urban, transport and children and young people's geographies - decisions about methodology are not straight forward. Much of the transport geography literature, is directed towards 'the economic- and engineering-dominated worlds of transport studies and policy making' (Shaw and Docherty 2014) p27). Traditionally transport studies rely heavily on quantitative studies, especially on large scale travel surveys like the Sydney Household Travel Survey (HTS). Over the past decade, however, as transport geography has engaged with the emergent mobilities literature (Shaw and Hesse 2010) (Cresswell 2010), qualitative research methods have become more widely recognised as adding value to transport research (Clifton and Handy 2001; Clifton 2013; Lucas 2013).

In contrast, children's and young people's geographies, with roots in social geography, have primarily comprised qualitative studies (Pain 2010). More recently, the literature has begun to include quantitative methods (Bushin 2008, Holloway 2014). Urban geography, on the other hand, has maintained a more eclectic approach. Qualitative methods, such as cognitive mapping of local neighbourhoods applied in studies with children and young people, have been employed in urban studies since the 1970s (Lynch and Banerjee 1977), alongside widespread application of quantitative methods and spatial analyses of the effects of different social and physical environments on urban populations (Adams 2001). Notably, urban geography has been distinguished by studies of particular places and people within cities that marked a cultural turn in geography (Anderson 1994, Fincher and Jacobs 1998).



More recently, through greater cross-disciplinary engagement, geographers and sociologists alike have recognised that there is value in drawing on both qualitative and quantitative methods (Law 2004; Hanson 2008; Goetz, Vowles et al. 2009; Kwan 2010). The adoption of mixed methods is especially useful when investigating inherently social and spatial issues such as children's and young people's mobilities.

The methodology selected for this study, therefore, was adapted from children's and young people's geographies. It is similar to those used in 'child-friendly cities' urban geographies (Woolcock, 2007; Sipe, 2006; Malone, 2002; Chalwa, 2002). It was equally informed by studies of travel by children and young people found in the transport geography literature. Applying methods drawn from across these three sub-disciplines meant that a mixed-method research design was considered suitable but presented a range of challenges when undertaking the research.

This chapter describes the methodology and research design adopted for this exploratory study of the role of transport in the everyday mobilities of children and young people. It then goes on to explain how the methods were adapted and applied. It reflects on the methodology in relation to each of the principles of child/youth-centred research and the challenges encountered while conducting the research, especially, the difficulties inherent in managing participatory methods and ethical concerns. The chapter concludes with a discussion of the limitations of the research and the questions it raises about what can be learned from adopting a child/youth centred approach in a transport related study. In the next section the principles of child/youth-centred research methodology are explained more fully before proceeding to describe the research design in more detail.

### **Principles of child/youth-centred research**

There is no single best way of doing research with children and young people but there are a number of core principles of approach and ethical practice that can guide studies that seek to understand their ideas, opinions and experiences. These principles comprise what is referred to as 'child-centred' research and are consistent with the methodological concerns of children's geographies and social geographies more generally (Pain, 2010): namely, of equality and participation, ethical practice and care, and respecting diversity and difference. These principles are aligned with

the three themes of the *Convention on the Rights of the Child*: namely protection, provision and, importantly participation (Skelton 2007). Such principles would also apply to research with young people (aged 12-18 years), as they would to adults. The key difference between child-centred approaches and other research concerning children and young people is the respect given to the perspectives of the children and young people themselves rather than have adults speak for them. As stated in Article 12 of the Convention:

*States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child...*

United Nations 1992 *Convention on the Rights of the Child*, Article 12

The research design and methodology for this study were developed with the intent to uphold these principles of a child/youth-centred approach.

The ontological underpinning of child/youth-centred research in sociology and geography, as described by Sarah Holloway and Gill Valentine (2000) is the recognition that ‘childhood’ and ‘youth’ are social constructs which vary with time, place and with other socially constructed differences. Epistemology emerging from the new sociologies of childhood (Jenks 1996; James and Prout 1997; Prout 2005) and converging with children’s and young people’s geographies, regard children and young people as social actors, as ‘beings’ in their own right rather than as pre-adult ‘becomings’ (Holloway and Valentine 2000). From this standpoint the principles guiding child/youth-centred research essentially reiterate social justice goals: access, equity, rights and participation. To give voice to children and young people, recognising their diversity and different needs, is to include them equally as citizens within society.

### *Equality and participation*

The first principle, equality and participation, means respecting children and young people as equal citizens with rights to voice their views and participate in decision-making processes that affect their lives (Skelton 2010). In a research context, equality does not mean treating all participants in the same way, or with the same methods. Rather equality means regarding each individual’s right to contribute as of equal

value and therefore ensuring that they have an opportunity to do so, including using different methods to enable their ‘voice’ to be heard. For example, when conducting research with children and young people, some self-reporting methods such as surveys or journals, may not be suitable because they pre-suppose a degree of literacy that may be beyond their ability. Similarly, young people with disability or from culturally and linguistically diverse backgrounds may be marginalised from conversational methods.

As with equality, full participation requires different methods with different groups or individuals. An excellent example of research that equally values and enables young people’s participation in the research process is an extensive study by Gina Porter and her colleagues investigating perspectives of children and young people on their daily mobilities across 24 sites in three countries in sub-Saharan Africa between 2006 and 2010 (Porter and Abane 2008). In their research young people were recruited not just as participants but as volunteer researchers. The ‘young researchers’ were provided training and selected their preferred research tools and sites. The young researchers conducted the research with their peers and contributed to the analysis and reporting (Porter, Hampshire et al. 2011, p68).

While this level of participation may be desirable it is not always possible and a balance must be struck between the level of participation that can be offered to young people in a research study and practical considerations of time and resources available both to the researcher and to the children and young people involved. Porter and Abane (2008) make the point, however, that where academic research is conducted by adult researchers who work in a participatory way with children and young people as respondents to gather their views (for instance, through in-depth interviews) rather than as young researchers, it would probably be more accurately termed as ‘child-focused’ than ‘child-centred’ research (p152).

#### *Ethical practice and duty of care*

The second principle is that of ethical practice and duty of care, which aims to ensure the wellbeing of young people involved and ensure that young participants are protected from harm. This principle is the subject of some debate (see Matthews 2001, Hopkins and Bell 2008), not least because ethics requirements can conflict

with, or be an impediment to, participatory processes, as noted by (Valentine 2005, Bessant 2006, Pain 2008, Skelton 2008). Seeking to provide an opportunity for children and young people to voice their views while protecting their right to privacy and anonymity can be difficult in geographical study, like this one, that situate children and young people in specific locations. There is a risk that describing views of particular groups of young people within specific places can lead to, or reinforce, stereotyping of all young people in those locations.

In the preparing to conduct this research, approval was granted by the University of Western Sydney Human Ethics Committee and the Department of School Education<sup>5</sup>. A working with children check and police record check was also required. Ensuring the anonymity of the students and schools was a key requirement: the schools could not be named. Fortunately Blacktown has more than 60 government primary and secondary schools so it was possible to select from a number of schools in each location of interest without disclosing the identity of the school.

### *Respecting diversity and difference*

Managing this conflict of principles in the research process can be challenging for practitioners of child/youth-centred research (Komulainen 2007). However, it is possible to mitigate the apparent contradiction by adhering to the third principle, respecting diversity and difference. This principle also relates to the notion of provision, recognising that children and young people have varying capabilities to exercise their rights to participate and express their views. It means highlighting the value of diversity and being prepared to incorporate different approaches, including being participant-directed, to enable equitable representation of the knowledge and opinions that children and young people may wish to contribute.

While these principles of approach set the parameters for child/youth-centred research, there remains much debate about what constitutes participation (Freeman, Nairn et al. 2003; Pain and Kindon 2007); about ethics of care and enabling children

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<sup>5</sup> The NSW Department of Education is now known as Department of Education and Communities

and young people's agency (Bessant 2006, Kesby 2007, Hopkins and Bell 2008, Horton, Kraftl et al. 2008, Pain 2008, Skelton 2008); and the difficulties of accommodating difference within constrained time and resource budgets (Hart 1997, Driskell 2002). In a study investigating children's relationships with land, Fionagh Thomson (2007) questions whether special approaches, or 'child-friendly' methods are necessary at all when undertaking research with children and young people. She argues against applying preconceived notions of children and young people, either as less competent, or as equally competent, participants compared to adults in research contexts. She states:

If our research design predefines individual's identity we risk fixing those identities by unconsciously already outlining in our own minds what we expect from this social category. By using such categories uncritically child researchers are at risk of reproducing the very social relations [child to adult] they hoped to avoid (Thomson 2007, p215).

The dilemma for child and youth researchers then, and perhaps the main difference from research with adults, is finding the appropriate balance between recognising children and young people as competent social actors, and acknowledging that for them to be able to express their views may require methods that are necessarily tailored to firstly, *engage* their interest and secondly, *accommodate* their different capabilities. In devising this research a middle position was taken in which children and young people were considered as a group of individuals who have different capabilities but who also share some commonalities of experience, knowledge and perspective related to the social, cultural and physical environments in which they live.

Rather than opting for an adult-centric design, the overall intent for developing a methodology for this study was to apply these principles to the research design and method selection process as far as possible, while acknowledging that a degree of flexibility was necessary. As Kye Askins and Rachel Pain (2011) noted from their participatory art project with young people, engaging children and young people in participatory research can be unpredictable and 'messy' but these types of interactions make for 'a complex interplay across/between actors, materials, and space that frames encounters as emergent, transitory, fragile, and yet hopeful' (2011

p820). Indeed, it is the hopefulness of children and young people that makes engaging with them in research both inspiring and fun.

### **Grounded theory method**

Bearing these principles in mind, care was taken to consider the assumptions that underpin methods to be employed for this study (Kesby 2007). The underlying assumptions of different methodologies and methods employed to access and create data through different forms of interactions with participants can lead to different conclusions and raise different ethical issues (Barker 2003, Barbour 2008).

The philosophical underpinnings of conventional transport research and child/youth-centred research lie at quite some distance apart on the ontological spectrum between positivism and social constructionism. Though it was difficult to resist the paradigms that influence policy, of what constitutes ‘evidence’, drawn from positivist traditions in transport, it was also problematic to go to the other extreme to try to produce ‘rich descriptions’ and ‘deep theorising’ that may be intoned from constructivist methodologies more often found in mobilities literature. What was needed was a methodology suited to the exploratory nature of the research, and therefore, a form of grounded theory method was adopted, that of ‘pragmatic constructivism’, as proposed by Kathy Charmaz, which, in her words (Charmaz 2009) p143, ‘encourages the researcher to examine the standpoint of the participants, their historical locations and social circumstances’.

Since its explication by its originators Barney G. Glaser and Anselm L. Strauss (1967), grounded theory method has become one of the most widely used research approaches across a range of disciplines and subject areas in social research (Bryant and Charmaz 2007, Birks and Mills 2011). Glaser and Strauss subsequently produced divergent interpretations of grounded theory method but, in essence, grounded theory has retained the core idea of an approach to research that involves exploratory, inductive and iterative processes of comparative analysis to generate explanatory theories from data.

This research follows the essence of grounded theory but is in keeping with more recent interpretations of grounded theory. The more recent approach, or

'repositioned' grounded theory method, is applied here because, as Antony Bryant and Kathy Charmaz (2007) state, it 'takes a middle ground between realist and postmodernist vision' of Strauss and Glaser. This means, as Bryant and Charmaz (2007) explain:

[Grounded theory method] is realist to the extent that the researcher strives to represent the studied phenomena as faithfully as possible, representing the 'realities' of those in the studied situation in all their diversity and complexity [but] assumes that any rendering is just that: *a representation* of experience, not a replication of it. It is interpretivist in acknowledging that to have a view at all means conceptualising it. ... A repositioned [grounded theory method, therefore] bridges defined realities and interpretations of them. It produces limited, tentative generalizations, not universal statements (Bryant and Charmaz 2007, p51).

Important to this repositioned grounded theory method is the acknowledgment of the role of the researcher in the study. Bryant and Charmaz further explain that grounded theory method brings the social researcher 'into analysis as an *interpreter* of the scene, not as the ultimate authority defining it. And this method acknowledges the human, and sometimes, non-human, relationships that shape the nature of inquiry' (Bryant and Charmaz 2007, p52). The relational aspects of the grounded theory method make it a more suitable methodological approach to this inquiry of the role of transport (and its physical 'realities') and the more socially constructed aspects of children and young people's mobilities such as agency and vulnerability.

In practice, when using grounded theory method, a researcher 'enters the research setting with as few predetermined ideas as possible – especially logically deduced, a priori hypotheses' (Glaser 1978, p2-3). As Strauss and Corbin (1998) stated:

[a] researcher does not begin a project with a preconceived theory in mind ... Rather, the research begins with an area of study and allows theory to emerge from the data (Strauss and Corbin 1998, p12).

Beginning research without predetermined hypotheses, although offering a degree of freedom and flexibility to explore a broad area of study, also creates a challenge for the researcher to identify the specific focus of the research at the outset (Birks and Mills 2011). This initial lack of specificity can be a problem when trying to articulate

a clear focus for the research project to the satisfaction of institutional ethics committees and potential participants alike. It was therefore necessary to carefully set out the steps involved in developing the research design to show how the study would generate new knowledge in a specific area of interest (Birks and Mills 2011).

### **Research design**

In this study there were a number of the steps involved in the development of the research design, data production and analysis. Consistent with the notion of ‘theoretical sampling’ that is fundamental to the data collection process of grounded theory method, the steps were not sequential but involved a degree of concurrent analysis and reassessment of ‘what data to collect next and where to find them’ (Glaser and Strauss 1967).

The steps in the research process involved four phases:

- initial review of literature, analysis of secondary data and site selection
- consultation and preparing methods
- ethics approval and participant engagement
- data generation and analysis

Each of these phases involved an iterative process of moving between the tasks and reflecting on their implications for the research, in keeping with a grounded approach.

### **Site selection**

The initial review of relevant literature included not only academic studies of children and young people in geographies and mobilities research but a range of information produced about children and young people’s health and welfare, transport studies, and local, state and federal government policy documents and projects.

After deciding on Blacktown local government area as a suitably varied urban space for the research, further analysis of social and spatial characteristics of localities within Blacktown was undertaken to identify specific localities in which to the



conduct the research. The following socio-spatial characteristics made up the criteria for site selection:

- Socio-demographics characteristics of the neighbourhood – evidence of the links between socio-economic status and health and wellbeing.
- Urban form and design – the evidence of place characteristics on physical activity suggests density and street layout have an influence on travel behaviour and physical activity.
- Proximity to Blacktown city centre, transport networks and services – the question of how characteristics are differentiated between places with varying proximity to the centre, transport and other services was used as a proxy for accessibility.

Children and young people have schools in common as a place that almost all children and young people travel to as part of their everyday mobilities.

#### *Using schools as research settings*

Conducting the research in schools has an advantage over other local settings because the young people are not included or excluded on the basis of particular background, abilities, interests or preferences such as for religious or community based youth groups or sporting teams.

State government schools were chosen rather than private schools because they have a more localised catchment area. That is, children and young people who attend government schools generally live within a defined geographical area made up of adjacent suburbs rather than on the basis of some social or cultural criteria. This enabled a wide cross section of young people to be included in the research and the participant profiles were reasonably representative of the population of the neighbourhoods in which they lived.

The school setting is a highly adult-structured space, a characteristic which could be considered to restrict children and young people's ability to participate freely. However, schools are generally places where children and young people feel safe to express their ideas and opinions and undertake group activities because they are already familiar with others in their class and having discussions with adults (mostly teachers) is part of the daily routine.

There are approximately 60 state government schools in Blacktown LGA. This includes fourteen secondary schools. Potential schools were identified with a view to gaining representation from each of the different localities based on the spatial criterion of a primary school and a high school being within the same neighbourhood. Selecting sites that have a primary and high school that are close to each other meant that the experiences of participants from two different age groups who shared the same physical environment in their local travels could be reasonably compared.

The transition to high school often involves a distinct change of daily travel routines for many children because high schools have a wider catchment area than primary schools and often require longer journeys. For some young people, the transition to high school means their journey to school requires travel by bus or train for the first time. Locational differences between high schools and primary schools might well create some of the differences in patterns of everyday travel so the high schools and primary schools selected in each locality were either adjacent or very close to each other. In other words the physical and locational contexts, at least for school travel, was the same for both age groups.

It was originally intended to include a primary school that was located close to the high school in each identified locality. However, the number of primary schools was limited to three, one in each of the localities of Blacktown Central, Blacktown North East and Blacktown South East. Attempts were made to include primary schools in the catchment area of the participating Blacktown South West and Outer West high schools, but due mainly to the timetabling constraints and stretched resources, these schools declined the invitation to participate.

There were three primary schools and five high schools that finally featured in this study. The distribution of the schools in relation to the physical characteristics of the identified localities is shown in Table 1.

Table 1 Urban form and proximity to Blacktown city centre of localities of participants' schools

Proximity to Blacktown commercial centre	Urban characteristics		
	Higher density redeveloping	Older suburbs with mixed densities	Newer housing estates mostly detached
<b>Within 1km</b>	Blacktown Central Primary School Blacktown Central High School		
<b>1-3km</b>		Blacktown South East Primary School Blacktown South East High School	
<b>3-5km</b>		Blacktown South West Rail High School Blacktown Outer West High School	Blacktown North East Primary School Blacktown North East High School

The research localities are shown on the map of Blacktown in Figure 3.

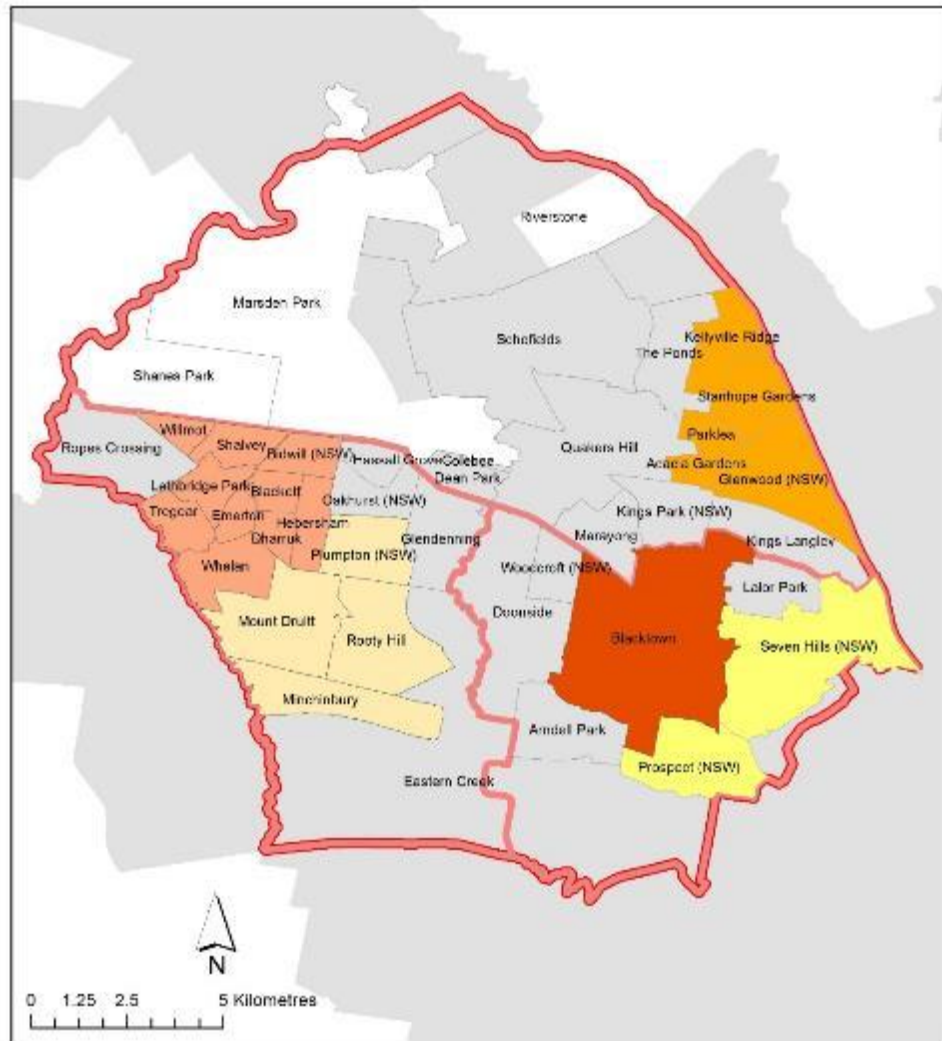


Figure 3 Map of the research localities

Field trips to the selected localities in Blacktown LGA were conducted along with preliminary discussions about the research with local government officials and not-for-profit community youth workers. These preliminary discussions helped to refine

the focus of the study and clarify the research questions by identifying issues that impact on the research. Contact with local government and youth workers introduced an opportunity to listen to and observe young people in different formal youth events, like the Blacktown Youth Forum (held in 2007) and ‘The Burbs’ Youth Festival (held in April 2008).

These field trips also included making preliminary observations and taking photographs of the physical environments of the places in which children and young people in Blacktown live. Having some knowledge of the different localities was particularly important for establishing rapport with the children and young people during the data generation phase and in discussions with local government and community organisation representatives. The physical and social characteristics of Blacktown Local Government area and the localities in which the research was conducted are described in more detail in the next chapter.

Reflecting on the literature, analysis of secondary data, field trips, conversations with local representatives and observations helped to clarify the research questions and choice of appropriate research methods to answer them.

### **Exploratory questions**

The research sought to understand the role of transport in the everyday mobilities of children and young people by engaging with children and young people who described various aspects of their everyday mobilities, namely: the range of activities they travel to, how they travel and their opinions about how accessible they thought their local areas were for children and young people to travel around. More specifically, it sought children’s and young people’s views and ideas related to the following exploratory questions about their everyday mobilities:

#### *Everyday travel and activity*

Where do children and young people usually travel and why?

- Why do they go there? What do they do there?
- When do they usually go there? How often do they go there?
- What places do they like, or not like, to go?

## *Mobility*

How do children and young people usually travel to the places they go?

- Why do they use these forms of transport to get there?
- What is their experience of different modes of transport?
- Who do they usually travel with?
- Where and how are children and young people able to travel independently?

## *Accessibility*

What differences exist in the range and types of activities and places that children and young people from different localities can access?

- Which of the places and activities they can access are most important to them and why?
- What transport alternatives do they have to these ‘special places’?
- What restrictions do they have on their accessibility?
- How accessible would they rate their local area and why?
- What changes would make it easier for children and young people to travel around the local area?

These questions formed the basis upon which the research methods were chosen and data analysis was planned. The analysis of the data produced in response to these questions is described in Chapters 5, 6 and 7 based around the three main questions about travel and activity, independent mobility and accessibility respectively.

## **Inviting participation**

Once the research sites had been determined, schools within each location were chosen and invited to participate in a letter to the Principal. Before approaching any schools, however, it was essential to consider and address the ethical issues associated with conducting research with children and young people and in school settings. It was a legal requirement to undergo a working with children security check and criminal record check. It was also necessary to apply to the New South Wales Department of Education for separate approval to conduct research in schools and to follow departmental protocols for approaching school principals seeking their involvement. These approvals were granted.

## **Addressing ethical issues**

Gaining ethics approval was the only path-dependent step in the development of the research process and was a legal prerequisite before engaging with children and young people. Two rounds of ethics applications were required. Firstly through the University of Western Sydney Human Ethics Committee and secondly, as the research was to be conducted in New South Wales Government Schools, a separate Department of Education ethics approval was also necessary. Addressing ethical issues can be a difficult challenge for researchers working with children and young people in a participatory way, because it can prevent involvement of children and young people in the early design stages, which was the case in this study.

A primary concern was for the protection of the children and young persons' privacy. The University Ethics Committee sought reassurances that any information that the children or young people provided would not reveal their identity and would not be relayed to their parents. Participants are referred to in this thesis by a number signifier in square brackets and/or with a pseudonym. In addition, Department of Education ethics requirements stipulated that the schools not be identified. Because in New South Wales, school students in most government schools are required to wear a school uniform that is distinguishable from other schools, therefore all photographs which show images of the participants are reproduced in grey tones so as not to identify the participant or their school.

The use of pseudonyms presented a research challenge when trying to represent the voices of the participants because many of the children and young people were from culturally and linguistically diverse backgrounds and their first names are an important part of their cultural identity. To randomly assign pseudonyms to all participants could easily introduce a degree of researcher bias, especially if all names were Anglo-Celtic. Instead, city names from the country of origin have been used for participants who were born overseas in a non-English speaking country and who identified with a particular ethnicity; the Australian-born participants were given pseudonyms drawn from the most popular names listed on the New South Wales Registry of Births for the years 1995 and 1998 and Aboriginal participants were given names of Aboriginal clans from the region (Attenbrow 2009).

To maintain some anonymity of the schools in the study, they are signified by their locality only. Location-based school names are not uncommon for government schools, but none of the schools in the study have the same name as the localities in which they are assigned.

Once ethics approvals were obtained it was possible to approach schools to invite their participation in the research. Where teachers were willing to be involved arrangements for conducting the research were made and letters seeking consent to participate from students and parents were distributed and collected by the teacher. The data generation and collection process (as explained in more detail below) then got underway.

#### *Approaching schools to be involved*

Letters were sent to school principals in each of the initial list of potential sites and schools across the localities. A follow up phone call helped to establish directly whether the Principal would agree to be involved and this determined the final group of schools that were included in the research.

#### *Student and parent consent*

Ethics requirements stipulated the need to obtain written consent to participate in the research from both the young people and their parents. In this study some of the data was to be obtained in class activities and some from individual interviews. It was also necessary to seek consent for individual interviews separately from class work activities because a one-on-one interview may seem more intimidating for some people. This added an extra level of complexity to the research consent process and to the information that was contained in the letter to parents and may have been unnecessary, however, it was important that both parents and young people were fully informed about the activities that would be involved in the research. It was expected that fewer young people would give their consent to an individual interview but hoped that most young people would give their consent to the class activities, which turned out to be the case.



Overall 61 per cent of children and young people gave their consent and had their parents' consent to participate in the research and to allow use of the data they produced in the class activities for the purpose of the research. Just less than one half (49 per cent) also gave their consent and had their parent's consent to be interviewed for the research as shown in Table 2.

The numbers of participants in each school by their level of consent shows that across the three classes of the participating primary schools there was a total of 82 students, of whom 58 primary students gave their consent, and had their parents' consent to have their work included in the research and 51 gave their consent, and had their parents' consent to be interviewed. This represented a participation rate of 71 per cent for class work and 62 per cent for interviews. There were six Year 9 classes who were engaged in the research because in one school the participating teacher had two Year 9 classes. From this sample, 100 gave their consent to have their work included in the research and 76 gave their consent to be interviewed.

The participation rates in Table 2 show considerable variation across locations. As is common for survey research, people living in low socio-economic areas or from other marginalised groups can be underrepresented (Mertens 2007). This was also the case here among young people attending Blacktown Outer West High School. It was interesting to note that the number of signed parental consent forms received from young people in Blacktown Outer West High School was a third of the number of young people who gave their consent themselves. Had student consent been sufficient the student consent rate at Blacktown Outer West High School (71 per cent) would have been proportionally the highest among the high schools (though the class number was the smallest). This need to satisfy the ethics requirements for gaining consent from parents can inhibit inclusion of the voice of young people in disadvantaged areas. On reflection the note to parents might have been too lengthy and perhaps too difficult to understand and other methods may have been more suitable to ensure the participation of their children was equitably represented.

Table 2 Class numbers, student and parent consent and participation rate

	Class number*	Signed consent by young person and parent for		Potential participation rate for	
		Class Work	Inter-view	Class work	Inter-view
Blacktown Central High School	51	29	24	57%	47%
Blacktown North East High School	55	36	25	65%	45%
Blacktown South East High School	24	12	8	50%	33%
Blacktown South West Rail High School	29	19	15	66%	52%
Blacktown Outer West High School	17	4	4	24%	24%
<b>Total High School students</b>	<b>176</b>	<b>100</b>	<b>76</b>	<b>57%</b>	<b>43%</b>
Blacktown Central Primary School	24	17	15	71%	63%
Blacktown North East Primary School	27	23	22	85%	81%
Blacktown South East Primary School	31	18	14	58%	45%
Total Primary School students	82	58	51	71%	62%
<b>Total students</b>	<b>258</b>	<b>158</b>	<b>127</b>	<b>61%</b>	<b>49%</b>

\*Class number is the number of students enrolled in the class less students absent from class during the time of the research, that is, the potential number of participants.

### Participant numbers

Although not intentionally so large, the total number of students involved was 258 children and young people across eight schools. The final numbers of participants in the group work activities and interviews across the two age cohorts is set out in Figure 4. The total number of completed interviews among the secondary school participants was 52 interviews and 51 interviews among the primary school participants. The total number of secondary school participants interviewed (52 interviews) was less than the number who gave their consent (76 provided their consent and that of their parents to be interviewed) because either the students were absent on the days scheduled for interviews or, in only one case, the young

participant withdrew her consent and declined at the time of interview, as was her right to do so.

In an additional four instances, interviews commenced but were not completed owing to school class times. In these four cases, demographic information was collected but the interview responses were incomplete. The participant profile (shown in Appendix A), therefore, presents the demographic information from 107 participants.

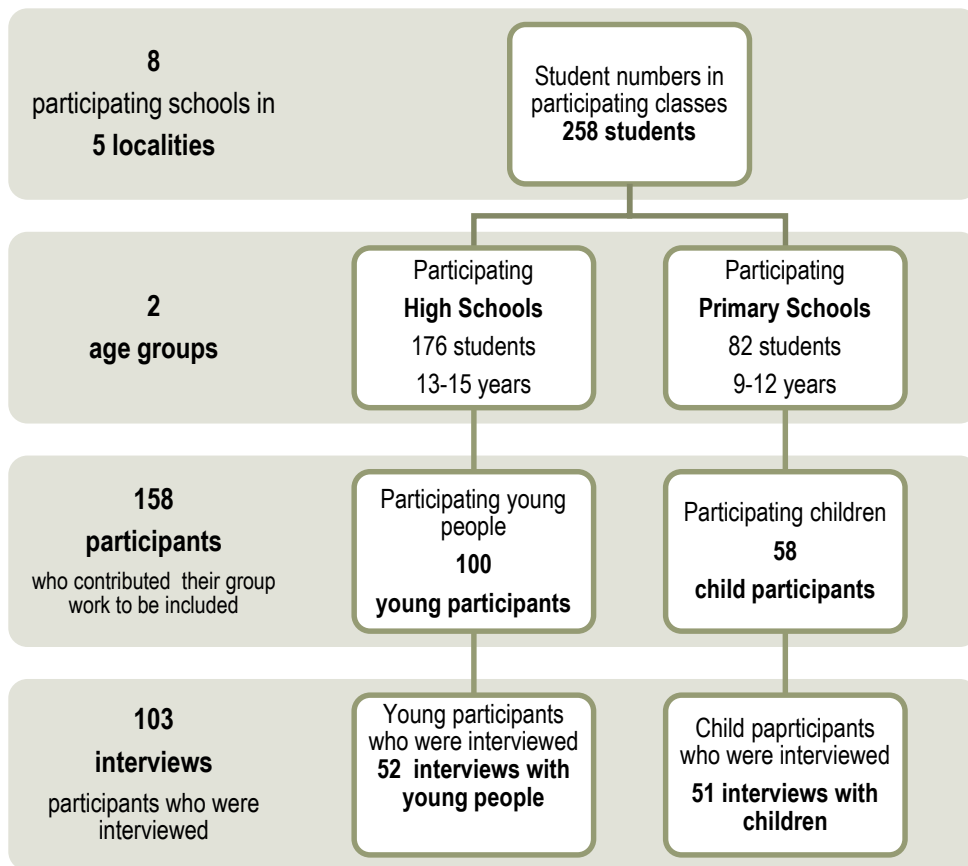


Figure 4 Numbers of children and young people who participated in the research activities

## Methods

In keeping with the principles of child/youth-centred research, this study aimed to involve children and young people in a participatory manner. It sought to enable them to investigate, analyse, describe and understand their local environments and reflect upon the nature and patterns of their own mobility and accessibility and how

these patterns might relate to the physical environment and transport in their neighbourhoods. Horschelmann and van Blerk (2012, p165) note that using a variety of methods is important to ‘help enable children and youth with different abilities and interests to engage,’ in the research. They state:

[i]ndividual differences and special needs are as important to consider in the choice of methods as are social barriers to participation, such as gender stereotypes. Choosing a diversity of media and forms of engagement can help to overcome some of these barriers ... (Horschelmann and van Blerk 2011, p165).

Mindful of the need to be inclusive of diverse abilities, the data production activities applied in this research included a mix of individual and group activities, as follows:

- group discussion
- group interactive survey
- peer interviews
- individual drawings
- individual and group mapping exercises
- individual weekend travel and activity diary
- a local area guided walking tour using photography and video recording
- a group poster making activity using photographs from local area walking tour
- individual semi-structured interviews.

This combination of activities was sequenced to help guide the children and young people from the introductory discussion about the research and simple researcher-led data production tasks of the interactive surveys to the more complex and participant-directed activities. Because schools were the sites where the research was to be conducted the research activities were tailored so that the skills involved were consistent with the syllabus objectives of the New South Wales curriculum subject ‘Human Society in its Environment’ (HSIE). It was intended that the research would contribute to the children and young people’s knowledge and skills in geography. The educational and knowledge building aspects of the data generating activities was, as mentioned above, in keeping with framework of participatory research (Pain 2004). An outline of how each of these activities was adapted and applied is explained further below.

### *Group discussion*

In the first session with each class I introduced myself as a researcher and the nature of my research project. I firstly sought verbal responses on what the children and young people thought I meant by the words, urbanism, transport and noted these on overhead projector film in a 'brain-storming exercise' to demonstrate that all their responses were valid and that I was interested in their different ideas not 'correct answers'. This was followed by a brief explanation that the research would involve both quantitative and qualitative methods and I demonstrated the difference using the interactive surveys and peer-to-peer interview activities.

### *Interactive surveys*

The purpose for using an interactive survey was to demonstrate to the participants a simplified survey method and to gather initial data about their travel modes to school. It involved participants choosing one of five colour 'sticky note' papers to represent their mode of transport for their journey to school on the day of the activity and sticking them on a large piece of paper which I had prepared with the outline of a column graph, as shown in the example from Blacktown Central High School in Figure 5.

The discussion about school travel mode choice served both as an effective, non-threatening way of engaging the young participants in an activity about a journey they all had experience with, and as a useful entry point for discussing other journeys.



Figure 5 Interactive survey method using coloured 'post-it' notes to create a column graph of results for discussion, Blacktown Central High School

Colour code for transport mode (Left to right): Green = Walk; Blue = Bicycle; Yellow = Bus; Purple = Train; Red= Car.

This simple class activity brought the young people into the research process almost immediately. Being able to view the results immediately meant that the results were readily understood and the students could describe the results in their own words. The activity produced straightforward quantitative data. The interactive survey prompted further group discussion and raised new questions that were included in the research, such as why so few students rode a bicycle to school, which then led to the next activity – peer to peer interviews.

#### *Peer to peer interviews*

Similar to the interactive survey the purpose of conducting peer interviews was to demonstrate the difference between the sort of data produced using the qualitative method of interviews and the survey method and provided albeit brief opportunity for the young people to practice their interview skills. For the purpose of data generation the peer interviews gathered information from the young participants that

explained their use of particular modes of transport to school. After discussing the results of the travel to school survey, students were asked how they might find out why different young people used different modes of transport.

Some possible explanations were discussed and then the method of conducting interviews was explained as a method of systematically investigating the reasons for travel by particular modes to school. The young participants were invited to form a pair with one of their friends or the person next to them and then for each person to interview the other asking about how they travel to school and why they use the particular mode of transport. Participant interviewers wrote the responses, again on sticky notes and these were grouped on another large sheet of paper divided into four transport modes. The various responses were then discussed as a group. The peer interviews were effective in gathering initial data to explain the school travel mode results. These peer interview responses were very brief but were transcribed and collated to inform my discussions about school travel in the individual semi-structured interviews.

#### *Children and young people's drawings*

Once the group activities were finished, I then discussed the fact that children and young people travel to a whole range of places, in their local area and other places, and that I was interested in finding out about the different places they go and how they travel there. I invited them to produce a drawing, map or diagram of the places they usually go on a piece of A3 paper which I supplied to them. They were also asked to write on their drawings some simple information about what mode they used to travel to the places they go and approximate travel time (Figure 6).

The children and young people's individual drawings produced a range of information about the children and young people's everyday journeys including their usual destinations, frequency of travel, transport mode and travel time. These drawings were particularly useful for prompting discussion in the individual interviews.



Figure 6 Individual drawing activity involved participants drawing the places they usually go, Blacktown North Primary school

Drawings are a child-focussed method that have been used frequently in child/youth geographies and participatory urban planning and research with children and young people since the 1970s to engage young people to reflect on their local environments. In a discussion of the subjective nature of urban imagery, social geographer David Ley (1983, p114) described how children's sketch maps of their neighbourhoods are an 'informative tool' for showing a child's view of their world being 'more naïve and more honest' than the features that hold meaning for them. Ley argued that cognitive mapping illustrates that:

the experience of urban form is both momentary and enduring; the existential moment captured by the cognitive map offers clues of both transitory and abiding elements of the urban life-world (Ley 1983, p114).

Drawings have the advantage that they do not require a high level of literacy and so can even be used with very young children. The high school participants, however, were less enthusiastic about using this method and tended to use diagrams or schematic maps rather than drawings.

One disadvantage of drawings, however, was that the information provided on the drawings varied considerably between the primary school and high school



participants and depending on the time available to do the activity. Time constraints were another limitation and in Blacktown Central High School, a variation to the school timetable on the day of the activity meant that no young men were able complete the drawing activity.

Nonetheless the drawings provided a rich source of data about everyday travels of the children and young people overall. All drawings were scanned to create a visual database of young people's travels and the information transcribed into the central database including any comments about places. Some of the information provided on the drawings could be mapped but this required first locating the participants' home neighbourhood to make sense of the places they go as part of their everyday travel. A simplified geo-coding activity was therefore included in the activities undertaken in the second session.

### *Mapping activities*

In the second session participants were provided with a street map of the locality of their school and given instructions about how to show on the map their journey to school by selecting colours and including a key. These individual maps were also used to estimate the distance from home to school via the route taken using the scale bar. Information about travel to school, distance, time and mode were then collected on an enlarged locality map (Figure 7 and Figure 8). Estimated time-distance to school by mode was calculated by each participant and recorded on the group scatter plot chart (Figure 9).

This activity produced geographical information about routes to school and other destinations from residential locations. It enabled time and distance by transport mode information to be collected and compared and prompted class discussion about the availability of active transport alternatives in the local area.



Figure 7 Mapping activity: plotting home location on enlarged local area street map, Blacktown South West Primary School

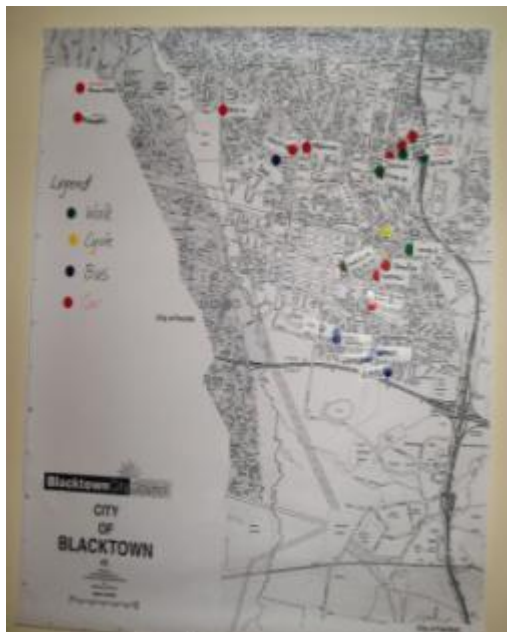


Figure 8 Plotted home locations by school travel mode on enlarged local area street map, Blacktown Outer West High School

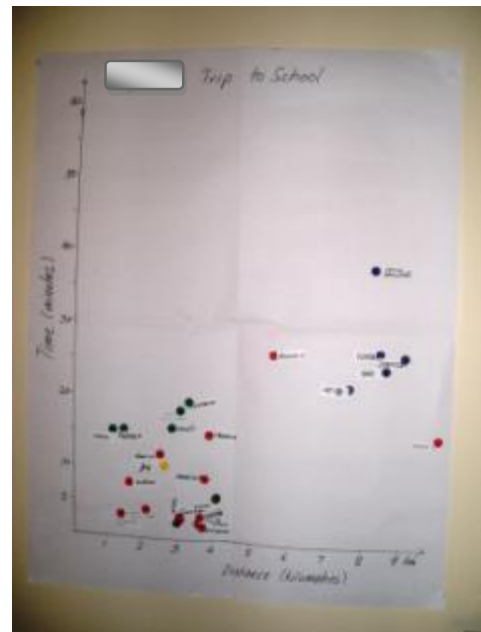


Figure 9 Travel to school estimated time and distance by transport mode, group scatter plot, Blacktown South West Rail

### *Travel and activity diaries*

One session in each participating class was booked in on a Monday so that information could be gathered in the travel and activity diary about weekend travel. The diary was a simple table in which the participants could list their activities against an hourly time slot. It was not meant to provide information in by-the-minute accuracy, but to provide a more systematic documentation of young people's daily activities, places they go and how they travel that indicated the amount of time spent on activities and on travelling. These were useful mainly to highlight weekend activities.

### *Guided walking tour and accessibility mapping*

As a way of exploring with the children and young people their view on how easy it was for them to travel around their neighbourhood, one class session was devoted to doing a guided walking tour of the local area around the school. These tours introduced concepts of mobility and accessibility and environment factors that might influence them. Taking the participants outside of the classroom also allowed the young people to document and record their perspectives on their environment and how they easily they can move around using maps, photography and video (Figures 10 and 11).



Figure 10 Participant led local guided walk to the school entrance, Blacktown Outer West High School

### *Use of photography and video*

Photos and video documenting young people's perspectives on local accessibility, especially for pedestrians and cyclists, elicited images and audio commentary by young people on the quality of their local environments for active travel and about their journeys to school.

The data was qualitative in nature and location specific. The photos were used in the poster making activity in which the children and young people added captions to their photos about the quality of the local area for active travel. The video was replayed to the class that produced them to generate further discussion of what aspects of their environment they thought ought to be improved. The limitations of time and



Figure 11 Participants used photography to capture features related to transport in their local area on the guided walk, Blacktown Central Primary school.

resources meant that it was not possible to fully analyse the material produced in the videos for the purpose of this thesis. Nonetheless, the use of video was an effective way of engaging the young people especially, in discussing the issues raised in the study.

### *Poster making activity*

The photographs taken during the walking tours were processed, printed and then in the final classroom session the children and young people were provided with cardboard, glue and markers and were asked to choose a number of photographs to arrange and display on the cardboard with captions to illustrate aspects of their local environment that related to transport, mobility and accessibility (Figure 12). There were 49 posters produced for the research.

The posters produced qualitative data reflecting the group's interest and ideas about the quality of the local environment for children and young people's mobility. The activity prompted lively group discussion, and one teacher reported that she would do that activity again with her class because they enjoyed it so much.



Figure 12 Participants worked in groups to produce posters using photographs taken on the walking tour. Each photograph was annotated with a description of the transport related issue the group had identified.

The production of posters provided an opportunity for young people to express their opinions about their local areas in a simple and non-threatening way. The activity

generated much discussion about the local area and how easy or difficult it was to get around. Where students gave their consent, the small group discussions were recorded. The information from the posters was not used in the analysis for this thesis however, because the level of information from each poster varied greatly, depending on ability, literacy levels, and the amount of time the students had to complete the task, and their understanding of the task. Of course not all students were interested in the activity, and either did not provide any information at all or very little.

Photo collage posters are an activity that all students could do, in some cases with help, and were a means to identify qualitative differences in the walk and cycle accessibility of the local area. Other studies of the 'walkability' of neighbourhoods or the quality of environment, such as by Carey Curtis and Courtney Babb (2013) in Western Australia, have used similar methods to assess walkability of neighbourhoods from the perspectives of young people and found a high degree of alignment with state agency rendered walkability measures.

#### *Individual semi-structured interviews*

Once the classroom activities were completed, the individual semi-structured interviews were conducted during school hours. These interviews lasted approximately 10 to 20 minutes and elicited the most comprehensive information about young people's everyday travel and their home and neighbourhood contexts. The interviews produced qualitative data (about mobility and accessibility and perceptions of place) and collected information about demographic and household characteristics which enabled information about travel to be considered in context of household circumstances. The interviews were particularly helpful to gather information to understand 'unique circumstances and perspectives' (Driskell, 2002, p.103) of the children and young people's daily lives and travels. They provided an opportunity to explore reasons for travel choices, influences on travel patterns and constraints.

The drawings were used in conjunction with the interviews to prompt participant discussion about the importance of places they had illustrated. The use of the drawings proved to be very effective in stimulating discussion about travel. The questions used in the interviews are provided in Appendix B.

## Conducting the research

The activities were conducted over four class sessions of approximately one to one and a half hours each. These sessions were conducted over two to four weeks depending on the school timetables, followed by individual interviews which involved participants coming out of class for 10 to 15 minutes. The research activities were conducted in two segments, firstly from October to December 2007 (which is Term Four, the last term in the Australian school year) and between February and March 2008 (which is Term One of the new school year in Australian schools). These months are spring and summer in Australia and there is a long break of six weeks of school holidays from late December to the end of January.

## Framework for analysis

The use of different methods enabled the investigation of children and young people's everyday travel to go beyond a set of travel patterns to delve into the subjective value of the places they travel to as well as to explore their local environments with them. The questions clarified in the early design stages set the framework for the data generation methods and analysis. How each method related to the questions investigated in this research is set out in Table 3.

Table 3 Matching methods to research inquiry

Method	Class survey	Drawing	Map	Interview	Diary	Photo	Video
SCHOOL TRAVEL							
How did you travel to school?	✓			✓			
Why did you use this form of transport?	✓			✓			
Where did you travel from?	✓		✓	✓			
How far was your journey?	✓		✓				
How long did it take?	✓						
EVERYDAY TRAVEL AND ACTIVITY							
What places do you usually travel to		✓	✓	✓	✓		

Mode of transport used for trips		✓	✓	✓	✓		
Travel time of trips		✓		✓	✓		
Frequency of trips		✓		✓	✓		
Reason for trips				✓	✓		
INDEPENDENT MOBILITY							
Who do you usually travel to school with?	✓			✓			
Which places you are allowed to travel to alone		✓		✓	✓		
ACCESSIBILITY RANGE							
Frequency of travel to Sydney CBD				✓			
Travel beyond local area				✓	✓		
ACCESSIBILITY CONSTRAINTS							
Places of most importance				✓	✓		
Places most difficult to access (without a car)				✓	✓		
Places would like to access but can't/don't				✓	✓		
ACCESSIBILITY OF LOCAL ENVIRONMENT							
Things you like/don't like about where you live				✓		✓	
Places you don't like to go				✓		✓	
Things that make it easier/more difficult for young people to walk, cycle or use PT				✓	✓	✓	✓
Things that you would change to make it easier for young people to travel around				✓	✓	✓	✓

### *Mixed methods make mountains of data*

Using multiple methods research can generate large amounts of data even from relatively small sample sizes. For example, in addition to the individual drawings, maps, activity diaries and interviews, there were 49 posters produced which contained 471 photographs. Each of the data collection tools generated multiple data records. For example, while there is only one record for school travel reasons and bicycle travel for each participant (158 records for each), for the other research activities there are multiple records for each participant, amounting to approximately



8,700 separate data records. Demographic data were collected only from participants who were interviewed (103 participants in total). Demographic information about each student and responses to the research activities were stored in separate, but linked, tables from the data.

Having generated such a large volume of data undertaking the analysis was a formidable task. As Meghan Cope (2010) observed:

[q]ualitative research usually produces masses of data in forms that are difficult to interpret or digest all at once, whether the data are in the form of interview transcripts, hours of video, or pages of observation notes. Therefore, some form of reduction, or abstracting, is desirable to facilitate familiarity, understanding, and analysis. (Cope 2010, p289).

To manage, and reduce and analyse the data created through the research process all records were firstly compiled according to schools and each item given an identification number which was linked to the demographic data and consent information for each participant. This information was stored electronically, on a computer database using Microsoft Access software.

The interview transcripts were segmented for coding purposes according to each question. Separate records were created for participant responses to each of the other methods. These participant response records were then coded and analysed using simple query commands to sort, select and group participant responses from the different activities and interview questions according to various criteria such as gender, age group, location. Descriptive codes were used for places and travel modes, and analytic codes for reasons for travel (activity), reasons for using different transport modes as well as responses to questions about independent mobility and accessibility.

#### *Data assembly and coding*

Each data item was assembled into a separate folder for each participant and given a numeric code. Drawings were scanned and information recorded in a table in an access database linked to the demographic details of each participant. Similarly diary

entries were manually entered into a separate table in the database. Interviews were transcribed in segments in a digital form aligned to the response to the questions rather than as a single transcript. This was a proxy for higher order thematic coding. That is answers could be easily grouped against the major themes of school travel, independent mobility, accessibility.

Comments noted on the drawings, in the travel and activity diaries and responses to interview questions were then coded with similar codes based on the reference to various social, spatial or environmental factors, such as family circumstances, distance or traffic safety. The relational database enabled analysis of these responses and codes by various social and demographic factors (age, gender ethnicity) and/or by research sites.

### **Reflecting on the research process**

One of the benefits of mixed methods designs is that combining methods can assist analysis, interpretations and applicability of findings. For example, qualitative research using focus group discussion is a useful method for exploring social issues, especially when working with marginalised people (Madriz 2000). Interpretations from focus group discussions can be enhanced by quantitative analysis of physical or social characteristics of the locations or social contexts associated with the group. Equally, making qualitative interpretations, such as suggesting people's preferences for travel by particular public transport modes, cannot be concluded from statistical trends alone. So combining qualitative and quantitative methods can be of particular benefit to the analysis of exploratory research like the Blacktown study.

In social geographies, especially, it can helpful to think of qualitative and quantitative methods, not as opposite, nor as interchangeable methods, but rather as complementary methods that can be applied sequentially or concurrently in the process of research. Mei-Po Kwan (2010) argues in favour of adopting this flexible approach to research design and methods. She states:

As the analysis of quantitative data can be complemented by a contextualized understanding of people's everyday lives provided by qualitative data, and the interpretation of qualitative data can be assisted by the broad picture provided by quantitative methods, using

multiple methods in a single study may provide a more complete understanding of the questions at hand (Kwan 2010, p577).

Quantitative methods are also useful to help identify regularities between factors. Where spatial information is considered, quantitative methods can help with understandings about the locational aspects of phenomena. Qualitative methods, on the other hand, are well suited to research with children and young people where the purpose is to understand their lived experiences within the contexts of their local environments, their perspectives and views on issues that affect them.

The idea of using mixed methods in a complementary way formed the basis of the research design for this study to engage children and young people in the data production process and explore with them their views and everyday experience of their mobilities. In this way the research design attempted to take into consideration children and young people's capability and right to participate in research about issues that concern them. It also aimed to be able to analyse the data in relation to broader questions about urbanism and transport.

The travel patterns of children and young people could be derived from undertaking a secondary analysis of existing travel survey data available from the Sydney Household Travel Survey (HTS). Such surveys provides a useful descriptive overview of trends in travel but falls short of providing explanations of these trends. In contrast, the grounded approach and child-focussed methods, as applied in this research, enabled the children and young people to offer their own ideas and explanations, in the first instance, about the nature of their travel and the meanings they attribute to the places they go and about the way they travel.

Although the data generated by the drawings, travel and activity diaries and interviews could be quantified and provided information that was similar to travel survey questionnaires, they served another important purpose in the way that they revealed the relative importance of the places to which children and young people travel. In addition, the child-focussed methods generated information about the use of alternative modes of travel to the same destination and the spatial and social range

of travel needs, which included activities deemed to have special importance to the children and young people themselves.

### **Limitations of the research**

Apart from the variability in data that qualitative methods produce, there were a number of other limitations to the research. These limitations related to the participant profile, the duration of the data collection process and time of year when the research was conducted.

#### *Groups of children and young people not included*

Government schools are open to enrol all students but even in these settings some groups of children and young people were not included. A large group of children and young people who attend private school were not included in the study. Their patterns of travel are likely to be geographically different but not necessarily different in terms of the places or purposes for travel.

Notably, there were no young people involved who had a physical or an intellectual disability. The experience of travelling around the neighbourhood and city for disabled children and young people is acknowledged as likely to be very different to that expressed by the participants, and would be worthy of its own dedicated research project.

A related issue for the study was that although students at government schools have a range of academic abilities, the classes involved had been graded on ability. So while across the whole participant group, there was the full range of ability included, within each class the academic capabilities were more homogenous. This meant that a level of bias was introduced into the research which could have implications for the interpretation of differences found between localities.

#### *Lengthy duration of the data collection*

The lengthy duration of the data collection meant that there would be some variation in what out-of-school activities the children were likely to be engaged in, which

would be a concern if the study was attempting to more accurately quantify child/youth travel.

#### *Time of year and seasonal variations in out of school activities*

Another limitation related to the time of year that the research was conducted. The school visits were conducted in Term 4, 2007 and Term 1, 2008. Nevertheless, one benefit of having the data collection being conducted over the Australian late spring, summer to early autumn months was that it reduced the effect of more extreme climatic differences and essentially were within the period of 'Australian Eastern Summer time' when clocks are set an hour later to extend the daylight hours into the early evening, thus having more after school hours before dark. The children and young people may be more active in the spring and summer periods as a result of the later periods of hours.

#### *Timing research within the school year*

While all activities and interviews with participants occurred between the warmer months (daylight saving time) in Australia, October to March, these months cross over the end of the school year and the start of a new school year for students.

What became apparent during the data analysis stage was that the rapport that the young people had with each other and their teacher in the classes involved at the end 2007 had not been fully established in the classes involved in the study in early 2008. Consequently, the participants, particularly in the high school classes in early 2008, were noticeably more reticent in their class discussion and involvement in the interactions than the 2007 classes. A degree of self-conscious hesitation was displayed whenever they were asked to provide individual responses in the whole group setting.

### **Conclusion - valuing children's and young people's perspectives**

Despite the challenges and limitations of using grounded, mixed method research, the research process produced a rich insight into the everyday lives and mobilities of children and young people. Reinforcing the advocacy of children's and young people's geographers, this research affirmed the value of seeking the different

understandings and nuanced perspectives children and young people's perspectives on everyday life (Cope 2008).

Although the research process was a somewhat clumsy adaptation of grounded theory method and of participatory practice, the data generated demonstrates the potential of children's and young people's own 'knowledges' and world view (Pain 2010) for challenging some of the assumptions of conventional transport geographies and for opening up new pathways for mobilities inquiry.

## INTERLUDE

In the course of the literature search across the domains of urban, transport and child and youth studies, and wandering amongst the shelves of a rather lifeless Ward Library in the paddocks of Werrington Campus of the University of Western Sydney (UWS), I came upon a small, dusty, yellow-paged book entitled, 'Growing up in an Australian City' (W. F. Connell, Francis, & Skilbeck, 1957). Inside the cover the book included a map of Sydney, which had Blacktown as a point on the western extremity of the city. Somebody, presumably a UWS student, had circled the Blacktown spot on the map and inscribed 'I live here' next to it (Figure 13).

Dated 1957, the book is a report of a survey of 8,705 adolescents, aged 13 to 18 years, from across Sydney exploring their 'activities and everyday habits' (Connell, Francis et al. 1957). Noting that there had been very few studies of Australian culture before it, the survey, undertaken by successive groups of graduate and undergraduate students of the Department of Education at the University of Sydney, aimed to 'understand the ways in which an Australian grows up to be an Australian' (Connell, Francis et al. 1957). At the time there was public concern about 'juvenile delinquency', the new term used to describe the emerging category of youth culture (Powell 1993). These concerns are not dissimilar to the concerns voiced about young people today (see for example Poynting & Morgan, 2007), expressed as resistance to parental values and social norms. Despite concerns about youth gangs and 'sub-cultures', the 1957 survey showed that, for the majority of young people then, 'in all age, sex and suburban area groups [their] mother proves to be the greatest influence' (Connell, Francis et al. 1957) and that their activities with their peers involved nothing more 'menacing' than just talking, sport, dancing, going to the pictures (meaning seeing a movie), attending church or youth clubs, visiting friends and relations, and going to milk bars.

Although Australian cities, urban life, families, and youth culture have changed in many ways since the late 1950s, the survey, the book, the map as well as the anonymous inscription all serve as a reminder that notions of 'inner' and 'outer' are always historically fluid and contingent. Fifty years on, more than 60,000 young

people 'live here' in Blacktown and its spatial and social positioning within the greater metropolitan area of Sydney and its population have changed dramatically, as the economic and social impacts of globalisation and international migration have transformed Sydney and the Australian nation.

Blacktown is no longer situated on the 'outer' edge of the metropolitan area as the map suggests, but has been encircled by the march of residential and industrial development in the ensuing period. In the decades following the end of World War II rapid population and planned urban expansion the popular imaginings of Western Sydney, and Blacktown, as a sprawling, car-dependent, suburban monoculture emerged (see Powell 1993). Since the 1970s, however, revised urban planning paradigms and schemes and changes to immigration and economic policies have transformed Blacktown's urban landscape and enriched the community with a multitude of ethnic and religious diversity. Yet many of the stereotypes about Western Sydney and Blacktown as a place, and the people who 'live here,' that emerged from this earlier era of rapid urbanisation have been hard to shake. Similarly, the nature of urbanism in Australia still resonates with the 'great Australian dream' of home ownership from which the now older suburbs of Blacktown were fashioned. But the new millennium has brought new challenges for cities and a re-imagining of Australian urbanism.



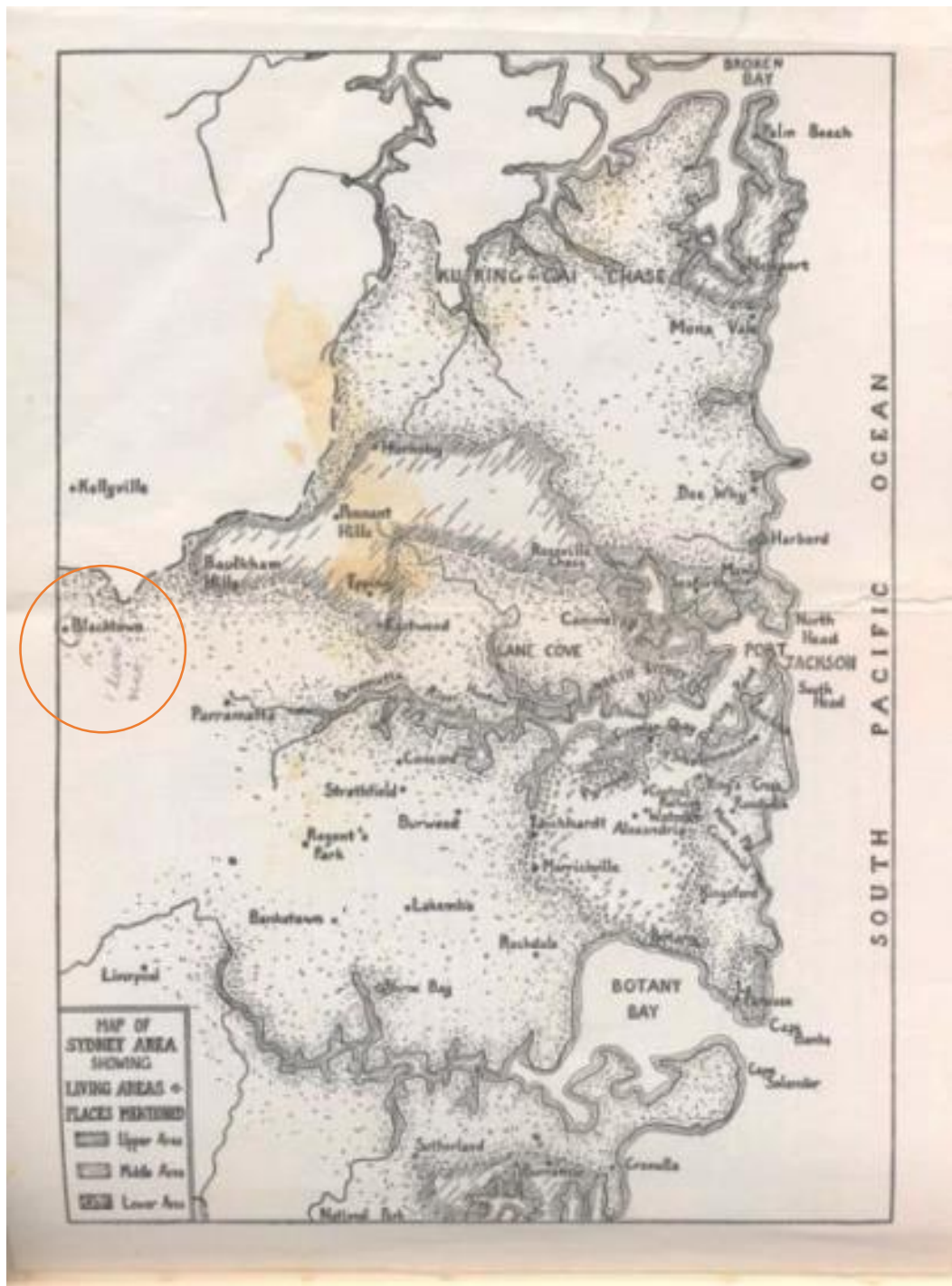


Figure 13 Sydney region as depicted in Connell et al. 1957, showing an anonymous inscription (circled)

Source: Connell, W. F., Francis, E. P. and Skilbeck, E. E. (1957). Growing up in an Australian city: a study of adolescents in Sydney. Melbourne, Australian Council for Educational Research.

## Growing up in an Australian city

The everyday mobilities of Australian children and young people reflect the nature of contemporary Australian urbanism. Australian urbanism has evolved, in no small part, in response to the material and social structures that have come to characterise Australian cities (Forster 2004). Transportation has had a central role in shaping these physical and social characteristics of the cities. To better understand the role of transport in the everyday mobilities of children and young people in contemporary urban Australia, therefore, it is necessary to understand the material and social structures of the space(s) in which their mobilities are performed.

This chapter specifically considers aspects of urban structure and built form in relation to the transport system and socioeconomic profile of the population as they are configured across the Sydney metropolitan area. It is within this spatial configuration that the urban region of Western Sydney and of Blacktown local government area (LGA) are located and that the mobilities of the children and young people who were involved in this research were situated. But, rather than focus solely on the localised characteristics of built environments, like density, urban form and street grids that have tended to preoccupy studies of children and young people's urban travel behaviour (Ewing and Cervero 2010), this chapter takes a step back to consider the historical and culturally contingencies that shape the structures and textures of the urban space (Horschelmann and van Blerk 2011).

The chapter includes a description of the variations in urban structure and form, transport and socio-economic characteristics found across Blacktown and provides details about the characteristics that distinguish each of the five research localities selected for the Blacktown study. The comments by the children and young people in the study about living where they live reiterate the views of Blacktown's other residents (BCC 2013) and indicate that, contrary to the popular imaginings,

Blacktown has many of the qualities that make it - like most Australian cities - a good place to live.

### **Introducing Blacktown, Western Sydney**

By virtue of their history and geography, Australian cities are few and far between, scattered (as they are mostly) around the coastal rim of the Australian continent. More specifically, Australian cities are characterised by covering large areas of land with low density development and by most urban travel being undertaken by private motor vehicle. Although Australian city dwellers have a high quality of life, in comparison to people in many cities around the world, there are distinct differences between areas of concentrated wealth and advantage and other poorer areas of concentrated social disadvantage (Forster 2004, p xvi).

Describing itself as ‘modern bustling city of 48 residential suburbs in the heart of Western Sydney’ (Blacktown City Council 2013a), Blacktown has many of the physical, social and cultural characteristics that epitomise Australian cities and contemporary Australian urbanism. Blacktown City Council governs an area of 240 square kilometres, situated approximately 35 kilometres west of Sydney’s central business district (CBD) and its iconic Harbour Bridge and Opera House as shown in the map in Figure 14. Home to more than 300,000 people, Blacktown City Council is the fifth most populous local government area (LGA) in Australia. Yet despite its population size, Blacktown’s geographical location and interdependencies on economic and social infrastructure within the greater metropolitan area of Sydney mean that it is rarely regarded as a city in its own right.



## **Blacktown in its historical context**

Far from being entirely the product of ‘suburban sprawl,’ Blacktown has its own rich cultural history. Situated on the traditional lands of the Darug people, Blacktown’s Indigenous heritage dates back thousands of years (Kohen 2006) and the traditional name for the place is Boongarrunbee or Bungarribee<sup>6</sup> (Blacktown City Council 2012). Recognition of the Indigenous heritage of Blacktown is important, not only because it is the origin of the city’s name, but because it is one of the defining features of the city itself (Lewis 2006). Blacktown’s Indigenous communities, of over 8,200 people in 2011, represent 2.7 per cent of Blacktown’s population, a greater proportion than 2.5 per cent for Australia (ABS 2013). The community includes the descendants of the South Creek tribe, but also many Aboriginal and Torres Strait Islander peoples from around Australia (Sharpe 2000).

After an initial settlement of a handful of European settlers on Prospect Hill in 1791, Blacktown’s population grew from 16 people in 1800 to 3,847, just over a century later at the 1911 Census (Blacktown City Council 2005). At that time, the Shire of Blacktown, as it was officially known, covered an area similar to the size governed by Blacktown City Council of 264 square kilometres, and had a population density of only 14.57 persons per square kilometre.

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<sup>6</sup> Bungarribee Road is now a main thoroughfare that dissects the central suburb of Blacktown.



Figure 15 Blacktown 1901

Source: National Archives Australia: B5919, 4/82 Blacktown 1901. Permission sought

*From back blocks to major centre – population growth and urban expansion*

Blacktown LGA currently extends over an area of 245 square kilometres, roughly equivalent to the area of other more commonly recognised major cities of New South Wales adjoining Sydney, Newcastle (262 square kilometres), and greater than Wollongong (184 square kilometres). Unlike these two industrial cities spawned by coal mining and, until the 1980s, reliant on steel manufacturing, much of the land area in Blacktown was devoted to small scale farming, market gardens and poultry as recently as the early 1950s. Up until that time Blacktown town centre was merely a clutch of single detached dwellings and shops built close the main railway station, surrounded by farms and bushland, as can be seen in the aerial image from 1947 (Figure 16).



Figure 16 Aerial image of Blacktown, 1947

Source: NSW Land and Property Information Historical imagery, published online in 2011

The transformation of Blacktown from the semi-rural periphery of the urban area in mid-century to become a ‘major centre’ in Sydney’s metropolitan area began in the post-war boom years 1950s to the 1970s and has continued unabated. Blacktown’s population grew five-fold from 31,748 in 1954 to 156,830 in 1971 (Spearitt, 2000).

The post-war industrial boom and immigration brought many of Sydney’s European migrant families to Blacktown, who subsequently bought the land and established thriving market gardens and poultry farms in the area. Increasingly, however, over the course of the second half of the twentieth century, the agricultural lands were acquired and developed into residential and industrial areas but remnant patches of agriculture can still be found scattered amongst new residential developments.

By 1971, Blacktown’s population had reached 156,830 people. More than half of the population, (55 per cent), some 86,393 people, had moved into their residence in Blacktown within the preceding five years and just over one fifth of the total population (23 per cent) were overseas born residents. With 60,867 children aged 0-14 years, which represented 39 per cent of the population, it was fair to say that

Blacktown exemplified suburban living, 'where the streets belonged to kids and dogs'. The growth rate then slowed but was still very strong, with the population doubling again between 1971 and 2011 to an estimated 312,346 people. The average annual growth rate of 2.5 per cent for Blacktown over the past four decades was almost double that of Greater Sydney, which had an average annual growth rate of 1.3 per cent over the same period (ABS, 2013b).

Today, one in 74 Australian residents now live in Blacktown LGA and its population is highly culturally and socially diverse. More than a third of Blacktown's population (37.6 per cent) were born overseas and a similar proportion (36.9 per cent) spoke a language other than English at home. In terms of social diversity, some of the most disadvantaged communities of Sydney live in the south west and outer west of Blacktown LGA but there are many affluent households in the north east, middle income communities in the south east and many newly-arrived migrant and refugee households in the central area.

The social characteristic most relevant to this thesis is the fact that Blacktown's population has a large number of children and young people. Many of the issues related to child-friendly cities (Malone 2004), and that are to be found in Australia's other urban 'heartlands' (Gleeson 2006) are evident there. At the 2011 Census there were 71,460 people aged 0 to 14 years in Blacktown LGA. This number represents one in 58 Australians in this age range. Almost one quarter of Blacktown's population is in this age group, significantly higher than the Australian average of 19 per cent. The youthful profile and combination of physical, social and cultural characteristics of Blacktown made it a highly suitable location to gather the views of children and young people from a range of backgrounds and circumstances, and living in a variety of neighbourhoods.

It is important to note, however, that these distinctive configurations of urban structure and form, transport networks, the socio-spatial segregation and cultural diversity that characterise contemporary Australian cities, and that are to be found in Blacktown, have been neither inevitable nor irreversible. On the contrary, as described in the next section, the development of Australian cities and the nature of Australian urbanism reflects the legacy of planned responses to rapid population



growth and the necessity for mobility based on the transportation technologies and planning paradigms of the time.

### **Blacktown's urban character**

Within Blacktown LGA, the post-war immigration and influx of people over the past half century has both generated and been drawn by large-scale residential development.

The influx of people generated large-scale residential development across Blacktown LGA, with the number of suburbs trebling to 48 suburbs since the 1930s (Sharpe 2000, Blacktown City Council 2007). The progressive release of new residential land created Blacktown's urban character as a patch work of suburban neighbourhoods, shown in Figure 17, each with its own distinctive form and design.



Figure 17 Blacktown LGA and suburb boundaries

Source: Blacktown City Council 2014

The first surge of post-war development was predominantly low cost fibro or wood-panelled cottages laid out along grid-patterned residential streets extending out from the railway stations. Examples of these suburbs include Blacktown suburb, Prospect, Rooty Hill and Doonside.

The NSW Housing Commission and the *Cumberland Plan* were directly responsible for much of Blacktown's urban and social development which has had a lasting impact on the city and its perception as a place. When it was introduced in 1951, the *Cumberland Plan* designated land immediately surrounding Blacktown centre and Mount Druitt into residential, commercial and industrial zones encircled by a 'green belt' and rural areas. More significantly, the Housing Commission, the major player in residential development at the time, established its largest public housing estate north of Mount Druitt in 1965.

The Mount Druitt public housing estate was one of two 'great estates' in Sydney, which were designed as exemplary models of suburban planning. The Mount Druitt estate created the suburbs in the outer western area of Blacktown from Whalan to Wilmot. These suburbs, based on 'Radburn' designs, were 'aimed at segregating cars from people and orientating houses towards neighbourhood open space' in contrast to the conventional street frontage for housing (Freestone 2010). In deference to these planning design principles, a street in the Mount Druitt estate bears the name, 'Radburn Road'.

While Radburn, New Jersey is a relatively small community of 3,100 people, residing in one of wealthier counties of the United States (The Radburn Association 2013) (US Census Bureau 2013) the Mount Druitt estate, of 9,150 dwellings, was designed for 32,000 people. Largely, as a result of such large numbers of socio-economically disadvantaged households being concentrated in one location, the Mount Druitt estate has since become highly stigmatised as one of the most socially disadvantaged areas in Sydney (Freestone 2010, ABS 2013a).

Following the application of the Radburn design to public housing estates in the 1960s, the suburban street patterns, even in privately developed estates, became curvilinear and culs-de-sac were increasingly used to reduce through traffic as a road safety measure. The Blacktown suburbs of Lalor Park and Kings Langley and later Minchinbury and Hassell Grove, follow these designs. All of these suburbs are located at a distance of more than 5 kilometres away from the main railway stations.

In the 1980s and 1990s the State Government retreated from providing new housing supply and instead concentrated on managing and renewing its existing estates (Freestone 2010). Some private developers had grown into large corporations capable of buying and developing large tracts of land into ‘master-planned’ communities and ‘specialist residential lifestyle communities’ such as aged and retirement living. The new style of residential development is characterised by higher amenity design features like landscaped streets and parks and bicycle paths. These master planned communities are mostly found in the north east of Blacktown LGA in suburbs like Glenwood and Kellyville Ridge. Among these new residential areas are ‘gated communities’ like Stanhope Gardens where residents share ownership and management of facilities that include tennis courts and swimming pools.

Concurrent with the new release areas, in the last quarter of the twentieth century, the older established suburbs and centres that were located near rail stations were the focus for urban renewal and redevelopment. The policy known as ‘urban consolidation,’ was adopted as a planning priority in Sydney, promoting higher density development in central locations, especially around rail stations (Randolph 2006). Urban consolidation policies followed ‘New Urbanism’ design principles, which, in contrast to the low density suburban patterns, aimed to mimic the higher density living of European cities, through small lot subdivisions, ‘walkable’ street grids and ‘transit-oriented’ town mixed use (commercial and residential development close to public transport) (Congress for New Urbanism 2001).

Urban consolidation also aimed to address the problem of housing affordability, as land for greenfield development became more scarce, traffic congestion increased and public funds for quality amenity and design, infrastructure and facilities, to service new release areas was increasingly constrained. The policy was not without

its critics nor public opposition (Troy 1996) but was nevertheless adopted and implemented by local councils across Sydney, including Blacktown, who were as keen to support redevelopment as they had been to rollout the suburban subdivisions.

As a result, Blacktown's central area has been an important site for urban consolidation. In the ten years between 2001 and 2011 the number of flats and apartments in the suburb of Blacktown almost doubled from a count of 1,121 dwellings in 2001 to 2,056 in 2011. The proportion of flats and apartments increased from 8.6 per cent in 2001 to 14.3 per cent in 2011. This represents 43 per cent of the total of 4,805 flats and apartments across the LGA. With urban consolidation, population density in the suburb of Blacktown has increased, but not nearly as dramatically as dwelling construction, from 2,475 persons per square kilometre to 2,816 person per square kilometre. Despite the implementation of urban consolidation, the residential areas of Blacktown LGA are still dominated by single detached housing, which account for 83 per cent of all private dwellings in 2011.

Alongside its residential areas, Blacktown LGA now has considerable variation in its land use and built form, including around 3,000 hectares of industrial land that supports a concentration of transport and logistics companies and over 1,000 manufacturing companies (Blacktown City Council 2013). It has two main retail/commercial precincts, Blacktown City Centre and Mount Druitt, both located adjacent to the stations on the main Western railway line.

Blacktown City Centre itself has been substantially redeveloped as shown in Figure 18. The major retail centre, Westpoint, located opposite Blacktown railway station, extends over 100,000 square metres of floor space in a four level shopping mall and 4,800 car spaces. Westpoint's promotional brochure claims that it provides 'a modern and comprehensive mix of retail, entertainment, commercial and community facilities' including over 250 specialty retail outlets, that makes the Centre 'the heart and soul of the local community'(QIC Properties 2013).

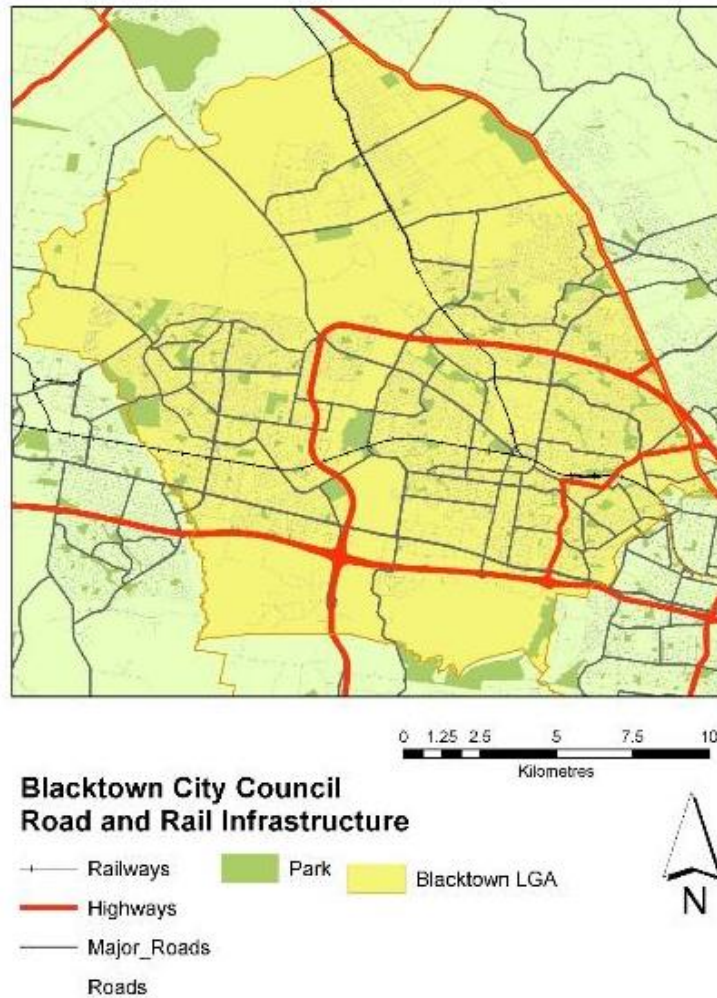


Figure 18 Blacktown 2013 Aerial image showing main centre

Source: NSW Land and Property Information, image published online 2012

### *Blacktown's transportation network*

A defining feature of the transport system in Blacktown is the railway line and the station which lies at the hub of Blacktown City centre. Opened in 1860 Blacktown Station lies at the junction of the Western line and the Richmond line to the north-west. The Western line dissects Blacktown LGA east to west connecting Blacktown to Penrith to the west and Parramatta and on to Sydney's CBD to the east. The Richmond line is a branch line that terminates at Richmond, in Sydney's peri-urban north-west. Importantly, however, the rail infrastructure in the Blacktown LGA, the Western line, was the backbone of Sydney's metropolitan rail system and has remained so for over the past one hundred years. The road and rail network is shown in Figure 19.



Source: NSW Planning Portal 2013

Figure 19 Blacktown road and rail network

What characterised the post-war urban development was the expansion of residential areas away from the primary transport network across Sydney, the railway line, as shown in Figure 20. The combination of urban expansion and the dispersal of employment away from inner city manufacturing sites meant that transport for work became rapidly reliant on car travel.

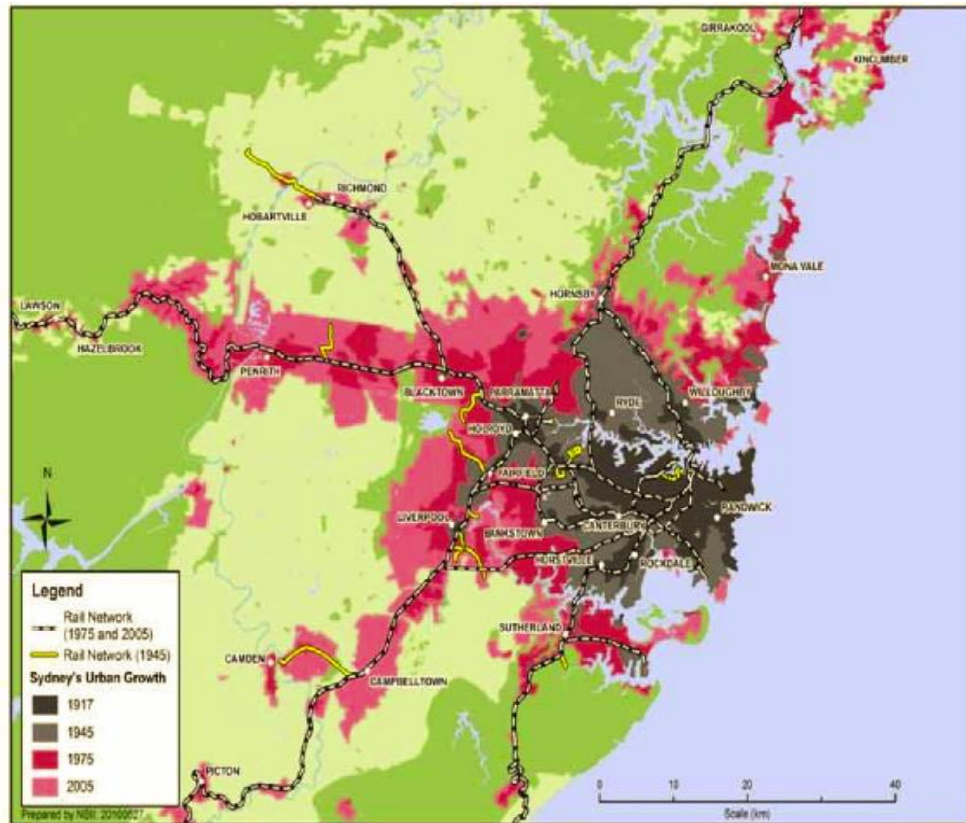


Figure 20 Urban development in Sydney, 1917 to 2005

Source: Department of Infrastructure and Transport 2011

Motor vehicle ownership in Blacktown was already widespread by 1971, with 58 per cent of dwellings having one vehicle and a further 22 per cent with two or more vehicles. Despite the majority of households having access to a motor vehicle, almost one in five dwellings (18 per cent) did not have a motor vehicle. With the rapid urban expansion being located further and further from the main centre and railway stations, mobility for many of the households without access to a private motor vehicle was more difficult.

Local bus transport operates across Sydney but provides limited services outside of weekday peak hour services connecting neighbourhoods to rail stations. Public transport particularly in the west and south west, where bus services were privately operated, has been sparsely serviced and experienced generally poor patronage. While overall the proportion of travel by public transport in Blacktown (at least for

travel to work) is higher than the national average, the rates vary considerably between the suburbs. In contrast, the rate of car travel to work is much the same as for Australia. In 2011, 17.6 per cent of employed people living in Blacktown LGA travelled to work by public transport and two thirds (66.6 per cent) by car (either as driver or as passenger). This compares to a national average of 10.4 per cent by public transport and 65.8 per cent by car (ABS 2013). The rates of travel to work by mode across the city are shown in Figure 21.

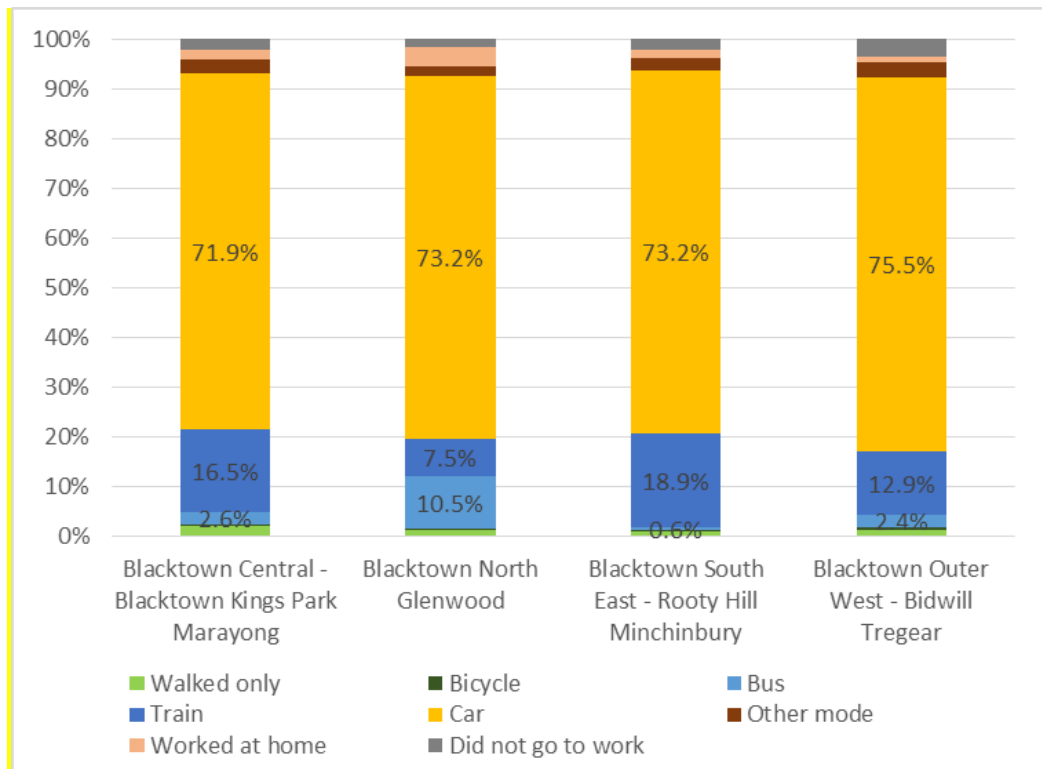


Figure 21 Journey to work in Blacktown localities, 2011

Source: ABS Census of Population and Housing, 2011



Contrary to the objectives of reducing car travel for increasing density through urban consolidation, the higher density development in Blacktown’s centre has not had the expected impact on travel patterns. The proportion of people in the central suburb of Blacktown travelling to work by train increased slightly over the decade, as it might have been expected, but so did the proportion of people driving to work, as shown in Figure 22.

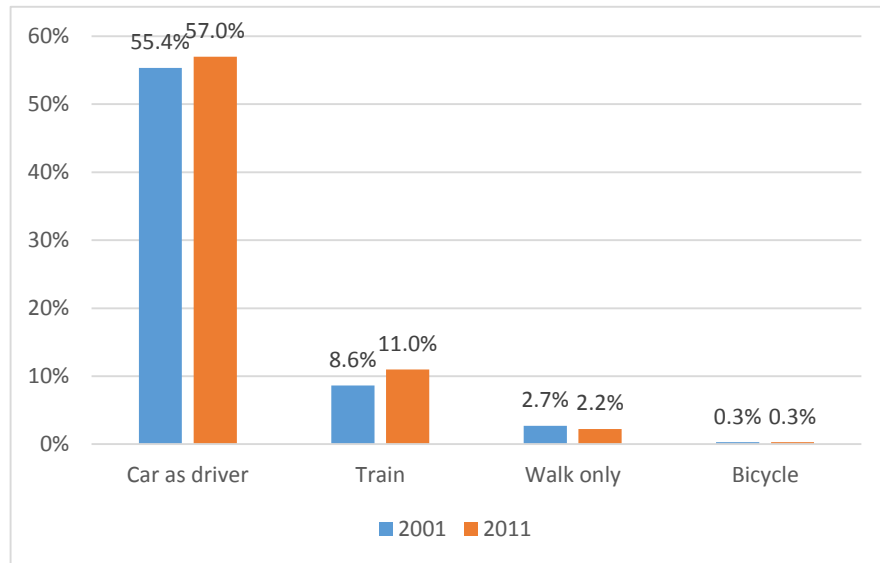


Figure 22 Journey to work by single mode for residents of Blacktown suburb, 2001 and 2011

Source: ABS Census of Population and Housing, 2001 and 2011

Indeed among the suburbs of the former Mount Druitt public housing estate, one of the most remote suburbs, Willmot, has one of the highest proportions of households with no vehicles across the Sydney metropolitan area. The variation in built form, transport infrastructure and travel patterns, suggests that to understand the role of transport in everyday mobilities requires consideration of factors beyond the physical components of cities like density or built form.

### *Distribution of public transport infrastructure*

By virtue of the historical growth of Sydney, much of western Sydney's development was during the post-war period when urban expansion extended residential areas at increasing distances from the public transport hubs of railway stations. Local bus routes were extended into new areas but generally offered infrequent services and lengthy travel times in low density suburbs. Consequently there has been an unequal distribution of access to public transport in Western Sydney compared to the rest of Sydney. Spatial analysis of transport services and stops shows that only 39 per cent of the area of Western Sydney is within 400 metres of a public transport stop with frequency of services every 15minutes or less. This compares to the rest of Sydney in which 62 per cent of the area has this level of access to public transport. While Blacktown's access to public transport stops is similar to that of Sydney, it has a greater proportion of its area not within 400 metres of any public transport stop, as shown in the Figure 23.

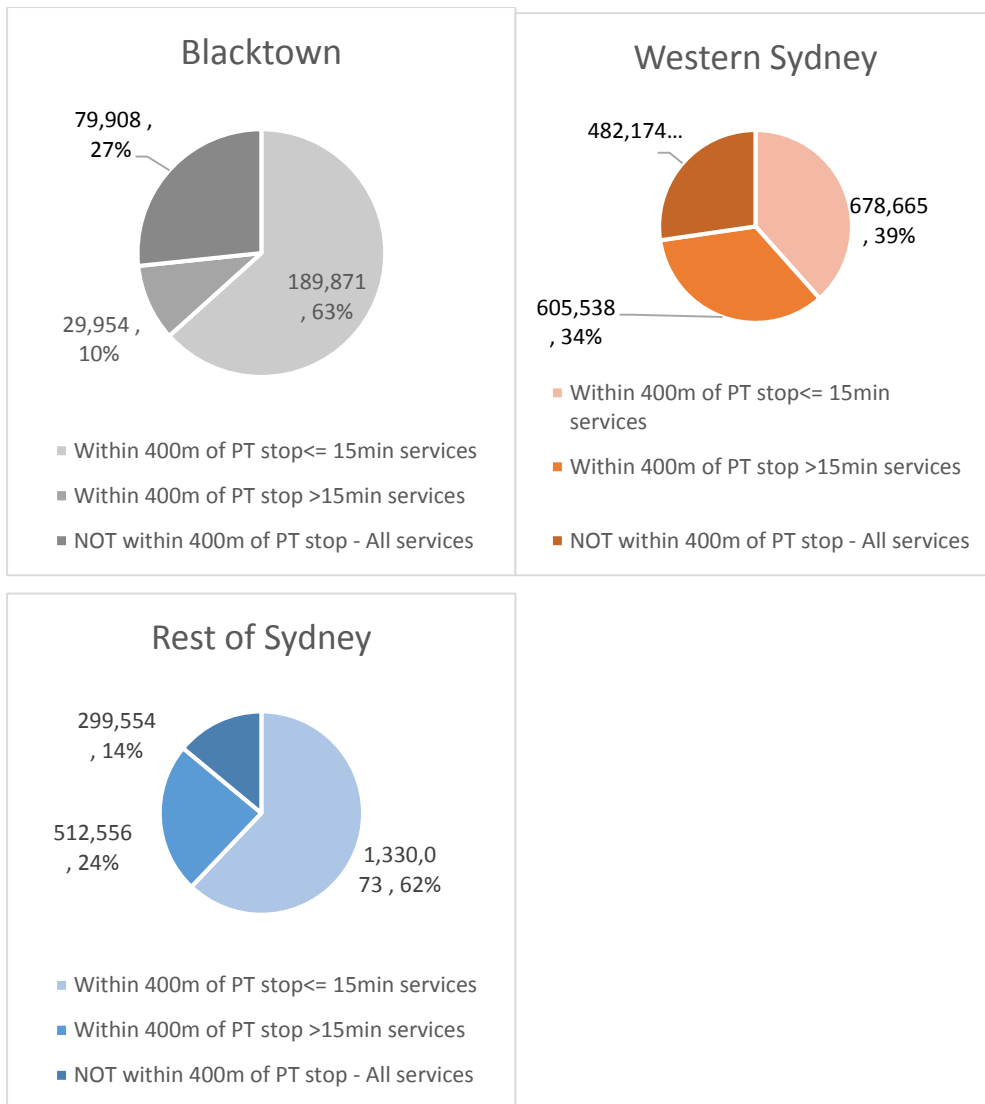


Figure 23 Access to public transport stops with 15 frequency of services, 2012

*Socio-economic distinctions between localities*

In some respects, the socio-economic characteristics of Blacktown reflect the broader divisions of the Sydney region, that is, the south-west and outer west has a greater proportion of lower income households, lower levels of educational qualifications and employment, while in the north, and particularly north east, levels of household income, education and employment are higher. The centre and south east is more mixed and household income levels are closer to the median.

## **The research localities**

Five localities from across Blacktown LGA were chosen as sites for the research, each distinguished by their physical and social characteristics. The sites were selected based on the criteria related to the characteristics described below:

- Location in relation, and proximity, to Blacktown city centre
- Urban character – dwelling type and street pattern
- Transport infrastructure - proximity to railway stations
- Socio-economic profile of the resident population.

For ethical reasons which prevent the disclosure of the schools, suburb level boundaries were also not suitable. Therefore, as noted in Chapter 3, a customised geographical classification had to be attributed to the research sites that grouped a number of suburbs together in each location, namely Blacktown Central, Blacktown North East, Blacktown South East, Blacktown South West and Blacktown Outer West.

The majority of participants from the selected school in each of these five research localities lived in the suburbs that make up the locality, as shown in the map in Figure 24. Some participants travelled from further afield including from neighbouring LGAs of Penrith and Baulkham Hills and one from the inner Sydney suburb of Marrickville. It is important to note that, for ethical reasons to maintain confidentiality, the map shows the distribution of participants as dots randomly allocated to their residential suburb, not their actual residential address.

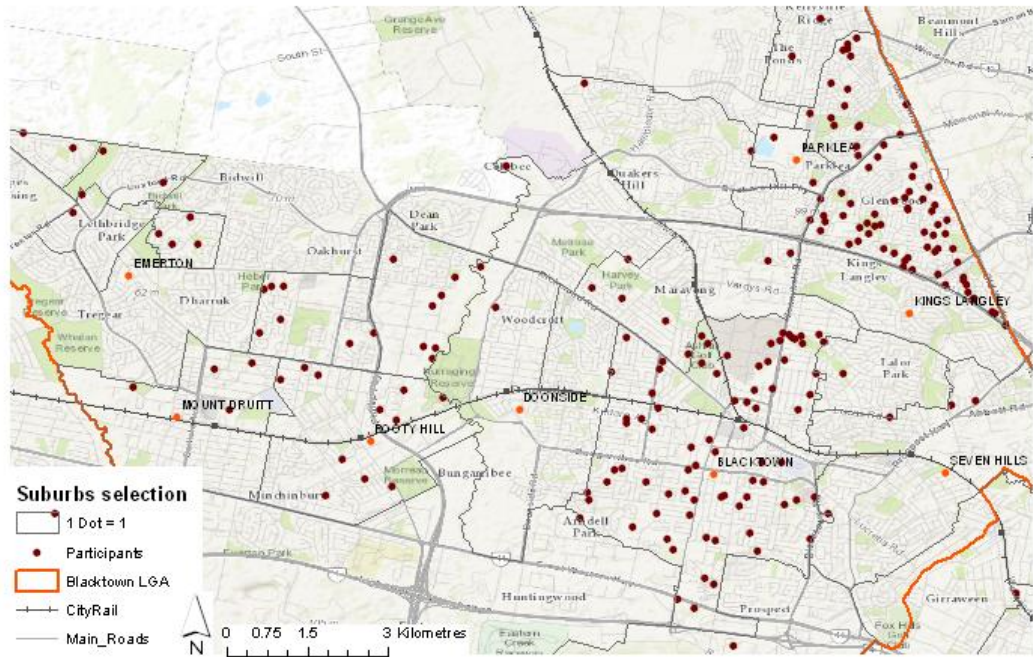


Figure 24 Blacktown suburbs and research participant residential locations

Each of these localities has its own unique physical features, socio-cultural attributes and history, as described in more detail in the following sections. While these characteristics describe the locality and its population in general they all have a fair degree of internal variation in both spatial and social characteristics. Nevertheless, understanding the general characteristics of communities and the places in which they live and how these are spatially distributed was important for helping to understand potential factors that might shape and differentiate children’s and young people’s mobilities.

### *Blacktown Central*

Blacktown Central is the city’s centre. Blacktown Central is an area largely contained within the suburb of Blacktown, covering roughly a three kilometre radius of the main Blacktown railway station and the city’s commercial and retail centre. Blacktown railway station marks the junction between the Western Rail line and the Richmond line. The Blacktown railway station was upgraded in the mid-1990s with support of Federal government funding to create a large transport interchange with the local buses. There has been substantial redevelopment and urban consolidation of the area surrounding the rail station since with older dwellings and commercial

properties replaced by multi-level apartment blocks. Blacktown Central's main retail shopping centre 'Westpoint' was also fully upgraded in the early 2000s to include an underground connection to buses and the train station.

#### *Blacktown North East*

Blacktown North East is partitioned by two railway lines. The area lies north of the main Western rail line and east of the Richmond rail line. Blacktown North East includes suburbs experiencing rapid population growth, recent residential development of largely single detached dwellings in master-planned estates in the suburbs of Glenwood, Acacia Gardens, Stanhope Gardens, Parklea and Kellyville Ridge. The dwellings in these estates are commonly (and derogatively) referred to as 'McMansions' - a reference comparing their size and mass-produced sameness of design with that of the burgers of the multinational fast food chain, McDonalds, which has tended to build their restaurants in close proximity to these estates, monopolising the local retail spaces.

The area encompasses the suburbs of Parklea and Kellyville Ridge, an area (SA3) which had the fastest growing population in New South Wales between 2007 and 2012, with an increase of 15,072 people, or 23.1% growth bringing it to a population of 80, 255 people (ABS 2013 cat. no. 3218.0).

#### *Blacktown South East*

Blacktown South East, a long established residential area. It is sometimes considered 'old Blacktown,' and extends across the suburbs of Blacktown and Prospect south of Bungaribee Road. This area is distinguished by larger house blocks, straight, grid-patterned street network and a mixture of fibro, weatherboard and brick housing. Many of these older homes are progressively being bought by new owners and renovated or the land subdivided into smaller lots for duplex, villas or townhouses.

#### *Blacktown South West*

Blacktown South West is also a synthetic geography for the purposes of this research which is a subset of the area covered by Blacktown South West SLA described above. The differences between these two areas are that Blacktown South West is

more mixed socially and also features a mixed built form. It includes the long established suburbs adjacent to the main Western Railway line of Rooty Hill and Mount Druitt (the suburb and district centre) as well as the suburb of Minchinbury south of the Great Western Highway which was developed in the 1980s.

It covers the older area of grid patterned single detached housing around the Rooty Hill and Mount Druitt railway stations as well as the residential development of Minchinbury, built in 1982 on land that had been a vineyard and winery that was closed and sold in 1978, after supporting jobs for local residents for 66 years (Sharpe 2000). The name has been retained by its famous brand of Australian sparkling wine. Reflecting the period of its development, Minchinbury is distinguished by curvilinear street patterns and cul-de-sacs in the Radburn design.

#### *Blacktown Outer West*

For this research Blacktown Outer West refers to the large area between Plumpton and Willmot that includes the suburbs built in the 1960s as public housing estates based on Radburn design principles commonly referred to as the Mount Druitt district, or 'Mounty County' by the resident young people.

The public housing estates included a mixture of medium density townhouses and single detached dwellings, arranged in circuitous street patterns separated by large areas of open space. The main retail and service centre for the area is located in Mount Druitt centre, although there are a number of small clusters of shops in each suburb.

Although there are some recent private housing developments and tenancies have changed to create a more diverse social profile, the area remains one of the most socially disadvantaged in the state of New South Wales. In this area there is a higher proportion of early school leavers, and a higher unemployment rate among young people compared to other areas of Blacktown and the rest of Sydney.

#### **The social construction of Blacktown, Western Sydney**

Despite the size and the diversity of its social and physical characteristics, Blacktown is rarely regarded as a city in its own right. In many people's minds, Blacktown and

Western Sydney are perceived as synonymous with a ‘suburban’ way of life as opposed to the more cosmopolitan, dynamic urbanism associated with localities closer to Sydney’s CBD. Much Australian urban and transport planning discourse reflects this binary thinking of ‘inner’ as opposed to ‘outer’ urban areas, ‘urban’ versus ‘suburban’ lifestyles, ‘compact’ versus ‘sprawling’ development and ‘car-dependent’ versus ‘active’ and ‘sustainable’ transport. Yet, for the children and young people growing up in Blacktown, their city and their everyday mobilities encompass a far more diverse and dynamic urbanism than these imagined dichotomies of space, place and culture.

Western Sydney is a socially-constructed place that has come to be recognised politically<sup>7</sup> and in the popular imagination as a culturally distinct region of the Sydney metropolitan area. In a geographical sense ‘Greater Western Sydney,’ as it is sometimes referred to, is most commonly understood as the large western region of the Sydney metropolitan area that includes the 14 local government areas of Auburn, Bankstown, Parramatta, Holroyd in the central area of Sydney, Blacktown, Penrith and Blue Mountains to the west, The Hills Shire and Hawkesbury to the north west, Fairfield, Liverpool and extending down to the Macarthur region of Camden, Campbelltown and Wollondilly in the south west (NSW Department of Premier and Cabinet 2012). These 14 councils were grouped into two Regional Organisations of Councils (ROCs) in the 1970s, the Western Sydney ROC and the three LGAs of the Macarthur ROC, which continue to act as advocates for their respective regions.

For reasons associated with socio-economic segregation of Sydney and a lingering stigma attached to living in, or coming from, Western Sydney (see Powell 1993), the council of ‘The Hills Shire’ decided to dissociate from its membership the Western Sydney ROC in June 2010 ‘to focus on developing the North West sector as a *brand* of its own’ (The Hills Shire Media Release)<sup>8</sup> [emphasis added]. Meanwhile the

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<sup>7</sup> The New South Wales Government established a position of Minister for Western Sydney in 1998. The current Minister for Western Sydney is the NSW Premier.

<sup>8</sup> <http://www.thehills.nsw.gov.au/SPContent.aspx?PageID=778&ItemID=381&count=1> The Hills Shire Council. (2009, 12 September 2009). ‘Focus on future success for Council.’ Retrieved 30 October, 2013, from <http://www.thehills.nsw.gov.au/SPContent.aspx?PageID=778&ItemID=381&count=1>.



Western Sydney ‘brand’ continues to evolve as its cities and communities grow and mature.



Figure 25 Population and employment for Western Sydney, 2011 and 2031

Source: Metropolitan targets for Sydney’s subregions, Draft Metropolitan Strategy for Sydney to 2031, Department of Planning and Infrastructure, 2013, Sydney, NSW Government

*From cultural cringe of ‘Other’ Sydney*

Blacktown is routinely characterised as being on the less desirous side of a ‘cultural divide’ that has emerged in Sydney. The commentary of this divide invokes the term ‘cosmopolitan’. In the context of urbanism, the term conjures a dichotomy in urban territories between the inner ‘cosmopolitan’ areas as adult/sophisticated/creative and (outer) suburban ‘mono-cultural’ (as opposed to mono-ethnic) areas, as invoking a child space, unsophisticated and dull. This imagining is illustrated in this off the cuff comment by Sydney writer, Holly Hill, in an interview on ABC Radio program *Life Matters* in June 2008:

Most people don’t get to live the life I do. You know, I haven’t got children, I live an exciting life in the city, I have amazing friends, so I see myself as Mrs Blacktown’s representative that she can live vicariously through me. (Hill, 2008, p1)

Places in Blacktown, like Mount Druitt district, or 'Mounty County' as the young people there described it, have a long held reputation as spaces of concentrated socio-economic disadvantage and chronic social problems. Such places therefore attract much attention from social researchers, community welfare organisations, police and church groups alike. Another example of this stereotyped perception of the Western Sydney generally, Blacktown and Mount Druitt district in particular, as 'the other Sydney,' can found in the ethnography by Gillian Cowlshaw (2009) who reflects on her field work on a research project with Aboriginal communities in Mount Druitt, in which she describes 'the western suburbs' as 'that discomforting backyard of the rich cosmopolitan city of Sydney' (Cowlshaw 2009). She writes:

From the city, where I live, it is a 45 minute drive to this western desert - or wild west, depending on who's talking. To urban cosmopolitans, this west is bogan<sup>9</sup> country, a poor place with no style or culture, requiring help rather than attention to any original or creative social forms. Such familiar, unattractive images of suburban life are the source of my own impulsive sense that Mt Druitt 'is not my kind of place.' ... I am abashed to realise that my identity is a little threatened ... It is difficult to resist that sense that these places aspire to, but do not achieve, the *cosmopolitan delights of the inner city*. When I buy some cheap and stylish clothes in the Mt Druitt mall, and laugh with city friends about their unlikely source, I wonder what exactly we are laughing about (Cowlshaw 2009, p13) [emphasis added].

Though discomforted by her awareness of her own 'othering' of the place, Cowlshaw's description of her experience retains the presumption of a superior quality of life offered by living in the inner Sydney area, the 'delights of the inner city,' compared to living in western Sydney. Cowlshaw's (2009) conceptualisation of Blacktown as 'suburb versus city' remains, as does her misconception that localities of western Sydney are a product of the city of Sydney, and not urban

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<sup>9</sup> In Australian slang the term 'bogan', which seems to have originated in the outer suburbs of Melbourne, refers to a particular cultural identity signified by clothing (jeans and flannette shirt), alcohol (beer and beer) and musical tastes (heavy metal). The term 'westie' predates and is not entirely synonymous with 'bogan', although westies are often stereotyped as being 'bogans'.

entities that have developed in their own way and in their own right, when she concludes:

the western suburbs are not separate from the wealthy city of Sydney that conceived and bore them. But this mother seemed ashamed of her western offspring (Cowlshaw 2009, p15).

Two very recent examples in Sydney's daily newspapers show that the stigma of being a 'westie' remains evident despite decades of growth and change in the region. An article by Sarah Harris on parking costs at Sydney's beaches quoted from a conversation between two women she overheard talking about the high cost of parking at Balmoral Beach in Sydney's lower north shore, to which one said to the other: 'Sure it's expensive but at least it keeps the westies out' (Harris 2013). The other example, in an article by Amy McNeilage (McNeilage 2013) more directly challenging the 'westie' stigma, referred to as 'postcode racism', or as I prefer to call it, *placism*. McNeilage also quotes remarks from conversations about where a person 'comes from' and when western Sydney was mentioned, the quick response was "It's ok, she lives in Kirribilli<sup>10</sup> now". It is not simply a matter of the 'undercurrent of snobbery towards outsiders on Sydney's beaches' (Harris 2013), nor status of where one can afford to live, that is the problem with the lingering stigma associated with western Sydney. As McNeilage points out, such prejudice can not only have a negative effect on young people's views of themselves, their identity, but also present a real impediment to their employment prospects, and therefore life trajectories (McNeilage 2013).

Despite such perceptions, Blacktown as an urban place, and western Sydney as an urban region, are far more diverse and complex than their stereotypes might suggest, a view that McNeilage (2013) shares, having grown up in the region, when she wrote:

People who disparage the Western Suburbs fail to recognise the benefits of growing up in such a diverse community (McNeilage 2013, p2).

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<sup>10</sup> Kirribilli is located on the 'Lower North Shore' of North Sydney near Sydney harbour.

Responding to the endemic negative portrayal of Western Sydney as the ‘other’ Sydney, Jock Collins and Scott Poynting (2000) wrote over a decade ago:

Western Sydney is characterised by great diversity and difference: a reality not reflected in the uniformity of the ‘westie’ stereotype ...Despite this great diversity, Sydney’s West has continued to be portrayed in simplistic and, above all, negative terms (Collins and Poynting 2000, p21).

Collins (in the same volume) described Western Sydney as a complex, but positive, urban space:

Although this social geography of Sydney clearly points to the relative disadvantage of the west and south-western suburbs when compared to the eastern suburbs and northern suburbs of Sydney, it is important not to be deceived by averages. In fact ... Sydney’s west is not in any way simply a working-class ghetto. The west is not the legendary land of fibro and checked shirts. Nor does it fit the contemporary media image of a community in decay, where law and order struggle to keep the lid on marauding youth and ethnic gangs. Rather it is a very diverse cultural, linguistic, religious and social class space; *a thriving community where people live and work and actively create a space for themselves in which they want to develop and grow* (Collins 2000, p58) [Emphasis added].

#### *To an ‘Australian Heartland’*

The Blacktown City Council’s (BCC) 2007 Social Plan proudly proclaims Blacktown to be ‘in the heart of Western Sydney’ and home to one in every 74 Australians (BCC 2007). Many of the social trends identified in Brendan Gleeson’s (2006) book on conditions in suburban communities, entitled *Australian Heartlands*, can be found in Blacktown LGA. The ‘heartland’ tag for Western Sydney is frequently used in the media by political commentators<sup>11</sup> and car dealers<sup>12</sup> alike. As newspaper editor, Jack Waterford (Waterford, 2013) described Western Sydney:

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<sup>11</sup> For examples of references to Western Sydney as an Australian heartland see the book, *Western horizon* by David Burchell Burchell, D. (2003). [Western horizon: Sydney's heartland and the future of Australian politics](#). Carlton North, Vic., Scribe Publications.; or, for a recent (typical) reference in the media see Ralston Ralston, N. (2008) ‘NSW Budget Analysis: Roozendaal's strong medicine won't win Labor any fans.’ [AAP General News Wire. Sydney: Nov 11, 2008. Sydney](#) DOI: ProQuest document ID: 1592369381 .

<sup>12</sup> Heartland Motors is a privately owned company that was formed on July 1, 2001, by the merger of five Holden dealerships in Western Sydney. The Holden 48-215 was the first mass produced motor vehicle to be manufactured in Australia. It was launched in 1948. Holden motor vehicles continued to be the best selling cars

The region, in short, is mostly Australia writ large (Waterford 2013, p14).

### **Contemporary Blacktown**

Today the population of Blacktown City Council can be described as relatively young, diverse and growing. With more than 300,000 people, Blacktown City is comparable in population size or larger than many small cities in other parts of Australia and in New Zealand. It is the largest local government area (LGA) by population in the state of New South Wales (NSW) and the fifth most populous LGA in Australia (ABS 2013). Blacktown's population growth rate remains high, similar to recent growth in outer urban areas of other capital cities in Australia, Perth, Brisbane and Melbourne (ABS 2013). Latest projections suggest that Blacktown's population will continue to grow to nearly half a million in the next twenty years (NSW Department of Planning and Infrastructure, 2013).

#### *Cultural and linguistic diversity*

Few international tour groups would likely have Blacktown on their itinerary, yet many overseas migrants and humanitarian entrants have made Blacktown their home and, in doing so have created a community that is highly culturally diverse. In 2011 just over two of every five residents of Blacktown (42.3 per cent) were born overseas. Whilst the post-war immigration brought substantial numbers of people from across Europe, by 2011 the most common countries of birth for overseas born residents of Blacktown were the Philippines, India, New Zealand and Fiji (ABS 2013).

Successive waves of immigrants settling in Blacktown has meant that almost two thirds of its population (64.6 per cent) were children of migrant parents, higher than the national average. As a result, a large proportion (41.2 per cent) of Blacktown's community speak a language other than English at home. Reflecting the mix of cultural backgrounds represented in the population the most common languages

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in Australia HeartlandHolden. (2008). 'Heartland Holden Internet Home Page.' Retrieved 12 November, 2008, from <http://www.heartlandholden.com.au/>.

spoken included Tagalog, Filipino, Hindi, Arabic and Punjabi. Religious affiliation also reflects the diversity found amongst the Blacktown community with the proportion of people stating their affiliation with Islam (5.8 per cent) and Hinduism (5.8 per cent) being much higher in Blacktown compared to the national average, (2.2 per cent and 1.3 per cent respectively).

### *A city of families*

Although socially and culturally diverse, the community of Blacktown reflects the predominant characteristics of stereotypical Australian (sub)urbanism: of family households living in owner-occupied single detached housing in residential suburbs. In 2011 four out of five households in Blacktown (82 per cent) were family households, higher than the Australian rate of 72 per cent. Households in Blacktown had an average of 3.1 persons per household and 1.9 children and 1.7 private vehicles (ABS 2013).

Just over half of all private dwellings (57 per cent) were either owned outright or owned with a mortgage. This rate of home ownership<sup>13</sup> in Blacktown and the proportion of dwellings that were single detached dwellings (83 per cent) were both greater than the Australian average, which, in 2011, was 67 per cent for home ownership and 76 per cent for detached dwellings (ABS 2013).

### *Children and young people in Blacktown*

Children and young people feature prominently in the Blacktown City Council rhetoric because Blacktown has a younger age profile than Sydney or Australia. The median age of people in Blacktown is 32 years compared to the median age of 36 for the Greater Sydney Capital City Statistical Area. With 66,817 people aged 14 years or younger at the 2011 Census, the proportion of children and young people in Blacktown living in Blacktown LGA is 23.7 percent, almost double that for Greater Sydney at 13 per cent. Children and young people are even more highly represented amongst the Aboriginal and Torres Strait Islander population of Blacktown, with

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<sup>13</sup> Home ownership refers to occupied private dwellings that were either owned outright or owned with a mortgage, in contrast to rented dwellings or other tenure types

3,235 people under 15 years of age representing 40 percent of Blacktown's Indigenous community (ABS, 2013a).

In the period 2001 to 2005 there was a notable increase in the Australian fertility rate from a record low of 1.73 babies per woman in 2001 to 2.1 in 2005, the highest level in ten years. The increased fertility rate primarily reflects a greater number of babies born to older women in more advantaged areas (ABS 2008). In the Sydney context the increased fertility rate was reflected geographically by a rise in the population of 0 to 4 year olds in the inner west, lower north shore and inner city suburbs where there are concentrations of higher income households (Randolph, Pinnegar et al. 2008). Nevertheless, as Randolph et al. point out (Randolph, Pinnegar et al. 2008), the outer areas remain the 'baby incubators' of Sydney, with Blacktown being home to the highest number of children aged 0 to 4 years, a total of 22,405 children in 2006 and 25,416 children in 2011. In comparison to the Sydney statistical division, where the proportion of 0 to 4 year olds was 6.6 per cent, in the new release areas of Blacktown's northeast, like Stanhope Gardens and Kellyville Ridge, the under 5 age group accounted for as much as 11 per cent of the population, replicating an earlier pattern of the post-war 'baby boom' in the (now) older established suburbs of Blacktown.

#### *School education in Blacktown*

With its large numbers of children and young people it is not surprising that Blacktown has the largest number of full-time equivalent student enrolments (54,000 ABS 2010), with 29 per cent of the population attending Primary School and 23 per cent attending secondary school (ABS 2013). Equally unsurprising is the number of schools in Blacktown, 104 primary and secondary schools in total, with 53 Government primary schools, 16 Government Secondary schools, and 35 non-government schools (including 16 Catholic primary, nine Catholic secondary and ten independent schools) (Wikipedia 2014). Almost half of the schools in Blacktown have been built since 1971. Whilst a higher proportion of school students in Blacktown attend Government schools compared to state and national averages (ABS 2013), the trend to increasing enrolments in non-government schools enrolments over the past forty years noted in the previous chapter is evident as shown

in the chart in Figure 26. Notably, eight of the ten independent schools were built within this period.

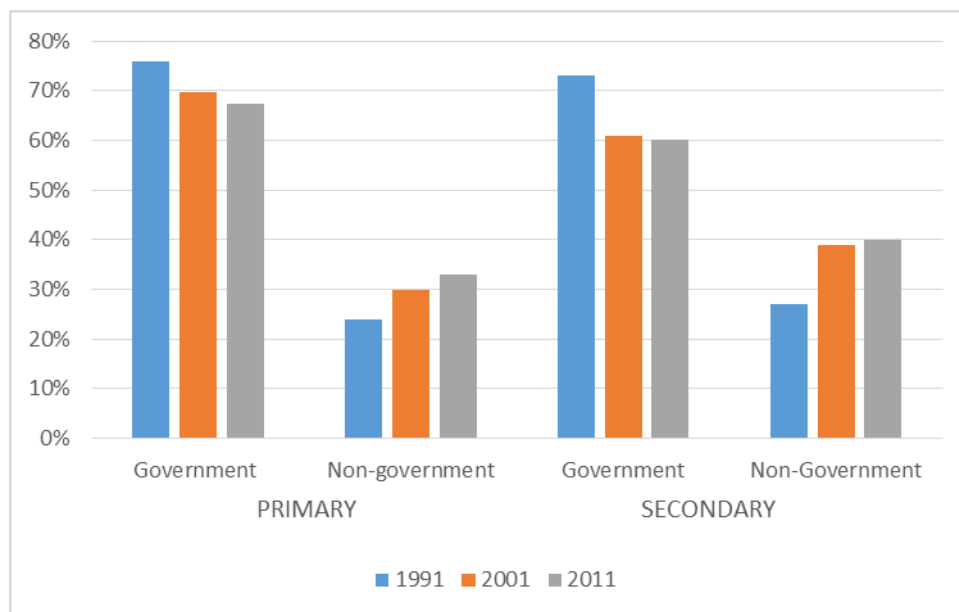


Figure 26 Proportion of primary and secondary students in Blacktown LGA by type of school, 1991- 2011

Sources: ABS 2003 Blacktown LGA Time Series Profile, cat. no. 2003.0 and ABS 2001 2011 Blacktown LGA Basic Community Profile, cat. no. 2001.0

In summary, the characteristics of social and built environments of Blacktown is highly diverse and reflects many of the aspects of contemporary urban Australia. In this way, Blacktown lends itself well for a study of children’s and young people’s urban mobilities. To help contextualise the findings of the research, a summary of the demographic and household characteristics of the participants is provided in Table 4, compared to that of the Blacktown LGA. A more complete participant profile is included in **Appendix A**. It shows that the profile of the participants was a good representation of the social and cultural diversity of the Blacktown community.

## Conclusion

As an urban area, Blacktown City Council has the size, density and diversity of a major Australian city but, because it is situated within the Sydney metropolitan area, its role as an urban centre is subordinate to the Sydney CBD, and to a lesser extent to Parramatta. However, Blacktown, is far from merely a ‘western suburb’.



Blacktown City has been, is, and will likely continue to be, an important contributor to the economic, political and cultural life of metropolitan Sydney.

Notwithstanding the need to address the locational and social disadvantage that persists for many households and communities in some parts of Blacktown, the city continues to grow and change. No doubt, with planning and investment, over time Blacktown may well be transformed into a dynamic and diverse city in its own right, as a flagship for the Western Sydney region and as a vital and vibrant part of the Sydney metropolitan area. What that means for the communities of Blacktown is less clear. What is clear, is that within Blacktown's neighbourhoods live many children and young people whose mobilities are contributing to the social and spatial reproduction of Australia urbanism as it is, and as it will become. So it is into these neighbourhoods that the next three chapters this thesis moves, to explore the complex diversity of the mobilities of their children and young people to hear what they say about what it's like to live and travel around their city.

Table 4 Demographic profile of participants compared to Blacktown LGA

Participant characteristics		Number	%	Blacktown LGA 2011
<b>Age</b>				
	9-12 years	51	48%	-
	13-15 years	56	52%	-
<b>Sex</b>				
	Female	46	43%	50.3%
	Male	61	57%	49.7%
<b>Indigenous identity</b>				
	Aboriginal	4	4%	3%
	Non-Aboriginal	103	96%	97%
<b>Country of Birth</b>				
	Australia	70	65%	42%
	Overseas-born	33	31%	58%
	Not stated	4	4%	-
<b>Language spoken at home</b>				
	English	57	53%	63%
	Language other than English	50	47%	37%

# Traversings

Investigating *where* and *how* children and young people usually travel is fundamental to understanding the role that transport plays in their everyday mobilities. As for people of all ages, the places that children and young people travel to and reasons for travelling to any particular place, by any particular mode of transport, are many and varied. At the same time, the characteristics of the places in which they live, the locations of the places to which they need to travel, and the transport options available to them to get to those places will all have an influence on where and how children and young people travel. But the purpose of all travel, and mobility more generally, is to satisfy to some degree human needs, whether for basic survival or for self-actualisation (Maslow 1958), or in some other way to contribute to wellbeing or quality of life (Costanza, Fisher et al. 2007).

For children and young people, their travel in part relates to their developmental, cultural and social needs as well as personal preferences. There are also a host of familial, cultural and social obligations that require children and young people to travel. These various travel needs can be loosely grouped around purpose they serve, for learning (and earning); consuming (goods and services); connecting (with other people); and participating in (as well as contributing) to civic life. It should be noted, however, that these categories are not mutually-exclusive. Children's and young people's travel, and even the act of travelling itself, can fulfil multiple purposes simultaneously.

From a mobilities perspective, however, such 'travellings', as Urry suggests (2000), are 'constitutive of the structure of social life'. These everyday 'travellings' of children and young people are referred to here as 'traversings' to emphasise the relationship between the nature of their corporeal movement per se and the terrain through which that movement occurs: that is, the way people move from place to place throughout the city space. Examining the various physical, social and spatial

aspects of children and young people's everyday traversings, therefore, can help shed light on how the 'social life' of the city is 'recursively formed and reformed' (Urry 2000). By examining the traversings of children and young people with reference to the various modes of transport available to them, and utilised by them, for particular purposes, it is possible to consider the role of transport in their everyday mobilities and, potentially, through that lens, to the processes of social and spatial reproduction of Australian urbanism.

The purpose of this chapter, therefore, is to describe the patterns of travel and transport mode use of the young participants to the diverse range of activities and places that constitute their everyday mobilities. The material is sourced from the interactive class surveys, individual drawings and activity diaries and interviews produced for the research in response to the question: *where do you usually go and how do you usually get there?* The analysis of the everyday mobilities in this chapter primarily concerns the level of car travel in contrast to their active travel (walking and cycling) and use of public transport. The analysis challenges the dichotomous view of children and young people's travel and use of transport as either 'car-dependent mobility' or 'active mobility' (Garrard 2009). Instead, it discusses available alternatives, arising from the children and young people descriptions of how they might vary their transport mode use for the same journey based on material and perceived contingencies which they have to consider as they negotiate their everyday mobilities.

The patterns of travel of the children and young people are then examined from a social perspective addressing the issue of 'independent mobility' in Chapter 5 and subsequently in Chapter 6, from a spatial perspective, that is what these patterns of travel indicate about the variations in travel patterns across space, and the different degrees of 'accessibility' afforded to the children and young people. The analysis of the mobilities of children and young people, presented in these three chapters suggests that travel patterns are not simply a matter of individual choice or agency nor are they entirely environmentally determined (Thomsen 2004, Fusco, Moola et al. 2012).

## Travel needs and trip purposes

The travel needs of children and young people, like those of adults, are many and varied which poses a challenge for researchers as to how to best to collect and analyse travel-related information (Zhang and Viswanathan 2010). Many countries, have, for many years, adopted and implemented survey methods to gather household and personal travel and activity information either for cities, regions or at a national level. In Australia, however, there is no national travel survey, unlike in some other English speaking countries (New Zealand, United Kingdom, the United States and South Africa) or in European countries Germany, Sweden, Denmark or the Netherlands<sup>14</sup>. Instead, Australian states have separately developed their own travel surveys which are administered at different intervals and for different geographies. Travel information from these state-based surveys is supplemented by information about travel to work (only) from data collected in the five-yearly Australian Bureau of Statistics Census.

With widespread application of travel surveys internationally, there has been ongoing efforts by quantitative transport researchers to standardise travel survey methods and data classifications so that data can be readily comparable between jurisdictions (Stopher 2002, International Conference on Travel Survey 2006, Stopher, Alsnih et al. 2008). In standardised travel surveys, information about *travel needs* are generally not collected. Rather, information about *why* people travel to the places they go, is collected only in reference to trips that have been undertaken, and therefore referred to as the *trip purposes or activities*. What this means is that information about where people may need to travel, but are unable to, is generally not recorded. Nevertheless the collection of trip purpose data is an integral part of travel surveys and an important source of detailed information about trends in travel that can be used in transport demand modelling (Stopher 2002).

The data collected in conventional household travel surveys on people's activities and trip purposes are assigned into these standard classifications. The classifications of trip purposes used in conventional surveys are similar for adults as for children,

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<sup>14</sup> [http://en.wikipedia.org/wiki/Travel\\_survey](http://en.wikipedia.org/wiki/Travel_survey)

with a few exceptions. In the Sydney HTS, for example, the only distinction between ‘trip purpose’ categories for children and young people and those of adults is the inclusion of the categories ‘work’ and ‘work related business’ for adults and that of ‘child care’ for children. These categories are shown in Table 5 in an extract from the 2011/12 Sydney HTS survey interview form (Bureau of Transport Statistics 2010).

Table 5 Trip purpose categories for adults and children in the 2011/12 Sydney Household Travel Survey

Interview Form 2 for Persons 15 years and over	Interview Form 3 for Persons 0 to 14 years
<p><b>Q42 What did you do there?</b></p> <p>Change mode of travel ..... <input type="checkbox"/> 1</p> <p>Home ..... <input type="checkbox"/> 2</p> <p>Work Go to main job ..... <input type="checkbox"/> 3 (fixed place of work only Q19=3)</p> <p>Go to other job ..... <input type="checkbox"/> 4</p> <p>Return to main job ..... <input type="checkbox"/> 5 (fixed place of work only Q19=3)</p> <p>Return to other job ..... <input type="checkbox"/> 6</p> <p>Work related business ..... <input type="checkbox"/> 7</p> <p>Education ..... <input type="checkbox"/> 9</p> <p>Shopping ..... <input type="checkbox"/> 10</p> <p>Social welfare ..... <input type="checkbox"/> 11</p> <p>Medical/Dental ..... <input type="checkbox"/> 12</p> <p>Social visits ..... <input type="checkbox"/> 13</p> <p>Recreation ..... <input type="checkbox"/> 14</p> <p>Entertainment ..... <input type="checkbox"/> 15</p> <p>Sport - participate ..... <input type="checkbox"/> 16</p> <p>Sport - spectate ..... <input type="checkbox"/> 17</p> <p>Holiday ..... <input type="checkbox"/> 18</p> <p>Personal business/services ..... <input type="checkbox"/> 19</p> <p>To accompany someone ..... <input type="checkbox"/> 20</p> <p>To drop-off/pick-up someone ..... <input type="checkbox"/> 21</p> <p>Other (SPECIFY) _____ <input type="checkbox"/> 98</p>	<p><b>Q23 What did..... do there?</b></p> <p>Change mode of travel ..... <input type="checkbox"/> 1</p> <p>Home ..... <input type="checkbox"/> 2</p> <p>Child care ..... <input type="checkbox"/> 8</p> <p>Education ..... <input type="checkbox"/> 9</p> <p>Shopping ..... <input type="checkbox"/> 10</p> <p>Social welfare ..... <input type="checkbox"/> 11</p> <p>Medical/Dental ..... <input type="checkbox"/> 12</p> <p>Social visits ..... <input type="checkbox"/> 13</p> <p>Recreation ..... <input type="checkbox"/> 14</p> <p>Entertainment ..... <input type="checkbox"/> 15</p> <p>Sport - participate ..... <input type="checkbox"/> 16</p> <p>Sport - spectate ..... <input type="checkbox"/> 17</p> <p>Holiday ..... <input type="checkbox"/> 18</p> <p>Personal business/services ..... <input type="checkbox"/> 19</p> <p>To accompany someone ..... <input type="checkbox"/> 20</p> <p>To drop-off/pick-up someone ..... <input type="checkbox"/> 21</p> <p>Other (SPECIFY) _____ <input type="checkbox"/> 98</p>

Source: (Bureau of Transport Statistics 2009)

The differences between the adult and child trip purpose categories in the Sydney HTS are not necessarily helpful distinctions. It could be argued, for example, that adults make trips for child care (of their children) and children aged up to 14 might also make trips for work (even though in NSW the legal age at which children can

be employed is 14 years). This highlights one of the problems of using the existing survey instrument, that some trips would not be recorded.

The imposition of standardised trip purpose categories also means that travel patterns between children and young people and adult can only be analysed in terms of the frequency of travel for each purpose. Most obviously, it can be expected that children and young people will travel more frequently for education and less frequently to travel for work or health care than adults.

Another problem with adopting this standardised set of trip purposes is that often parents and their children will often accompany one or the other on many occasions. For example, a young person may accompany an adult because of the travel need of the adult, such as for food shopping or personal business. On the other hand, a young person's travel to participate in a social or recreational activity may be the purpose of a trip by an accompanying adult. This presents a problem for assigning the categories.

In contrast to the Sydney HTS, the Blacktown study had no predetermined classification of destinations, transport modes or trip purposes. Instead, the children and young people were able to describe the places to which they travelled in their own words rather than prejudging what trips they might take. For example, 'Sam' [177], aged 12 years, from Blacktown South East listed the places he usually goes, which included his home, his grandmother's house, school, 'Maccas' (which is an Australian colloquialism for McDonalds fast food restaurant), his friend's house, the shops and his girlfriend's house, as shown in Figure 27.

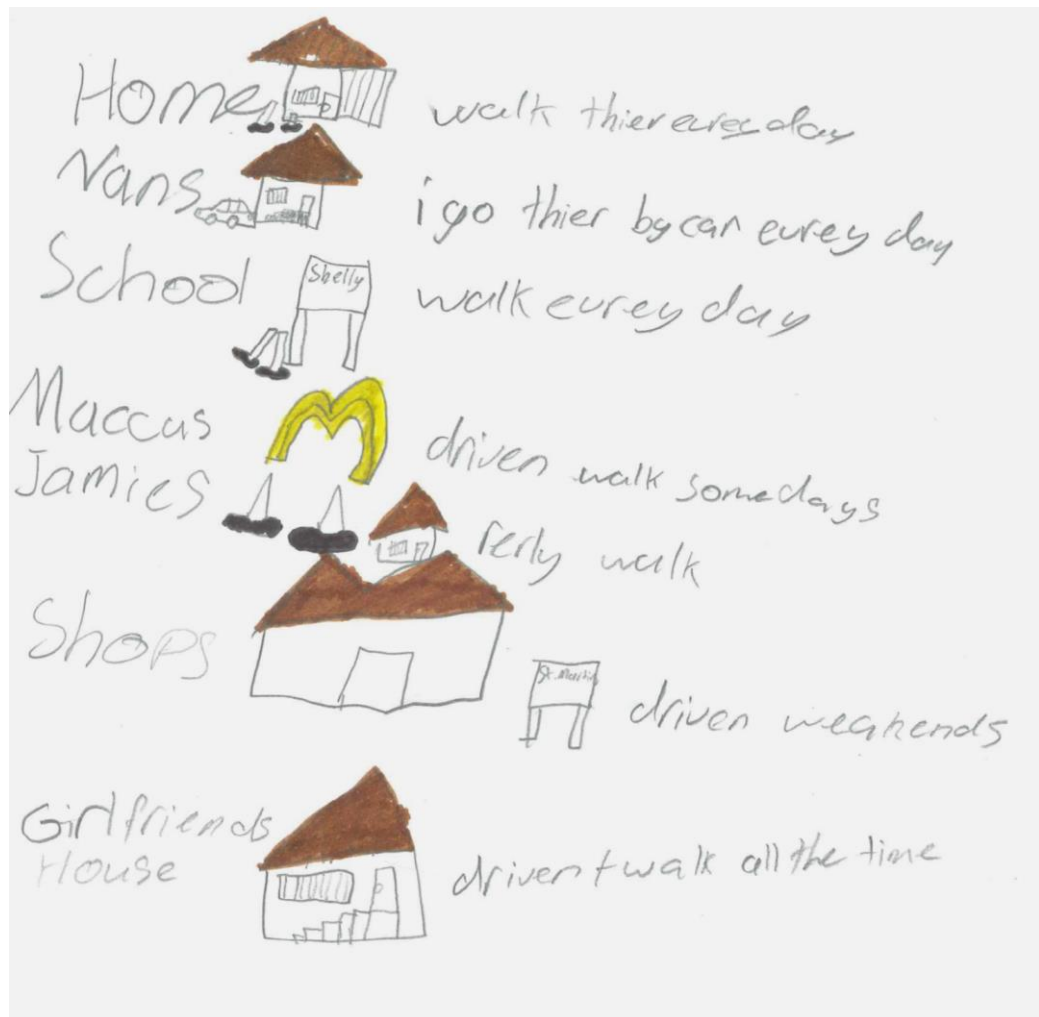


Figure 27 Participant drawing: 'Places I usually go and how I get there'

Sam, young male participant, 12 years, Blacktown South East, [177]

The qualitative methods used in the Blacktown study, however, have other limitations (as discussed in Chapter 2) and are not intended to substitute for the data collected in the travel surveys like the Sydney HTS. While it has been acknowledged among quantitative transport researchers that semi-structured interviews, like those used in the Blacktown study, can provide additional insights to travel patterns, there are practicalities that preclude its application in large scale research. As stated in the US based Transportation Research Board's online manual for travel surveys:

[b]ecause of the wide range of potential responses, the most accurate approach for obtaining the information probably involves the use of open-ended questions, with interviewer probing as



necessary. However, this approach increases the burden both on respondents and interviewers. Therefore, survey teams have generally defined activity classification schemes, and have asked respondents to categorize their activities on the basis of those schemes (Stopher et al 2008, cited in Zhang and Viswanathan 2010, online section 8.2.5).

Instead, qualitative methods like those used in the Blacktown study, can serve to inform the development and refinement of classification schemes used in large scale travel surveys. In particular, qualitative research opens up possibilities for understanding needs that generate travel demand, as well as the decisions and trade-offs people make that determine the where, when and how they travel, *or not*. Because the Blacktown study sought to understand the nature of the everyday mobilities of children and young people, rather than just frequencies of mode use or trip purpose, the use of qualitative methods was considered appropriate.

In practice, the main difference, in terms of the travel information that was provided by the young people in the Blacktown study, and that which could be derived from a secondary analysis of data in the Sydney HTS, therefore, was that the travel and activities were classified after the data was collected, not before.

The child-focussed approach to the data collection meant that the places recorded by the children and young people in their drawings were noted in the first instance in the manner in which the children and young people described them then coded according to categories of increasing generality rather than the other way around.

This approach created a more extensive list than the trip purpose categories used in the 2007-08 Sydney HTS. There were 432 records of activities recorded from the participant drawings of their everyday travel. These activities were classified into 24 categories which were loosely grouped according to travel needs:

- for learning and earning (through formal school education, extra-curricular educational activities and work experience);
- for consuming goods (like food and clothing), services (like health) and leisure (like attending special events, entertainment, outdoor recreation and holidays);

- for forming and maintaining social connections (with family, friends and social groups within communities);
- for participating in, and contributing to, civic life including participating in organised sporting and cultural activities and travel for other leisure activities.

The list of the travel and activities recorded by the children and young people in their drawings is shown in Table 6.

Table 6 Recorded travel on participant drawings by travel need and trip purpose

TRAVEL NEED	ACTIVITY	NUMBER OF RECORDS	% OF TOTAL RECORDS
<b>LEARNING AND EARNING</b>	School education	74	17.0%
	Work – paid employment	12	2.8%
<b>CONSUMING</b>	Shopping	116	26.7%
	Eating out	12	2.8%
	Food shopping	6	1.4%
	Health services	2	0.5%
<b>LEISURE</b>	Outdoor recreation	47	10.8%
	Swimming	10	2.3%
	Touring Sydney City	8	1.8%
	Entertainment (Movies, concerts)	5	1.1%
	Sport – as spectator	2	0.5%
	Holidays	1	0.2%
<b>CONNECTING</b>	Socialising with peers	52	12.0%
	Visiting relatives and family friends	20	4.6%
<b>PARTICIPATING</b>	Sport – to participate	33	7.6%
	Dance lessons	2	0.5%
	Indoor sport or physical activity	2	0.5%
	Religion-based activity	13	3.0%
	Community cultural activity	5	1.1%

	Participate in a youth group	5	1.1%
	Music lessons	2	0.5%
<b>OTHER</b>	Home-based activities	1	0.2%
	Travel (to change mode)	1	0.2%
	Not stated	4	0.9%
	<b>TOTAL RECORDS</b>	<b>435</b>	<b>100.0%</b>

The grouping of travel and activity according to a set of needs in this way broadly aligns with understandings of accessibility emerging from a policy-driven research agenda in the United Kingdom (SEU 2003, Farrington 2007, Preston and Raje 2007). The concept of accessibility is discussed in more detail in Chapter 6, but in general terms, travel needs that are identified in the literature on accessibility include travel for education, work, shopping for food, health care and for social and recreational purposes. What is different about the grouping of travel and activities of children and young people in Blacktown was that the category of ‘shopping’ was not limited to food and that the category ‘social and recreational purposes’ was expanded to distinguish between travel to fulfil the need for forming and maintaining social relations with family, relatives and friends, and travel to participate in more formal cultural and recreational activities.

There are, however, no clear distinctions between these groupings of travel purpose. Indeed as revealed in the rest of this chapter, travel for one type of activity or a particular destination, such as ‘education’, can fulfil more than one need: education and social connection. Likewise, travel to fulfil a particular need, such as ‘shopping’ can involve multiple destinations. Rather than seek to argue in favour of a particular classification of the travel and activities, it is the diversity of the everyday travels of children and young people that is the focus of the following analysis of the travel data produced by the Blacktown study.

#### *Destinations, activities and places*

Although many of the participant activities were the same or similar to trip purposes specified in the 2007-08 Sydney HTS, there were some interesting additions, namely:

- religious or spiritual activity which included religion-based youth groups
- socialising with peers as differentiated from visiting family friends or relatives
- swimming at ‘the pool’ ( that is a public pool or ‘aquatic centre’)
- going to ‘the beach’
- going to ‘the park’
- eating out
- attending youth groups
- ethno-specific cultural activities
- dance lessons
- travelling to ‘the City’ (meaning Sydney’s Central Business District).

The participant-generated descriptions of destinations, trip purposes and transport modes, like those listed by Sam [177] illuminated a greater mix of location-specific *places* as destinations and a greater range of *activities*, that might have otherwise been classified into a single trip purpose category, like ‘social and recreational travel’, if they were reported using the Sydney HTS survey instrument. These destinations might also fulfil distinctly different *travel needs* for the children and young people. Some of these destinations were described as having special significance to them.

#### *Transport needs and transport modes*

Another point of contrast between the qualitative data generated in the Blacktown study and the quantitative data collected in the 2007-08 Sydney HTS was that by recording travel as the children and young people described it themselves, rather than confined to a predetermined questionnaire, provided a unique perspective on the use of *available transport options* and the modes of transport taken to the same destination. In Blacktown the children and young people interviewed were asked to explain why they chose to travel by a particular transport mode rather than using an alternative mode that may have been available.

The various everyday travel-related activities recorded by the children and young people are discussed in the sections of this chapter and are arranged thematically

around children and young people's needs - for learning and earning, consuming, leisure, for fostering and maintaining social connections and for participating in various organised activities. Understanding travel as a response to these needs aligns with the sociological perspectives about children and young people in terms of their becoming, their being and their belonging. These needs for learning, consuming, connecting and participating, in particular, are also related to the children's and young people's rights for protection, provision and participation. In this way, children's and young people's mobilities can be understood as being related to their wellbeing more holistically rather than just to their levels of physical activity.

### **Learning**

Given the substantial part that school plays in children's everyday lives, questions about travel and mode use for the trip to school were incorporated into this research. This section presents the responses to the trip to school for participants in each of the schools. The trip to school data is described quantitatively and compared with the averages for the Sydney metropolitan region reported in the Sydney HTS (Bureau of Transport Statistics 2010). The patterns of school travel are then followed by descriptions of the data gathered from the children's and young people's drawings of places they usually go and also from their travel and activity diaries, which captured weekend travel.

#### *The special place of school in the lives of children and young people*

After the family home, school is the place children and young people spend the majority of their time. Although in many of the transport studies of children's travel, school is only discussed as a place of learning, from the perspective of many children and young people it is also a place for forming relationships and networks. In the interviews with participants in this study 'school' was mentioned as a special place by a number of children and young people. For example, the following participants explain that making friends is an important aspect of their school experience in response to the interview question:

*Which of these places is most special to you?*

School.

School. Why?

Because it's fun and I've got more friends here than any other place.

Charika: Young female participant, 11 years, Blacktown Central, [233]

School, because I like meeting my friends here and playing.

Manila: Young female participant 11 years, Blacktown South East [153]

I think the school. I like the school.

Why's that?

'Cause it's got lots of friendly people like that.

Sari: Young female participant 10 years, Blacktown Central [211]

The drawing by another young female participant, Charika [233], from Blacktown Central, echoed the positive association with school:

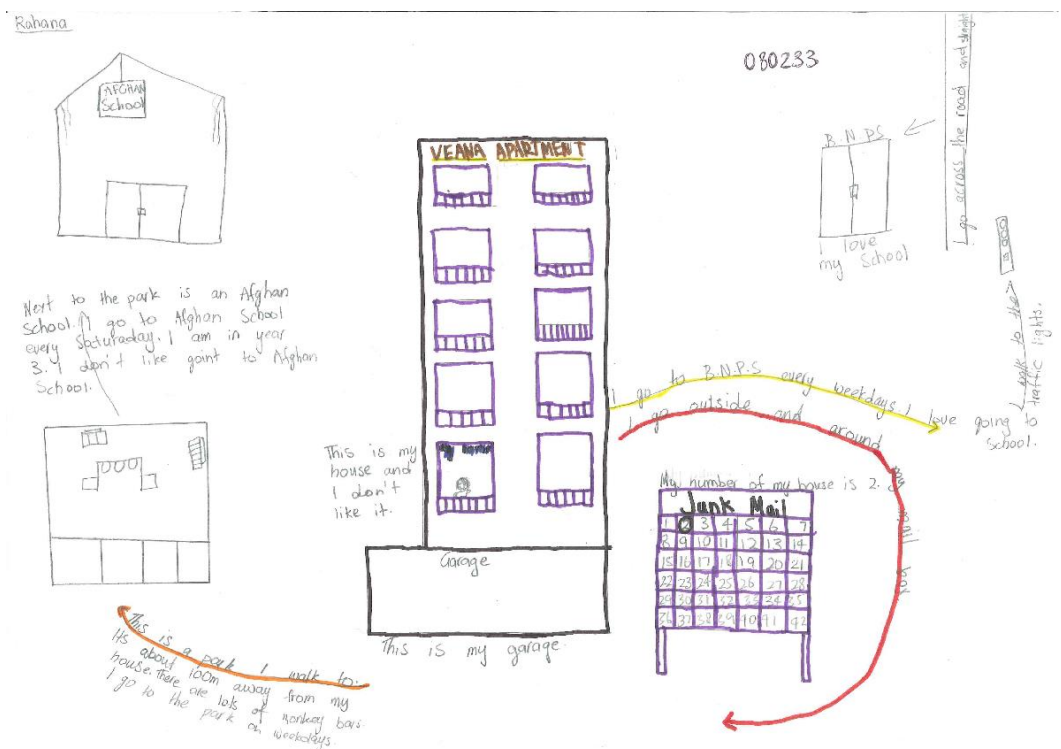


Figure 28 Participant drawing: Charika, 10 years Blacktown Central [233]

*I love going to school. I love my school. I walk to the traffic lights. I go across the road and straight.*

Charika, young female participant, 10 years Blacktown Central [233]

School was equally well-rated as important among the high school participants.

*Probably school*

*Why's that?*

*'Cause my friends are there.*

Courtney: Young female participant 15 years, Blacktown South West Rail [57]

This sentiment was also illustrated in the drawing of another young woman [14] from Blacktown Central High School, who annotated her illustration of school with the words:

*what makes me go to school [?] my friend*



Figure 29 Participant [14] drawing: What makes me go to school?

Some children and young people expressed that they also valued the educational aspect of schooling, such as expressed by the following young participants:

*Which of these places is most special to you?*

*Um probably the houses of family and I think school 'cause I come to learn here.*

Young female participant, 14 years, Blacktown South West Rail [80]

*Which of these places is most special to you?*

*School*

*Why?*

*'cause I learn, and you meet friends.*

Young male participant, 14 years, Blacktown North East [139]

The sentiments about school expressed by young female participants were similarly expressed by the male participants, but there were more male responses which combined school with an equal preference for out of school activities, like sport and other recreation, as illustrated in the following quote from the interview with Sam [206], a boy in Blacktown North East primary:

*Which of these places is most special to you?*

*The park to play soccer, and my home and school.*

Sam, young male participant, 10 years, Blacktown North East [206]

*Travel to school*

As discussed in Chapter 1, one of the most frequent trips for the majority of children and young people is their journey to and from school and this contributes to a substantial part of the overall urban travel task. In the 2007-08 Sydney HTS, travel to education and child care represented about 9 per cent of all trips in Sydney statistical division. In Blacktown the proportion of all trips for education and childcare purposes was slightly higher at 10 per cent reflecting the higher proportion of young people in Blacktown than the Sydney average (BTS 2010).

It would be easy to assume that, because outer urban areas of Australian cities, like Blacktown LGA, have higher proportions of car travel overall than inner urban areas (BITRE 2012), children and young people in the outer areas are likely to be more car-dependent than children and young people in inner metropolitan areas. Countering this assumption, however, was the reported rates of travel to school among the participants in the Blacktown study. The rates of walking to school among participants in Blacktown were, on average, higher, and rates of car travel to school were lower, than the rates reported from the Sydney HTS for the period 1999 to 2003



reported in the van der Ploeg et al. (2007) study. The proportion of the participants who walked to school among the Blacktown primary schools was 54 per cent compared to 26 per cent for children aged 5-9 years in the Sydney HTS data, as shown in Figure 30.

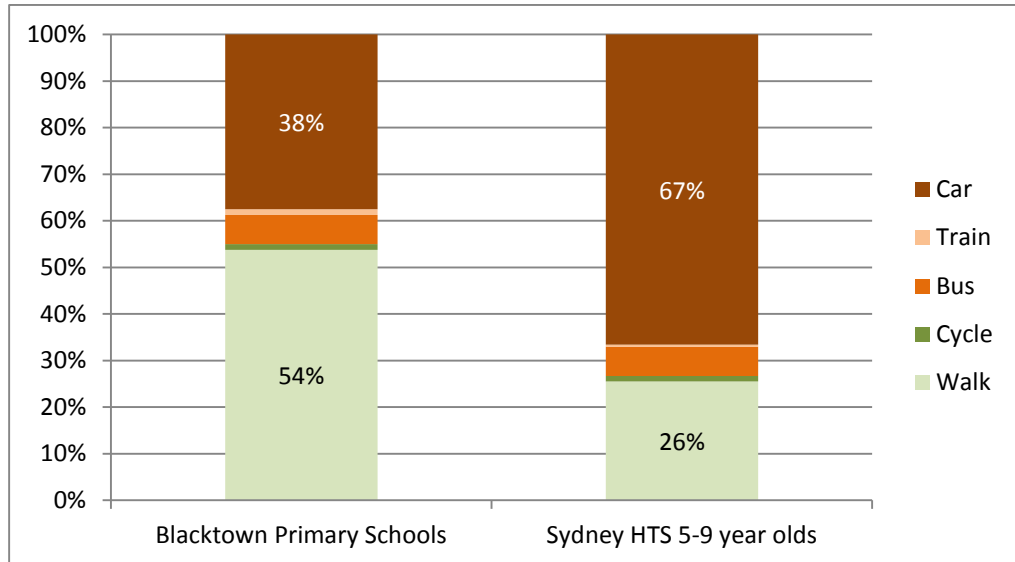


Figure 30 Children's school travel by mode, Blacktown study participants and Sydney Household Travel Survey\*

Source: Sydney Household Travel Survey data 1999-2003, cited in van der Ploeg et al. 2007; Blacktown Primary schools data from participant records.

The modal split among participants in the Blacktown high schools compared to the HTS data was also notable. Among the Blacktown high school participants 30 per cent walked to school, 27 per cent took the bus and 35 per cent were driven by car. There was a greater proportion of young people who walked or travelled by bus to school in the Blacktown study compared to the Sydney average in the HTS data where, 21 per cent of young people walked, 20 per cent who travelled by bus and 48 per cent who were driven to school by car (van der Ploeg, Merom et al. 2007), as shown in Figure 31.

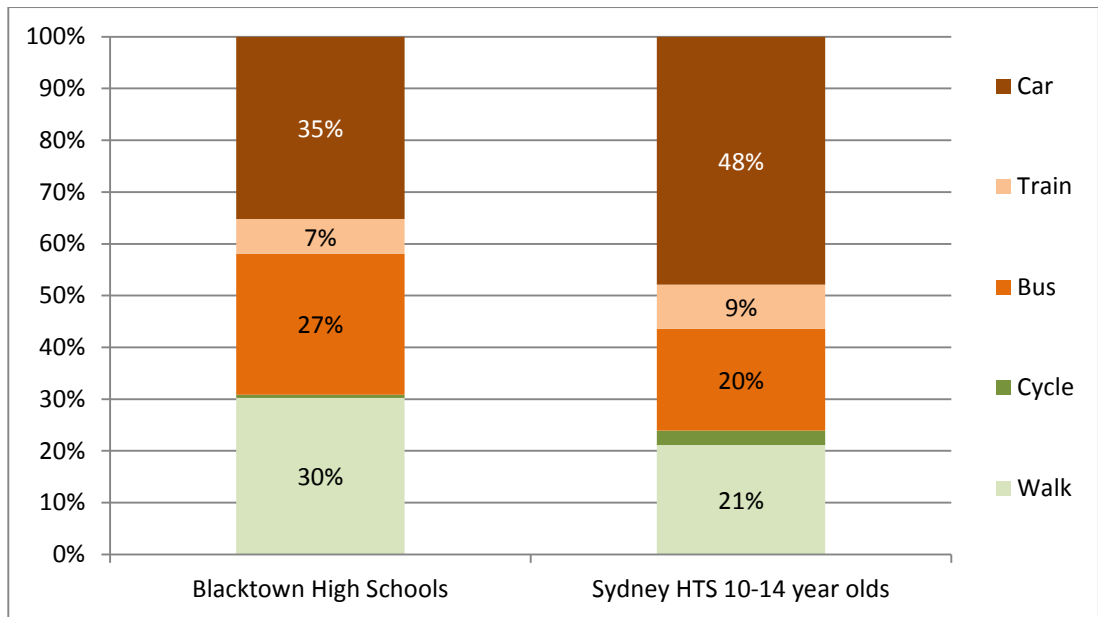


Figure 31 Young people’s school travel by mode, Blacktown study participants and Sydney Household Travel Survey\*

Source: Blacktown High schools data from participant records; \*Sydney Household Travel Survey data 1999-2003, cited in van der Ploeg et al. 2007

*Differences in school travel mode*

In the Blacktown study there were some other notable differences between the two age groups in the mode of travel to school. The most obvious was the proportion of participants travelling to school by car was lower for high school participants than for primary school participants. This difference between the two age-cohorts was consistent with Sydney HTS, as shown in Figure 32. This difference between mode-share for school travel to primary school compared to high school has rarely been noted among Australian studies of school travel because the predominant focus has been on primary-school aged children.

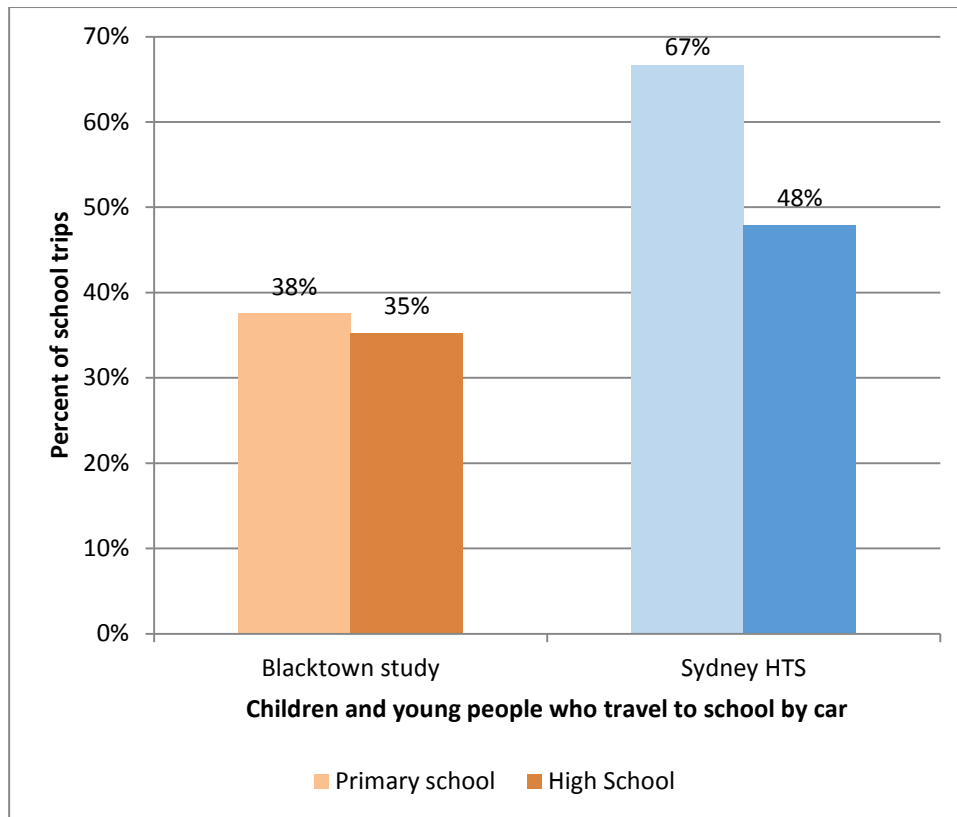


Figure 32 Proportion of children and young people who travel to school by car, Blacktown study participants compared to Sydney HTS\* average

The lower rates of car travel among high school participants are not explained by a proportional increase in walking or cycling. As shown in Figure 33, the proportion of children and young people walking to high school was also less than for primary school, both in the Blacktown study and in the Sydney HTS. What appeared to change across the school stage was that the proportion of participants using public transport was higher among the high school participants than for primary school participants.

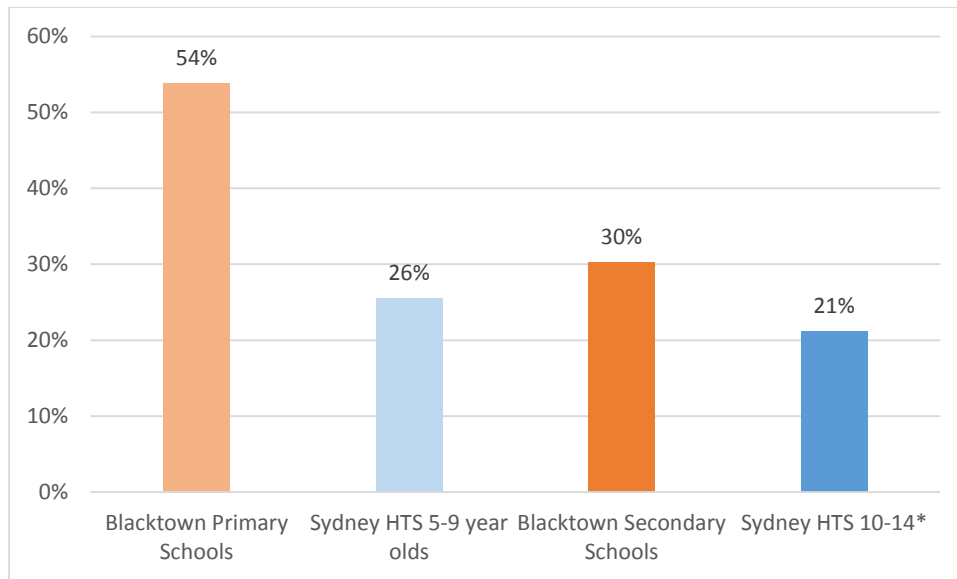


Figure 33 Proportion of children and young people who walk to school  
Blacktown study participants compared to Sydney HTS by age group

Distance to school might be one explanation for the lower rate of walking to high schools compared to primary schools found in the three locations in the Blacktown sample and consistent with the Sydney HTS data. This difference in the walking rates across the age cohorts may relate to the greater geographical area of the catchment of the high schools compared to the primary schools, and therefore a longer distance to travel to school for many high school students.

The smaller proportion of young people who walked to high school compared to primary school was evident in each of the three localities in the Blacktown study in which primary schools were involved, but most noticeable in Blacktown Central, as shown in Figure 34.

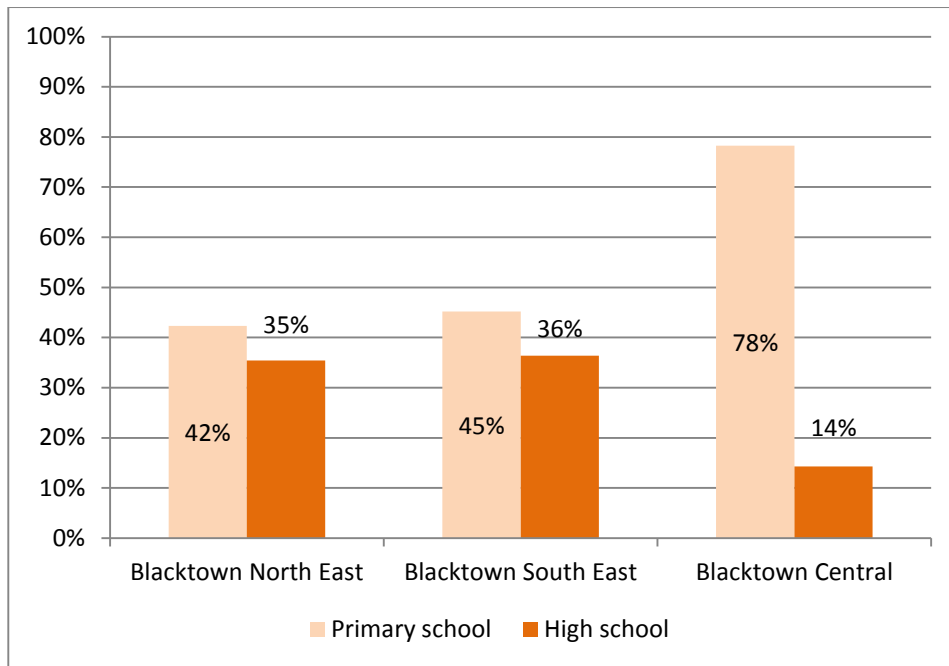


Figure 34 Percentage of children and young people who walked to school in three different localities

The smaller proportion of walkers among the high school participants was not reflected in an equivalent greater proportion of young participants who were driven. The pattern of school travel among high school participants who were driven to school compared to their primary school counterparts in the same locality was more varied than for walking, as shown in Figure 35.

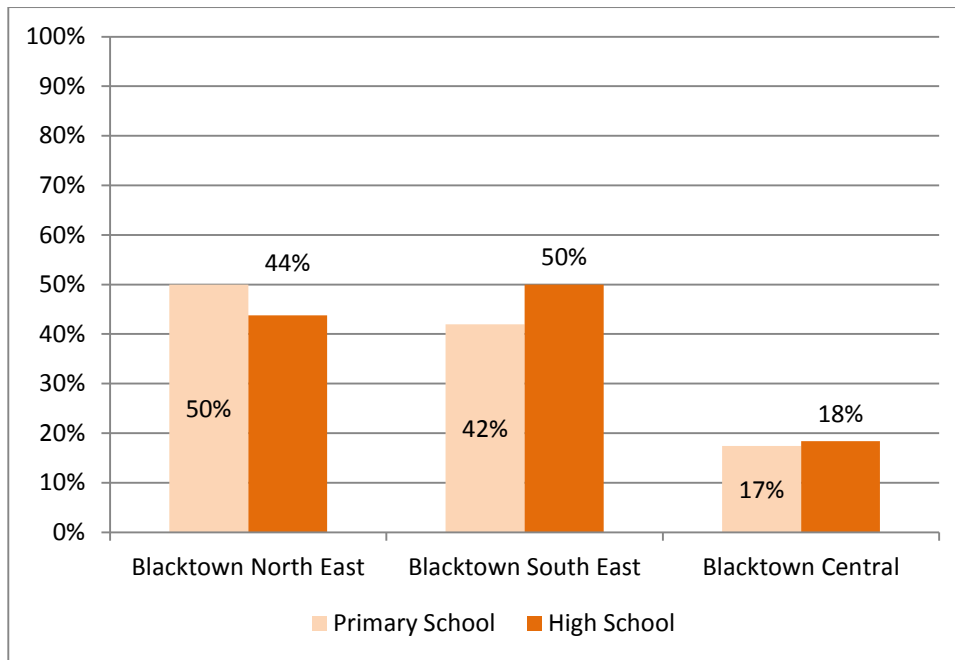


Figure 35 Percentage of children and young people who travelled to school by car in three different localities.

The considerably higher proportion of participants of both age groups who travelled to school by car in the two lower density localities compared to Blacktown Central could be interpreted as being consistent with the large scale surveys that have found a relationship between urban form and school travel mode. As noted in the introduction such findings remain inconclusive, however, and in this case, would not explain the differences between Blacktown North East and Blacktown South East. The participants in Blacktown South East recorded a larger proportion of high school participants using car travel to school than their primary school counterparts whereas in Blacktown North East a smaller proportion of the high school participants used car travel to school compared to participants in the adjacent primary school. This finding runs counter to the established findings of urban studies that suggest street grid-patterned streets (like those found in Blacktown South East) favour walking over more curvilinear street patterns (such as Blacktown North East).

These initial comparisons in school travel across age groups and in different localities suggest that a more complex mix of social and spatial factors, in addition to car ownership or urban form, are likely to be involved in shaping children and young people's everyday mobilities.

*Differences in school travel mode by locality*

In the Blacktown study the higher than Sydney metropolitan average rate for walking to school was true for participants in all schools in the study except for the Blacktown Central high school, which drew its students from across the entire local government area rather than more locally. The participants in the Blacktown Central high school, which had a wider catchment area, had the highest rate of students travelling by bus and train travel (Figure 36 and 37).

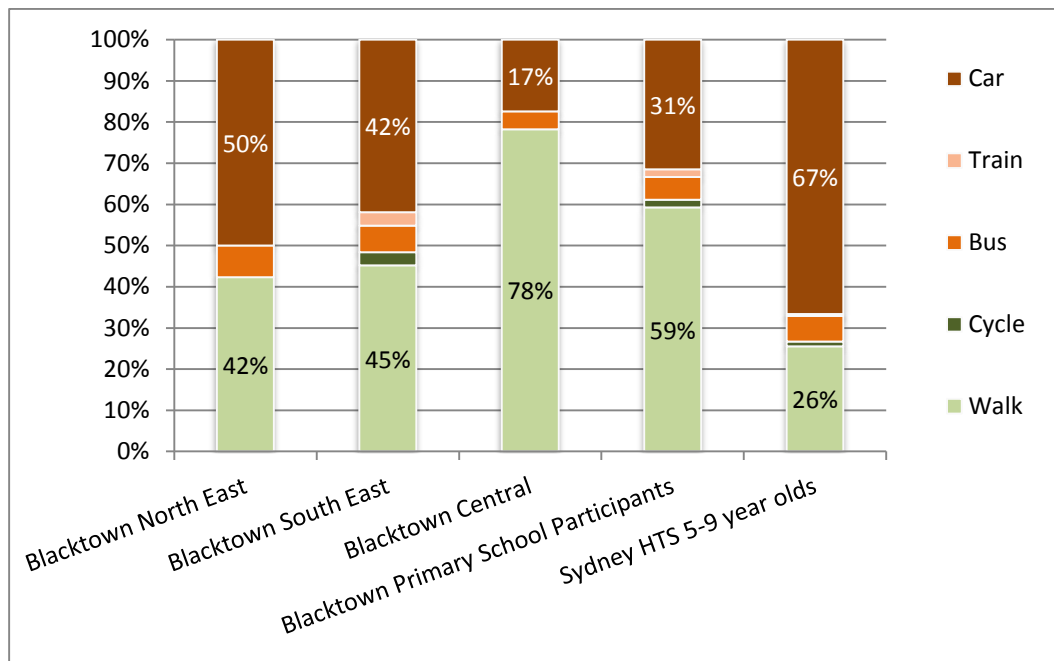


Figure 36 Proportion of school travel by mode for primary schools

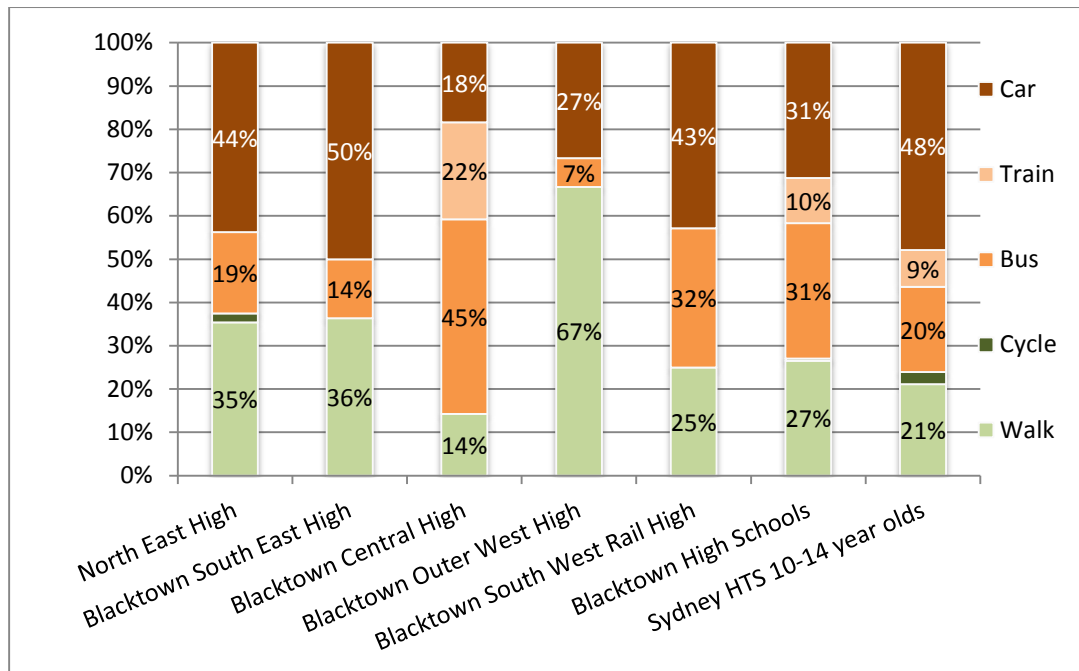


Figure 37 Proportion of school travel by mode, secondary schools

*Distance*

*to school by mode*

School location relative to where children and young people live influences travel distance, which in turn has been shown to influence school travel mode (McDonald, 2005; 2008; McMillan, 2005; McMillan et al, 2006). The greater the distance to school the more likely that the journey will be out of walking range. The average walking trip length, which was noted in the 2008-09 Sydney HTS to be just under one kilometre (0.9 kilometres) and has remained stable since 2001/02 (TDC 2010). The participants' school travel by distance and mode, shown in Figure 38, suggests walking was the most frequently recorded mode of travel to school for children and young people up to 2.2 kilometres.

Where participants lived beyond a three kilometre distance from school, and were therefore eligible for the Student Transport Subsidy Scheme, the main mode of travel was by bus. Car travel to school, on the other hand, was spread across a distance from less than one kilometre to around five kilometres. In other words, it did not appear that car travel was as obviously constrained by distance as for walking or public transport modes (bus and train).



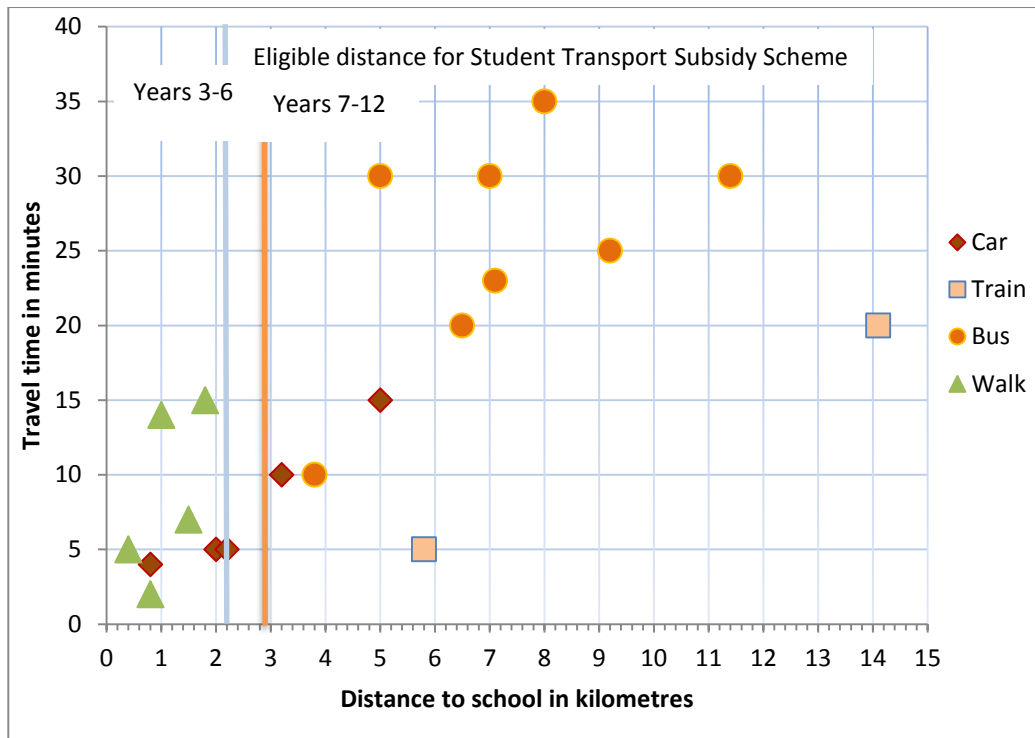


Figure 38 Participant estimated travel time to school by distance to school and mode where recorded, from across all schools (n=24)

This pattern of school travel by mode suggests that prevalence of walking to non-government schools and selective state government schools in Blacktown and across the metropolitan area, might vary considerably from the Blacktown average given the greater geographical area from which they normally draw their enrolments, compared to government primary and high schools. This would be consistent with findings studies of elementary school students in the United States, which concluded that school choice is related to distance to school (Wilson et al. 2007, 2010). Distance was found to have a significant influence on travel mode to school and highlights the potentially unintended consequence of education policies on travel to schools (Wilson et al. 2010).

#### *Gender differences in school travel mode*

Gender is one of a number of social factors that emerged in this study as a factor that influences school travel mode. In particular, although the numbers were small, there was a notable difference between young female and male participants in their use of public transport modes. The number of young women travelling by bus was about a

third higher than for young men (13 female participants compared to 9 participants travelled to school by bus) whereas the number of young men travelling by train was four times higher than for young women (9 male participants compared to 2 female participants travelled by train). The gender aspects of everyday mobilities, and in relation to use of public transport modes is discussed in more detail in Chapter 5. What was more apparent when the children and young people discussed their journey to school was a range of household factors.

### **Household influences on school travel mode**

From the interviews with children and young people in Blacktown there are several factors at the household level that influence their everyday mobilities. While economic factors, like household income and car ownership, will most obviously impact on the nature of travel of children and young people, these were not the most commonly reported reasons given by the Blacktown participants as to why they travelled to school using a particular transport mode. Instead two that were mentioned by a number of participants were household composition and parent's employment, especially the mother's labour force status.

#### *Household composition and school travel*

A child's age and placement in relation to his or her siblings appears to have an influence over how they travel to school. In primary school where siblings attend the same school the majority will travel together, whether that is by car or by walking or public transport. In the cases where siblings are going to different schools or child care, travel to school will likely be influenced by the travel and transport needs of their siblings. In some cases having siblings may increase the likelihood of children walking to school, while in other cases it may mean all siblings being conveyed by car.

One example of siblings walking together to school where an older sibling had the responsibility of accompanying a younger sibling was provided by Jaipur [221] who attends Blacktown Central Primary.

*So how do you get to school?*

*Well my brother takes me as far as his high school and then I'm walking alone.*

*From the high school by yourself?*

*Yeah.*

*Do you go home the same way?*

*No he comes first to pick me up.*

Jaipur, young female participant, 10 years Blacktown Central [221]

Jaipur's [221] family do not have a car so walking to school is her only option. Nevertheless, her older brother accompanies her at least as far as his school which is nearby. A similar example of a young person having responsibility for a younger sibling, was provided by Cebu [71] who walks to Blacktown South West Rail high school.

*Who do you usually walk to school with?*

*My brother*

*Is he younger or older?*

*Younger*

*And does he go to this school or the primary school?*

*The primary school.*

*So you have to look after him?*

*Yeah.*

Cebu, young female participant, 14 years,  
Blacktown South West Rail [71]

In contrast Erin [131] at Blacktown North High School, who has two siblings, provided an example of an 'we-all-go-in-the-car-together' routine:

*How do you usually travel to school?*

*Oh to school. Mum drives me*

*So you get a lift?*

*Yeah thank god!*

*Does she take anyone else?*

*Yep my younger brother and my sister. My sister goes to this school and my brother goes to primary school ...*

Erin, young female participant, 15 years,  
Blacktown North East [131]

*Parents' employment and school travel*

Early work on gendered patterns in household travel by Robyn Dowling and Anna Lyth (2003) highlighted the fact that working mothers tend to make a series of multiple short trips for various family related purposes that are linked to their journey to work while men's commuting patterns tend to be single purpose trips. Despite this evidence, the implication of women's increasing participation in the labour force for children and young people's travel over the past three decades has not featured to any great degree in Australian studies of school travel. What emerged from the interviews with children and young people in Blacktown, however, was that the working arrangements of parents, and/or guardians, have an important influence on school travel mode, and that this influence may override other environmental factors, like proximity to the school. For example,

Biranna [154] who lives close enough to Blacktown South East primary school to walk usually travels with her mother, who is the school canteen manager and works five days a week at the school. They travel to school by car. Why?

*Because it's quick. Sometimes I walk.*

Brianna Young female participant, 10 years,  
Blacktown South East Primary [154]

An example of how household factors like composition and parental employment can sometimes combine to create even more complex logistics surrounding the journey to school was provided by Adrian [177] from Blacktown South East. Adrian has an older sister who has left school but whose mobilities are still structured within the household.

*[Mum] drops my sister off to work and then comes home and then she drops me off [to school] as well and then she goes to work.*

*Where does your mum work?*

*She works at Wetherill Park<sup>15</sup>.*

Adrian young male participant, 10 years,  
Blacktown South East [177]

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<sup>15</sup> Wetherill Park is a suburb in neighbouring Local Government Area of Liverpool. It has a large industrial zone with a concentration of manufacturing industries

Adrian's mother works in one of the manufacturing companies in Wetherill Park industrial area, which is located 8.2 kilometres from Blacktown South East. While the distance may not be great, to accomplish the number of trips that she does and get to work would be unpractical using public transport, the 12 minute car trip (not allowing for peak hour traffic) might take over an hour or more by bus. There are few direct public transit routes from the major population centres of Blacktown or Liverpool to the main industrial areas within Western Sydney.

Even when parent commutes to work involve public transport, children might be driven to school rather than leave them to make their own way, as in the case of Hena [162] who attends Blacktown South East primary school and her mother works in the city. As she explains:

*Mum drives me and then she drives to the station. She works in the city. She works in an office. She drops me off at school at twenty to eight.*

*Could you walk from where you live?*

*Yes but I'm not allowed to walk. But sometimes I can walk with my mum sometimes in the afternoon and we walk all the way to Woolworths.*

*In the afternoon I go to OOSH [Out of School Hours care] and they come and pick us up and my mum picks us up from the OOSH because if she works late.*

Hena, young female participant, 11 years,  
Blacktown South East Primary [162]

It is not always the case that mothers have the sole responsibility for children travelling to school. Often the responsibility is shared between parents depending on working arrangements and location. Another example of parents driving their children to school to fit in with work routines was shared by Amelia [189] who lives in Blacktown North East. In her case with both parents working, the journey to school is contingent upon availability of other household members, parent's working arrangements and their work locations.

*Who usually drives the cars at your house?*

*My dad usually drives his car.*

*My mum usually walks. Her car hasn't been out of the garage for about two weeks.*

*So she only uses the car sometimes, when she needs it is that right?*

*Yep.*

*And what about your dad where does he usually drive?*

He usually drives to work.

*And where does he work?*

He works at [name withheld] High School.

*Oh right, so is he a teacher?*

Yeah.

*What about your mum, does she work?*

Yeah she works at the community health centre in Castle Hill. I think she just works in the office.

*Does she have to drive to work?*

Yeah um no my dad usually drives her to work and she usually walks home.

*And so how do you get to school?*

My mum and dad have to drive me because they go really early.

*And you come to school then or do you go to out of school care?*

I come to school.

*And so what time do you have to leave home?*

Um I think 8 [o'clock].

Amelia, young female participant, 10 years, Blacktown North East [189]

Amelia's experience is an example of how the journey to school is complicated by the mobilities of other members of the households. When both parents are employed, as in the case of Angela, the journey to school can vary depending on the location of employment for parents but also on day of the week or time of day because working arrangements are becoming more flexible and work more casualised. Some of this complexity and variability is shown in the following two other examples from children in Blacktown North East, Mumbai [186] and Liam [203]:

*My mum drives me to school and my dad drives to work and to the shops. Mum works in Superannuation*

*And where does she work?*

*In Parramatta. And Dad uses the car to go to work.*

*Where does he work?*

*In the city.*

*So does he work long hours?*

*Yes, he goes from 6.30 in the morning from our house and he comes home in the night.*

*And so your mum drives you to school?*

*Sometimes my mum drives us and sometimes my dad drives us and sometimes I walk.*

*And do you go with your brother?*

Yes

*And how do you get home?*

Normally my dad would come and pick us up or we walk home

*And do you walk home with your brother too?*

Sometimes he walks home but I don't.

Mumbai, Young female participant, 10 years, Blacktown North East Primary  
[186]

*So how do you get to school?*

By car.

*Who usually drives you?*

My mum in the morning and my dad in the afternoon.

*Does your sisters go with you?*

No. My older sister doesn't go to school.

*What does she do?*

She goes to University.

Liam, young male participant, 10 years, Blacktown North East [203]

The complexities of managing travel with household routines can also involve others outside the immediate household. One of the many benefits for children in attending local primary and high schools is that it is likely that friendships are formed between households in the same neighbourhood. These positive social networks that are typically created within local communities can be helpful for families in managing the logistics of their household mobilities as in the case of Michael [235] who lives in Blacktown North East and Charlotte [158] who lives in Blacktown South East:

*My mum drops me off in the morning and my neighbour picks me up in the afternoon. My neighbour comes with us in the morning and his mum picks us up after school.*

*So you get on quite well with your neighbour?*

Yeah he comes to this school.

Michael, young male participant, 15 years, Blacktown North East [235]

*I walk sometimes and Tuesdays and Thursdays I get driven.*

*Who drives you then?*

*[My friend]'s mum 'cause my mum has to go to work and I get dropped off there and then they drive [my friend] and me to school. I walk home.*

Charlotte, young female participant, 10 years Blacktown South East [158]

The children and young people in Blacktown provided many other examples of how their journey to school is far more complex and variable than travel survey data might suggest. Far from the simplistic stereotype of car-dependent outer suburban areas, Blacktown's children and young people have described not only that school travel is highly contingent on a range of interdependent factors within the household, but that their mobilities, more generally, are indicative of a greater complexity that constitutes contemporary Australian urbanism.

### **Beyond the journey to school**

Although school travel constitutes both an important and substantial part of the everyday mobilities of children and young people it is not their only travel need nor the only travel they do on a regular basis. Therefore to understand more fully the role of transport in their everyday mobilities it was important to investigate with the children and young people the scope and variety of the other places and activities to which that they regularly travel. These activities were explored both through the initial classroom sessions and then followed up in the interviews. After discussion of the results of the journey to school the children and young people were asked to consider the other places they usually travel to around their local area and beyond. They were given an A3 sheet of blank paper coloured pencils and felt pens and asked to draw and/or write the places they usually travel to, in response to the question: *'Where do you usually go and how do you usually travel there?'*

Time constraints in some schools limited the information that was produced and created a substantial variation between classes in their responses. Despite this limitation, there were 113 students whose drawings were available for analysis by the consent of the student and their parent. The children's and young people's drawings generated 435 records of places that the participants usually travel apart from school as previously listed above.



The analysis of the records of the children and young people's everyday travel showed firstly, that there was a wide variety of activities that they undertake on a regular basis that require travel apart from the journey to school. The most frequently recorded activities for children and young people in the Blacktown study, beyond the trip to school, were for shopping, constituting 27 per cent of the total number of recorded activities, followed by socialising with their peers (12 per cent), outdoor recreation (11 per cent), and participating in sport (8 per cent). Outdoor recreation in this research includes things like outdoor play, informal sporting activities like playing soccer with friends, riding a bike or walking for leisure. Outdoor recreation was distinguished from participating in more formal, organised sporting activities and indoor sports. The great diversity of activities listed suggests that travel by children and young people to out of school activities is worthy of greater attention in transport geographies, policy and planning in Australia.

#### *Travel to out of school activities*

Not all activities recorded on the drawings included the mode of travel, an inconsistency arising from the semi-structured nature of using child/youth focussed methods. However, there were 314 records that included travel mode. The frequency of travel to various activities by mode is shown in Figure 39 below.

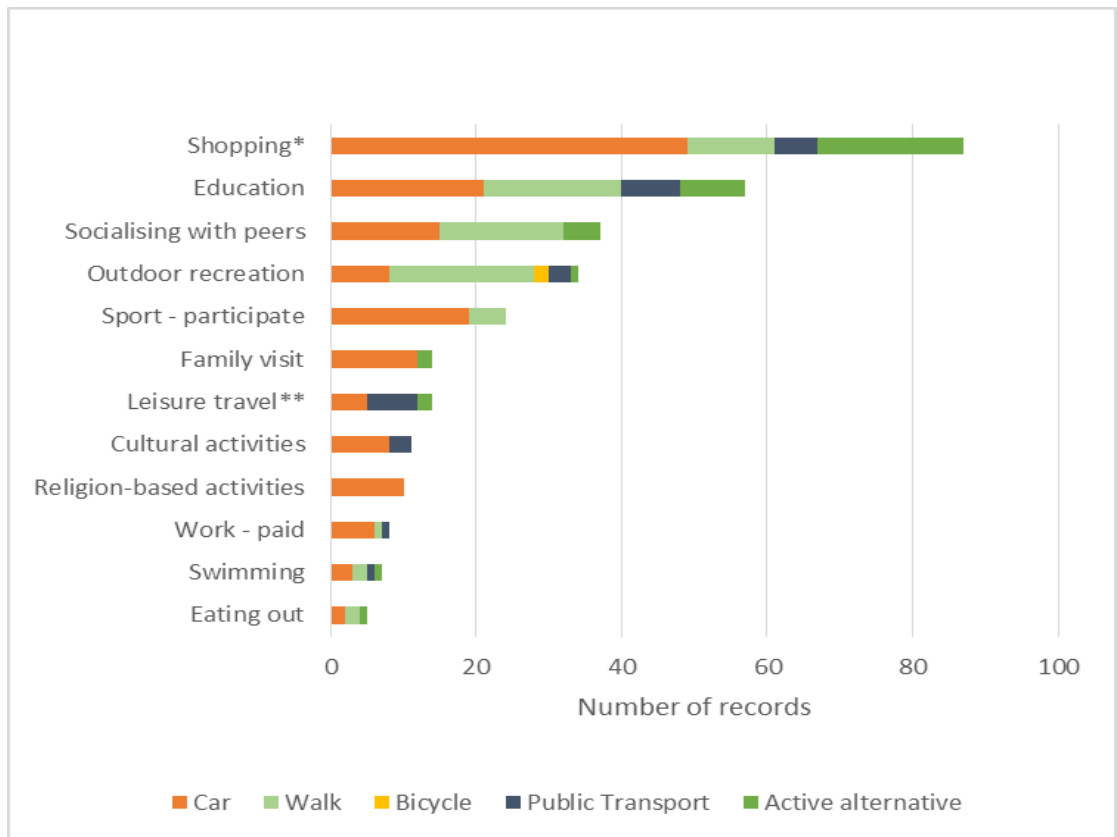


Figure 39 Blacktown study: Frequency of recorded activities by travel mode, n=314

The advantage of seeking travel mode in this semi-structured manner, was that it allowed children and young people to record where they might use more than one type of transport mode to reach an activity. In this way it was possible to identify the types of activities, like shopping and socialising with peers, where there were ‘active alternatives’ available, meaning that the participants recorded travelling by car or by public transport or by walking. The frequency of the recorded activities by mode shown in Figure 39 suggests that car travel was mostly frequently used for travel to visit family friends and relatives, religious-based activities and paid work. The activities which were recorded with higher rates of active alternative modes to the car were shopping, socialising with peers and access to outdoor recreation areas, such as local parks. Outdoor recreation was the activity that had the highest recorded frequency for walking, while education and leisure travel was more frequently undertaken by public transport.

### *Transport mode to school compared to travel mode to other activities*

The data recorded from the drawings was matched with interview data which recorded both travel to school and to other activities. In this way it was possible to analyse school travel mode compared to travel mode to other activities. There was more than twice the number of recorded trips by car to other activities than trips to school by car. The ratio of car travel for other activities (62 records) compared to car travel for school (28 records) was 2.2, as shown in Figure 40. In other words, car travel to other activities was more than twice the rate of car travel to school. This underscores an important argument in this thesis that children's and young people's travel to activities other than school is as relevant for transport research as school travel.

Moreover, the higher rate of car travel to other activities compared to car travel to school suggests that further analysis could usefully investigate whether travel mode to school is linked to travel mode to other activities and whether the factors that might influence school travel mode are the same as those that influence travel mode to other activities. One such study as has been undertaken in Norway by Fyhri and Hjorthol (2009). Based on the Norwegian National Travel Survey, their study that found that, even in a country where rates for walking to school rates were as high as 45 per cent, most children were taken to other leisure activities by car. The rates of car travel to other leisure activities varied from 62 per cent to 72 per cent depending on the type of activity (Fyhri and Hjorthol 2009, p379).

In the Blacktown study, the level of car travel to other activities was highest among participants who travelled by car to school. Four out of five trips (78 per cent) to other activities by car were recorded by participants who travelled to school by car only. Nevertheless, more than half of recorded trips to other activities (55 per cent) were by car for children and young people who walked to school only, as shown in Figure 40.

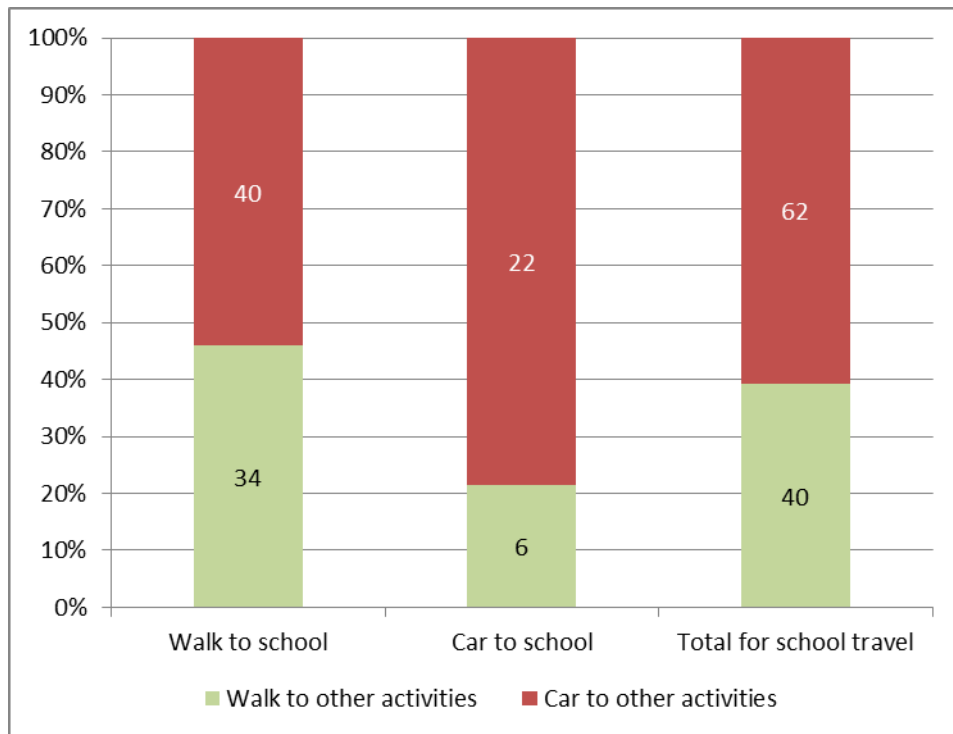


Figure 40 Blacktown study: Number of participants recording travel mode to out of school activities by travel mode to school

Source: Blacktown study subset of participant records of 'usual travel' who recorded travel mode to school and mode to activity, n=204 records.

Travel mode to other activities was then analysed to identify if there were differences in travel mode by the type of activity to which children and young people travel. The records showed that there was some variation in travel mode by type of activity accounting for travel mode to school. For example, of the participants who walked to school only, those who travelled to outdoor recreation, like going to the local park, did so more frequently by walking than by car, whereas those who travelled for shopping did so more frequently by car than walking, as shown in Figure 41.

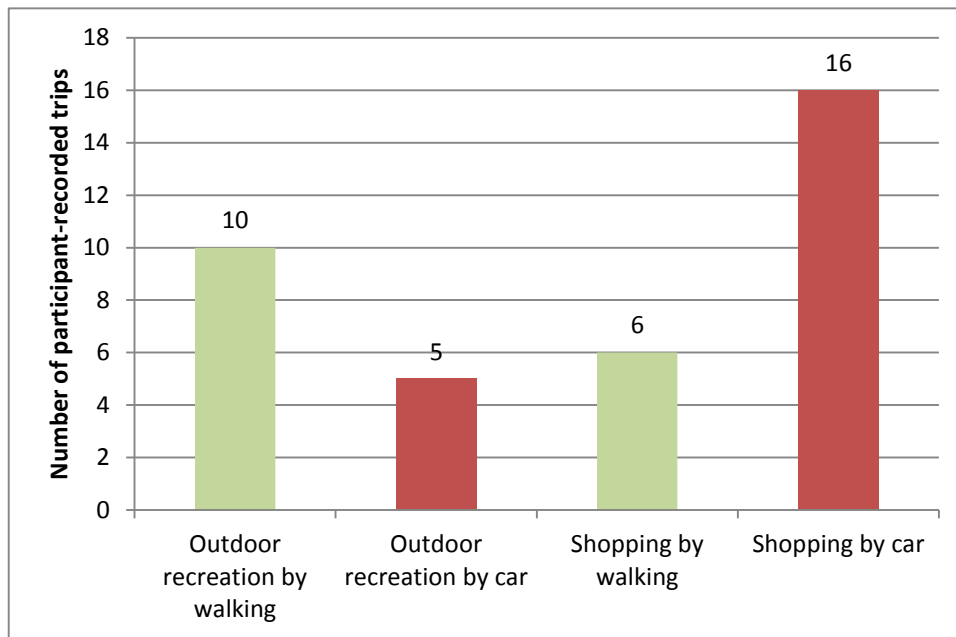


Figure 41 Travel mode to other activities by children and young people who walk to school

Source: Blacktown study participants who recorded outdoor recreation or shopping by mode on their drawings; school travel mode recorded from interviews, n=37

Location of activities and their distance from the home were the only factors mentioned by the children and young people as the reason for choosing to walk or travel by car to other activities. For some activities, like shopping, some children and young people described that they had alternative transport options to ‘choose’ from, depending on the circumstances. In the case of ‘going shopping’ for example, decisions about where to go shopping, what to shop for and who they were going shopping with, were stated as reasons for travelling either by car or by alternative active transport options. These findings are illustrated by two young women when asked why they drive or walk to the shops:

*What makes the difference for you to drive or walk to the shops?*

*If we take the car it's because we're doing a big shop and it's easier.*

Young female participant, 15 years, Blacktown South West [80]

*Where do you usually go?*

*Plumpton Marketplace once a week, and Mt Druitt [mall] sometimes.*

*Who do you usually go with?*

*Mum or dad for shopping.*

*And how do you get to Mt Druitt shops?*

*Sometimes I walk, sometimes I get driven.*

*So what would be the difference between going to these different shopping centres?*

*I go to Plumpton marketplace for grocery shopping and Mt Druitt if I want to buy clothes or something for myself. And if I go there for clothes and Mum drives me, then she'll do the groceries there.*

Young female participant, 15 years, Blacktown South West [57]

These quotes from the interviews suggest that while personal preferences for particular activities are part of the travel behaviour equation, the transport modes by which children and young people travel to out of school activities may vary according to the nature of the activity that makes one mode of transport more suitable than another. The many aspects of the material realities associated with travel to an activity, such as the number of people travelling together, cost, luggage and weather, will influence decisions about the suitability of transport modes.

Of most interest to this study, is the spatial and temporal distribution of activity spaces relative to available transport options and how this adds to the complexity of determining whether one type of transport is more suitable for a particular trip than another. The availability of transport options to different activity spaces is further confounded by time, and day of the week, when travel occurs. While most travel for learning is structured to occur on weekdays (Monday to Friday), much travel to other

activities for children and young people occurs on the weekend (Saturday and Sunday). The implication of the time of travel is that, in many areas, public transport services are far less frequent on weekends than weekdays. To investigate some of the temporalities of everyday mobilities, the next section describes the weekend travel patterns of children and young people.

### **Weekend travel**

The Sydney HTS 2007-08 results show that although peak hour weekday travel is considered one of the most pressing problems for urban transport (BITRE 2009), there are, in fact, equivalent levels of car travel on weekends as on week days (BTS 2009). Understanding weekend travel, as distinct from weekday travel, therefore, can provide a more rounded picture of everyday travel not just from the point of view of understanding children and young people's mobilities, but also from a transport planning perspective, especially given the policy emphasis on the need for reduced car dependency.

Considering the potential relevance of weekend travel to a broader understanding of children's and young people's mobilities, the third classroom session in each school in the Blacktown study was conducted on a Monday. In this session the young participants were asked to complete a travel and activity diary for the weekend immediately preceding the study session. The diary relied on the participants recalling their activities, what they did, where they went, at what time and for how long.

Sixty-three participants completed travel and activity diaries to record their weekend travel which represents about half (45.7 per cent) of all participants. This subset of young participants who recorded their weekend travel was comprised of 38 children from the primary schools and 25 young people from across the high schools. The diaries were analysed to consider the various types of activities and modes of travel to activities by gender, age group and school location. The diaries of the 63 participants produced 391 records in total about weekend travel.

### *Types of weekend activities*

As in the case for the drawings method, there were no pre-determined categories on the types of activities that could be recorded and, as a result, there was quite a wide variety of activities that the data uncovered. In all, 32 different types of weekend activities were coded. The types of activities were similar to those recorded on the drawings, as were the destinations recorded for weekend travel. Although the types of activities and destinations in the travel and activity diaries were similar to the drawings, the information recorded in the diaries provided more detail about what the children and young people usually do on weekends. Another important difference in the information provided through the use of the drawings method and the travel and activity diaries was that the diaries captured more information about activities undertaken 'at home'; that is when no travel away from home travel was undertaken. It was possible to gather information about what activities the children and young people did on the weekend, and whether they were at home or travelled elsewhere.

On weekends there were some activities that the participants all have in common, like sleeping, and eating, but these were not recorded by all the participants and, for that reason, were not included in the analysis. Indeed, there was the predictable joke among the participants for a participant to ask if they had to record their 'trips' to the toilet! (to which, they were informed that *that* level of detail was not required). Excluding such 'personal care' activities, it was possible to compare and contrast activity and travel patterns more readily between participants of different age groups and locations. When grouped into categories, the weekend activities recorded fell into the main types of activities that were recorded from the drawings with the addition of the following home-based activities:

- on screen activities - including computer use, electronic games, internet use, watching television or DVD movies
- other home-based activities – excluding screen time use, such as chores, minding younger siblings, drawing, reading, playing and listening to music

Among these different activities recorded, just over half (50.4 per cent) were 'at home'. Most of the recorded activities 'at home' were indoors, with 'on screen'



activities accounting for just under a quarter (22.5 per cent) of all recorded weekend activities, as shown in Table 7 below.

Table 7 Blacktown study – Frequency of recorded weekend activities

Type of Activity	No. of records	% of total records
At home – indoors	103	26.3%
At home – outdoors	6	1.5%
At home - on screens	88	22.4%
Health care	1	0.3%
Learning	9	2.3%
Earning	3	0.8%
Consuming	39	9.9%
Connecting	40	10.2%
Participating - in sport	13	3.3%
Participating - in cultural/religious activities	22	5.6%
Outdoor recreation	17	4.3%
Swimming	3	0.8%
Travelling	46	11.7%
Going on holiday	2	0.5%
	392	100%

Although activities at home may not seem an obvious area of interest to transport geographers, as they may be to children’s and young people’s geographers, home-based activities nevertheless constitute a substantial part of the children and young people everyday lives (Forsberg And and Strandell 2007). Home-based activities have implications from a mobilities perspective as well as for understanding interactions between urbanism and transport, to the degree that information and

communication technologies may increasingly be substituting for physical travel as a means of reducing car trips.

*Weekend travel by transport mode*

There were 163 recorded trips to various weekend activities in which the mode of travel was stated. The frequencies of recorded trips by mode showed that the car was the most commonly used mode of transport, representing 73 per cent of all recorded weekend travel, whereas active travel modes (walking, bicycle and scooter) accounted for 22 per cent of recorded trips and public transport for only 2 per cent, as shown in Table 8.

Table 8 Blacktown study - Frequency of recorded weekend travel by mode

Travel mode	Count of records with mode stated	Per cent of records with mode stated
Car	119	73%
Walk	31	19%
Bicycle	9	6%
Public Transport	4	2%
Total records with mode recorded	163	100%

The data from the weekend travel and activity diaries suggests that children and young people in Blacktown rely on car travel more frequently for their travel to activities on the weekend than they do for their weekday travel to school. However, as will be discussed in Chapter 6, both the spatial patterns of weekend travel are different from those of weekday travel and there are fewer public transport services on weekends than weekdays.

The initial analysis of the weekend travel and activity diaries nonetheless suggests some generalisations about children and young people’s mobilities that can be drawn from the Blacktown study. Firstly, that the qualitative approach to data collection can help illuminate the greater diversity of children’s and young people’s mobilities than

would normally be found from survey methods; and secondly, that school travel alone does not provide sufficient information in order to fully understand the role of transport in the everyday mobilities of children and young people. Thirdly, there are multiple factors that influence transport mode use, including, as has been shown with weekend travel, spatial and temporal factors.

## **Consuming**

### *Going shopping*

Shopping is a good example of how a single trip purpose has multiple social and spatial dimensions. There is a hierarchy of shopping centres that are planned to serve communities living within population catchment areas. The largest multi-level shopping complexes, like Westpoint Blacktown and Westfield Shoppingtown Parramatta, Castle Towers and Westfield's Penrith Plaza Shopping centres places serve a regional catchment of consumers. The travels of the children and young people suggest, however, that although distance, proximity and transport availability come into play in 'going to the shops', as was shown in the discussion on schools, there are also preferences involved in the selection of places to shop.

These shopping malls have been regarded as spaces of the conspicuous, 'collective consumption' of global capitalism (Castells 1978) that beleaguer the urban sustainability debate (Newton 2011) and irritate urban designers who would rather see replicated lively streetscapes of 'urban villages'. However, these 'everyday landscapes of popular culture' (Winchester, Kong et al. 2003) connect the global and the local processes that are implicated in the reproduction of identities both of place and of young people.

But the large shopping 'towns' of Western Sydney also fulfil a range of mundane needs for individuals and communities and are one of the main places of 'encounter', or referring to Gil Valentine's analysis, one of the 'micro-publics of everyday life' (Valentine 2008) where people interact across age, race, ethnicity and class within city spaces. It is in the shopping malls that many young people encounter adult worlds on their first 'expeditions' of independence that will be discussed in the next

chapter. They can also be places of paradox where young people are sought after as consumers and as employees (cheap labour), but also treated with suspicion.

Shopping centres provide different types of activities for children and young people, such as spaces for socialising, for work and for entertainment but these different activities are not equally valued across age and sex. There were 77 girls and young women who recorded shopping as one of their everyday activities compared to 39 boys and young men, a female to male ratio of nearly 2 to 1. It was, however, predominantly young women, rather than girls who included shopping among their usual travels. There were equal numbers of boys and girls among the primary school participants who included shopping in the everyday activities (see Figure 42 and Figure 43).

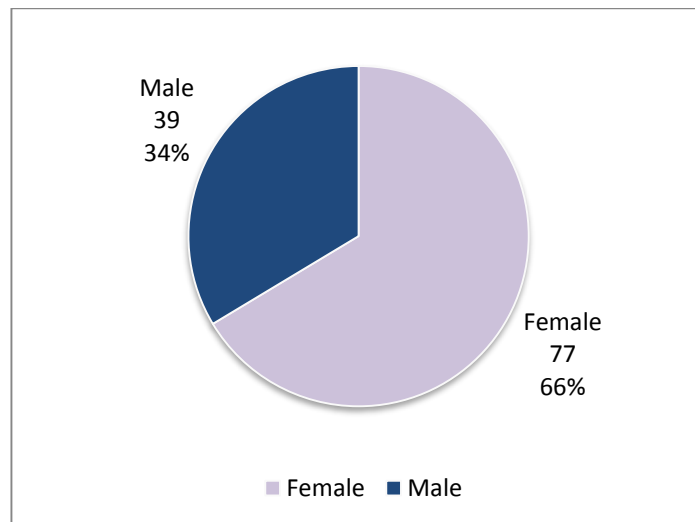


Figure 42 Number of participant drawings recording 'shopping' as an activity, by gender,  $n=116$  records

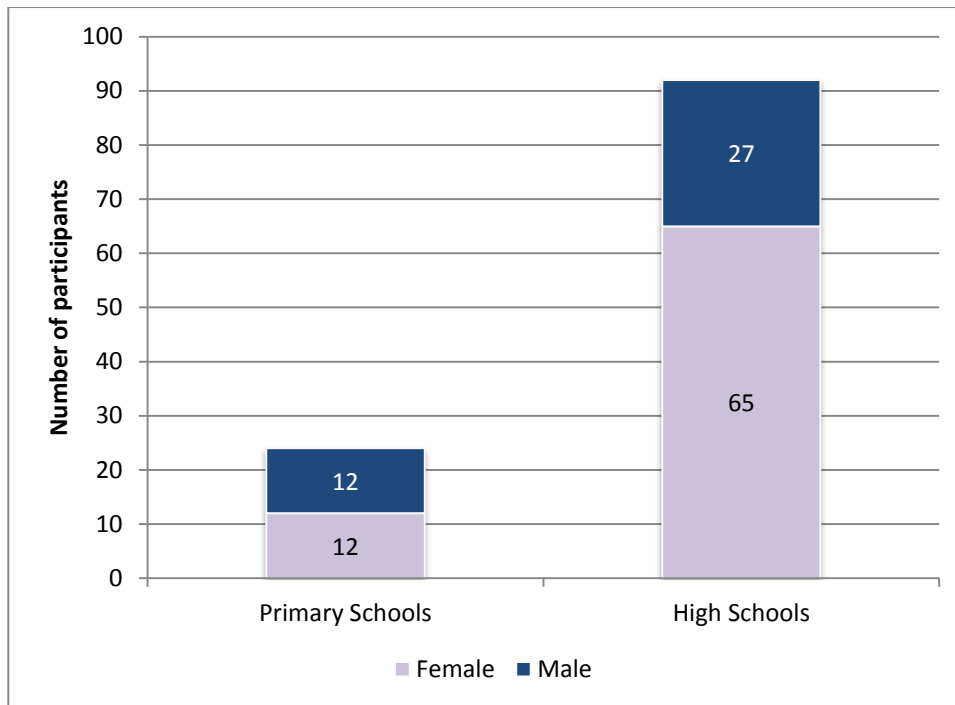


Figure 43 Number of activities recorded as ‘shopping’ among their everyday travels by age group and gender,  $n=116$  records

The local shopping centre which usually includes a small number of specialty shops and a supermarket was the most frequently recorded destination for shopping. The next most commonly reported place for shopping was Westpoint, Blacktown. As described in Chapter 3, Westpoint Blacktown is the large multi-level retail shopping mall in the main town centre of Blacktown that incorporates a bus and train interchange beneath it, a cinema complex and several food halls.

Even an activity as mundane as ‘shopping’ has a level of nuance that was revealed in the participant comments on their drawings and in their interviews. For example, 15 year old Kayley [3], from Blacktown Central annotated her drawing of Westpoint with the names of particular retail outlets ‘Starbucks’, (coffee) City Beach, Ice and Supre shops for fashion clothing.

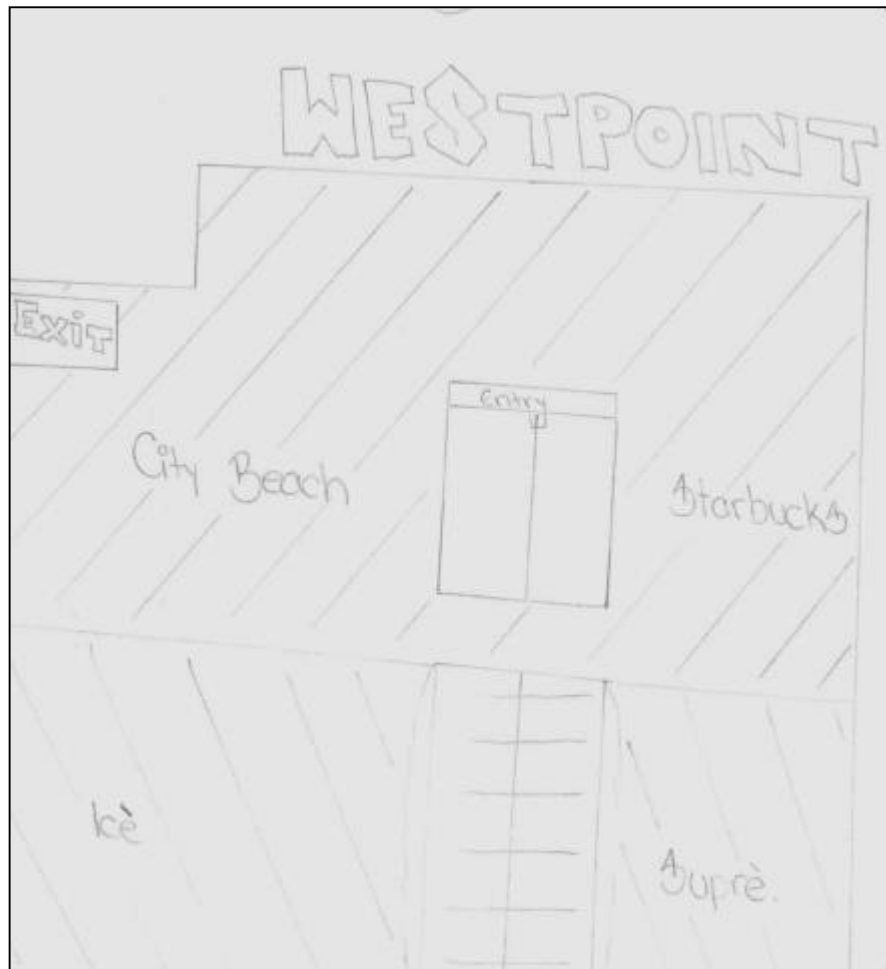


Figure 44 Westpoint Blacktown was the most frequently recorded place for 'shopping'

Alternatively for Jessica [4] Westpoint is a place for entertainment noting the Hoyts cinema and annotating the drawing with her comment:

*I come here at least once a week.*

As for Beograda [1] Westpoint is the place for socialising over coffee. On her drawing of places she described as 'where I like to go' she also noted 'Starbucks' on her drawing of Westpoint Blacktown, and later explained in her interview:

*I go there every Thursday.*

## Connecting

Creating and maintaining social connections with family friends and relatives, by visiting and meeting in different locations, socialising with peers at home or elsewhere and being involved in specific community activities, are very important to children and young people, especially to satisfy their need for a sense of ‘belonging’. In response to the question, ‘*Which of these places is most special or important to you?*’, the children and young people reported places like home, school, friends and extended family most frequently. Even where children and young people reported other places, like school or work, as ‘most special,’ it was the opportunities to be with friends that were attached to travelling to those places, rather than the activities or places *per se*, that were frequently mentioned by the children and young people as the reasons why they regarded those places as ‘special’.

From an urban policy or transport planning perspective travel to meet social needs, may be considered too unpredictable or discretionary to be factored into transport models. Contrary to such a view, however, is the fact that social travel constitutes a substantial proportion of all travel, and is therefore highly relevant in the quest to reduce car travel. Understanding the nature of travel for social interaction, in particular, is especially useful because, in the 2007-08 Sydney HTS, trips for social and recreational purposes had the highest proportion of travel by other modes (walking and cycling) as shown in Figure 45.

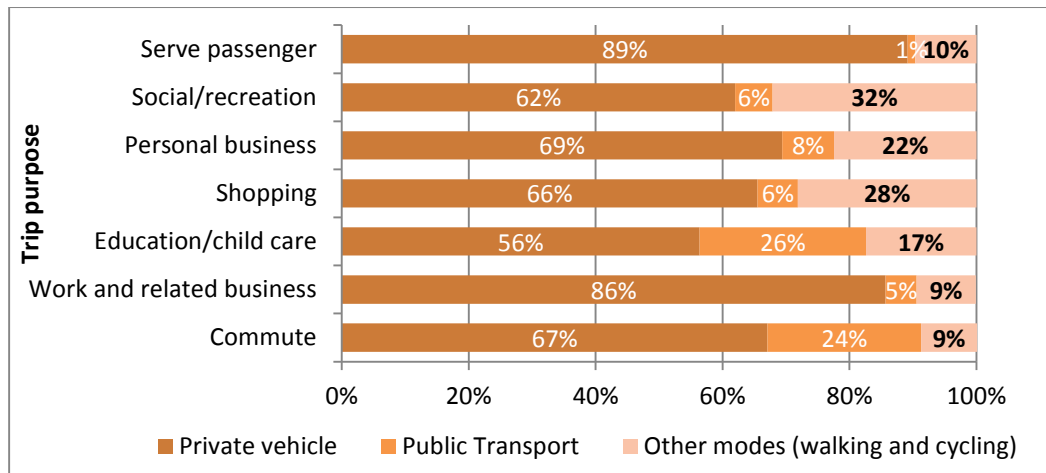


Figure 45 Sydney HTS 2007-08 Percentage of trips by purpose and mode

Source: BTS 2009, data from Sydney HTS 2007-08

### *Social travel*

In the same way that transport modes for travel for learning and consuming as described in the preceding sections, varied depending on age, gender, residential location and types of activities, these social and spatial factors also influence children and young people’s travel patterns and transport mode use for social travel. Before exploring the travel patterns and transport modes used for social travel, however, the places in which social connections are formed and maintained, and the significance that these places hold for the children and young people are described.

In the case of the children and young people in this Blacktown study, the social travel that they described as part of their everyday mobilities included places like home, school, friends and extended family as well as places of worship, community cultural or youth-specific activities. From the records of drawings of ‘places’ of usual travel there were 95 records related to social travel.

The most frequently recorded activity related to social travel was to socialise with friends (55 per cent), followed by visiting family friends and relatives (21 per cent). Among the more formal community-based activities, travel to places of worship, spiritual or religious activities was recorded 13 times, compared to five records for each of youth-specific or community cultural activities as shown in Figure 46.



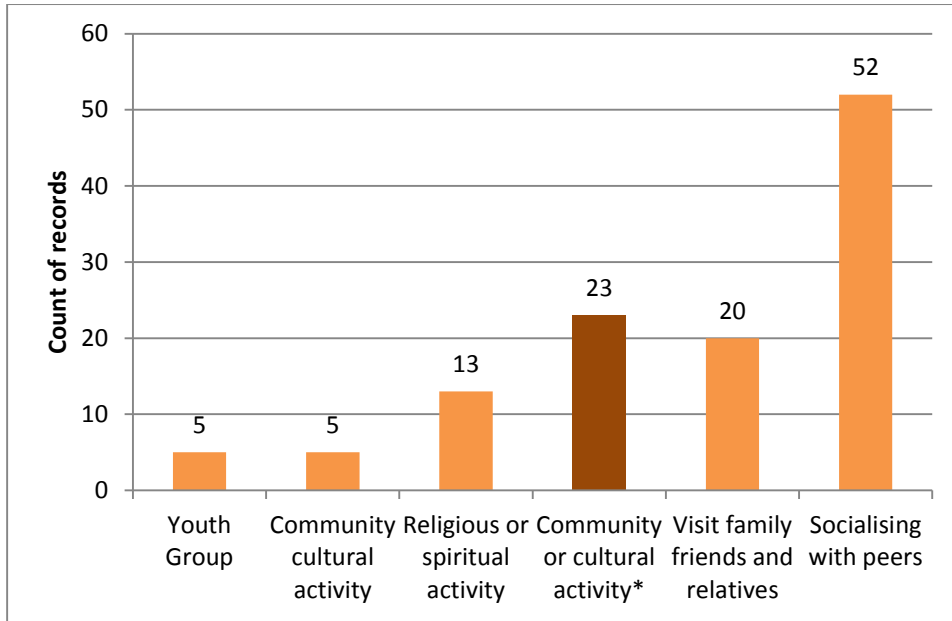


Figure 46 Blacktown study: Children's and young people's social travel

Note: \*Community or cultural activity represents the subtotal of the number of records for youth group, community cultural or religious activities.

A total of 54 participants were asked during their interview to consider which of the places they go was most special or important for them. The most frequent response (by 19 participants) was home with their family or the homes of relatives, followed by school, then the homes of their friends, as shown in Figure 47.

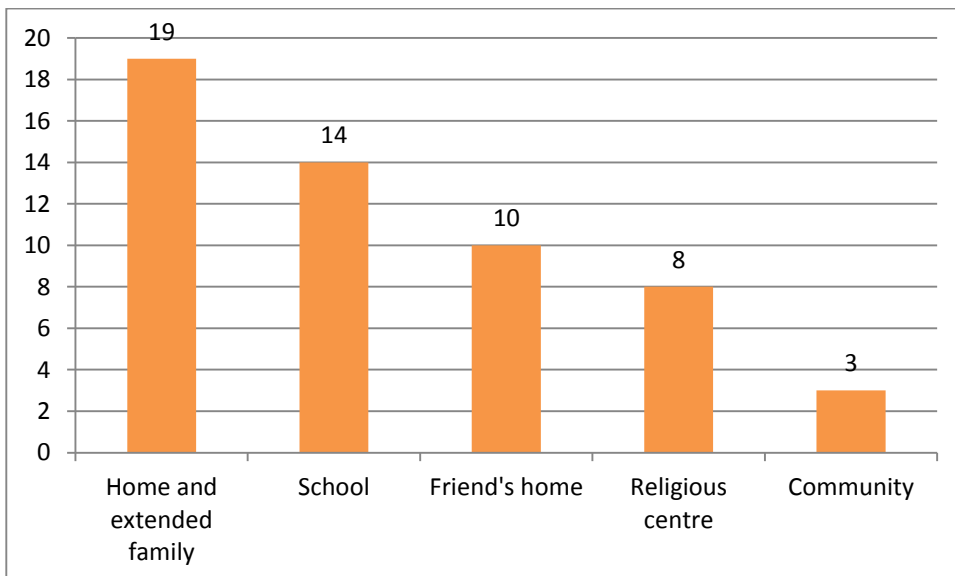


Figure 47 Blacktown study: 'special places' as reported by participants

The special place of 'home' has significance both for transport geography and for understanding mobilities. While it might seem that there are no travel implications of being at 'home', for each journey away from 'home' there is almost certainly likely to be, a journey to return home. For example, studies of school travel to determine levels of active travel have tended to neglect the fact, that this thesis shows, that children and young people frequently use different modes for the return journey.

From a mobilities perspective, the importance of 'home' as a special place challenges the common assertion that the 'basic signifier of mobility' is 'getting from point A to Point B' (Cresswell 2006 p2). Rather the significance of travel to and from 'home' suggests that mobilities are elliptical rather than linear. This raises the question of how 'home' is variously conceived, and how that conception of home changes over the life course, or among various stages of household formation and dissolution, and culturally constructed social practices. The pathway of inquiry leading from this question of home about how it variously influences the everyday mobilities of children and young people is explored in more detail in the next chapter.

### **Active mobilities - 'Choosing' active alternatives**

Locating housing in close proximity to local shops and services is regarded as desirable planning practice for reducing the need to travel by car. However, as explained by this young woman in Blacktown South West Rail, proximity is not the only factor that is considered when 'choosing' to drive rather than walk or cycle for short trips:

*If we take the car it's because we're doing a big shop and it's easier.*

Young woman, 15 years Blacktown South West Rail [80]

Travel to school or friends and relatives can often be a short trip, but as Seoul [217] explains there are other external contingencies that affect travel mode 'choice' like weather, time of day or trip purpose. She lives in Blacktown Central and usually

walks to school but even her school travel mode would vary according to these other external factors, as she explained:

*Sometimes I walk with my family and sometimes by myself.*

*And what makes the difference?*

*The day and the weather.*

*What sort of day would it be if you walked with your family?*

*Raining.*

*Why do you walk?*

*'Cause it's not very far.*

Seoul, young female participant, aged 11 years, Blacktown Central [217]

Seoul [217] also lives very close to her cousin's home whom she visits regularly. Again the mode of travel is not so much related to distance as to other factors, like time of day or the purpose of the visit, as revealed in response to the question:

*Where else do you usually travel?*

*My cousin's house*

*Where do they live?*

*In a unit about five minutes away.*

*And how do you get there?*

*Sometimes by car and sometimes by walking.*

*And when you go by car, why do you drive?*

*For special occasions or if it's dark.*

Seoul, young female participant, aged 11 years, Blacktown Central [217]

Seoul's travels to her cousin suggests that although she had an active alternative available to her (that is, she could walk to her cousin's house) her use of the car was based on factors related to the activity that she was travelling for. It would seem,

however, that living in close proximity to these activities (school and family) allows Seoul the possibility of utilising an active travel alternative when these other contingencies are met. Living in a central location enables a degree of accessibility to employment using an ‘active alternative’.

#### *Availability of active alternatives*

Active alternatives might exist for a range of local activities but are not always taken up by young people, as noted by Ankara [123] who gets a lift to school but walks home:

*I could walk but my Dad likes to take me. I walk home.*

Ankara, young female participant 15 years, Blacktown North East, [123]

When the young people reported taking up active alternatives to car travel it was most often when they travelled with friends. Transport by car travel was generally used when the young person was accompanied by, or was accompanying, an adult, usually a parent. For example, Emily [5] from Blacktown Central high school and Ramy [248] from Blacktown North East, both reported that they can use alternative modes to travel to the main shopping centre of Blacktown, Westpoint in the following excerpts from their interviews:

*Where are some of the places you usually go?*

*Westpoint*

*How do you usually get there?*

*By bus or by car. If I go by bus I go with my friends, if I go by car, I go with Mum and Dad.*

*Emily, Young female participant, 14 years,  
Blacktown Central [5]*

*Where are some of the places you usually go?*

*Glenwood shops. Sometimes I walk to my friend's house, or just to the park. And Pizza Hut on the weekend.*

*Is that down at Westpoint?*

*Yeah.*

*And how do you usually get there?*

*I don't walk there! [Laughs] Sometimes I catch the bus but my parents usually drop me off.*

*Ramy Young male participant 15 years,  
Blacktown North East [248]*

Active travel alternatives are not available to all children and young people, in all locations, or for all travel needs. Nor is transport by car equally available as an option for travel for children and young people. The examples of Emily and Ramy suggest that some young people have some discretion in the mode of travel that they can utilise, and that social factors might influence their 'choice' of travel mode. In addition to the social factors, Ramy's [248] exclamation that he doesn't walk to Westpoint suggest that spatial factors influence, not only the individual decision, but whether active travel modes are an option at all.

#### *Spatial differences in the availability of active travel alternatives*

Options for active travel as an alternative to car travel emerged in the data from the drawings provided by the children and young people in the Blacktown study and in their interviews. Questions such as 'could you walk/ride/catch a bus or train there?' are rarely, if ever, included in conventional travel surveys. These type of questions were not explicitly included in the interviews but discussions about active alternatives emerged because the children and young people were asked to draw the places they usually go and how they usually get there, and many, as we have seen, included the options for alternative travel modes on their drawings. These options included 'car or walk', 'car or bus' 'car or train', 'walk or car'. These drawing were then used to form the basis of the interview so that these alternatives could be discussed in more detail.

What the drawings data indicated in the first instance, however, was that the views of children and young people suggested that active alternatives were not evenly distributed across the research localities. Figure 48 shows the proportion of travel reported by mode in each of four high schools in the Blacktown study. While car travel was the most frequently reported mode across all sites, more interesting was the variability of active travel alternatives used by young people across the sites.

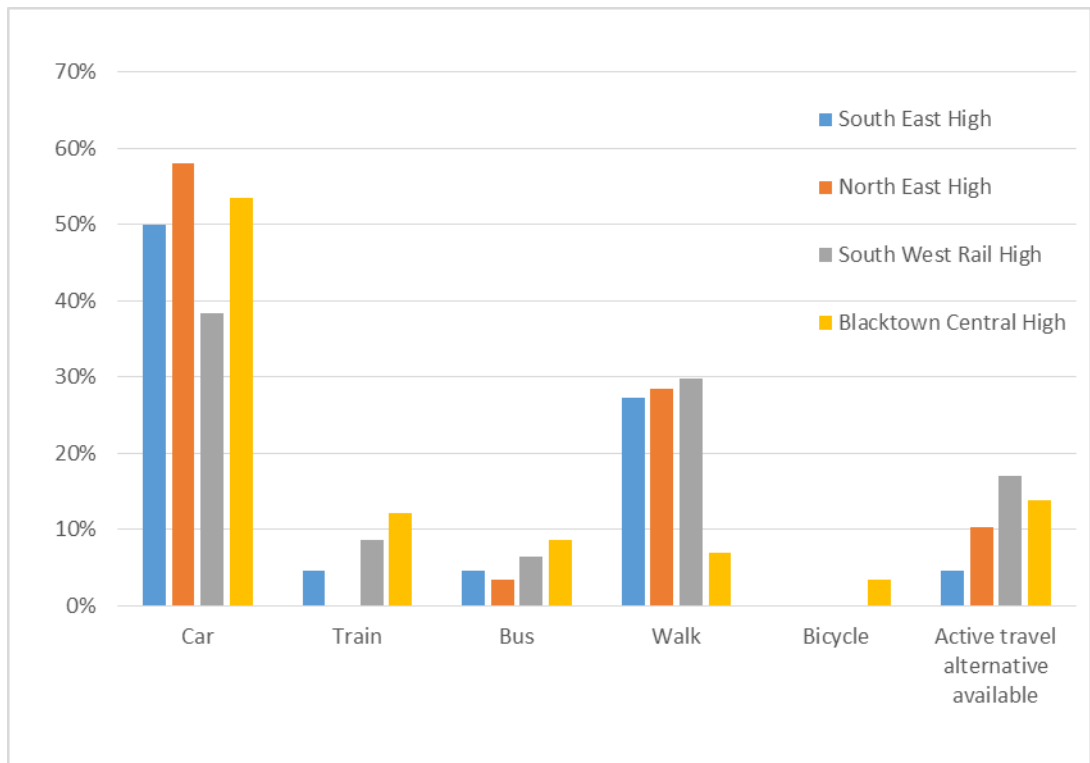


Figure 48 Blacktown study: Frequency of travel by mode reported by participants in four high schools

Out of school hour activities include those that satisfy children and young people’s needs for connection with friends and family, consumption of food and material goods and participation in recreation and leisure. These activities serve multiple purposes and these different purposes need to be identified to help explain why different transport modes are used.

### Conclusion

The exploration of the travel patterns of children and young people in Blacktown, Western Sydney, described in this chapter, have highlighted two main points about the role of transport in the mobilities of children and young people: firstly, that the journey to school represents a limited proportion of everyday travel and therefore, transport mode to school may not be a good indicator of transport mode use to other activities; and, secondly, that there are multiple factors that potentially shape transport mode use to school and other activities. In particular, the factors that

influence transport mode use and differentiate their everyday mobilities more generally include:

- Personal factors that influence mobilities such as interests, talents, ambitions and social connections
- Social variations in mobilities that include age, gender, income, but also, importantly, household composition and labour force status and working arrangements of parents
- Spatial variations – where they live in relation to the location of the activities to which they travel
- Temporal- weekend activity patterns and the availability of public transport

These factors are explored in more depth in the following two chapters. In Chapter 5 the social dimensions of age, gender and ethnicity will be considered along with a further discussion of household level factors. In Chapter 6 more attention will be given to the spatial factors that impact on the social, cultural and recreational travel of children and young people.

*The value of using a child/youth-centred approach to understand transport mode use*

In addition to the participant explanations for their travel patterns, the qualitative methods generated information about differences in the *frequencies* of individual travel to places or for particular purposes. The 2007-08 Sydney HTS recorded trips made on a single specified ‘travel day’ while in this study, the young participants were asked: *How often do you travel to these places you usually go to?* In this way information was made available about differences in the array of trips that children and young people might take, over and above the number of children and young people who may be travelling to a particular destination.

In a related point, no information was given in the 2007-08 Sydney HTS about whether the travel on the specified travel day was considered to be a *usual* trip for the assigned day of the week or whether it was an *unusual* trip. In contrast, the

research for this thesis sought information about how usual, or otherwise, the activities recorded in the travel and activity diary were by asking the question: *Was this an ordinary day? If not, why?* to which the young participants could write an explanation. In doing so the research opened up potential new pathways of inquiry around travel by children and young people for many different purposes, beyond the journey to school.



# Transitions

The exploration of the everyday mobilities with children and young people in Blacktown described in Chapter 4 revealed the great diversity of places and activities *where* children and young people travel and *how* they usually get there. The main implication of highlighting such diversity is arguably that, to fully understand the role of transport in children and young people's mobilities, child and youth related transport research must go beyond the journey to school. The previous chapter challenged the binary perspective of children and young people's travel as either car-dependent or 'active' mobility. What was apparent from the discussions with the children and young people in Blacktown was that *how* they travel, the transport that they might use for any of their travels, is not simply a matter of 'choice' (theirs or their parents) whether to travel by car or not, but is related to a host of individual, household, and external social and spatial factors. These factors are inseparable from, and interact with, the nature and location of the activities to which children and young people regularly travel.

This chapter explores more deeply some of the social factors that influence children's and young people's mobilities using insights drawn largely from the semi-structured interviews with the children and young people in Blacktown. In taking a closer look at some of these social dimensions of everyday travel this chapter focuses on a second prominent theme in the literature concerning children's and young people's mobilities, that of *independent mobility* (Freeman and Tranter 2011). Children and young people's independent mobility refers to the degree to which children and young people can travel, without being accompanied or supervised by an adult (Freeman and Tranter 2011).

## **Importance of independent mobility for children and young people**

As outlined in the literature review in Chapter 2, independent mobility has been an important focus of studies of children's and young people's mobilities since the seminal study by Mayer Hillman and his colleagues in Britain in the early 1990s (Hillman et al. 1990). Although Hillman's study (1990s) had been instigated in response to concerns about children's road safety, their study found that between 1971 and 1990 there had been a dramatic decline in the proportion of children who were travelling independently, that is, without the supervision of an adult. This finding of the declining trend in children's independent mobility has led to a number of similar studies in other countries. The emphasis of the discourse of independent mobility, like car-dependent versus active mobility line of inquiry, has tended to be concerned with the resultant health outcomes associated with declining independent mobility.

Independent mobility is important to children and young people themselves who, on the one hand, seek greater independence as they make their transition to adulthood but, on the other hand, express concerns about their personal safety and preferences for company when they travel. When participants were asked during their classroom discussions to suggest some questions that research about children and young people's travel might investigate, the suggestion 'Who do children and young people travel *with*?' was proposed by the children in Blacktown Central Primary School. The question was an important one for delving more deeply into the nature of children's and young people's mobilities from *their* perspective to understand the degree of independence they practise.

Independent mobility is equally relevant to broader concerns about city movement and sustainability because if children and young people (up to the age of 17 years) can travel independently of an adult, they will almost certainly not be travelling by car. Independent mobility and transport mode use, therefore, are closely related, but still distinctly different, aspects of children's and young people mobilities. The two aspects are related in a very practical sense because if children and young people (up to the age of 17 years) can travel independently then they are most likely to not be travelling by car but by other modes, including walking, riding bicycles, skateboards

as well as using the various modes of public transport (buses, trains etc). In an analytical sense, like transport mode use, independent mobility is influenced by a range of factors including individual capabilities, household circumstances and the characteristics of the social and physical environments in which children and young people live.

Transport mode use and independent mobility are not interchangeable, however. Although some of the physical characteristics of the built environment that might have a positive effect on mode use might have an equally positive influence on independent mobility, it should not be assumed that household or other social or spatial factors will necessarily have the same influence on independent mobility as on mode use. It is for this reason that the children's and young people's perspectives on their independent mobility were explored in the Blacktown study through the individual interviews and are given specific attention in this chapter.

Where urban and transport geographies have focussed on children 12 years of age and younger, rather than across a wider age span, there has been a tendency for the concept of 'independent mobility' to be treated as a singular, static, adult-bestowed attribute - something a young person has or has not acquired. In this view, independent mobility tends to be regarded in opposition to adult-dependent mobility (Freeman and Tranter 2011, p 181). This dichotomous view of independent mobility implies that it is a freedom that adults either directly or indirectly allow or restrict. The problem with this binary interpretation of independent mobility is that it runs counter to the sociological perspective of children and young people as agents, in their own right, who are actively negotiating their daily lives. As argued by Anna Goodman:

There is therefore a need to conceptualise independent mobility in ways which are more child-centred, which examine transport modes other than walking and cycling, and which examine relationships with actors other than parents. There is also a need for approaches that explore the children's experiences across a wider age range and with reference to a wider range of spaces (Goodman, Jones et al. 2013, p 2).

In contrast to an adult-centric, binary view of independent mobility, a more nuanced perspective emerged from the conversations with children and young people in

Blacktown. The interviews with children and young people suggested that independent mobility is neither static, one dimensional, nor entirely adult-determined. Rather, it seems that children and young people negotiate the process towards increasing independence in their mobility as they make their transitions towards adulthood.

The findings emerging from the Blacktown study described in this chapter, are complementary to the existing evidence that the physical characteristics of the built environment can influence independent mobility. The interviews suggested that, in addition to the prevailing physical factors within their neighbourhood that may influence independent mobility, there are range of social and cultural factors operating at the individual and household levels that influence the degrees of independence that children and young people can exercise as part of their everyday mobilities. Moreover, the availability and perception of public transport has a role that needs to be considered in discussions about independent mobility.

Some of these complexities and contingencies are evident in this study. In the first instance, the interviews suggest that independent mobility has at least two meanings for children and young people. For some, being independently mobile meant traveling without their parents (but might include travelling with older siblings, or friends, or with friends' parents). For others it meant being able to travel alone to places of their own choosing. This distinction arose from the participants' seeking clarification on what was meant by 'independent'. Responding to this distinction, the individual interviews with participants posed two questions to explore the degree of independence in the everyday mobilities that children and young people were able to exercise. The two questions were:

*Are there any places that you can go without an adult looking after you? How do you travel there?*

*Are there any places outside of your home that you can go to alone? How do you travel there?*

These two questions infer slightly different meanings of independence: on the one hand, to be able to travel with another young person or in a group but without an accompanying adult; and, on the other, to be able to travel solo. The distinction was

important because it provided an insight to the gendered nature of the transition to independent mobility (Uteng, Cresswell et al. 2008). The distinction also served to illuminate other contingencies for independent mobility, such as transport mode, trip purpose and location of activity.

Participant responses to the two interview questions about their independent mobility, as described and discussed in this chapter, suggest that independent mobility is not a singular attribute that is adult-bestowed and regulated. Rather children and young people make their transition to independent mobility through a process that is graduated over time and space, contingent upon household circumstances, travel purpose and mode and the spatial distribution of the activity places relative to residential location.

Given the variations in the nature of urban settings, even in Blacktown, the transition to independent mobility is perhaps better understood as an iterative process across the life course within a given spatial context. Supporting the transition to independent mobility requires a balance between ensuring children and young people's protection (safety) and the provision of resources and opportunities to develop the necessary abilities to be independently mobile.

### **Transitions to independent mobility**

For most children and young people, their mobilities will develop and expand as they age and mature, acquiring increasing competencies of physical and cognitive ability. The physical *mobility*; the ability to move, develops with age as children grow and gain skills and strength, from taking their first steps to running, riding scooters, skateboards and bicycles. With developing physical and cognitive capability comes a greater range of options for the *transport mode* they might use and, consequently, their *spatial range* increases from their home and street to their travels into their local communities and beyond as they develop competence, confidence and gain independence. Just as children's and young people's physical abilities develop over time, so too the nature of their everyday mobilities, as social and spatial practices, change with their transitions through the life course from childhood, through adolescence to adulthood. In this section of the chapter the change in the nature of

independent mobility is examined as it relates to individual characteristics of age and gender.

### *Transitions from childhood to adulthood*

The sociological literature concerning young people has for some time referred to the concept of 'transition' as a descriptor of the phase, referred to as 'youth', in which young people experience the change from the dependency of childhood to the independence of adulthood (Pole, Pilcher et al. 2005, Furlong 2013). Such a conceptualisation of youth as a transitional stage in the life course has been contested by the view that youth should be regarded as a significantly different segment of society, with their identifiable cultures associated with this social group (Pole, Pilcher et al. 2005). Summing up this debate, sociologist, Andy Furlong notes that:

In youth research there has been a long-standing rift between what can be termed the 'transitional' and 'cultural' approaches ... Those working with the 'transitional' perspectives have tended to focus on the relationship between education and work and the ways in which social inequalities are reproduced as part of the transition from youth to adulthood. Many (but not all) of those working within a 'cultural' perspective have tended to focus on lifestyles and youth subcultures, especially those that are highly visible and challenge the cultural standpoints of older generations (Furlong 2013, p5).

By looking at the process by which children and young people acquire and exercise independent mobility as a 'transition' is not to take on the transitional perspective uncritically, but instead simply recognises the notion of transition as a useful way of understanding young people's mobilities in a progressive way. If anything, the adoption of the notion of transitions in this thesis reflects a preference towards regarding young people as a heterogeneous group of people with diverse circumstances, capabilities and preferences as they progress through an early phase of their life course, but who nevertheless share some cultural commonalities.

This stage of the life course involves both the physiological changes of adolescence and the socially constructed expectations of behaviour of young people, as they oscillate between child spaces of learning, consuming and playing (Holloway and Valentine 2000, Skelton 2009) and adults spaces of work, production and 'full social participation' (Pole, Pilcher et al. 2005, p1).

There is, of course much overlap between the spaces for children and young people and spaces for adults in cities. Indeed advocates of child-friendly cities would argue that such cities are those that enable children and young people to feel safe and included in all spaces within cities, and to be able to move independently within and between those spaces. The reality is, however, that there are spaces within cities which are open to the general public while other spaces are segregated or identified as child-specific, youth-specific or ‘adult-only’. Such segregation can occur intentionally or unintentionally through planning, design, regulation, or by public perception. It is during the transition to adulthood that young people are increasingly likely (more so than children) to move between ‘age-identified’ spaces, and to do so independently. Paradoxically, young people (in early adolescence as opposed to childhood) have yet to feature prominently in the studies of independent mobility.

What was immediately evident from the 65 interviews in which independent mobility was discussed, was that the majority of children and young people (82 per cent) responded that they could, in fact, exercise some degree of independent mobility as part of their everyday travel. A summary of their responses to the questions related to independent mobility is shown in Table 9.

Table 9 Degree of independent mobility among children and young people in Blacktown

	Female	Male	Total
Primary school	15	9	24
with a degree of independent mobility	12	6	18
% with a degree of independent mobility	80%	67%	75%
Secondary school	30	11	41
with a degree of independent mobility	24	11	35
% with a degree of independent mobility	80%	100%	85%
Total participants*	45	20	65
with a degree of independent mobility	36	17	53
% with a degree of independent mobility	80%	85%	82%

\*The total participants are the number of children and young people interviewed who were asked the questions:

*Are there places that you can go without an adult looking after you?*

*Are there places outside of your home that you can go to alone?*

Most children and young people in the study, when asked the question, *'Are there places that you can go without an adult looking after you?'* responded by describing at least one example of places in their local area that they could go to without adult supervision. There was a broad spectrum among these responses in how far, and to what places, children and young people travelled independently. The journey to school, however, was not an obvious predictor of independent mobility for travel to other activities. The same proportion of children and young people who were driven to school responded positively to the questions about independent mobility (11 of 13 interviewees who were driven to school) as did those who walked to school (29 of 34 interviewees).

The interviews with children and young people affirm the findings of urban and transport studies that point to the importance of having local social and recreational facilities like parks and shops that are accessible by walking or cycling, as an enabler of independent mobility (Giles-Corti, Kelty et al. 2009, Villanueva, Giles-Corti et al. 2011). This finding is not new knowledge, but the fact that most children and young people interviewed could exercise some degree of independent mobility regardless of their mode of travel to school underscores two central arguments of thesis: firstly, that to understand children's and young people's mobilities it is necessary to consider their travel beyond the journey to school; and secondly, that independent mobility is not a singular attribute of their mobilities. So rather than consider whether or not children and young people in Blacktown are independently mobile, the study sought to explore in more detail what might be involved in the transition to independent mobility and what might make a difference between children and young people in the degree of independent mobility they exercise. The first points of difference considered were age, mode and gender.



### **Age or life stage?**

Age in years is an important factor considered in transport planning and policy, as a criteria for determining fares, obtaining drivers' licences and for restrictions on movement of children and young people as a measure to ensure safety of children and young people. In New South Wales, for example, children can travel for free on public transport up to the age of 4 years, and at a half fare concessional rate until the age of 16 years. Young people 16 years and over are required to pay the adult fare unless they are full time students, apprentices and trainees or people on low incomes who are eligible for transport concessions (Transport for NSW 2013). The use of safety capsules and safety seats for infants and young children up to the age of 7 years in passenger vehicles is compulsory under national laws and it is illegal to leave children under 12 years unattended in a car (NSW Roads and Maritime Services 2013a). Children under the age of 9 years are not permitted to travel unaccompanied (that is without adult supervision) to school either by bicycles or walking but children younger than 12 years of age, and an accompanying adult, are allowed to legally ride a bike or scooter on the footpath (NSW Roads and Maritime Services 2013b).

Such regulations have been imposed over time in response to public concerns for children's safety, and have had some impact on reducing road fatalities and injuries. However, such regulations place the responsibility on parents and guardians for children's safety rather than ensuring the environments in which children travel are safer for them to do so (Whitzman 2013).

Most of the age related regulations are based on understandings of children's developmental capability from research on children's health and safety. Age differences are less frequently the subject of research related to independent mobility (noted above), most likely because the majority of studies have focussed on primary school aged children only. In this study, however, the everyday travel patterns of children and young people in Blacktown showed that the types of modes of transport used by children and young people, the places to which they can travel independently (that is, the spatial range of their independent mobility), changes with age and as they progress through their life course. Most notably, what this study suggests is that there

is a step-change in the transition to independent mobility that coincides with the transition to secondary (high) school.

*The transition to high school*

Through the interviews it was apparent that the transition to high school, more than age *per se*, marked the difference between how children travel and how young people travel. Indeed there were a number of instances where older siblings reported using different modes to get to school while their younger siblings, who attended adjacent primary schools, were being driven. For example, Jasmine [127] from Blacktown North East explained how she travels at least part of the way to school on her own while her brother is driven and how that could change when her brother commenced high school:

*Well, my mum drops my brother off at his primary school just there, the Parklea one. And I get dropped off there and walk from there 'cause I kinda need some exercise but I can't be bothered to walk all the way there ...*

*And what year is your brother in?*

*He's in year six, so he'll be coming here next year. And my mum says we might be taking the bus next year.*

*So it could change again?*

*Yeah.*

Jasmine, young female participant, 14 years, Blacktown North East, [127]

Because many studies of children's mobility focus on a younger age group, the transition to independent mobility with the transition to high school has not been obvious. What this research showed was that by the age of 14 or 15 years, the majority of young people across all five localities areas in Blacktown, both young men and young women, had a reasonable degree of independence over their mobility, and some were able to go well beyond the boundaries of the LGA, as reflected in these responses to the interview questions:

*I can go anywhere in Blacktown.*

Zagreb, Young male participant, 14 years, Blacktown South East [109]

*Just about anywhere*

Sophie, young female participant, 14 years, Blacktown South East [104]

*Yeah quite a lot, I go to work on my own, I travel a lot on my own.*

Macedonia, young female participant, 14 years, Blacktown Central [21]

*My parents pretty much let me go out. I can go wherever I want most of the time as long as I keep in touch with them, Stanhope or Castle Towers or Blacktown by myself.*

Ashley, Young female participant, 14 years, Blacktown North East [253]

In contrast to the older participants, the children in the research tended to be limited in their independent mobility to places they could walk to around their immediate neighbourhood. The transition to independent mobility, however, may start at an earlier age for boys rather than girls as was evident in the following interview extracts from participants in Blacktown South East primary school.

*Are there places you can go alone or just with friends?*

*Just to Woolworths down the street. I have to tell my mum first and get permission.*

Jade, young female participant, 11 years, Blacktown South East [153]

*Are there places you are allowed to go alone?*

*Not really, not alone.*

*Are there places you are allowed to go just with friends?*

*Yeah, to the park up the road.*

Brianna, young female participant, 11 years, Blacktown South East [154]

*Yeah I go to Franklins or Woolworths, or sometimes I go to Westpoint just with my friends and that.*

Jack, young male participant, 11 years, Blacktown South East, [165]

The greater use of public transport by young people compared to children suggests that public transport has an important role in the transition to independent mobility. It is suggested by these comments that public transport expands the distances and therefore the range of places to which young people can travel independently.

## Independent mobility and transport mode

Among the participants in this study there was a notable difference in travel patterns of the young people from those of the children. A smaller proportion of young people recorded travel by car compared to travel by car recorded by children. Table 10 show the numbers and Figure 49 shows the proportion of travel by mode for single mode trips recorded by each age cohort. Two thirds (67 per cent) of recorded travel by the children was by car compared to 57 per cent of travel by car recorded by young people. In contrast, a greater proportion of young people than children recorded travel by public transport (bus or trains), 15 per cent compared to one per cent. There was not as great a difference between the two age cohorts in recorded travel by walking, 27 per cent of recorded travel by young people compared to 32 per cent of recorded travel by children.

Table 10 Travel records by age group and mode, (single mode trips only)

	Number of travel records by children	Per cent of travel records by children	Number of records by young people	Per cent of travel records by young people	Total travel recorded by children and young people
Car	50	67%	113	57%	163
Public transport	1	1%	29	15%	30
Walk	24	32%	54	27%	78
Bicycle	0	0%	2	1%	2
Total single mode	75	100%	198	100%	273

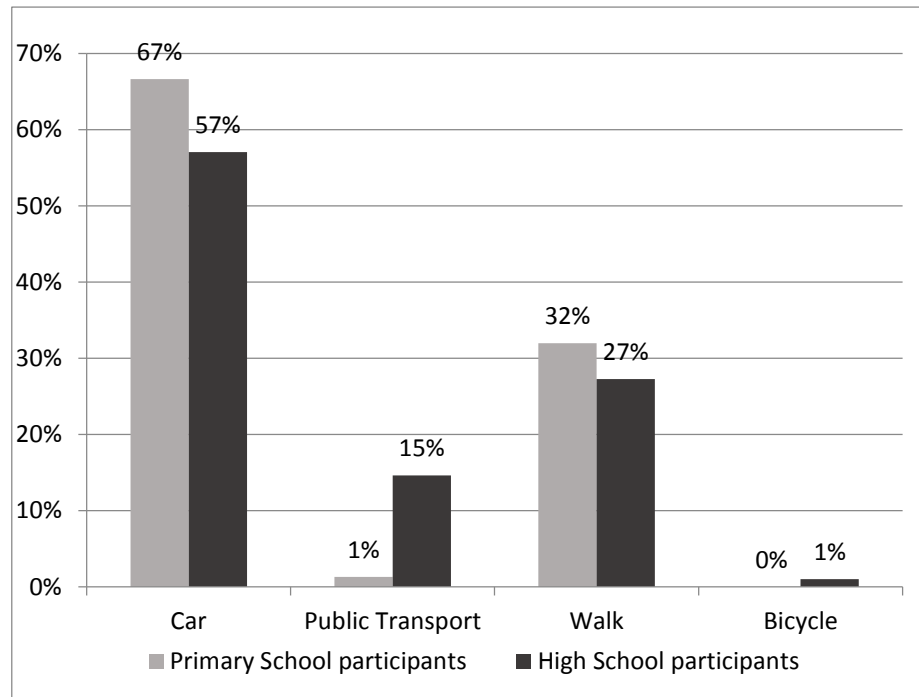


Figure 49 Proportion of everyday travel recorded by participants, by age group and mode, (single mode trips only)

Transport mode is a crude indicator of independent mobility because children and young people may be accompanied by adults while travelling on public transport or walking or riding. However, mode use can help identify differences among children and young people of different ages and life stages. The noted difference between travel modes used by children compared to young people in this study is consistent with differences in transport mode use by age found in other countries. A comparative study of travel patterns among children and young people in Britain, Norway, Denmark and Finland that examined differences across age groups found a similar pattern of reduced car use and increased use of public transport modes among teenagers compared to children (Fyhri 2012), as shown in Figure 50.

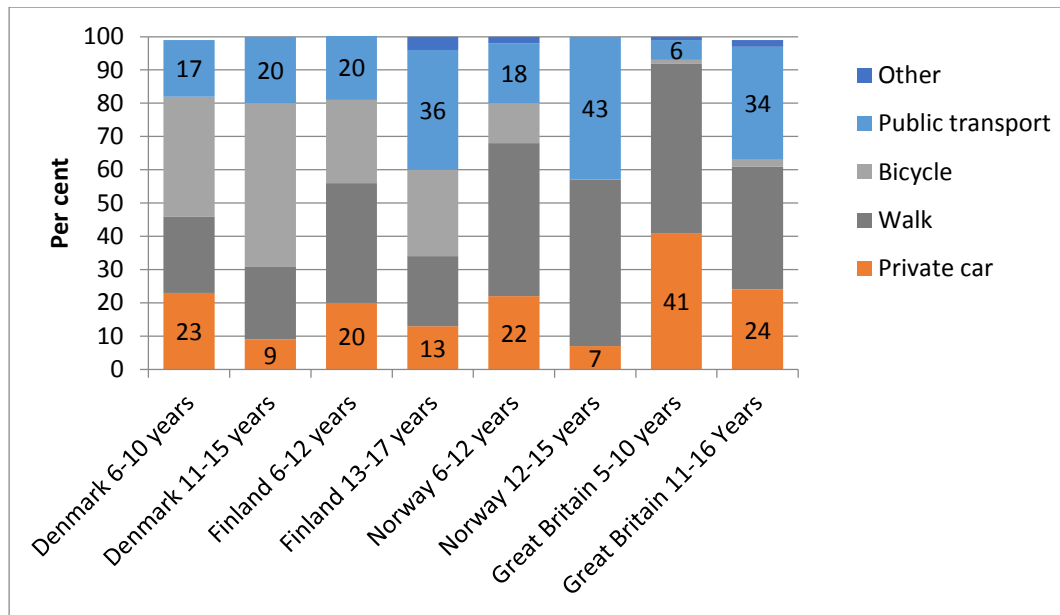


Figure 50 Transport mode on trips to and from school in Denmark, Finland, Norway and Great Britain

Data: Denmark - travel to school in 32 Danish municipalities 2002  
 Finland - National Travel Survey, 2004-2005  
 Norway - National Survey School trips, 2002  
 Great Britain – National Travel Survey, 2006  
 Source Fyhri 2012; Fyhri et al 2012

While a far higher proportion of children and young people in Australia travel by car compared to their Nordic and British counterparts the change in mode use with age noted by Fyhri et al (2012) is evident in data in the 2007-08 Sydney HTS shown in Figure 51. As much as 80 per cent of travel by children up to 10 years of age was by car compared to 55 per cent of travel of young people aged 11 to 20 years. It is worth noting that in the 2007-08 Sydney HTS young people aged 11 to 20 years had the lowest rates of car travel for all trips of any age group and the highest proportion (25 per cent) of trips by public transport of any age group (Transport Data Centre 2009).

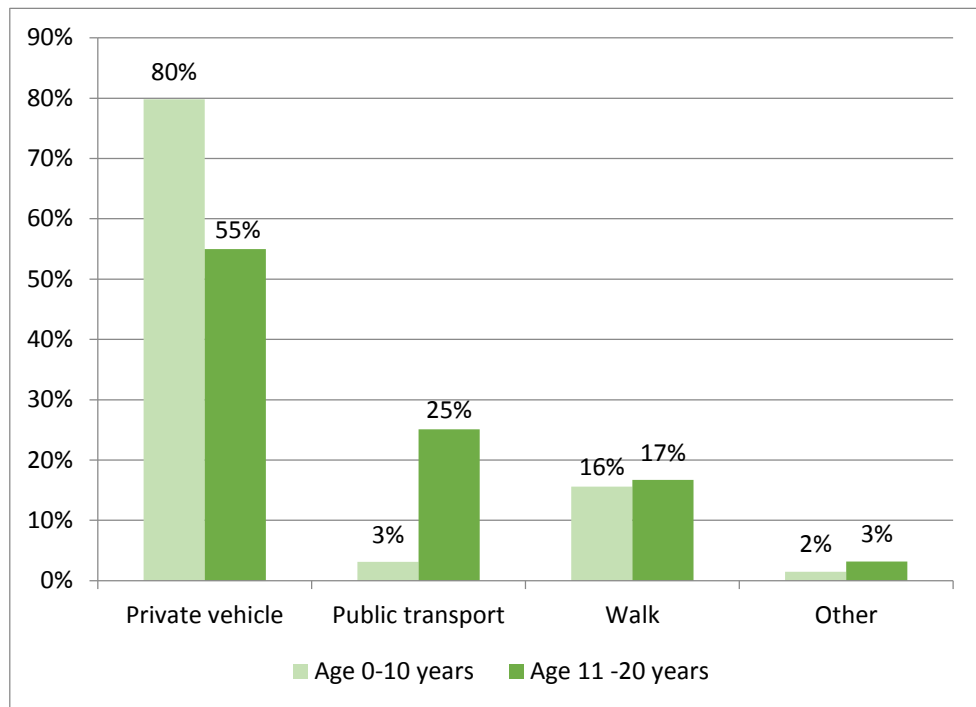


Figure 51 Sydney HTS 2007-08: Mode share by age of travellers on an average weekday

Source: Transport Data Centre 2009, *2007-08 Sydney Household Travel Survey*  
 Notes: 'Mode' data uses unlinked trip legs except for walk trips. 'Other' includes ferry.

The difference across age cohorts in use of public transport and for walking identified in this study were also found in the 2007-08 Sydney HTS. The 2007-08 Sydney HTS data shows that a substantially larger proportion of trips by young people aged 11 to 20 years (25 per cent) were by public transport compared to public transport trips of children (3 per cent). A similar proportion of trips by young people as by children were by walking (17 per cent of trips by young people compared to 16 per cent of trips by walking for children).

The greater proportion of travel by public transport by young people compared to children marks a notable step-change in the transition to independent mobility.

#### *Using public transport*

Many of the older participants in the study reported being able to use public transport to travel independently, giving them a far greater spatial range and access to a wider variety of places as part of their everyday mobilities. On the other hand, most of the

younger aged participants were limited to the places that they could reach either by walking or by bicycle, and as a result the spatial range of their independence was very localised. The following examples from high school participants show that they regard travelling on the local bus service and on the train as a relatively common place activity.

*Are you allowed to go to these places [Westpoint and friend's house] by yourself?*

Yes.

*How do you get there if you go by yourself?*

By bus or with my friend's parents.

Jessica, Young female participant, 14 years, Blacktown Central [4]

*Are you allowed to go out with your friends without an adult going with you like when you go to the shops?*

Yeah.

*And how do you get there when someone doesn't drive you?*

Oh we go on the bus or if we're going to Penrith we'll like meet at the station and catch a train together.

*So what's it like catching the train from Rooty Hill station to Penrith?*

It's alright. It's fine.

Dargingung, Young female Aboriginal participant, 14 years, Shalvey [66]

Even among young people, like Jessica [4] and Dargingung [66] who experience a substantial degree of independent mobility when travelling with friends, there are some restrictions to the use of public transport and the places travelled to depending on the time of day. For example, Karnal [26] who is 15 years old from Blacktown Central, who said he didn't really have any restrictions on where or how he can travel on his own, mentioned that there were places he wouldn't be able to go at night, and that his travel by train was somewhat limited by distance.

*Are there places you are allowed to go by yourself?*

To my auntie's place in Glendenning in the bus  
I can go to Westpoint in the morning but not at night.

*Are you allowed to go on the train by yourself?*



*No, I can to Parramatta but not if it's a long distance.*

Karnal, Young male participant 15 years, Blacktown Central [26]

Similarly Nicholas [261] a 14 year old young man from Blacktown has his autonomous travel on public transport limited by distance:

*I have been on the bus by myself many times.*

*Any places you're not allowed to go?*

*It depends how far it is.*

*So how far are you allowed to go?*

*I've been to Parramatta a few times*

*with your friends yeah?*

*Yeah*

*but not much further than that?*

*Yeah not much further 'cause they [his parents] get a bit worried that it's dangerous and stuff*

Nicholas, young male participant, 14 years Blacktown [261]

In contrast to the older age group, Abraham [210], who is 10 years old, has an older sister 15 who attends the adjacent high school. His independence in terms of transport mode is limited to places he can walk to while his older sister can venture further because she is allowed to use public transport.

*Are there places you are allowed to go by yourself?*

*I can go to the park and that's it.*

*Are you allowed to go on the bus by yourself?*

*No, not yet.*

*What about your sister?*

*Yeah she's allowed.*

Abraham, young male participant 10 years, Blacktown Northeast, [210]

Abraham's classmate Cameron is in a similar situation with an older sister who is 16 years of age. Like Abraham, Cameron's [207] independent mobility is similarly constrained to the places to which he can walk or ride his bike.

*Are there places you are allowed to go by yourself?*

*Um, Yes. I can go to my friend's place. Um, I can go up and down my street and I can go to the shops and, if my mum lets me, I'm allowed to go riding around Glenwood with my friends.*

Cameron, young male participant, 10 years, BlacktownNorth East [207]

### *Transitions to work*

The transition to work can begin in childhood with older children taking responsibilities for caring for younger siblings and/or other people's children or for helping neighbours with chores or minding pets and plants when neighbours are on holidays, or undertaking paper rounds. The early stage of the transition to work is usually within the vicinity of the neighbourhood and within walking range for most children. For example, one young man in Blacktown North East has responsibility for minding a neighbour's child several times a week.

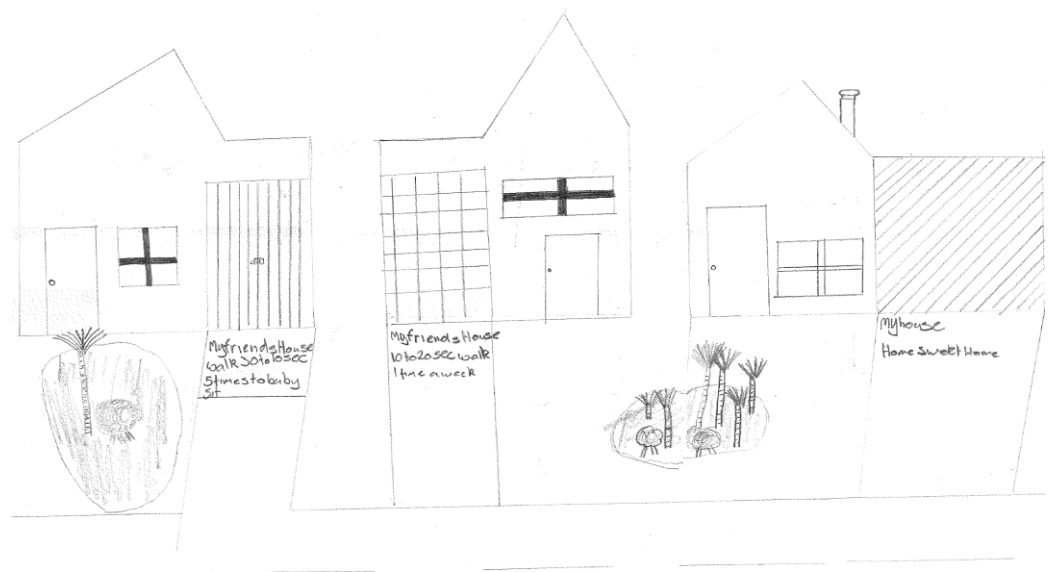


Figure 52 'I go to my friend's house about 5 times a week to babysit.'

Young male participant 11 years, Blacktown North East [201]

For young people the next step in the transition to work is a move from the local neighbourhood and informal networks of family, neighbours and friends into part-time or casual jobs, in businesses usually located in retail or commercial centres.

Travel distances to work in these sorts of part-time and casual jobs will depend on the location of these jobs relative to where the young people live. Therefore, having public transport available to them that provides access to these sorts of casual jobs, opens up opportunities for young people who can travel independently, to make this next step, not only to independence but in the transition to paid employment.

For example, Macedonia [21] is only 14 years old but has already begun to make the transition, not only to independent mobility, but to paid work.

*Yeah quite a lot, I go to work on my own, I travel a lot on my own.*

Macedonia, young female participant, 14 years, Blacktown North East [21]

Macedonia [21] is a good example of the discussion of independent mobility in this chapter thus far. She lives in Blacktown North East in a quiet suburban area but relatively distant from her school, as she explains:

*Oh, it's too far from the school. It's twenty-five minutes to walk and a long way to the bus so my mum ends up driving us around a lot.*

She travels to school by bus and walks home but her younger brother is driven to and from school as she explained in the following exchange:

*I can walk to school on my own and walk home with my friends in the afternoon. My mum drives my brother to school and she doesn't have a lunch break so she can leave work at 3 o'clock, to pick him up and bring him home and then goes back to work until five.*

Macedonia, young female participant, 14 years, Blacktown North East [21]

This example underscores the points made that the transition to high school is a step change to independent mobility and that transport, especially public transport, has an important role to play in this transition. The example also underscores the point made in the preceding chapter of the need to look beyond the journey to school to understand children's and young people's mobilities more comprehensively.

In each of these examples of independent mobility by public transport the young participant was female with a younger male sibling who had more restrained independent mobility. These examples raise the question of whether there are gender

differences in the degree of independence young people can exercise, as discussed in the next section.

### **Gendered transitions to independent mobility**

Studies of children and young people's independently mobility that have considered gender differences have found that, in general boys have a greater degree of independence than girls (Brown, Mackett et al. 2008; Carver, Timperio et al. 2012; Romana and Giuseppina 2012) at a younger age. For example, a recent cross sectional study in the Australian state of Victoria, surveyed 430 primary and 258 secondary schoolchildren and their parents living in rural and urban localities and found that on average, boys were granted more mobility autonomy, than were girls, but there were no significant differences by urban/rural location (Carver, Timperio et al. 2012).

In the Blacktown study there was an indication that gender was a differentiating factor among the primary school children, and to a lesser degree among the high school participants. However, the young women in particular, noted the distinction between travelling alone and travelling without an accompanying adult, and that they could travel to more places and further afield independent of adult supervision if they travelling with friends.

Being in the company of friends was a common theme, and preference, for the participants when describing their independent mobility. This was particularly relevant for young women who made distinctions between places they could go with friends in contrast to places they could go on their own. The need to be in the company of others is suggested in these two responses by young female participants from each of the two age groups:

*Are there places you can go without an adult going with you?*

*If I go with my friends I can go to Westpoint with my friends. Sometimes I walk down to McDonalds with my friends. I can go to the park with my friends.*

*Which park do you like to go to?*

*William Lawson [Park] and the one near St Martin's Village. Sometimes I can go by myself when I take one of my dogs for a walk.*

Charlotte, young female participant 11 years, Blacktown South East [158]

On the other hand the responses to these questions by the young male participants suggest a greater degree and range of independent mobility at a younger age. This is evident in the following interview extracts from two participants in Blacktown South East public school, the first from an 11 year old girl and the second from a boy of the same age, in the same locality:

*Are there places you are allowed to go alone?*

*Not really, not alone.*

*Are there places you are allowed to go just with friends?*

*Yeah, to the park up the road.*

Brianna, young female participant, 11 years, Blacktown South East [154]

*Are there places you are allowed to go alone or with friends?*

*Yeah, I go to Franklins or Woolworths, or sometimes I go to Westpoint just with my friends and that.*

Jack, young male participant, 11 years, Blacktown South East, [165]

These two contrasting responses suggest that the influences of age and gender on mobility are interconnected. It is likely therefore that gender differences in use of travel modes also might exist. This was apparent in this excerpt from an interview with a Dharug, [83] a young Aboriginal participant in Blacktown Outer West, who had a degree of independent mobility but was constrained to the places she could walk rather than use other forms of transport:

*Do you ever catch the bus by yourself?*

*Nup. I'm never allowed to catch a bus by myself.*

*So the places you go by yourself with your friends, how do you get there?*

*Walk.*

Dharug, young female participant, 14 years, Blacktown Outer West [83]

The gender differences in the transition to independent mobility that emerged in discussion with young people in Blacktown are similar to those found in a study of children in the United Kingdom by Brown et al (2008). Brown et al (2008) conducted a large scale survey of 1099 children (574 boys and 525 girls) between the ages of 8 and 13 years in two different locations around London (outer suburban Hertfordshire

and inner city, Lewisham). They found that, although boys appear to have more freedom of movement within their local area, this is not the only way of viewing independence. They conclude:

For girls, being independent involves being able to meet up with friends over quite extensive areas, and this, we believe, is not simply a pragmatic response to a more restricted situation. Rather it is the outcome of different interests and modes of behaviour, and a reflection of different ways of conducting a social life (Brown, Mackett et al. 2008, p 394).

Based on the interviews, having a network of friends within a local area appears to be important for increasing levels of independent mobility.

### **Places where children and young people travel independently**

As described earlier, there was a notable difference between the children and the young people in their degree of independent mobility. Despite variations in the degree to which children and young people may travel independently, there was reasonable consistency across the two cohorts about the importance of their networks of friends and families to their independent mobility. The most commonly reported places that the children travelled to without adult supervision can be summed up by this response by Hayley [160], aged 11 years, from Blacktown South East Primary:

*Park. Friends. School. Shops. Near my home.*

For the younger age group, proximity to home (places within walking distance) appeared to be an important factor in determining which particular places were most commonly accessed independently. For the older age group, the connections they had with friends appeared to expand the range they travelled independently.

#### *Having friends nearby*

As important as any other place or activity for children and young people are their 'spaces of friendship' (Bunnell, Yea et al. 2012). In examining geographies of friendship of children and young people Bunnell et al. (2012) observe that:

Children and young people are not only socialized by adults and institutions but also forge their own identities and geographies that

shape their lives and opportunities into adulthood (Bunnell, Yea et al. 2012 p 500).

The spaces of friendship forged by children and young people themselves, and thus an expression of their identities, are enabled by the transition to independent mobility. For example, a common response to questions about places to which children and young people could travel independently was simply the house of friend, as illustrated in the quotes below:

*Are there places you're allowed to go without and adult?*

*My friend's house.*

Seoul, female participant, 11 years, Blacktown Central [217]

*Yeah, I can go to my friend's house by myself.*

Rahni, female participant, 11 years, Blacktown Central [233]

*Um, Yes. I can go to my friend's place. Um I can go up and down my street and I can go to the shops and if my mum lets me I'm allowed to go riding around Glenwood with my friends.*

Cameron, Male participant, 10 years, Blacktown North East [207]

*I can go to my friend's house and around the road and the park with my sister and brother*

Sari, Female participant, 10 years, Blacktown Central [211]

*My friends', and I can walk around with my friends.*

Hena, Female participant, 11 years, Blacktown South East [162]

The comments above suggest that having friends who lived in the same neighbourhood provides a place to which children and young people can travel independently. What also became apparent was that among the participants who reported that they could travel independently to their friend's houses, these places frequently were identified as the places that were the most important to them.

While it might seem self-evident that many children travel independently to their friend's houses, these local friendship networks are not to be taken for granted. Instead being able to travel to visit friends is pertinent to understanding how independent mobility is shaped and differentiated both socially and spatially. Firstly,

children's friendships are often forged at school, and, because the participants were all attending government schools and the geographical catchment area for primary schools is very localised, it is therefore more likely that children's friends (from school) live within a walkable distance. If the study had included children attending private schools it is likely that many of them would not be able to walk (or travel independently) to their friend's houses as private schools generally draw their pupils from areas well beyond the local neighbourhood.

Secondly, children in families who have recently moved into a neighbourhood may take some time before they form new local friendship networks. This would suggest that localities where there are higher proportions of rented dwellings, or where there are more newly-arrived migrant and refugee families, are likely to have higher proportions of these more 'mobile' households. Children in these 'mobile' households, and more 'transient' localities, may have fewer friends in the local area and therefore may have fewer opportunities (or places to go) to travel independently. In Western Sydney, these localities tend also to be in the higher density areas close to the major centres.

Local friendship networks can mean not just having a friend's house as a place young people can travel (walk or cycle) to independently but, by having friends nearby, can enable independent mobility across a greater spatial range. With friends living close by, and where public transport is available to them, young people may be more likely to travel independent of adults in a group, to places beyond their local neighbourhood.

Where children and young people live at greater than walking or cycling distance from their school friends, as they move into high school or because they attend private schools or have moved house or other reasons, they may still travel independently to meet with their friends if there are places to meet socially that they can easily access. Places for young people to meet with their friends include public spaces, local parks, sporting fields, swimming pools and shopping malls.



### *The Park*

Local parks were the most frequently reported places to which children and young people travelled independently. Among the interviewees who discussed their level of independent mobility, 17 reported that they could travel to the park either by themselves or with friends. Children and young people's ability to travel independently to their local park appeared to be largely influenced by distance, as suggested by the following two comments by boys in Blacktown Central:

*Are there places that you are allowed to go by yourself or just with friends?*

*The park.*

*Are you allowed to walk to the park by yourself?*

*Yeah, it's just up the road.*

*And do you go with anyone?*

*I go with my friends. Sometimes I go by myself.*

*So you're allowed to go alone?*

*Yeah.*

Luke, young male participant 11 years, Blacktown Central [224]

Although local parks were noted by both the children in the primary schools and young people in the high schools in each of the five research sites, the majority of interviewees (12), who identified the park as a place they could go independently, were in primary school, and of these most (8) were from the Blacktown Central primary school. The finding that proximity to local parks was important for independent mobility is consistent with other research on environmental determinants of independent mobility (Carver, Timperio et al. 2012, Whitzman, Romero et al. 2012). The higher number of mentions of the park by children in Blacktown Central than elsewhere also points to a potential path of inquiry into whether proximity to local parks is *more* important for children living in higher density inner areas than for children in other urban locations. Either way, local parks are an important 'place' for children in the early stages of their transition to independent mobility, but simply having a park nearby may not be sufficient to enable children to be independent in their local neighbourhood. It emerged from the

interviews that for some children, to travel independently to the park meant travelling with their friends, as suggested in this comment by Brianna [154], a 10 year old girl from Blacktown South East:

*Are there places you can go alone?*

*Not really, not alone.*

*Are there places you are allowed to go just with friends?*

*Yeah, to the park up the road.*

*How often would you go there?*

*Probably once a month. We normally ride our bikes there and take a frisbee or a ball to play there.*

Brianna [154], young female participant, aged 10, Blacktown South East

Similarly Ben [228] aged 10, from Blacktown Central, goes to the park without an adult but:

*I always go with my friends to the Park and play soccer*

These comments suggest that the transition to independent mobility is aided not just by having places to go *to* within walking distance but by having someone to go *with* (such as a sibling or peer). The discussions with the children and young people in Blacktown highlighted the importance of having a network of friends living close by as an enabler of independent mobility to local places like the park, but also as providing another local place to go to.

### **Concerns about safety**

A key issue affecting children and young people's mobility is that of parental restriction due to perceived fear for their safety (Carver, Timperio et al. 2008). While this issue was raised from the conversations with the young people and the interviews with parents, the results indicated that parental influence is more nuanced than simply a perception of fear of injury or misadventure. Fear, is part of everyday life and takes many forms in contemporary urbanism. Fear shapes and is shaped by mobilities. As Hille Koskela (2010, p389) states:

Most often, the consequences of fear take *spatial* forms. Fear has the power to modify spatial realities ... Whenever it results in an individual or a group of individuals 'making a move', it contributes to the social production of space.

The proposition that parents place restrictions on their children's ability to go places on the basis of fear alone suggests that parents, as merchants of fear, are at the beck and call of their children, as the chauffeur metaphor used in an early study by Tillberg Mattson (2002) implies. The chauffeur metaphor tends to downplay the reality of family life that has to accommodate multiple mobilities within households and affects the way children's travel needs and desires can fit into work and family routines. Fear, or rather concern for safety, then, is only one of a number of issues that can be grouped as parental influences on children's and young people's independent mobility, but it certainly is a most important one and therefore examined in some detail here.

Parental fears are widely recognised as a factor influencing children's independent mobility (Mammen, Faulkner et al. 2012, Santos, Pizarro et al. 2013). For example, studies in Australia on children's active travel to school have shown that fear of injury is the most commonly reported reason for parents not allowing children to walk or ride to school (Wood, Giles-Corti et al. 2010). Where parents might 'allow' their children to go, with whom and using what mode of transport, largely depends on a subjective blend of time, place and purpose and adults perceived risk to the child's safety.

The two main parental fears that are frequently cited in the literature are the fear of traffic injury and 'stranger danger' (Carver, Timperio et al. 2008). What emerged from the conversations with the young people, less so amongst the children, in this study was a third fear: their fear of violence from their peers. Based on incidents reported in the interviews, and during this study, described below, none of these fears are entirely unfounded.

#### *Fear of traffic injury*

One only has to take a drive down any main highway or major road in western Sydney to be reminded of the dangers that motor vehicles pose for children and

young people by the many memorials adorning the roadside: the taped flowers, images, white crosses and messages of love and grief to the victims of road crashes.

### *Fear of 'Stranger danger'*

In a recent incident that was reported in the metropolitan newspaper, the *Daily Telegraph* (Barrett 2009), a young boy aged 12 was approached in an unusual manner by an unfamiliar adult in the local park prompting a police investigation into what was reported as an 'attempted abduction'. The park was William Lawson Park in Blacktown, the park frequently referred to by the children and young people in the study from the Blacktown southeast schools as a place they usually go to play with their friends or for sport. The young boy's mother, quoted in the news article, expressed the sentiment that the fear of stranger danger is shared by all parents, she said:

As a parent, you know all about stranger danger and you always try to teach you kids the right thing to do if they are approached by a stranger. But you never think that it could happen to your family. (Quoted in Barrett 2009, p9).

### *Place specific fears*

More generalised perceptions of crime and social disorder have an influence on where children and young people are allowed to travel independently. This is expressed as restrictions on specific places or at particular times. For example, Luke [224], the boy from Blacktown Central who, when discussing independent mobility described how he was able to walk to the local park by himself or with friends, but that the main shopping centre was 'out of bounds'. He moved from Doonside to Blacktown three years prior because, as he explained:

*it was getting too bad of an area. Mum didn't like it.*

When describing what he would change to make it easier for kids to get around Blacktown, Luke [224] returned to the issue of crime and vandalism.

*Less people doing stuff that they shouldn't do.*

*Ok that's important, people not doing stuff they shouldn't, like what?*

*Stuff like swearing, bashing people, stuff like that. That's why mum doesn't like Blacktown and doesn't let me go there. That's why she wants to get out of Blacktown.*

*Ok, so where does she want to move to?*

*Like Kings Park, Kings Langley. She wants to move to Queensland too.*

Luke, young male participant, 11 years, Blacktown Central Public School [224]

Here, Luke [224] is referring to Blacktown city centre and the suburb of Blacktown. Even though Kings Langley and Kings Park are neighbouring suburbs to Blacktown Central (the suburb) and are still within the Blacktown LGA, they are perceived by Luke's mother as being safer places to live and travel around.

Parental concerns about children's and young people safety, therefore, have a direct and substantial influence over children and young people's mobilities. Yet there is room for them to negotiate some degree of independent mobility despite these concerns. This affirms similar findings by Skelton and Hamed (2011) among young people in Singapore and their use of public space. They conclude that:

what is evident ... is that a considerable amount of negotiation and performance of trustworthiness is utilized between parents and children to enable young teenagers freedom in their neighbourhoods within certain spatial and temporal boundaries (Skelton and Hamed 2011, p217)

When travelling beyond the neighbourhood, the negotiations need to take in to consideration time of day, type of activity as well as the actual location. For example, Blacktown central business district itself can be a no-go zone for children and young people travelling independently depending on time of day. Reservations about travelling independently to major centres were expressed by a small number of participants. For example, Sidak [14] lives in Blacktown North East and can generally travel independently in his local area but expressed some constraints on his independent travel to Blacktown city centre:

*Are there places you can go without a parent?*

*Yeah I go to Hungry Jacks without my parents, just with my friends sometimes. Sometimes I go to Blacktown to see a movie with my friends.*

*How do you get there when you go with your friends?*

*Oh my mum drops me off. But sometimes I go with my friends in their car.  
... I'm not allowed to go to Blacktown without someone, my parents or my friends.*

Sidak, young male participant, 14 years, Blacktown North East [139]

This presents a dilemma for parents, young people and planners alike. Because a key characteristic of central business districts is the concentration of activities, they attract larger numbers of people and therefore must accommodate them in higher density development. The higher densities found in city centres generate benefits for residents, workers and visitors by enabling higher frequency service of public transport and increased rates of walking and (potentially) cycling. But these higher density city centres typically have higher volumes of traffic and a greater number of 'unfamiliar' people which are likely to increase the perceived risks of traffic injury and stranger- danger for many parents negotiating with their children, especially as they enter their early high school years. If opportunities for independent, car-free mobility are more likely to exist in city centres than outer suburban streets, then it seems that these opportunities are available to relatively few, but could be open to more if concerns related to safety are addressed.

*'Places that have a reputation'*

There is also the added dimension of the 'reputation' of a place that can fuel parent and children's and young people's fears about their personal safety. This emerged in relatively few interviews but it was associated with the questions about independent mobility. For example, Jessica [127], aged 14, lives Blacktown North East, was born in Australia but her parents came to Australia from Korea. They moved from Eastwood around six years ago. She lives in a single storey 3 bedroom house with 4 people, including her younger brother. She mentioned dangerous places, including Blacktown, when probed by asking the inverse of the question about places you are allowed to go without an adult:

*Are there any places that you're not allowed to go to without an adult going with you?*

*Usually Strathfield.*

*Why's that?*

*Oh 'cause it's like it's scary. Well it's not scary but my mum thinks it's quite dangerous cause she used to come here [go there] but like [she was] someone from overseas just*

*coming in [to Australia, yeah, so and they don't know much English, so she just wouldn't let me go to Strathfield alone, but I have. Maybe Blacktown she doesn't usually let me go to Blacktown without an adult - usually her or my friend's mum, someone she can trust. She still has the reputation in mind and because she works there she sees things.*

*Are there places that you'd like to go but can't?*

*Not really, the places I go to I want to go to. But I wouldn't go to places like Redfern, Lidcombe or Cabramatta My mum would kill me if I went to Cabramatta. She'd like shoot me. I don't go to places that have a reputation.*

Jessica, young female participant, 14 years, Blacktown North East, [127]

Part of the dilemma for young people and their families about their travel to Blacktown city centre is that it is necessary to travel there for some specific services. Many young people travel to Blacktown city centre to use the main library and for some types of leisure, like going to the cinemas. Blacktown city centre and Mt Druitt centre are the only places where cinemas are located. Another important facility located in Blacktown city centre is the transport interchange. Parents may not *wish* that their children travel independently to these places 'with a reputation' but, in order for them to conduct their everyday lives *requires* parents to allow their children to do so. As one of the five parents who were interviewed for the research stated,

Are there any places you don't like [your child] to travel?

*Well, actually, I don't like her going to Blacktown station, but she has to go through there, every day to go to school - the very place you wouldn't want them to have to travel by themselves.*

Parent interview [P1], Blacktown Central

Although safety might be the dominant issue around which children and young people negotiate their independent mobility, there are other factors at the household level which can influence the perception of risk, or indeed may mean that parents have to accept the risks of their children travelling independently out of necessity, as explained in the next section.

### **Household influences on independent mobility**

The emphasis on the journey to school in urban and transport studies concerning children and young people has tended to treat them as a population group in isolation.

This underplays factors in the household that might influence in the everyday lives of children and young people. As described in Chapter 4, household composition and parents' work routines were frequently referred to by children and young people in their explanations for the use of particular travel modes to school and elsewhere. In the discussions related to independent mobility the household context again emerged as an important, but as yet under-researched, influence over degrees of independence that the children and young people exercised.

In a recent addition to the mobilities literature, Clare Holdsworth (2013, p4) draws attention to the 'interplay between family practices and mobility'. In her book Holdsworth challenges the individualism that has tended to dominate the framing of mobilities discourse to illustrate the interconnected nature of the mobilities of families that produce the patterns of individual family members. This interconnectedness is fundamental to understanding the nature of children and young people's independent mobilities. From the perspective of children and young people, family networks, routines, customs and practices are all connected in their negotiations around their everyday mobilities in general and, in particular, to their transitions to independent mobility. As she describes them:

[f]amily mobilities include a complex array of movements, some of which are chosen, deliberated and beneficial, while others are enacted out of obligation or force (Holdsworth 2013, p 4).

While in Chapter 4, the more common place intra-family mobilities associated with work arrangements and daily routines were explored, in this section, the dynamic nature of household composition, formation and dissolution explores how the changing nature of families (Jensen and McKee 2003) has implications for their individual transitions to independent mobility.

#### *Household composition - siblings*

Household composition (especially the presence of siblings and birth order) and parents' working arrangements were also mentioned in the interviews as two issues that have an influence over whether a child or young person might travel independently. For example, having an older sibling who can act as a travel companion on a journey is an enabler of independent mobility (from adult



supervision) for some children and young people at a younger age than their peers. The following excerpts from young female participants suggest that having a sibling as a travel companion can overcome some of the gender-based constraints on independent mobility. The comments also suggest that travelling with siblings can mean that children and young people can travel to specific places which they may not otherwise be allowed to travel to alone, and overcome some of the place-specific fears described earlier.

*Are there other places you can go by yourself?*

*By myself. I suppose I can go to church by myself, but I need transport to get there. Um, I can ride my bike to the shops by myself but I usually take my brother with me. I can go to the park by myself.*

Emily, young female participant, 15 years, Blacktown Central [5]

*My parents don't really like me going places by myself. Wherever I go somewhere its usually with my sister or my friends*

Nay Pyi Taw, young female participant, 15 years, Blacktown Central [11]

*Like the library, shops and sometimes swimming pool if I'm with my sisters.*

Mafaza, young female participant, 15 years, Blacktown Central [98]

*Just to Woolworths down the street. I have to tell my mum first and get permission. Sometimes we go to the movies at Westpoint.*

*Do you have to go with an adult?*

*I ususally go with my sister, she likes shopping.*

Jade, young female participant 11 years, Blacktown South East [153]

*I can walk to my friends' house and to my relatives. Sometimes I can walk with my brother to the park but only if I go with my brother.*

Young female participant, 10 years, Blacktown North East [188]

### *Household dissolution and reformation - Separated and blended families*

When considering the influence of household factors on mobilities it is important to recognise, as Freeman and Tranter (2011) point out, that not only is there great diversity among the types of households in which children and young people live, in terms of number of people, ages and relationships, but that households and families change over time.

The diversity among family types reflects wider social changes. Freeman and Tranter (2011, 45) identify four significant social trends that are influencing the everyday lives of children and young people. These four changes are

- the increasing proportion of households without children
- increasing work hours and commuting times
- households with fewer adults, lone parent families
- parental divorce and separation.

The complexity of family types, and changes they go through, makes standardised modelling of household interactions to estimate transport demand more difficult. Nevertheless, there is a need to recognise that trends in urban travel and transport mode use, such as the decline in active travel to school, are occurring in the context of, and perhaps as a result of, these household and societal changes. Each of these trends identified by Freeman and Tranter (2011) were evident in the Blacktown study, but perhaps the one that was most apparent as having a direct impact on children and young people's mobilities was that of parental separation.

Separating families often means moving house. This sometimes means a move to a cheaper, less attractive neighbourhood, or to smaller, sometimes, poorer quality housing or from detached dwelling to an apartment. In some cases it may mean losing security of tenure, selling a mortgaged home to move to a rental property.

Research into the impact of the changing nature of families and parental separation on children and young people finds that the residential mobility that results from parent separation was a risk to children's wellbeing (Jensen and McKee 2003;

Moxnes 2003). A study that interviewed children and young people in Norway, found that 'even if most of the children did not move far from their pre-divorce home, they said that it had been hard to leave' (Moxnes 2003, p94). For the children in that study, moving house meant loss of friendship networks and local space for connecting. The study found that, contrary to the parent reports, the loss of contact with a non-resident parent was reported as both difficult and stressful by the children (Moxnes 2003).

In Australia, the arrangements for care of children post-separation favour a degree of shared care, where children spend an agreed amount of time with both parents. When parents separate then re-couple with new partners, who may also have children, the relationships and travel patterns in these 'blended families' can become even more complex. As noted by Freeman and Tranter (2011, p45), shared care arrangements often mean children have 'the status of temporary residents' in the homes of their parents. They state:

In the shared care scenario, children are engaged in a process of recurrent adjustment to living in different places, with different rules, associations and possessions, and it is unlikely that friend and neighbour networks will be equally accessible in both places (p46).

With limited geographical research on diverse family relationships more generally (Valentine 2011), the implications that such major transitions for households have for everyday travel have been largely overlooked. However, there were many examples from the children and young people in this study of how parental separation, and other forms of household dissolution and reformation, complicate everyday travel for children and young people as well as their transitions to independent mobility.

In some cases, where both parents live in the same neighbourhood the impact of shared care arrangements on children's mobilities may mean a different transport mode is used for everyday trips. For example, Hayley [160], who lives in Blacktown South East, usually drives to school except when she's staying with her Dad:

*I usually drive or if I'm staying at my Dad's house then I walk.*

*So your Dad lives around here too?*

*My Dad lives down the street from the school.*

*How often do you stay at your Dad's place?*

*I live at my mum's but we stay at my Dad's every second weekend.*

Hayley, Young female participant, 11 years, Blacktown South East [160]

Lily [212], a 10 year old girl from Blacktown Central Public School, was in a similar shared care arrangement which she described as having two houses, both in Blacktown local government area but in different neighbourhoods. She lived parttime with her father in Rooty Hill (in Blacktown South West Rail) and part-time with her mother in Kings Langley (in Blacktown North East). There are six people living in her mum's house, but she also has older siblings living in other locations. As she explained:

*On Fridays I go to Rooty Hill and then on the next Thursday I go to Kings Langley.*

*Ok like a week about in each place.*

*Yeah.*

*And do you have brothers and sisters?*

*I have a sister. She's 21. She's married.*

*Do you sometimes stay with your sister?*

*No. When I go to my dad's house I see my sister who lives there. She lives with my dad. She's 19 years old. And my brother, who is from my Mum's side I don't see him. He lives in Gosford.*

[Gosford is a major centre on the Central Coast, about 100km north of Sydney.]

Lily [212] described how her travel to school varied across the week depending on whether she was staying with her mother or father.

*When I travel from Kings Langley I catch the bus and when I come to school from Rooty Hill I come by car or I either walk or my Dad picks me up.*

*So where do you walk from?*

*From my sister's work*

*Where does she work?*

*Just up at Heartland Holden.*

*Just up Sunnyholt Road?*

*Yeah.*

These shared care arrangements can also complicate travel to activities outside of school like sport and socialising with friends. In the case of Lily [212], however, she was able to maintain a busy sporting schedule because her parents are able to take her to her various sporting activities and because they are locally bound.

*And you were saying you go to netball and athletics?*

Yeah

*And you where do you play netball?*

At Rooty Hill on Wednesdays.

*And where do you go for athletics?*

At Blacktown up here.

*Near the station?*

Yeah.

*And when do you go to athletics?*

Friday, maybe Wednesday if we have a like a competition or regionals or something.

*How do you usually get there?*

By car. Dad takes me.

*Both to netball and to athletics?*

Yeah.

*So where do you usually go on weekends?*

Weekends I usually go to friend's places and my Dad goes to Golf and then they go the pub.

*What about the shops do you go there sometimes?*

Yeah, I mostly go to Blacktown when I live here. When I'm at Rooty Hill I mostly go to Mt Druitt.

Lily, young female participant 10 years, Blacktown Central [212]

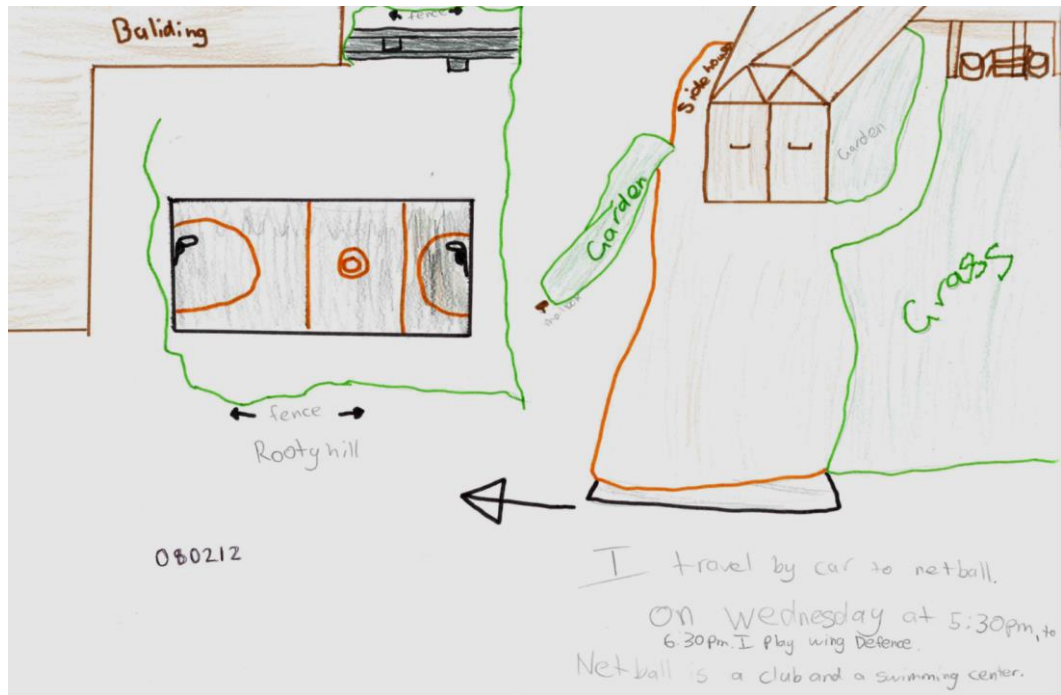


Figure 53 Participant drawing - Lily [212] *I travel by car to netball*

Often the shared care arrangements are limited to weekends, as in the case of Maddison [103] also from Blacktown South East. Like Heather [160], and Lily [212], Stephanie's [103] parents still live within the local areas, but although her father lives close by, she visits him only every second weekend.

*I go to my dad's place every second weekend for a custody thingy.*

*Where does he live?*

*Just up the road and that.*

On her drawing, she noted that she normally gets to her dad's house by car:

*'Dad's house: My dad comes pick me up and drives us to his place which takes approx. 10 mins (with traffic) (every 2<sup>nd</sup> weekend)*

When questioned as to why it was necessary to drive to her father's house when it was close, she explained that it was to do with the carrying luggage for an overnight stay.

*When I go to visit my Dad I stay the night and I have to carry all my clothes and pillow and stuff*

Stephanie, Young female participant, 14 years, Blacktown South East [103]

For other children and young people, parental separation creates substantially longer journeys, to other parts of the city. For example, in an interview with Daniel [218], a boy from Blacktown Central public school, he described one of the places he usually goes to is his 'chicken nights':

*That's when my dad picks me up and takes me back to his flat near the airport and we get a chicken for dinner.*

Daniel, young male participant 11 years, Blacktown Central Public School, [218]

The diversity of these shared care arrangements complicate studies of travel behaviour that seek to identify or assume household characteristics that might influence on children's and young people's mobilities. Such studies tend to see households as static 'types' or categories and rarely take into consideration the highly changeable nature of family households (see for example, Kerr, Frank et al. 2007; Lee, Hickman et al. 2007; McDonald 2008).

#### *Long distance 'unaccompanied' journeys*

In the case of parent separation, not only is a new journey added to a child's usual travel, the distance in that journey between parent households often becomes longer over time as the parents 'move on' with their separate lives. In the case of one young woman in Blacktown North East the journey to visit her father was over three hours.

*Oh also and some weekends I go with my dad. My parents drive me to Blacktown train station and I catch a train to Lithgow and then my Dad picks me up from Lithgow and we drive an hour and a half to his farm.*

*And how often do you do that?*

*Every third weekend and in the holidays.*

*Ok, so you stay there for the holidays? And he's got a farm?*

*Yeah, it takes a while to get there - an hour and a half on the train and then an hour and a half in the car. It's very tiring.*

*Do you go by yourself?*

*Yeah and my little sister.*

*How long have you been doing that for then?*

*Quite recently, the last few months. He only just moved there, like last year. He used to live close and he would pick us up.*

*And is that train ride ok?*

*Yeah, it's ok apart from the weird people on it. It's a bit ... er. [grimace]*

Young female participant, 15 years, Blacktown North East, [131]

Maintaining contact with a separated parent for other children and young people can mean infrequent travel, visiting their parents only a few times a year during school holidays, especially where parents have moved interstate or overseas.

These examples emerged from discussions about travel beyond the local area rather than through directly asking about family relationships.

*.. most of the time [when] I go to the city I go to the airport to go to visit my dad. He lives near the beach on the Sunshine Coast [in Queensland].*

*How often would you go there?*

*Um every holidays.*

*And when you go on the plane to visit your dad, do you go by yourself?*

*I go with my brother.*

Croyden, young male participant, 9 years, Blacktown North East, [208]

### **Global mobilities, household transitions and independent mobility**

Trips to maintain connections with separated parents can mean for some children and young people travelling unaccompanied to distant destinations. In a small number of cases these trips involve international travel. An example of an epic journey to connect with a parent was described in an interview with Michael [235], aged 14 years, who lives in Blacktown North East. He speaks Arabic and he was born overseas and arrived in Australia in 1999 with his mother and grandparents who he and his young step-brother lives with. His mother is a carer for his aging grandparents, and as a consequence of his age and the family arrangements, Michael has a fair degree of independence. With this independence, however, comes responsibilities for looking after his young step-brother.

When asked about his family arrangements with the question:

*So does your mum takes care of all four of you?*



Michael [235] responded:

*No I take care of myself. I take care of my little brother too.*

As the interview progressed the discussion returned to the whereabouts of his father, who he has only met once:

*Can I ask you about your Dad?*

*Yeah my Dad's in London.*

*In London?*

*Yeah, my dad lives in London. He left my mum when I was three months. So like I've only seen him once. I went overseas and he went there to meet me, just that one time.*

This trip and meeting with his Dad was explained in more detail when asked about places he travelled to beyond Blacktown and Sydney:

*Do you ever go on holidays?*

*I went once to Sudan. I went by myself.*

*To Sudan? Why did you go there?*

*That was when I went to meet my Dad.*

*And you went all that way by yourself? Wow!*

*I got lost. I didn't get lost but like my plane they didn't put my name in the computer and I was so I didn't know what to do? So someone showed them what to do. And I went from here to Singapore I think like 4 hours and in Singapore I stayed there for an hour. And then from Singapore to Bahrain was fourteen hours and I had to stay there for six hours and then they delayed me nine hours and from there I had to travel another three hours.*

*How old were you?*

*It was about a year ago.*

*So you were about thirteen?*

*Yeah thirteen or twelve.*

*How brave are you?*

*Yeah, And there in the middle from Bahrain to Sudan this guy started talking to me and asking me was I Muslim or Christian and I'm like 'I'm sorry?' and I said 'I'm going to go to the toilet' and I went and I didn't come back.*

Michael, young male participant, 14 years,  
Blacktown North East [235]

This example not only opens up questions about the spatial range of independent mobility associated with parent separation, it points to the connections between children's independent mobility and a broader discourse at the intersection between transport and mobilities: that of transnational travel, or global mobilities. This adds

a different ‘global perspective’ to the notion of children’s independent mobility. Rather than the more common *international comparisons* of children’s mobilities the discussion of children’s and young people’s *international travel* brings to the fore the context of living in a ‘global’ city like Sydney.

Among the children and young people in Blacktown are children of humanitarian entrants and asylum seekers who have experienced transnational mobilities as a matter of necessity rather than choice. Sadly for some young people, whether their journeys in search of asylum have been with family members or ‘unaccompanied’ upon arrival to Australia they can then be ‘immobilised’ in mandatory detention<sup>16</sup>.

The relationships and negotiation around independence and mobilities within the global city context is less concerned with competence and capacity (child acquiring the skills to then given permission by adults to be independent), and more about the production and reproduction of mobilities that traverse specific settings and spaces for a wider variety of purposes and functions.

Among the mobilities literature there is a body of work concerned with transnational movement that has largely been focussed on the global patterns of international travel. Much of this literature has been related to travel for tourism, business, employment, asylum and migration, or on the spaces (points and nodes) through, and to, which such travel is directed, such as international airports. For example, Cresswell (2010, p220) describes airports as ‘the space par-excellence of postmodern, post-national flow’. How the ‘swirling vortex of global travel’ (Urry 2007) is connected to local, everyday mobilities outside the airport space has received less attention by mobilities scholars.

In contrast, what became apparent through the discussion of independent mobility with children and young people in Blacktown who were born into immigrant parents or were themselves born overseas, is that those connections to family are simultaneously global and local. Similarly, a recent exploration by Fiona Raje (2011)

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<sup>16</sup> As at 30 September 2013 there were 1,078 children in closed immigration detention facilities, and a further 1,760 children in community detention. Among them were 358 unaccompanied minors, their ages ranged from 7 to 17 years (Australian Human Rights Commission 2013).

into how international transport patterns are associated with migration and immigrant communities between the United States and the Caribbean region, highlighted that the largest proportion of airline passengers to the USA from the Caribbean in 2009 (35 per cent) were travelling to visit friends or relatives. Raje's analysis illustrates the importance of the social and ethnic links between ethnic communities and their countries of origin to air passenger travel demand.

The connection between aviation and ethnicity, highlighted by Raje (2011) is particularly pertinent to Australia because, after more than half a century of a planned high intake immigration program, Australia has one of the most culturally diverse populations in the world. With around one third of the Australian population having been born in another country, and as much as half of the population who has at least one parent who was born in another country<sup>17</sup> (Australian Bureau of Statistics 2012), Australia's aviation transport links to international destinations, particularly in the capital cities are important, not only for international trade, business and tourism but for maintaining familial and social connections.

The level of travel generated by the need to maintain social networks with families, relatives and friends, both abroad and in Australia, associated with immigration has yet to be estimated. As Urry (2000) has pointed out, these global mobilities have the reciprocal effect of supporting ethnic identity. He states:

[c]orporeal mobility is thus importantly part of the process by which members of a country believe they share some common identity bound up with the particular territory that the society occupies or lays claim to (p 149).

The transnational movements of migration, asylum, and subsequent visits, to and by family relatives and friends, represent mobilities at the global scale. Meanwhile these global mobilities generate new practices associated with ethnic identity formation and its maintenance within host countries at a very local scale.

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<sup>17</sup> Data from the Australian Bureau of Statistics 2011 Census counted 6,489,874 persons in Australia who were born overseas. This represents 30.2 per cent of the total population (21,507,719 persons) counted at place of usual residence. There were 10,750,631 persons (or 50 per cent of the population) who had at least one parent born overseas.

For children and young people who are born overseas, or born into immigrant families there emerged a paradox in how ethnicity differentiated the everyday mobilities of children and young people in respect to their transitions to independent mobility. On the one hand, children in immigrant or humanitarian entrant households, have experienced international travel, and some have travelled overseas independently, or as an ‘unaccompanied minor’, yet on the other hand their level of independent mobility at the local scale may be quite restricted.

Analysing the responses to the questions on independent mobility by country of birth (Table 11) showed that a smaller proportion of female participants who were born overseas (76 per cent) had a degree of independence compared to young women born in Australia (82 per cent). In contrast however, the reverse was true for young men born overseas compared to young men born in Australia. Although the numbers are very small, the interviews in the Blacktown study suggests that ethnicity and gender combine to differentiate independent mobility among children and young people.

Table 11 Independent mobility by country of birth and sex

<b>Country of birth and gender</b>			
n=65 interviews			
<b>Country of birth</b>	<b>Female</b>	<b>Male</b>	<b>Total</b>
<b>Australia</b>	<b>28</b>	<b>10</b>	<b>38</b>
with a degree of independent mobility	23	8	31
<i>% with a degree of independent mobility</i>	<i>82%</i>	<i>80%</i>	<i>82%</i>
<b>Overseas-born</b>	<b>17</b>	<b>10</b>	<b>27</b>
with a degree of independent mobility	13	9	22
<i>% with a degree of independent mobility</i>	<i>76%</i>	<i>90%</i>	<i>81%</i>
<b>Total</b>	<b>45</b>	<b>20</b>	<b>65</b>
with a degree of independent mobility	36	17	53
<i>% with a degree of independent mobility</i>	<i>80%</i>	<i>85%</i>	<i>82%</i>

#### *Moving homelands, moving house*

In addition to these social factors, the religious and cultural practices and gender expectations of the family have an influence on where children and young people go with their parents and/or are ‘allowed’ to go by their parents.

## **Mobilities across the life course**

The conversations with children and young people in Blacktown about their everyday travel challenge some of the prevailing notions about independent mobility. Firstly, independent mobility is not a singular attribute. Independent mobility can refer to both solitary travel, but also to travel with a group. It varies according to transport modes, purposes and across different scales.

Secondly, the interviews suggested that most children and young people can and do, exercise a degree of independent mobility and that when they travel in a group the spatial range and variety of places they can access is expanded. The question for researchers and planners therefore ought to be extended from ‘do children have independent mobility or adult dependent mobility?’ (Freeman and Tranter 2011, p 182) to ‘where can children and young people (that is, girls and boys, young men and young women) travel independently?’ This question shifts the emphasis away from personal travel behaviour to focus on accessibility. The question assumes that the transition to independent mobility can be facilitated through modifying not just physical environments but transport operations and services. An accessibility focus implies undertaking safety audits to assess whether the places children and young people need to travel to (such as parks, pools, school, sports fields, clubs, shops etc.) are safely accessible by active *or* public transport.

Independent mobility is not simply about unleashing children and young people to roam freely about their local neighbourhoods. It is a *negotiated* process through which parents and children weigh up situated risk, personal capability and vulnerability. The proximity to facilities like parks and shops, and good quality walking environments are helpful but having local friendship networks and suitable public transport services are equally important for facilitating the transition to independent mobility and extending it over a greater spatial range.

The study showed how the transition to independent mobility is an *iterative and gendered* process, linked to progress through the life course, marked especially by the move to secondary school that can be, sometimes profoundly, affected by changes to relationships within households. It showed that these transitions are also

spatially graduated, with proximity to local parks and shops, and to the homes of friends and family, being important staging posts for children and young people as they progress to larger orbits of independence.

In some cases, however, necessity overrides the process of 'iterative negotiation' in determining if children or young people travel independently. Changes in families generate new travel needs that can impose independent mobility upon children and young people whether they like it or not. Household dissolution can generate the need the travel for young people to travel unaccompanied on journeys that take them well beyond the boundaries of their neighbourhood, including intercity, interstate and international travel. These journeys highlight the significance of the household relationships among the factors that differentiate children and young people's mobilities. They highlight also the interconnectedness between scales, household, local, metropolitan and global, at which children's and young people's mobilities occur.

## **Conclusion**

The discussions with children and young people in Blacktown about their everyday mobilities challenge some of the prevailing notions of independent mobility. It illustrates how independent mobility is neither singular, static, nor adult-bestowed. Through the discussions it emerged that independent mobility can refer to both solitary travel, and also to travel with a group. The interviews suggested that most children and young people can and do, exercise a degree of independent mobility. However when they travel in a group the spatial range and variety of places increases.

The findings from the Blacktown study presented in this chapter showed how transition to independent mobility is a process of iterative negotiation between parents/care-givers and their children over a number of years. This process is punctuated at specific milestones along the life course, in particular the transition to high school, rather than being dependent on chronological age. Furthermore, the process can be altered and disrupted by social factors related to family dynamics and practices within households, perhaps more so than by social and or environmental factors at the neighbourhood scale.

Nevertheless the study showed that these transitions are also spatially graduated, with proximity to local parks and shops, and to the homes of friends and family, being important staging posts on children and young people's progression to larger orbits of independence. The interviews with children and young people affirm the findings of urban and transport studies that point to the importance of having local social and recreational facilities like parks and shops that are accessible by walking or cycling, as an enabler of independent mobility (Giles-Corti, Kelty et al. 2009, Villanueva, Giles-Corti et al. 2011).

The finding that proximity to parks and places to meet with friends can facilitate independent mobility is not new knowledge, but the fact that most children and young people interviewed could exercise some degree of independent mobility regardless of their mode of travel to school underscores two central arguments of this thesis: firstly, that to understand children's and young people's mobilities it is necessary to consider their travel beyond the journey to school; and secondly, that independent mobility is not a singular attribute of their mobilities.

The research suggests that, just as the built environment has been the subject of research to identify how it can be made more supportive of children's independent mobility, there is scope for further research into how local public transport can be made more conducive of young people's mobility needs in their transition to adult independence. This might include changes to fare structure, routes and service frequencies, especially of local buses on weekends. In conclusion, the research suggests that to have child-friendly cities, we need to start thinking about (and researching) what it means to plan for child/youth-friendly public transport.

But independent mobility is not simply about unleashing children and young people to roam freely about their local neighbourhoods. It is a negotiated process in which parents and children weigh up situated risk, personal capability and vulnerability. In this process, communication technologies and friendship networks can facilitate the transition to independent mobility. So too, the findings in this chapter suggest that public transport is important to expand the spatial range in which young people can be independently mobile, which can, in turn support their transition to work.

The study suggests that independent mobility, in the sense of travelling alone, is not necessarily the default choice of children and young people. Given the choice some children and young people would choose not to travel independently and would rather travel with their parents, older siblings or other adults, than travel by themselves. This finding is similar to that found by Vivian Romero (2007) in her study of school travel preferences of children in Sydney primary schools.

In some cases, however, necessity overrides preference in determining if children or young people travel independently, as is the case of children and young people travelling for the purposes of contact visits with separated parents. Household transitions generate new travel needs that can impose independent mobility upon children and young people whether they like it or not. Household dissolution can generate the need for young people to travel unaccompanied on journeys well beyond the boundaries of their neighbourhood. These journeys include intercity, interstate and international travel. These journeys highlight the importance of the household relationships among the factors that differentiate children and young people's mobilities. They highlight also the interconnectedness between scales: household, local, metropolitan and global, at which children and young people's mobilities occur. This was most apparent in the discussions with children and young people who were born overseas which demonstrated how global mobilities and everyday mobilities are linked.

The interconnectedness of global and local mobilities is brought into sharp relief in cities like Blacktown which have such a high proportion of newly arrived communities. Among the humanitarian entrants are a number of young refugees who have travelled internationally (often perilous journeys) to seek asylum in Australia, either with members of their families or as 'unaccompanied' minors. It seems ironic that, among the young people who have experienced mobility at a global scale, (those who have migrated to Australia) their independent mobility at the local scale can be more constrained than other children and young people who may have had a far more parochial experience.



*Implications for urban and transport policy and practice*

The discussion of global travel may seem less relevant for urban and transport planners interested in local and metropolitan scale transport planning, but these global mobilities (of migration) affect local transport needs and travel patterns. Moreover, the interviews with children and young people highlighted the importance of the distribution of local facilities and amenities, especially outdoor recreational areas, which may be of greater value to children and young people in increasing their independent (and active travel) that focussing on walking to school. The distribution of facilities, resources and opportunities to meet the diverse needs of local populations and the importance that children and young people put on the places to which they travel is the subject of the next chapter.

# Trajectories

The preceding two chapters explored two primary concerns of research into children's and young people's mobilities: that of their car-dependent mobility and of their independent mobility. In Chapter 5 the key issue examined was *car-dependent mobility*, that is, the amount of car travel compared to active travel and public transport utilised by children and young people for their journeys to school and to other activities. Chapter 6 considered the issue of *independent mobility*, that is, the degree to which children or young people travel unaccompanied by an adult.

Looking at each of these two aspects of mobilities from the perspective of children and young people in the Blacktown study has so far revealed that children's and young people's everyday mobilities are considerably more complex and differentiated than what is frequently portrayed in conventional transport geographies. The activities and places to which the children and young people travel not only reflect the diversity of their personal characteristics (like age, life stage, gender and ethnicity) but a range of factors that operate at the household level, including household formation and composition; parental labour force participation; and residential mobility. These personal and household factors can be considered as part of the social dimensions of transport.

In this chapter, a third pathway of children's and young people's everyday urban mobilities is explored that relates to both the social and spatial dimensions of transport: that of their *accessibility*. In the context of this thesis then, the traversings of children and young people, described in Chapter 5, investigated the question of *where* and *how* children and young people travel as part of their everyday mobilities. The investigation of transitions to independent mobility, in Chapter 6, primarily concerned *who* children and young people travel with. The exploration of the role of transport in children's and young people's everyday mobilities in this chapter seeks

to find out more about *what* transport children and young people need to access opportunities for participation in activities that are important to their life trajectories. In other words, what role does transport play in shaping and differentiating children's and young people's mobilities in terms of their *accessibility* to opportunities for social participation?

### **Accessibility and social participation**

Over the past decade transport studies, especially in the United Kingdom, have incorporated social dimensions of transport into the notion of accessibility (Farrington 2007; Shaw and Sidaway 2010). This social approach to accessibility defines it in terms of the ease with which people can access the resources and opportunities that satisfy human needs, including work, education, shopping, health care, social interaction and recreational activities (Jones and Lucas 2012).

The broad categories of accessibility, to work, education, health, shopping and social, cultural and recreational opportunities, cover a wide variety of travel and transport needs. The focus of this chapter, however, is a subset of social and recreational needs, namely children's and young people's accessibility to opportunities to participate in sporting, cultural and leisure activities outside of the school-based curriculum. Referred to here as 'extra-curricular activities', these activities can include all manner of team and individual sports, indoor and outdoor leisure pursuits, visual and performing arts, ethno-specific and religion-based activities and community-based youth groups.

#### *Health and wellbeing benefits of social participation*

The benefits for children and young people in terms of their health, wellbeing and life trajectories from participating in extra-curricular activities is well-established in health and education research (Blomfield and Barber 2011). Participation in sporting, cultural and leisure activities contributes to physical and mental health, educational outcomes, psychological and social development and general wellbeing (Eime, Young et al. 2013; Fredricks and Eccles 2008; Martin, Mansour et al. 2013; Linver, Roth et al. 2009).

Recent Australian research has found that, in general, young people's participation in any type of extracurricular activity is associated with a higher social and academic self-concept, and general self-worth, compared to no participation (Blomfield Niera, Barber et al. 2013). Moreover, confirming findings in American studies (Linver, Roth et al. 2009), the Australian research showed that more positive social self-concept and general self-worth is associated with participating in *both* sports and non-sports, compared to participating in only one type of activity (Blomfield and Barber 2009).

Extra-curricular activities are generally organised and supervised by adults outside of the family network, which distinguish these types of activities from social interaction with family and friends or independent leisure pursuits of children and young people. Children's and young people's participation in extra-curricular activities therefore connects them to social networks with adults outside of their family and school, that can support a positive transition to independence and their engagement in the wider society (Holt 2011; Denault, Poulin et al. 2009).

#### *Social participation, civic engagement and young people's trajectories*

Children's and young people's participation in extra-curricular activities are not only of individual benefit. By participating in organised extra-curricular activities children and young people contribute to the social networks that make up 'the social life of the city' (Ley 1983, p191). Importantly for children and young people, the social networks associated with participation in extra-curricular activities extend beyond their immediate clusters of family, neighbours, friends and informal social or cultural groups. Participation in extra-curricular activities connects children and young people into a wider social network of more formal, voluntary organisations and institutions that make up civil society, thereby facilitating their future civic engagement (Fredricks and Eccles 2006).

Such social networks have long been recognised in geography as contributing to the 'rich fabric' of urban everyday living described by (Ley 1983, p198) over three decades ago. In particular, voluntary organisations, like sports clubs, churches,

cultural and benevolent societies have a significant role in the social life of the city. As Ley (1983) put it:

voluntary associations ... provide the texture and reference points of our urban experience. They are the bond for the individual to a broader yet still manageable community (p200).

There has been much literature since that has analysed various aspects of social networks and young people (Cotterell 2007; Arentze, van den Berg et al. 2012; Bunnell, Yea et al. 2012). At a most basic level 'social networks evolve from individuals interacting with one another' (Kadushin 2012, p11) but for such interaction to occur individuals need to come together. This 'coming together' is the point of intersection between analyses of social networks and of mobilities (Larsen, Axhausen et al. 2006; Urry 2012). Children and young people need to travel to be able to participate in the extra-curricular activities that will connect them to the social networks of civil society and, by extension, enable their engagement in the cultural life of the city.

Children's and young people's mobilities, therefore, are integral to their participation in sporting, cultural and leisure activities because for them to be able to participate in these activities requires them to *travel* to places where these types of activities are conducted. However, the opportunities for participation in organised sport or cultural activities are usually site-specific, often requiring custom-built facilities, like sports fields and stadiums, gyms, swimming pools, performance spaces, community halls and other outdoor and indoor recreational areas. For most children and young people, to be able to access these site-specific facilities for extra-curricular activities, will involve travel outside of their local neighbourhood.

#### *Examining accessibility as spatially differentiated mobilities*

Differentiated access to opportunities can be examined in a number of ways. In the simplest numerical terms, one way would be to look at the number of activities to which children and young people travel and participate. For example, the drawing of Jasmine [127], who lives in Blacktown's relatively more affluent north east shows a many more places and activities that make up her everyday mobilities than Kate [94] who lives the socially-disadvantaged south west of Blacktown (Figures 54 and 55)

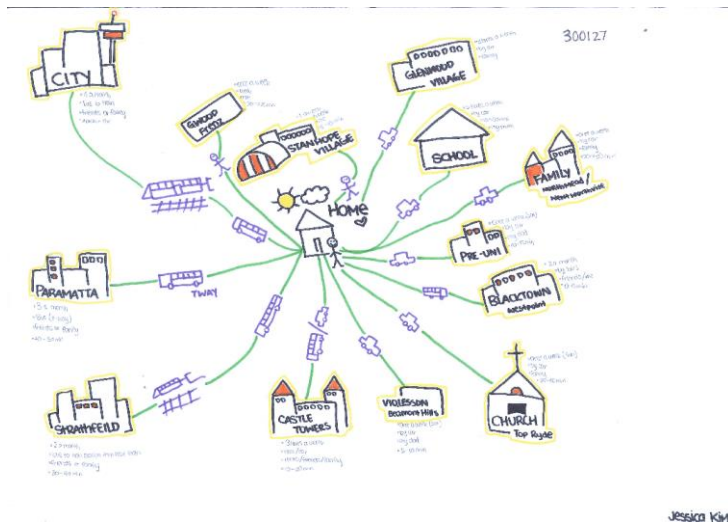


Figure 54 Participant [127] drawing - Accessibility in Blacktown North East



Figure 55 Participant [94] drawing - Accessibility in Blacktown Outer West

Another way is to look at the range (or variety) of activities in which the children and young people participate. A third way might be to examine the spatial range of

the activities in which the children and young people participate. When examining the role of transport to accessibility, it is also important to consider what barriers constrain access to opportunities and resources.

Examining accessibility to opportunities for social participation among children and young people, not only provides an insight into how their urban mobilities more generally might relate to individual life trajectories, it can also be helpful to inform understandings of how accessibility is *spatially* and *temporally* differentiated. In this way, children's and young people's mobilities shed light on some of the socio-spatial dimensions of transport as well as illustrating another aspect of contemporary urbanism as a spatial practice.

#### *Spatial aspects of accessibility*

The distribution of the activities, the physical location of groups, clubs, organisations and institutions across the city necessarily will influence how accessible these activities are by various modes of transport. The degree of accessibility that transport affords to children and young people for social participation, *at the regional and metropolitan scale* is therefore the primary concern here. As explained through the examples from the Blacktown study, it is at the metropolitan scale that children's and young people's accessibility is more clearly differentiated than at the neighbourhood scale.

The need for site-specific facilities distinguishes participation in these type of *organised* activities from *incidental* activities. Incidental activities, such as walking or bike-riding for recreation, entertainment or socialising with peers, can often be undertaken in a variety of public and/or private spaces that children and young people might make use of, such as streets, footpaths, shopping centres, parks and homes. In contrast, the site-specific facilities for organised sporting and cultural activities are required to be *planned*, and designated within local and metropolitan spatial planning instruments.

By virtue of the many contingencies of the planning process over time, site-specific facilities for participation in organised sporting, cultural and leisure activities are unevenly distributed across the city space, and therefore, more or less well-connected

to the prevailing transport infrastructure, networks and services. Some facilities, by virtue of their location within the city and its transport network, may be well connected to public transport while others may only be accessible by car. This means that the location of sporting and cultural facilities relative to where children and young people live, and in conjunction to the transportation network and services available, will influence how easy it is for children and young people to *access* the opportunities provided at the facilities. In other words, children's and young people's participation in extra-curricular activities is likely to be enabled or constrained to some degree by their accessibility – that is, their ability to access opportunities for social participation within a reasonable amount of time and cost.

#### *Temporal aspects of accessibility*

The composite nature of accessibility, involving space, time and cost among other factors, brings to the fore Hagerstrand's (1970) conceptualisation of everyday activity and travel as a 'time-space trajectory' that has become a founding basis of the activity approach to travel surveys and transport analysis (Wilson 2008; Ellegård and Svedin 2012). As was found in regard to car-dependent and independent mobility in Chapters 4 and 5, accessibility has both a spatial dimension and a temporal dimension. In Chapter 5, time of day was shown to be an important influence on where and how children and young people travel, while in Chapter 6 the nature of their mobilities was shown to change over their life course. Hagerstrand's conceptualisation includes both of these temporalities. Hagerstrand (Hägerstrand 1970) p10 pointed out that, in time-space, an individual has a 'life path', that is, a continuum from birth to death, which is made up of shorter time segments. However, most transport geography and planning applications of Hagerstrand's time-space model focus on the 'day path' of activities across 24 hour time. While analysing time-space of activities across a day is necessary for timetabling services and managing commuter peak scheduling, there are two other temporalities by which accessibility (and therefore travel demand) to sporting, cultural and outdoor recreational activities might vary: seasonal time (time of year) and weekly time (day of the week).



### *Spatial distribution of weekend travel*

Because many of the sporting, cultural and recreational activities of children and young people occur on the weekends, and at certain times of the year, accessibility to these activities will be influenced by fluctuations in transport flows and capacities across these different times even when they may be travelling at the same hour of the day. While many activities, including sports training, or performing arts classes are after school hours on weekdays, most competitions and performances are on weekends. Similarly, youth groups and religion-based activities might be organised on week day evenings, but for many religions collective spiritual worship or observance occurs on the weekend when public transport services are less frequent.

What receives less consideration in the transport literature is the degree to which transport is a factor in enabling or constraining accessibility to these types of activities. For this reason, the Blacktown study included the children and young people recording their activities at hourly intervals over a weekend in a travel and activity diary. Analysis of the 601 records from the weekend activity diaries, as well as the interviews, form the basis of the discussion of accessibility in this chapter.

Of the 392 records of weekend travel and activity, 137 trips included a named location, such as a suburb or specific facility or venue. Based on the recorded information for these weekend trips, 91 per cent were to locations within Blacktown LGA and the rest were to locations further afield.

A much smaller subset of recorded trips within Blacktown LGA (100 trips) included the travel mode, while most of the recorded trips outside of Blacktown LGA (37 trips) included the travel mode, shown in Table 12.

Table 12 Number of trips on weekend by destination and mode

Weekend Travel recorded by destination and mode

Destination	Mode				Trips with destination and mode recorded
	Car	Bus and/or Train	Bicycle	Walking	
Outside Blacktown LGA	34	2	0	1	37
Within Blacktown LGA	65	8	8	19	100
All records with destination and mode recorded	99	10	8	20	137

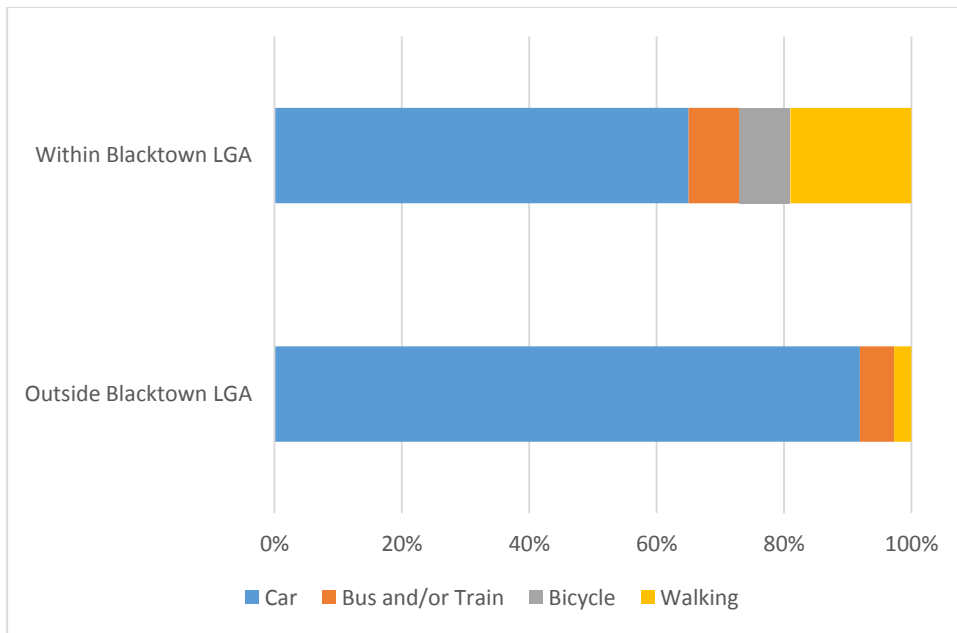


Figure 56 Spatial distribution of weekend travel by mode

As shown in Figure 56, the majority of all trips recorded with destination and mode were by car, but there was a notably higher proportion of local trips made by walking (19 per cent), bicycle riding (8 per cent) and by public transport (8 per cent) than for

trips beyond the LGA. Almost all of the trips beyond Blacktown LGA (92 per cent) were made by car. These figures suggest that for children and young people to participate in weekend activities outside of Blacktown LGA requires access to car.

### **Participation in sporting activities**

In Australia, participation in organised extra-curricular activities is very common and culturally valued. A majority of children and young people (66 per cent) participate in at least one type of organised activity outside of school (ABS 2012). The Australian Bureau of Statistics has conducted a survey on children's participation in sporting, cultural and leisure activities and bike riding, every three years since 2000 (ABS 2012). The survey collects data on participation in organised sports, dancing and a number of other cultural activities by children aged 5 to 14 years. This age bracket is equivalent to the cohort of children in the primary schools of the Blacktown study.

Reflecting the general trend, social and recreational activities were among the most frequently reported activity by children and young people in the Blacktown study, as noted in Chapter 4. The proportion of children and young people in the Blacktown who reported participating in a sporting, cultural or recreational activity that they travelled to in their weekend travel and activity diaries was slightly smaller than the national average. Forty-nine of the 106 participants who completed a weekend travel and activity diary (46.2 per cent) report participating in a sporting or cultural activity.

However, not all children and young people have the opportunities to participate in these beneficial extra-curricular activities (The Smith Family 2013). Around 30 per cent of Australian children don't participate in sport at all. A recent report by the not for profit organisation, the Smith Family (The Smith Family 2013) analysed the ABS statistics on children's participation in sporting and cultural activities by socio-economic status and found that children from lower income households were more likely to miss out on the opportunity to participate. Specifically, close to half (46.9 per cent) of the children living in the most disadvantaged areas (lowest quintile) did not participate in any sport or cultural activities compared to only 13.3 per cent of children in the most advantaged areas (highest quintile).

One of the ironies of transport planning and provision in Sydney, and other Australian cities, is that transport authorities invest large amounts of resources, organisational effort and subsidises to provide public transport to major sporting events to enable people to *spectate*, but there has been little or no thought or effort to plan for provision of local transport for weekly sporting activities for people, especially children and young people to *participate* in sport. Even before the Sydney Olympics in 2000 public transport has supported travel for spectators to major sporting events such as by combining tickets for transit with entry to major sporting events and by providing designated and extra buses and train services. In contrast, it is assumed that for children and young people to participate in sporting activities, even for school-based sporting activities, transport will be provided by families, either directly by private vehicle or by paying an additional cost for local or chartered bus services. As a result, much of the travel to sporting and cultural activities reported in the Blacktown study follows the metropolitan and national trend of being more highly car-dependent than travel to other activities like school or informal social travel. Some of the factors that constrain accessibility, and inhibit participation, are considered later in the chapter following further examination of children's and young people's accessibility to sporting, cultural and recreational activities described in the next sections.

#### *Benefits of participating in sporting activities*

Sporting and physically active recreational activities (like dancing, skating, surfing, cycling etc.) have multiple benefits for health and wellbeing for children and young people including maintaining healthy weight and reducing the risk of obesity, increasing cardiovascular fitness, promoting healthy growth of bones, muscles, ligaments and tendons, improved coordination and balance, improving the ability to relax and sleep, as well as improving social skills and personal skills like cooperation and leadership (Okely, Salmon et al. 2013; Bauman, Reis et al. 2012). Habits are established early in life and evidence suggests that physically active children are more likely to mature into physically active adults. Likewise, there is an intergenerational aspect to this as active children are more likely to become adults who encourage physical activity in their children (The Smith Family 2013).

In contrast, sedentary activities, those that involve extended amounts of time sitting, such as playing computer games, using the Internet or watching television, not only detract from children's and young people's time to engage in other activities but also are increasingly found to detract from their health (Okely, Salmon et al. 2013). Concern about decreasing rates of physical activity within population and associated health risks has prompted governments in Australia and overseas to develop health promotion programs to encourage physical activity and curb the amount of time children are spending on sedentary activities. Recently revised Australia's Physical Activity and Sedentary Behaviours Guidelines (Department of Health 2014, p8) recommend that:

- 'Children and young people should participate in at least 60 minutes (and up to several hours) of moderate to vigorous-intensity physical activity every day'.
- 'Children and young people should not spend more than two hours a day using electronic media for entertainment (such as computer games, internet, TV), particularly during daylight hours'.

These recommendations are a guide to the minimum level of physical activity required for good health but the onus remains on parents to encourage and provide opportunities for their children to develop healthy and active behaviours. While various Australian health promotion campaigns have been implemented nationally and through states and local governments (Department of Health 2014), programs that create and/or provide opportunities for children and young people to engage in sporting and recreational activities and facilitate their participation are rare.

#### *Participation rates in sporting activities in Australia*

Children's participation in sport is a long established social practice in Australian communities and sport accounts for the majority of children and young people's out of school hours' activities. The ABS surveys of children's participation in culture and leisure activities (ABS 2012) between 2003 and 2012 have shown that more than two thirds of children and young people aged 5 to 14 years participate in either sport and/or dancing out of school hours. The participation rate in 2012 for sport and/or dancing was 67 per cent for boys and 65 per cent for girls (Figure 57).

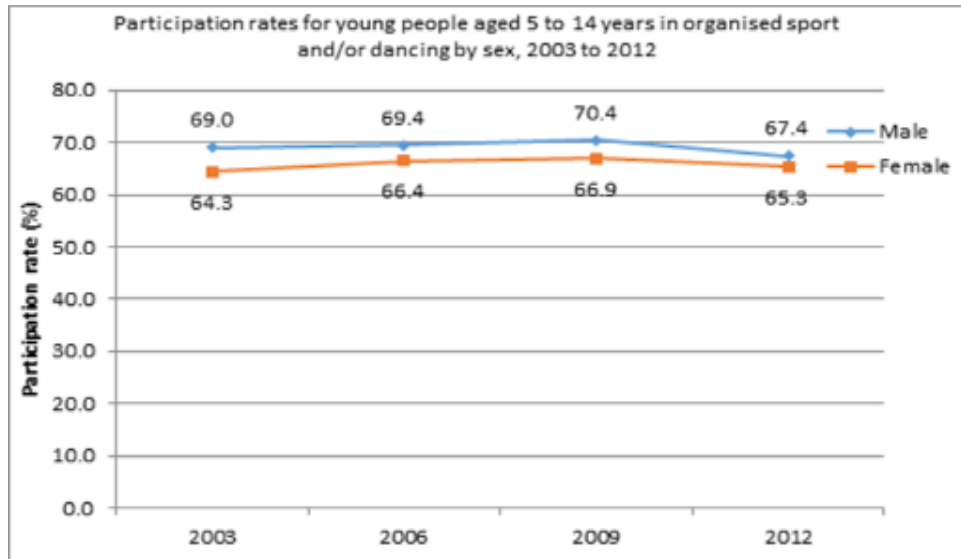


Figure 57 Participation rates in organised sport and/or dancing by sex, 2003 to 2012

Source ABS 2012 Children's participation in culture and leisure activities, Australia (ABS 2012)

### *Age and gender differences in sports participation*

Although participation rates for boys and girls are very similar in Australia, sport is a highly gendered activity. The three most popular organised sporting activities for boys were football (soccer), swimming and Australian Rules football. Boys make up the majority of participants in the other popular football codes, rugby league and rugby union, and cricket. For girls, swimming and netball were the most popular sports followed by gymnastics. Dance is an activity that has a predominantly female participation (ABS 2012).

The male dominated football codes and cricket are promoted widely in the mainstream media and well catered for in terms of local facilities. The sporting and recreational activities more popular amongst girls like netball, gymnastics and dance tend to have fewer facilities and therefore, tend to be located at greater spatial distance from each other, although outdoor netball courts and football (soccer) fields are often, though not always, co-located. Facilities for sports which attract men and

women more evenly, like tennis and swimming, tend to be provided at a district rather than neighbourhood level.

*The importance of participating in sport for children and young people in Blacktown*

A substantial number of children and young people in the Blacktown study reported participating in a sporting activity through their drawings, interviews and weekend travel and activity diaries. Out of the 139 children and young people who completed drawings, 39 included travelling to participate in a sporting activity. A similar proportion, around one quarter of the participants who were interviewed and of those who completed weekend travel and activity diaries (22 out of 106 completed diaries) reported that they participated in a sporting activity. What was evident from the interviews is that there is a great store of sporting talent among Blacktown's young people.

Several of the primary school children reported that their sport was the most important activity for them to be able to access. However, the value of participating in sports for these children was rarely described as being related to health benefits but rather for social contact, enjoyment and a sense of personal identity and achievement. For example, children in primary school, across the three Blacktown sites, expressed similar positive views about their participation in sport:

Charlotte, aged 11, in Blacktown South East [158], who plays hockey said it was the most important place for her to go

*'cause I go there and I see all my friends and I like the strategies we play.*

Tiruppur, aged 11 years, from Blacktown Central [230], was born in India and enjoys athletics. He stated it was the most important activity for him to go to

*'cause I want to do my athletics and my dad wants me to be an athlete and I am doing very well in the 600 metre race*

Kayla, aged 10 years [216] from Blacktown Central, plays soccer and cricket. These sports are located at the same sports field, which she described as the most special place for her to go:

*because I like playing soccer and cricket and because it's a lot of fun keeping the ball from the goal.*

Amelia [189] aged 10 years, from Blacktown North also plays two sports, soccer and netball, but says netball is the most important:

*because I really like netball because it's fun, and I get to see all my netball friends ...*

Cameron, aged 10 [207] from Blacktown North East described how he valued playing sport both for his school for the Public School Sports Association (PSSA) and outside of school for his local club.

*Which of these places is most special to you?*

*Probably PSSA and Soccer training.*

*Why's that?*

*Because when I play PSSA I represent the school. And soccer I represent my team.*

*And what sport do you do for PSSA?*

*Cricket.*

All students undertake at least one hour per week to play sports or do some physical activity as part of the school curriculum. But school based sports are not a substitute for the benefits that might accrue from participating in local sporting clubs or the likes of the PSSA competition. The PSSA competitions are organised by the schools and the competitions are arranged in school hours, often with transport included. However, PSSA sports are selective and only those chosen for the teams have the opportunity to participate in PSSA sports. In contrast, the local sports clubs generally provide opportunities for children from as young as four or five years old to participate and learn sporting skills, but they require parents and guardians to pay registration fees that include insurance and facilities hire. Uniforms are generally an added cost and the provision of transport to training and competitions or events is usually left to parents and guardians to provide and arrange. These factors of cost, time and travel can act as a barrier for some children and young people, preventing them from participating in local sports (The Smith Family 2013), as much as skill-based selection might prevent others from participating in the PSSA sports.



Having established that participation in sporting and cultural activities is both good *for* children and young people and of importance *to* them, in their own view, the question arises as to how the opportunities to participate in sport, outside of the school system, are spatially distributed and then, the extent to which transport options constrain or enable children's and young people's participation in sport.

### **Accessing sporting activities**

The premise that participation in some form of sport or dancing is part of every child's upbringing is evident in Australian urban planning practice. Community infrastructure like sporting fields, tennis and netball courts, swimming pools and community halls and other leisure facilities and resources are planned and provided by local government under the *Local Government Act 1993* and under Section 94 of the *Environmental Planning and Assessment Act 1979* for new residential communities. In addition to local government provision, state and federal government funding and private enterprise also contribute to provide specialist facilities such as futsal, indoor cricket, gymnastics and swimming pools.

Planning policies have generally ensured that there is some open space allocated to sports playing fields within most neighbourhoods. These are usually dedicated to a football code, either soccer (as football has been known in Australia until recently) or rugby league. Cricket grounds, netball and tennis courts are also frequently allocated space in local government recreational and local plans.

Blacktown is no exception. In fact, Blacktown City Council promotes the fact that this area has a strong sporting identity and heritage (Blacktown City Council 2013). Its website proclaims its sporting credentials as follows:

Boasting more than 800 Parks and Sporting Reserves, Blacktown City also has its own Olympic Park which is a magnificent legacy from the Sydney 2000 Olympics. The City also has many other world-class sporting and recreational venues (Blacktown City Council website 2013).

Blacktown North East is home of Football New South Wales, the governing body for football in the entire state. Blacktown LGA was included among the sites for the

2000 Sydney Olympics, the stadiums hosted baseball and softball games as well as being used for athletics training and preliminary events. In 2010 Blacktown successfully attracted funding to be host to the first Western Sydney Australian Rules football team, the Greater Western Sydney Giants, and a redevelopment of the Showground is currently underway to provide a stadium near the Blacktown CBD. What was a dilapidated space is being transformed into a landscaped, green open space and outdoor sport and recreation facility. The upgraded sporting facilities and attraction of leading sporting bodies and new clubs to Blacktown is a reminder that the urban spaces in which children's and young people's mobilities are practiced and produced are no more static than the children and young people themselves.

Despite such apparently rich resources, the discussions with the children and young people in the Blacktown study revealed that access to actual participation is highly differentiated, and highly car dependent. As described in Chapter 4 about three quarters of the participants who recorded going to sporting activities by mode on their drawings (21 of 29 participants) travelled by car. Exploring both the degree of differentiation and car-dependency in the Blacktown study suggested that this was partly because the location of different sport facilities varies considerably from one type of sport to another and from one locality to another, making travel to sport by active and/or public transport more problematic.

In some cases, facilities in one location can be utilised for different sports at different times of the year, for example many soccer fields in winter are converted to cricket pitches in summer. In other cases, however, different sports require different facilities altogether. For example Rachel [64] lives in Blacktown Outer West. She has lived there for 10 years but goes to school in Blacktown South West Rail. She was born in Australia and has always lived in the Blacktown area, although her parents were born in Fiji. She participates in two popular sporting activities: athletics and netball. She describes her travel for sport as follows:

*I go to athletics every Friday night.*

*Is that only in summer?*

*Yeah in winter I play netball. I go to a different place.*

*And whereabouts do you do athletics?*

At Lethbridge Park. And Popendetta Park for netball.

How do you get there?

By car. My mum takes me.

Rachel, Young female participant, 15 years,  
Blacktown South West Rail [64]

These two locations are relatively close by and within the district of Blacktown Outer West making it possible to maintain a level of involvement in sporting activities all year round. Their proximity to each other and to her home means that it is only a short drive of three to five minutes to both, as shown on her drawing (Figure 58).

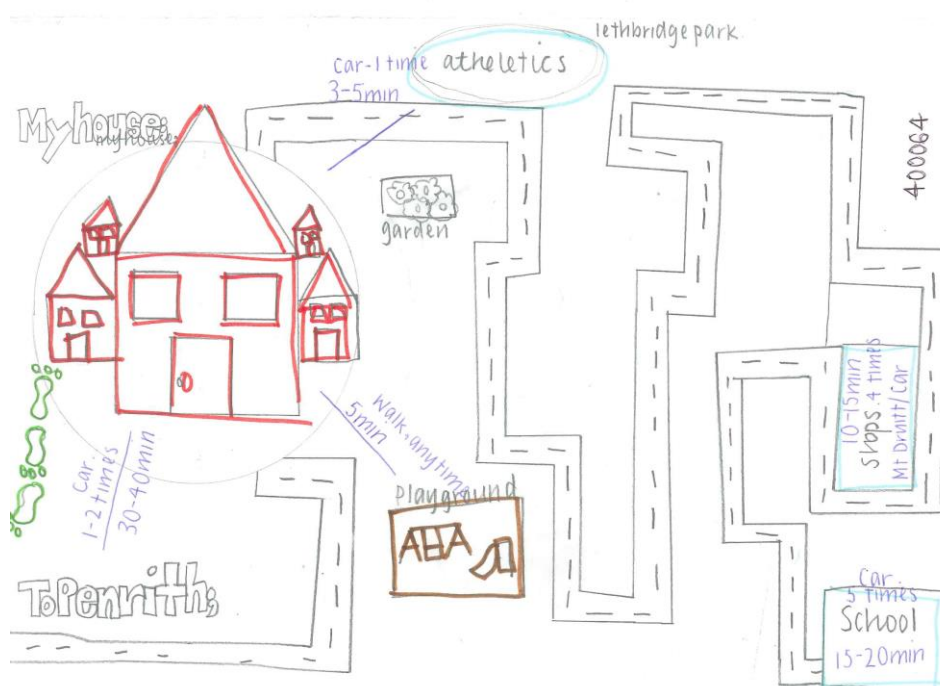


Figure 58 Participant [64] drawing 'I go to athletics every Friday night', Blacktown Outer West

The location of facilities is one factor that differentiates accessibility to sporting activities but does not fully explain the higher rate of car travel to sporting activities overall, even those located within the local area. In Rachel's [64] case it might be possible for her to walk or cycle to both fields, but as she explained, she has never tried to get there by active travel:

*Can you get to athletics at all, is there any way you can get there by non-motorised transport - walking or cycling?*

*Um yeah probably.*

*Have you ever tried it?*

*No, but my friend who lives around there she comes to my house she walks sometimes or she rides her bike.*

Rachel, Young female participant, 15 years,  
Blacktown South West Rail [64]

### *Household dynamics and participating in sport*

Like Rachel, Amanda [184] aged 10 years, who lives in Blacktown North, plays more than one sport and lives close to the sports facilities. She plays both soccer and netball during the same season. Reinforcing one of the issues highlighted in Chapter 4 and 5, Amanda's [184] mobilities around her participation in sport are inter-related to the mobilities of other people in the household, which then influences how she travels and her accessibility to sport. The following segment shows how physical proximity is overridden as an influence on mode use by decisions about time and suitability for the trip purpose. These trade-offs involve the needs of other family members, in Angela's case, her mother as the coach.

*So tell me about these places that you usually go.*

*Well this is the netball court, to get there it takes about 20 seconds 'cause I live really, really close.*

*[Joking] So you fall out of bed and you're there?*

*[Laughs] No. All you have to do is drive up to the high school and the netball courts are right there.*

*And you go there by car?*

*Oh yeah.*

*Why's that?*

*Um because my mum's the coach and we have to get there really quickly otherwise if we walk we won't get there quickly and she won't get there in time.*

*Do you have to take equipment?*

*Um yeah.*

*And what else?*

*[Points to her drawing] This is the soccer field and I live near the soccer field because I play soccer and the soccer field is next to the netball field, and on Wednesday we have to go from netball and in to play soccer.*

*So you're very busy on a Wednesday?*

Yeah

*And who's your soccer coach?*

Um my Dad.

Amanda, young female participant, 10 years,  
Blacktown North East, [184]

The proximity to local sporting facilities is clearly helpful for enabling Angela to participate in sporting activities. Amanda's [184] description of her participation in sports also highlights how accessibility to sport and cultural activities is not simply about individual mobilities. Creating the multitude of opportunities for social participation for children and young people involves equivalent numbers of adults negotiating their time budgets (between work, life and family), and their time/space pathways (travelling between the various destinations across the city space to meet their everyday commitments) in order for them to be able to volunteer and devote their time to coaching, managing, supporting, fundraising, organising and providing transport.

These overlapping mobilities within households, as opposed to household characteristics, are more difficult to incorporate into transport planning or service provision at the metropolitan scale but suggest a need for greater flexibility in the way local transport is planned and provided. This raises the vexed question of whether the disparate array of travel that relates to children's and young people's participation in sport ought to be provided by local or metropolitan transport services. It would seem that travel labelled 'social and recreational travel' is assumed to be 'discretionary' (Sener and Bhat 2007), and outside of the realm of mass transit service providers and transport agencies. It raises a further question as to whether it is feasible, or indeed possible, to provide mass transit services to support access to at least some of these opportunities. In reality the road network represents the default transport solution, and often without regard for options for safe active travel alternatives.

#### *Accessibility to sporting activities at the metropolitan scale*

If children or young people wish to participate in a less common sporting activity it is more likely that this will involve longer journeys, often outside of the LGA.

Facilities for the less popular sports (in terms of young people's participation) - like hockey, gymnastics, basketball, baseball or softball - are usually more sporadically spaced across the metropolitan area. Children and young people who undertake these sports therefore travel further for training and for their weekend games.

One example from Blacktown North East is Liam [203], a 10 year boy who plays hockey, cricket and tennis, and who wants to be a professional sportsman. He originally lived in Brisbane and had taken up the sport at the local sports field, which was hockey. He moved to Blacktown and wanted to continue to play hockey, but with no hockey fields in the vicinity, he travels approximately an hour every Thursday to a sports park that has a hockey field, several kilometres away:

*Tell me about the places you go?*

*I go to the sports park.*

*Is that the one near here?*

*No I do hockey so I go to the Pennant Hills sports park. Every Thursday I do training and then we play games on the weekend.*

*And where do you have to go for those games?*

*Everywhere. All different places.*

*So there is a fair bit of travelling for hockey?*

*Yeah.*

Liam, Young male participant, 10 years old,  
Blacktown North East, [203]

Even for the more popular sports, which may have local clubs and facilities, the program of events or competition often involves travel further afield, often outside of the local government area. Longer trips to participate in sport becomes more relevant if they are good at their sport and then get selected for representative teams.

The more advanced a child's or young person's skills become in a specific sport, the more likely that their travel range to maintain their participation will be extended beyond the local or even regional area, and involve sometimes regional, interstate or even international travel.

For example, Sam [113] lives in Blacktown South East but travels outside of the local area four times a week to participate in gymnastics. He also coaches younger participants. Sam's everyday travel to a number of destinations is explained by the

fact that his chosen sport is less common, requires specific rather than generic facilities, and by the level at which he participates. Sam does gymnastics, which involves travel to a variety of locations across the metropolitan area, as he explains in the following interview segment:

Gymnastics, where is gymnastics?

*Um Seven Hills, Toongabbie. We used to use the RSL over there but the hall fell apart so we got a new hall at the back of [the] High [school].*

Four days a week, *now you must be pretty good?*

*[Laughs] One day's for coaching and the other days' [are] for training.*

Do you go in comps?

*Yep.*

Where do have to go for those?

*Um the [Olympic Centre at] Homebush. Sometimes, North Ryde, and I can't think of the other places. There's always state trials and then a second round of state trials, then there'll be state [competition] and I do tumbling competition and I have to go down there to train some of the recreational groups.*

Sam, young male participant, 15 years,  
Blacktown South East [113]

As a consequence of the greater distances and more disparate destinations, travel for these less common sporting activities, and participation at an advanced level is more likely to be undertaken by car.

Not only distance but frequency of travel to sporting activities increases with greater involvement and/or elevated achievement. Travel to participate in sporting activities reinforces the point made earlier (and in Chapter 4) that there doesn't appear to be any relationship between school travel mode and travel mode to other activities. In Sam's [113] case, although he *walks* to school every day, he travels almost as frequently (four days a week) *by car* to do gymnastics, as he outlines in his diagram below (Figure 59).

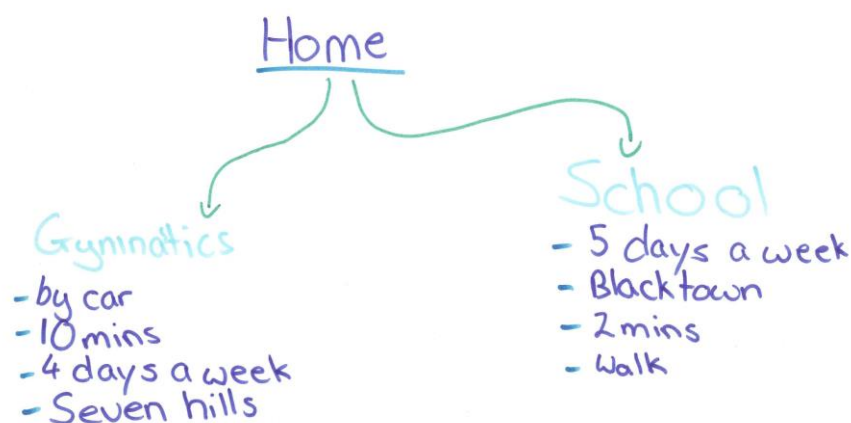


Figure 59 Participant [113] drawing: *Gymnastics, 4 days a week* Blacktown South East

Another example of a young person, like Sam [113], who played a less common sport, and at a higher level was Charlotte [158]. Charlotte was one of the young people mentioned above for whom her sport (hockey) was the most important place for her. She also is representative of the pool of sporting talent that exists among Blacktown's young people. She described her weekly sporting routine as follows.

*And where do you have to go to get to the hockey fields?*

*Homebush and Wentworthville*

Homebush, you must be very good to play at Homebush? [Homebush is the Olympic Park Hockey centre]

*Me and my mum go there. 'Cause my mum goes there to play and to train. ...She is in a team [too] and represented Australia. We go there every Thursday and Sunday. And I go to Wentworthville for my team. So that's, Monday Sunday Tuesday and Thursday.*

*Wow, you must be good?*

*Last year I got into the rep. team.*

*Where did you have to go for that?*

*Canberra [interstate]*

*Oh so you were in the State rep' team. Wow, I should get your autograph! And does your brother play hockey too?*

*No he plays football.*

*Is that in Blacktown?*

*Yes.*

*How does he get there?*



*Mum drives him.*

Charlotte, young female participant, aged 10 years, Blacktown South East [158]

This discussion with Charlotte [158] about participating in sport, not only shows how participation in sport involves mobilities at the metropolitan scale, it reinforces the point made earlier that children's mobilities are inseparable from those of other people in the household. For some children and young people, like Tidda [80], from Blacktown South West, it is not their own participation in sport but that of one or more of their siblings that shapes the patterns of their mobilities.

Tidda [80] was one of the Aboriginal participants in the Blacktown study. She was 14 years old and lived with her parents and two younger brothers in a house in Rooty Hill. Tidda's family, like many of the families in Blacktown's Indigenous community, have always lived in the Blacktown South West area. Her mobilities reflect the importance of familial networks within the area as well as of participating in sport as a means of supporting those networks. But here, she simply described her weekly travel to the local indoor sports centre known as 'Kevin Betts' which is located approximately 2.5 kilometres further west from Rooty Hill:

*My brother plays basketball so we go to the basketball courts at 'Kevin Betts' twice a week.*

*And you go twice a week to Kevin Betts with him - do you play any sport?*

*Um no.*

*And when you go to Basketball twice a week do you walk or drive?*

*Um sometimes we drive sometimes we walk - like on Fridays we drive but on Mondays sometimes if Dad has to use the car, not his ute, we walk.*

*And how long does that take?*

*About half an hour, but it's slow because I have to walk with him [her younger brother].*

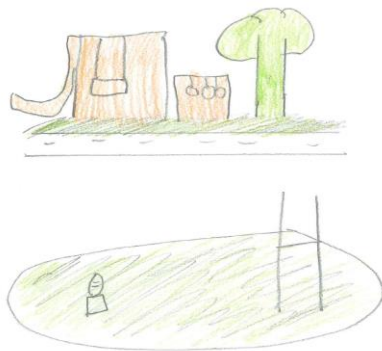
Tidda, young female participant, 14 years,  
Blacktown South West Rail, [80]

Although Tidda [80] walks when not driven it would be possible for her and her brother to travel by either train or bus, because she lives in the area of Blacktown South West Rail. However, travel by public transport would not necessarily be more convenient or quicker. While, the train trip would take only approximately 3 minutes from Rooty Hill to Mt Druitt, the wait time between trains can be up to 30 minutes.

The bus trip would take almost as long as it takes to walk with wait times often being longer than for the train.

In summing up, accessibility to sporting activities for children and young people and their families involves multiple and complex patterns of travel and transport-related decisions. A good example of the diversity of ways in which children and young people participate in sporting activities in contrast to informal physically active recreation, locally or at higher skilled and representative levels, and of how travel to sporting activities is connected with that of other family members was given by Falealupo [215], a young boy from Blacktown Central. Falealupo [215] was born in Samoa and now lives in Lalor Park. He moved to his current house for 'more space'. He came to Australia when he was 6 years old and lives in four bedroom house with his parents and brother and dog. He'd like to be a doctor and a piano player. As he said, 'I'm learning.'

Falealupo explained his everyday travels by referring to the places he drew (shown in Figure 60 and 61). These places included a lot of different sporting activities:



*[That's the] Park*

*Is that near your place?*

*Yeah*

*How do you usually get there?*

*We walk with our dog.*

*How often would you go?*

*Most afternoons 'cause we play games like cricket.*

*Where else do you go?*

*[The] Football oval is down the street and around.*

Figure 60 Participant [215]  
drawing - places I go

*Are you in a team?*

*No.*

*Is your brother in a team?*

*Yep he's going for the state championships.*

*Really? He must be a very good player. Does he play rugby league or rugby union?*

*Rugby union.*

*So how often do you go there?*

*I go there to watch my brother play and cheer for my brother.*

*And is that more than once a week?*

*Yeah More than once a week. My brother's team is winning the comp'.*

*And how do you get there?*

*We drive there.*

*Who drives you?*

*My mum.*

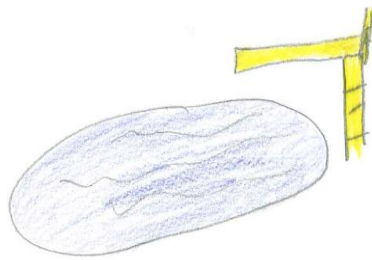


Figure 61 Participant

[215] drawing - The Pool:

*I go every Saturday and*

*Sunday*

*And that's the pool you go to?*

*We go to Liverpool I go every Saturday and Sunday at 8am.*

*That's a lot.*

*Yeah. They teach you how to stroke and then they coach you for the carnival. I'm in the state.*

*Wow. Ok. Who usually goes with you?*

*My dad.*

*How do you usually get there?*

*By car*

## **Participating in cultural and religious activities**

The discussion of participation in sport reinforces the point that children and young people's everyday mobilities are closely related to their broader social participation. This type of social participation, where it strengthens connections to positive social networks, has benefits for children and young people's individual wellbeing and future life opportunities. Access to opportunities for social participation in cultural activities, including the visual and performing arts, have an equally positive role in strengthening social networks for young people as does participation in sport.

Both sporting and cultural activities contribute to the rich diversity that is a distinctive facet of contemporary Australian urbanism. In this section children's and young people's participation in cultural activities that are specific to ethnic and/or religion-based communities are explored in more detail.

As described in Chapter 3, Blacktown is an area that continues to attract large numbers of immigrants from a diversity of ethnic and religious origins. Blacktown's culturally and linguistically diverse community is visible in the wide array of shops, restaurants and cafes, and cultural centres that cater for ethnic and/or religious groups. All of these facilities help to support families and individuals from specific ethnic or religious backgrounds to connect with their communities and have opportunities for cultural expression and practice.

Ethno-specific activities and sport are not mutually exclusive. Some ethnic communities make use of sports and community facilities for regular games of football, cricket and the like that are organised through semi-formal arrangements of the social networks of friends or relatives within the same ethnic or religious group. For these types of semi-formal group activities, the residential location of the majority of members of an ethnic or religious social network, the so-called territorial 'clustering of minority groups' (Knox and Pinch 2006, p175) that make up 'the residential mosaic of the city' (Ley 1983, p62) tends to influence the location of the activity.

As a result, accessibility to the activities of different ethnic communities is related to the cluster location, more so than the proximity to a certain cultural venue or facility or the distribution of different types of social infrastructure (sporting and cultural facilities). For example, Daska [223], a young man from Blacktown North Central, despite living within walking distance of Blacktown's large centrally located sports fields, travels by car to a suburb in Blacktown South West to play soccer in an informal game within his family's social network. As described in his interview below, this weekly recreational travel for this young man also serves several social purposes. This is not simply a weekly trip to play sport but a gendered and cultural activity which he undertakes with his father and brother, and with his Indian community:

*On Sundays usually we go and play soccer with other Indian friends. We go there by car.*

*Do you go with the whole family?*

*Mum stays at home because like, there's no ladies there. It's just the men. There's only one or two girls there that play. So we just go there with my brother, my dad and me.*

Daska, young male participant, 10 years,  
Blacktown Central [223]

Among other culturally-specific activities accessed by children and young people are the many community language schools that share facilities with local primary or high schools or other community centres, or have their own premises that may have been converted from residential or commercial properties. These community language schools are funded by the state government to assist ethnic communities wishing to support their children to maintain language and cultural expression and identity among their children.

Like other extra-curricular activities, community language schools are usually organised by volunteers and operate on weekends. Children's attendance at community language schools is often encouraged by their parents rather than a choice they make for themselves. For example, Charikar [233], aged 11 years, from Blacktown Central who explains how she attends Afghan school on Saturdays:

*Can you tell me about some of these places that you've drawn for me?*

*Well I go to Afghan school, um every Saturday from 9.45 to 1 o'clock. And, I don't like going there. I don't like it.*

*No? Ok. How do you get there?*

*Well, I walk. It's near my house. I go out of my house and around to the park there and next to the park is Afghan school.*

*Do you go with [your friend]?*

*Well she used to go but she doesn't anymore but I have another friend who goes.*

*So at least you have some friends there?*

*Yeah*

Charikar, Young female participant, 11 years,  
Blacktown Central [233]

The community language schools mostly provide lessons for children of primary school age, whereas young people from ethnic or religious backgrounds are more likely to participate in cultural activities that are organised specifically for youth

groups or participate in cultural activities for adults. Such cultural activities include music, dance, and/or spiritual worship. Indeed, one of the more unexpected findings from this study was that there were a number of young people who reported that the most important place for them was a place of worship.

### *Participating in religion-based activities*

In Australia, religion is a neglected topic in the large scale surveys and reports about how young people are faring (eg. Stanley, Richardson et al. 2005). For example, in the Australian Government report entitled *Young Australians: their health and wellbeing* prepared by the Australian Institute of Health and Welfare (AIHW 2007; AIHW 2011), there is no data on involvement in spiritual or religious groups for people younger than 18 years of age, even though such participation in social and community groups is noted as having a positive influence on health and wellbeing and associated with life trajectories in terms of educational and employment outcomes (AIHW 2011, p97). Similarly the ABS survey of *Children's participation in cultural and leisure activities* does not make any reference to religious-based activities in either the category of 'organised cultural activities' or 'selected other activities' (ABS 2006; ABS 2012).

In a first of its kind, a three year study (2003-2006) of the spirituality of young Australians of a representative sample of 1,619 young people aged 13-29 years involved 91 extended interviews to discuss their religious identification and church attendance (Mason, Singleton et al. 2007). The researchers classified spirituality into four different types: 'traditional Christian'; 'Other traditional world religion'; 'alternative, non-traditional religions or spiritual paths'; and 'humanist, affirming human experience and reason' (Mason, Singleton et al. 2007, p 150). The results of the study revealed that 43 per cent of these young people identified with 'traditional Christian' religions'; 17 per cent identified with alternative types; 31 per cent humanist, and non-Christian traditions were 6 per cent (p150). In other words, around two thirds of young people reported having some religious affiliation. The study

found that ‘denominational identification’ of young Australians broadly reflected that of the whole population<sup>18</sup>.

There were, however, two important differences: a significantly smaller proportion of the young people identified with the large denominations, (Catholic and Anglican), and a higher proportion of young people surveyed claimed affiliation with other Christian denominations or with no religious identification compared to the Australian population (Mason, Singleton et al. 2007). Levels of affiliation with the ‘other traditional world religions’ were found to be the same for young people as in the general population.

Likewise, in terms of church attendance, the survey showed less frequent attendance at the ‘traditional Christian’ religions compared to the ‘other Christian religions’. Moreover, the survey found that affiliation with, and attendance at, churches of other Christian religions increased in numbers, and as a proportion of the youth population between 2001 and 2005 (Mason, Singleton et al. 2007). Overall, these survey findings suggest that participation in religious or spiritual activities constitute part of the everyday mobilities of a sufficient proportion of children and young people to warrant further consideration in research related to transport and accessibility.

The following four examples from the Blacktown study illustrate the variety of roles that religion fills in young people’s lives, as well as the transportation arrangements related to their participation in religious-based activities.

Manila [73], aged 14, had been living in a rented house in Rooty Hill with her mother, father and younger brother for a year. Like many of her fellow school mates in Blacktown South West High she was born in the Philippines and speaks Tagalog at home ‘sometimes’. Her parents moved from neighbouring Mt Druitt so she could be closer to her school. For Manila [73], church is the place that is most special to her. She belongs to a Filipino Catholic denomination, and attends a community-built Church situated along the Great Western Highway. The Church is located approximately six minutes’ drive from Rooty Hill town centre, or 32 minutes by

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<sup>18</sup> based on the ABS 2001 Census of population and housing.

walking. The local bus service would take close to the same amount of time as walking, as shown in Figure 62.

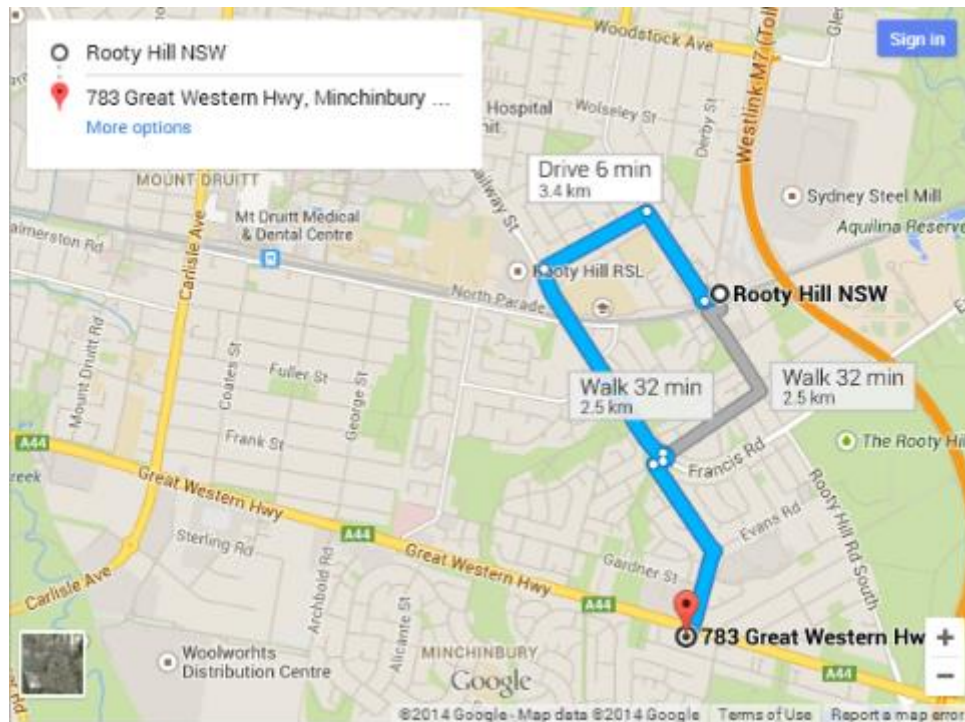


Figure 62 Walking and driving routes to Filipino Catholic Church, Minchinbury

Church for Manila [73] fulfils multiple needs. It is a place for social interaction, a place to meet and be with friends, but at the same time it provides an opportunity for participation in a cultural activity (singing in the choir), as well as for maintaining connection with cultural heritage. In her activity diary Manila [73] recorded taking two trips to church on Saturday, the morning for the ‘congregational’ service and the afternoon for ‘choir practise’ (sic), which she commented ‘was fun’. On Sunday she ‘mostly stayed at church for more than six hours’ for choir practice and a church meeting.



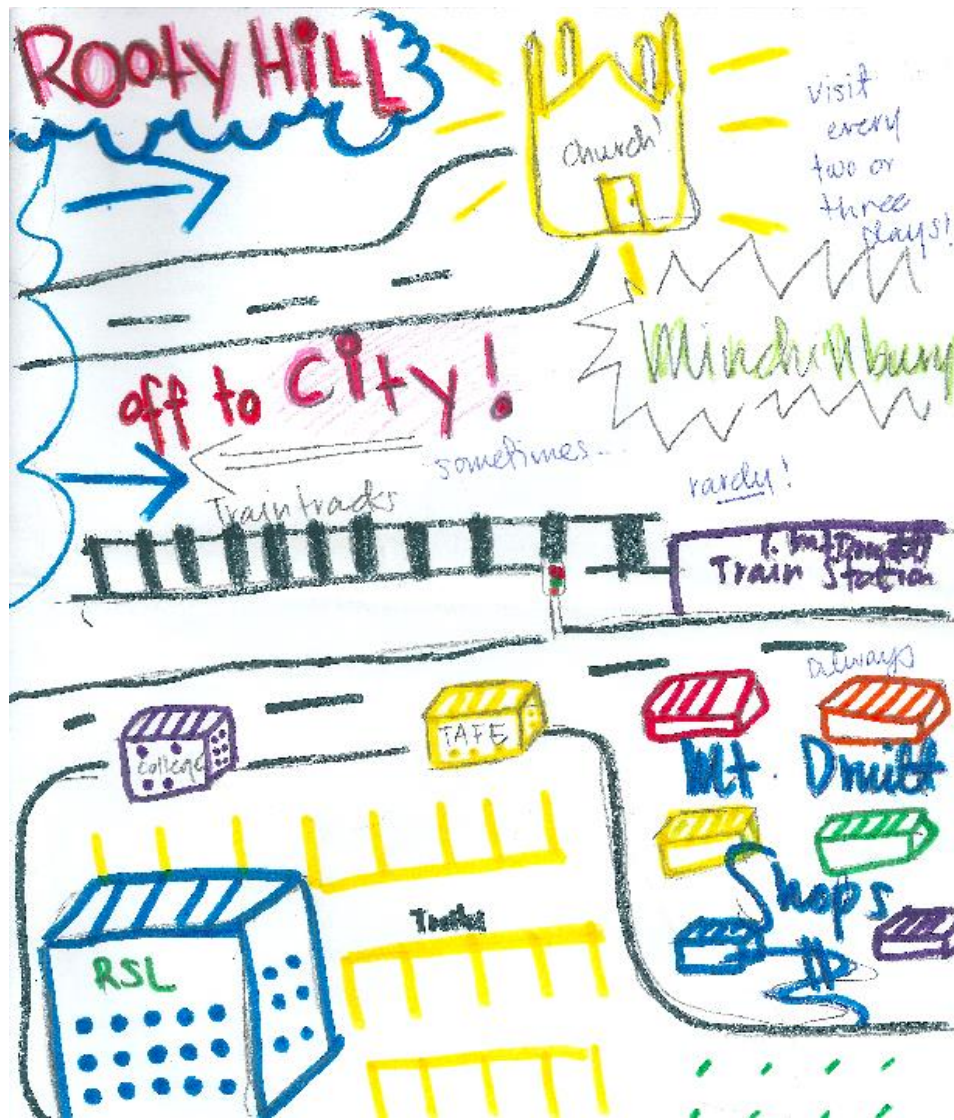


Figure 63 Participant [73] drawing – ‘Church I visit every two or three days’  
Blacktown South West Rail

Manila’s [73] involvement in the church choir is very important to her as indicated in the prominent position it has in her drawing (Figure 63). Clearly this type of activity, singing in a church choir, is an ‘organised cultural activity’ that could be classified both as performance and spiritual worship. Religion-based activities therefore fulfil multiple needs for young people, providing an opportunity for social interaction, cultural expression and religious observance. Although Manila [73] attends a church of a ‘traditional Christian’, many evangelical Christian churches,

most notably the Hillsong Church, offer the same combination of opportunities for social interaction and cultural and spiritual practice to appeal to young people.

Sarah [6], a 14 year old young woman who lived with her mother and stepfather, sister and brother in a suburb in Blacktown Central, recorded in her weekend activity diary spending as much time ‘at Church’ as Manila. From midday to late afternoon on Sunday Sarah [6] attended the Hillsong church before returning for ‘an evening service’ at another unspecified ‘temple’.

Hillsong services regularly attract several thousand participants and are broadcast in over 160 countries. Sales of the Hillsong music regularly top the Australian music charts. One could suggest that, in addition to the multiple social needs satisfied for Sarah [6] by her church attendance, Hillsong offers entertainment.

DAY	TIME of DAY	PLACE or ACTIVITY Description	DURATION How long you're you there? (Hours)	WHERE were you?	What MOD E did you use?	Who were you with?	TRAVEL TIME Minutes
Sun	11:00:00 AM	Church	5		Walk	Mum & Sister	25
Sun	5:00:00 PM	Went home	1.5		Car	Dad's family	5
Sun	7:00:00 PM	Went to temple	1		Car	Dad's family	30
Sun	8:00:00 PM	Went home		Carlingford	Car	Family	30

Figure 64 Participant [6]-Weekend activity diary, Blacktown Central

The Hillsong Church is located in the midst of a mixed use residential and commercial precinct: the Norwest Business Park. Norwest was planned and developed as a new business park in the 1990s. Travel to Hillsong church is a ten minute drive from Blacktown Central station, but would take an hour and 40 minutes to walk (Figure 65). Sarah [6] and her mother and sister living somewhat closer, made the trip on foot, but had the convenience of car travel for the return journey.

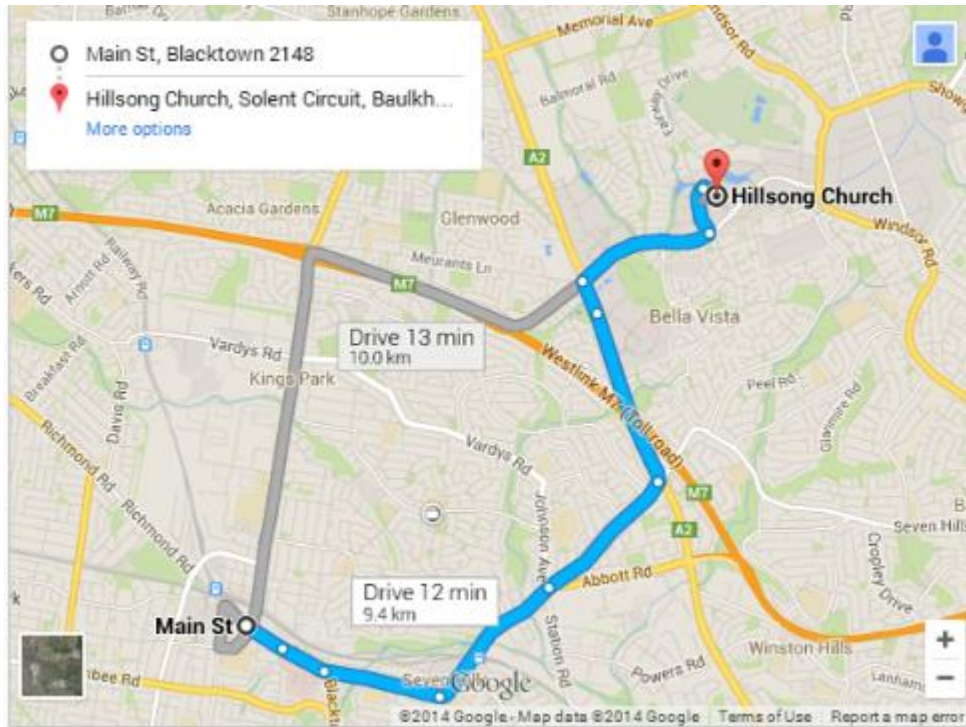


Figure 65 Hillsong Church, Norwest Business Park

Unlike Manila’s church, the location of the Hillsong Church in Norwest has the benefit of the transit bus services T70 that run from Blacktown Station and take between 30 to 40 minutes journey time. These transit buses run relatively frequently by Western Sydney standards, every 30 minutes between 6:30am and 11:00pm, six days a week. On Sundays, however, when the majority of Hillsong members attend the Church, the transit buses run hourly.

Children and young people’s needs for making and maintaining social networks and cultural community connections that can be fulfilled by participating in religious activities is not confined to Christian denominations. Srinigah [133], for example, is a Muslim from India who attends a ‘prayer hall’ adjacent to a local mosque, four or five times a week. When asked which of the places she travels to was most special to her, she said:

*To me it would be the [prayer hall] ...’cause like, [it] is like a social gathering place, although it’s technically for prayers, it’s like a social gathering place.’*

Srinigah, young female participant, 14 years,  
Blacktown Central [133]

In contrast to the social side of religious activities, religion for Karnal [26] is more a fundamental part of his identity. Karnal [26] is recently arrived from India and the Sikh temple was the most important place for him to get to which he illustrated as the only place in his drawing (Figure 66). He explained:

*On Saturday I go to the Sikh temple, every Saturday. It's near Parklea Markets... I go with my family. I don't have any friends here, but I'm going to go Glenwood High School [soon], I'll have friends there because there are a lot of Sikh people there.*

Karnal, young male participant, 14years,  
Blacktown Central [26]

In Karnal's [26] case, as for many newly arrived migrants and refugees, having a designated communal space to be with others who share culture and beliefs is an important part of the settlement process. It provides an essential sense of belonging, and a place for developing friendships, as he revealed in response to the question about which place is most special for him:

*My temple*

*You go with your family?*

*Yes. I'll don't have my friends here but I'm going to Glenwood High School and I have friends there. There are a lot of Sikkh people there and I have friends there.*

Karnal, young male participant, 14years,  
Blacktown Central [26]

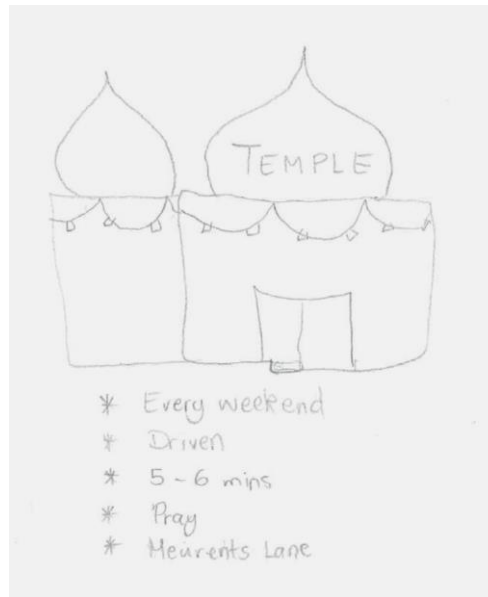


Figure 66 Participant [237] drawing – Sikh Temple Blacktown North East

These sentiments of belonging that are related to religious activities, are echoed by Emily [5] from Kings Park, when talking about the Christian church she attends. For her, church is the most important place that she goes to because, as she explains:

*... 'that's where I've got friends there and I play games and music and stuff there and I trust people there.*

*And how often do you go there again?*

*Every week, on Friday nights.*

*And your parents take you?*

*Yeah and they take some of my friends.*

*So you go as a group?*

*Yeah*

Emily, young female participant, 15 years,  
Blacktown Central [5]

These examples demonstrate how important being able to participate in religion-based activities are for some young people for providing opportunities for social interaction and a sense of belonging. These examples also show how spatially-bound their mobilities are in relation to religion-based activities and venues.

### **Accessing cultural and ethno-religious-based activities**

This cultural and religious diversity has made an imprint not just on the social landscape but on physical landscape of Blacktown and beyond. The locations of places of worship simultaneously reflect and reconfigure the patterns of religious and cultural diversity at the local level. As Winchester, Kong and Dunn (2003) assert, physical landscapes ‘can concretise or materialise culture’, or ‘facilitate cultural expression, maintenance and change’ (Winchester, Kong et al. 2003, p5).

Historically, places of worship in the Australian urban landscape reflected a contest between the established primacy of Anglicanism of the British colonial government and the Catholicism of many of the convicts and settlers, especially the Irish. An example can be found in Parramatta, where St John’s Anglican Cathedral is located opposite to Town Hall. St John’s Cathedral is on the site of the first Anglican church in Australia which opened in 1803. The same year, the first Catholic mass was celebrated not far further from the Parramatta town centre, on the site where St Patrick’s Catholic cathedral opened 1836. This ‘two church’ pattern is repeated in many rural and regional towns across New South Wales.

The post-war immigration, which instigated Australia’s rich ethnic and religious diversity, however, was disproportionately concentrated in the cities, overwhelmingly to Sydney and Melbourne, relative to regional and rural areas (Burnley, Murphy et al. 1997). The urbanised patterns of settlement in Australia in the second half of the twentieth century reflect a human need for social contact. As Burnley et al. (1997) explain in their book *Immigration and Australian cities*, ‘immigrants settled in Sydney then as now because the jobs were there and because their communal networks and families were there.’

Locating places of worship in contemporary urban environments has become more complex. In many cases the construction of religious buildings are a product of focused endeavour of communities to establish ‘their place’ amongst their communities. But the sites of the various temples, mosques, churches do not simply reflect the geographical clustering of the religious affiliation within an urban area. Rather locations of places of worship reflect the trade-offs and compromises made

between competing financial considerations and institutional regulations that must be addressed in the planning process, such as land values, planning zones and provisions. In some cases, particularly for minority community groups the process of development approval for a place of worship involves overcoming public opposition.

Blacktown City Council is not averse to the rich variety of built forms that materialise the cultural and religious diversity of its population. Yet costs involved relative to the resources of communities will largely determine what gets built where. Manila's [73] church is located on the Great Western Highway, set back on a largely isolated space, whereas, the Sikh Temple is nestled within a residential estate, a Catholic primary school is located on the same street. In contrast the Western Sydney mosque is perched amid the retail zone of Mt Druitt, opposite McDonalds on one side, and a Seventh Day Adventist church on the other. The 3,500 seat conference centre complex of Hillsong Church is centred within the Norwest Business Park, surrounded by its large and landscaped car park.

As has been illustrated in the four preceding examples, the location of a greater diversity of places of communal worship in contemporary Australian cities, in contrast to the traditional default position of churches in town centres, has implications for children and young people's mobilities. Accessibility to these 'sacred places' is important for children and young people and provides opportunities to fulfil a range of social and cultural needs through participation in religious activities. However, the level of accessibility to places of worship, as shown in the examples above, varies greatly depending on the location of the churches, temples and mosques, the mode of travel available and the fact that many of these journeys will be made on weekends.

### **Engaging in the cultural life of the city**

So far this chapter has demonstrated how participation in sporting and cultural activities comprise an underestimated (on the part of transport planners and geographers) part of the everyday mobilities of children and young people, and how the distribution of these activities is highly varied across the city of Blacktown, the

western Sydney urban region and throughout the metropolitan area of Sydney. The participation of children and young people in the myriad of social, cultural and recreational activities not only supports their individual health and wellbeing, through interaction with positive social networks and the formation of their identities, their participation enriches the cultural diversity and vitality of the city.

### *Travel to 'Sydney City'*

Sporting and cultural activities are not exclusive to urban living, they are part of everyday life in rural towns and remote areas as well. What is exclusive to urban living, are the cultural assets that epitomise and distinguish cities as places of 'spectacle', awe and wonder. Every city has its own special spaces, both built and natural. Access to a city's cultural assets constitutes another sub-set of social and recreational travel as well as an under-researched aspect of children's and young people's mobilities. In the case of greater metropolitan area of Sydney, its cultural assets include the Sydney central business district (CBD), the harbour foreshores surrounding the Sydney Opera House and Harbour Bridge, as well as the city's surf beaches that extend from Cronulla in the south to Palm Beach in the north.

Exploring children's and young people's accessibility to the Sydney CBD and to its surf beaches, provides useful examples of the role transport plays in differentiating opportunities to engage in the cultural life of the city. While internationally, Sydney maybe renowned for its Harbour Bridge and foreshores, Opera House and beaches, these places are generally not part of the everyday mobilities of children and young people in Blacktown. Instead, the centre of Sydney, with its iconic built and natural landscapes, is as much an occasional tourist destination for them as it might be for international and interstate visitors.

For older generations of Sydney-siders, the phrase 'going into Town' was commonly understood as referring to the trip into Sydney's CBD, an area loosely bounded by the Harbour Bridge and Circular Quay in the north, the verges of Domain and Hyde Park to the east, Darling Harbour to the west and Central Railway station and Broadway to the south. For more recent arrivals and younger generations, Sydney CBD is now more usually referred to as 'the City' or more simply 'Sydney'. For this



study, the phrase ‘Sydney City’ refers to the small area of the Sydney CBD as distinguished from the greater metropolitan area of Sydney, within which Blacktown is one of 43 LGAs.

Discussions about travel to ‘Sydney City’ emerged in the interviews in response to the question about travel range: *What is the furthest place you have ever been?* This question elicited some stark differences between children and young people in terms of the spatial range of their mobilities. Some children and young people were frequent interstate and international travellers, while others had never been beyond the boundaries of the Blacktown local government area. To separate out the travel to Sydney city from other longer range travel, a more direct question about travel to Sydney city was subsequently included, that is: *Have you ever been to the Sydney city?*

For the majority (62 per cent) of the young participants who were asked about travel to the Sydney city (50 participants in total) the trip was a rare occurrence, as shown in Figure 67. For those who rarely travelled to Sydney city it was a place to go on special occasions or participate in special events, like the New Year’s Eve fireworks, or to show visiting relatives the more familiar tourist sites.

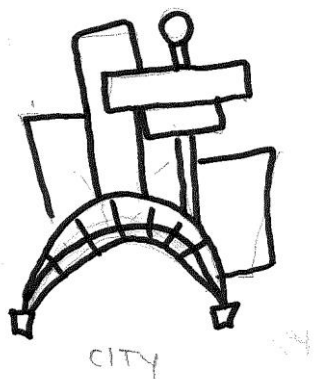


Figure 67 Participant [12] drawing – ‘City’ Blacktown North East

A substantially smaller group of children and young people in the Blacktown study (16 per cent) travelled to the city quite regularly, every few weeks or months. For this group Sydney city is a place to shop or be entertained in much the same way they might view travel to Parramatta.

For example, young Falealupo [215] who lived in Lalor Park, says that he has been to the city frequently:

*I go a lot of times to do shopping and stuff [like that].*

*And how do you usually get there?*

*We go by car and then we catch the train*

Falealupo, Young male participant, 11 years,  
Blacktown Central [215]

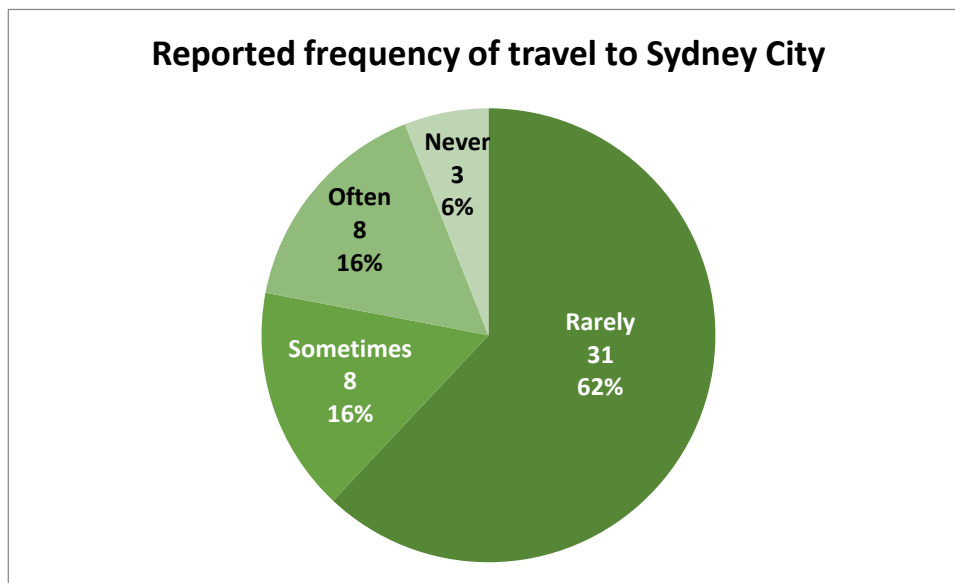


Figure 68 Blacktown study - Reported frequency of travel to the 'Sydney city'

For the majority of children and young people in Blacktown the Sydney CBD is not part of their everyday travels, but rather is a place of excursion. They go there rarely, perhaps once a year, or once in a few years. For some children and young people in western Sydney, they may reach adulthood before they have witnessed the sites of post-card Sydney: the Opera House, the Harbour Bridge. For a small number of young people, the only time they have travelled to Sydney City has been on a school excursion.

Among those children and young people who reported going to the Sydney City 'rarely', the main stated purposes for travelling there were that they did so mainly as tourists in their own city. For these children and young people, Sydney City is not so much their home, but a place that they see through 'the tourist gaze' (Urry 1990). It is a place to show overseas or interstate visitors, to have a special family day out, to participate in a special event or for special purpose shopping, as the following interview segments reveal:

*When was the last time you went to Sydney City?*

*Last year.*

*Why?*

*My cousin came out from Fiji.*

*So were you showing them the City?*

*Yeah.*

Nashik, young male participant, 14 years,  
Blacktown South East [111]

*Mum goes sometimes shopping in the city.*

*I only go there if there's relatives or something like that come from overseas.*

Dehli, young male participant, 14 years,  
Blacktown North East [139]

In both of these examples, the participants were young men from Indian families. After establishing themselves in Australia, many migrant families like those of Nashik and Dehli, then become hosts for visiting relatives. For these young people, travel to Sydney city is a rare occasion, rather than a part of their everyday mobilities.

#### *Accessing Sydney city*

Travel to Sydney city from Blacktown is more commonly accessed by train than other modes. Train travel to the city from Blacktown station is relatively frequent (with services roughly every 10 to 20 minutes); direct (taking approximately 40 to 50 minutes travel time to the City); and reasonably priced (at \$13.20 for an adult ticket and \$6.60 for a child for the return trip during peak hours). Distance, traffic congestion on the major roads and cost of parking in Sydney city, tip the balance in favour of train travel over car travel for many people. The use of trains as the more

common mode travel to Sydney city was also evident among the children and young people, as shown in Figure 69.

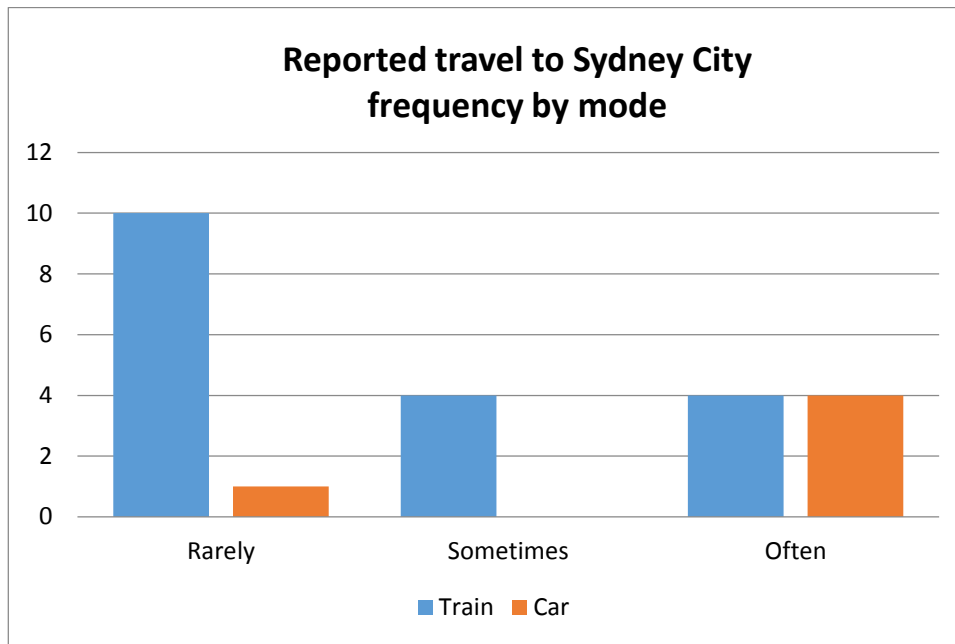


Figure 69 Frequency of reported travel to Sydney city by mode

Travel to the city is not as simple as a single train trip. As described by Maddison [103] on her drawing in Figure 70, the journey to Sydney city can be lengthy and involves several changes of transport mode, including much walking. The trip to Sydney city for Maddison [103] usually takes one and a half hours. Nevertheless, she writes that she travel to Sydney, quite regularly, once or twice month.

City  
walk to the bus stop  
wait for the bus  
Get on the bus and  
get off at the station  
(blacktown)  
Then catch a train  
to central then  
change to Sydney.  
Approx time: 1-1½ hours.  
(one/twice a month)

Figure 70 Participant [103] drawing - Travel to City, Blacktown South East

Three participants in this study had never been to the Sydney city at all. Two were primary school aged children from Blacktown Central, the other a high school student in Blacktown North East. For these two children, Dylan [228] and Kayla [216], the limits of their mobilities were confined to Blacktown LGA, as revealed from their responses below:

*Have you ever been to the Sydney city?*

No

*So what would be the most far-away place you've been?*

Emerton.

Dylan, young male participant, 10 years,  
Blacktown Central Public School [228]

Emerton is a suburb in Blacktown Outer West, approximately 10 kilometres from Blacktown Central.

*Have you ever been to Sydney City?*

Nnno. Mum was going to take me there, but we didn't go.

Kayla, young female participant, 10 years  
Blacktown Central [216]

For these two children from Blacktown Central, despite living walking distance to the main Blacktown railway station, Sydney city was an exotic, far away destination which they had yet to experience.

The physical accessibility to transport to Sydney city for these children was less likely to be a barrier than the socio-economic circumstances of their households. Limited travel range was more evident among the mobilities of children at Blacktown Central Public School, and in Blacktown Outer West, where a higher proportion of households were low income. This suggests that the affordability of transport may play a part in shaping the spatial range of children's and young people's mobilities. While not having travelled to Sydney city may not be detrimental to children's and young people's wellbeing, it suggests that having limitations on the spatial range of children's and young people's mobilities may restrict their knowledge of the range opportunities available to them in the future.

Alternatively, not travelling to Sydney city, may simply reflect personal preference, or for the fact that the young people or their families have no need to travel there. For instance, the reason expressed by two young people from Blacktown North East for not going to Sydney city was a matter of their own choice, as suggested in the following excerpts:

*Have you been to the city?*

*No I don't like the city.*

*No? why?*

*It's too crowded.*

Srinigah, young Female participant, 15 years,  
Blacktown North East [133]

*Are you allowed to go to city by yourself?*

*Yeah but I don't.*

*Don't like it, or ...?*

*Not really, I don't like to [go there]. The only time I go there is to go to Luna Park or that.*

Jordan, young male participant, 15 years,  
Blacktown North East [255]

The responses of these two young people reveal that they have already experienced travelling to Sydney city and are able to decide whether or not they choose to go there. In some cases, Sydney city is the only location for specialised services, and so

access to Sydney city is an important destination, even if it is not necessarily part of everyday mobilities. For children in the Blacktown study, however, travel to Sydney city was mainly determined by their parents' need or desire to go there as suggested by this response by Dangjin [217] another girl from Blacktown Central:

*Have you been to Sydney City?*

*Once*

*How did you get there?*

*By train*

*Who did you go with?*

*My mum and my sister*

*Why did you go there?*

*For my mum to learn English.*

Dangjin, young female participant, 11 years,  
Blacktown Central [217]

Da-Hyun was 11 years old and was born in Korea. She lived in Blacktown Central and has lived there for about 8 years. As she explained, her dad came to Australia 'because he had to work' and her mum came with him. She lived in a two bedroom unit in a household of 5 people, including her mother and father and two older siblings, a brother 14 and a sister 13. She hoped to be a maths teacher. Although she has rarely travelled to Sydney city, she reported that she liked to go to another of Sydney's cultural assets: the beach.

*Going to 'the Beach'*

In the Sydney context, among the most identifiable cultural assets are its beaches. The economic value of the beaches has been estimated for local councils to be as much as \$50 million per annum (Anning et al 2011). But for many children across Sydney, including in Western Sydney, 'the beach' holds special significance as a place for family recreation and holidays, and for young people it is a special destination for leisure and socialising with peers.

Beach culture has featured prominently in Australian literature and media for decades (Bonner et al 2001; Ford 2007). Popular Australian television melodramas

such as *Home and Away* and the children's television *Blue Water High* would have people believe that everyone in Australia lives 'near the beach'. The reality is that, even though 80 per cent of the Australian population lives within 50 kilometres of the coast, for a large number of children and young people in Australian cities the beach is as distant a destination as 'the bush'.

Nevertheless, 'the beach' was mentioned by a substantial number of children and young people in the Blacktown study. The beach featured in a number of the drawings, especially by children in Blacktown Central, for example the drawing shown in Figure 71. Some participants reported making a trip to one of Sydney's beaches as part of their everyday mobilities, despite the fact that a journey to the beach from Blacktown is a lengthy trip, even by car. For Dangjin [217] at Blacktown Central, the beach was her most special place but, as revealed in her interview, the beach is also the most difficult place to reach without a car:

*'I like go to the beach with my family*

*How do you usually get there?*

*By car*

*Do you know which beach you go to?*

*We go to different beaches.*

*Do you know which beach you like best?*

*Manly.*

*So which place is most special to you?*

*'The beach.*

*You really like the beach?*

*Yeah.*

*Which place is most difficult to get to without the car?*

*Um, the beach.*

Dangjin, young female participant, 11 years,  
Blacktown Central [217]

Like Dangjin, other children and young people who reported travelling to the beach mainly accessed the beach by car, regardless of the beach they went visited.





Figure 71 Participant drawing [218] Place: Beach, Transportation: Car

This is because travel to the beach by public transport from Blacktown, and other places in Western Sydney, is a very lengthy journey. The journey is described in the response to an online question and answer website ‘Yahoo 7 Answers’ (Yahoo! 7, 2010), to a question posed by a person living in Kellyville in Blacktown’s North East, shown in Figure 72.

## Yahoo! 7 Answers

### What's the closest beach to Castle hill, or Kellyville NSW?

#### Resolved Question

I live in Kellyville and was gonna hit the beach for a bit to clear my head in the morning but whats the closest one and is there a bus?

#### Best Answer

Chosen by Voters

Question/Answer "Closest Beach to Kellyville"

Living where you live (about 40 kms from the coast) you are in for quite a long journey to the beach, I reccomend that you go to Cronulla Beach, It's the easiest to get to because you can get a City Rail train there.

You'll need to get a bus to Parramatta Station from where you can get a train to Town Hall Station

and then onto an Illawarra Line train which takes you straight to Cronulla

OR you could come Manly (where I live) Beach

You'd need get a train from Parramatta to Town Hall, change on to the City Circle Line, travel to Circular Quay and then take the Manly Ferry, it takes 1/2 an hour to sail from the Quay to Manly

Google "131500" which is the Sydney Transport page and you'll find a lot more information and MAPS there. Much more than what I can tell

You will probably also find information about whichever Private Bus company runs between Castle Hill, Kellyville and Parramatta.

**Source(s):** Living in Sydney for six years

Source: Yahoo! 7 Answer, 2010

Figure 72 Travelling by public transport to the beach from Kellyville

The travel time and number of interchanges make the beach a place which some young people would rarely go or would not be able to go as often as they would like. This was especially for the children in lower income households. For example, Lily [212] aged 10 in Blacktown Central, when asked about places she'd like to go but couldn't, responded:

*The Beach*

*Why can't you go there?*

*We don't really live near beaches.*

*Do you ever go?*

*Rarely.*

Lily, young female participant, 10 years,  
Blacktown Central, [212]

Like Lily, Kayla [216], who reported that she had never been to Sydney city, had been to the beach only once:

*I went to the beach once with my sister. And I got really sunburnt.*

*Yes, that's the trouble with the beach ... And when was the last time you went to the beach?*

*When I was seven. ... It's quite a few years ago. It was when my sister decided to go to the beach.*

Kayla, young female participant, 10 years,  
Blacktown Central [216]

As shown in Kayla's experience, the mobilities of the family were the main influence over children's accessibility and therefore their ability to participate more widely in opportunities across the city space. In a similar comment, Falealupo [215] points out that, for children at least, the opportunity to travel to the beach, as with his travel to participate in sport, is constrained to car travel and the availability of an adult driver.

*And are there places you'd like to go but can't?*

*I wanted to go to the beach but I couldn't.*

*Why not?*

*My mum couldn't take us.*

Falealupo [215] Young male participant 10 years,  
Blacktown Central [215]

Falealupo's comments highlight that, although other aspects of his mobilities are may be independent, when it comes to going beyond his local neighbourhood he relies on his parents for accessibility. This raises the question about what other constraints there are for children and young people living in different circumstances and in different localities.

### **Constrained accessibility**

What was apparent from the interviews with children and young people about their participation in sporting and cultural activities was that their *travel* to these many and varied activities was frequently beyond the neighbourhood to widely dispersed locations across the *metropolitan* area, and, secondly, that the predominant mode

was by car. Apart from the highly localised activities, those that could be reached by walking, such as to a nearby park for informal outdoor recreation or to the house of a friend, the vast majority of trips by children and young people in Blacktown for the purposes of social participation involved, indeed *necessitated*, car travel as suggested in the drawing in Figure 73, by Natalie [13] aged 14 years, from Blacktown Central.

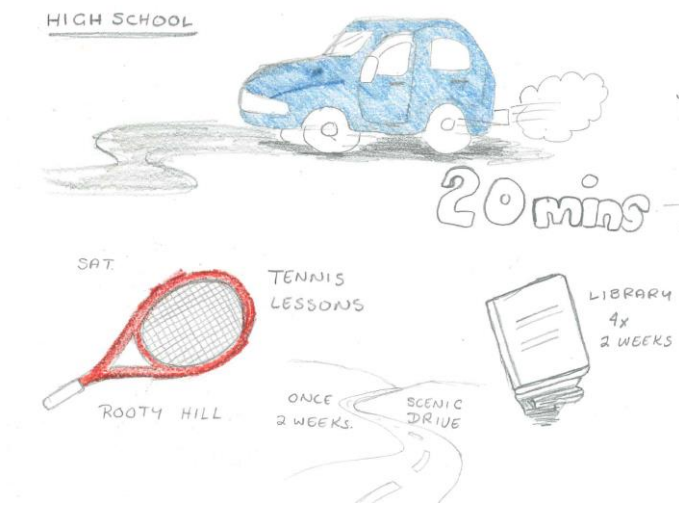


Figure 73 Participant [13] drawing - 20 mins by car, Blacktown Central

### *Transport-related constraints*

Among the interviews, 47 interviews included questions about constraints to accessibility, both in general and with specific reference to car travel. Twenty-four participants responded to the specific question: *Which places would be most difficult to get to without a car?*

Around half of those (11 children) who responded to this question were in the younger age cohort but there were more girls and young women than boys and young men (16 female compared to 12 male participants) in this sub-group. A slightly higher proportion of this sub-group (10 of 24) than among the total number of children and young people interviewed were born overseas, and 12 spoke a language other than English at home.

When asked about the places which would be most difficult to get to without a car, several responses included the places which had been rated by the children and young people themselves as being most important, or special, to them personally, as shown in Figure 74. These places included the full range of places already noted in the drawings and interviews, including school.

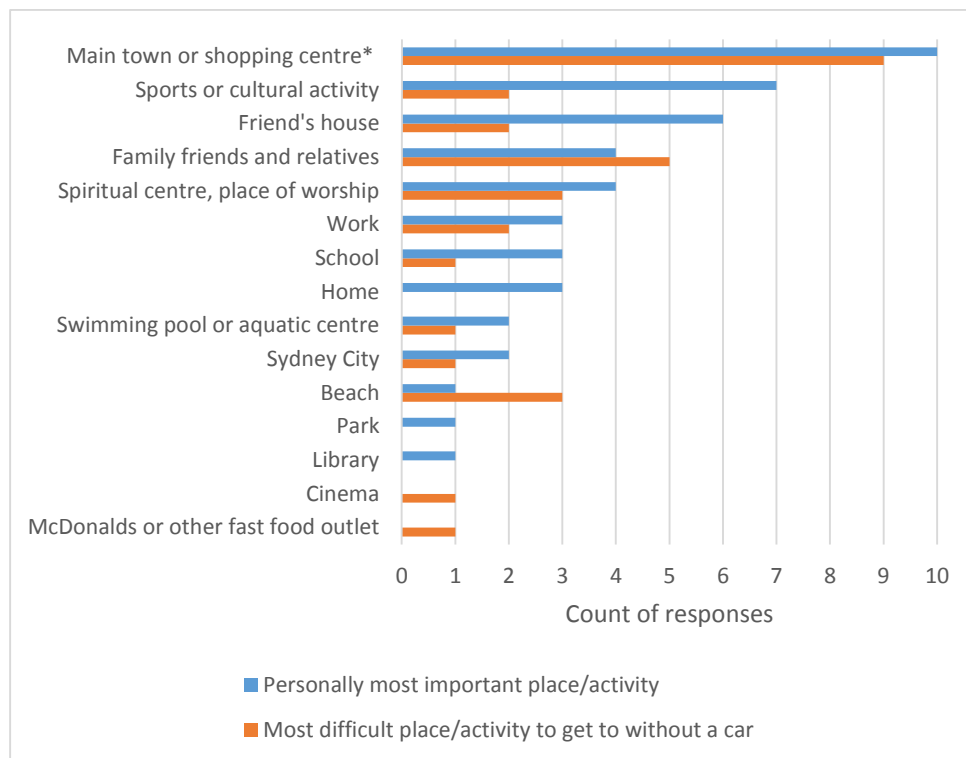


Figure 74 Places of significance for children and young people that were considered difficult to get to without a car

The places most often mentioned as both places of special importance to the children and young people themselves *and* difficult to get to without a car included (somewhat surprisingly) the main town centres of Blacktown and Mt Druitt as well as the homes of extended family, friends, locations for sporting and cultural activities and places of worship and paid work. School was mentioned as difficult to get to without a car by only one participant, underscoring the point that children and young people’s school travel is less relevant to discussions about accessibility compared to travel elsewhere.

Travel to extended family, as already noted, was frequently mentioned as a place of importance for the young people. The locations of relatives is highly variable, however, and even for those children and young people whose relatives live in the same region, Blacktown or Western Sydney, travel by modes other than the family car was considered difficult. For example, Luke [224] from Blacktown Central Dean was 11 years old and lived in a public housing property. He had moved from Doonside three years earlier because, as he explained, 'it was getting too bad of an area. [And his] Mum didn't like it.' Luke [224] described how he visits his uncle and aunt every second weekend, but the actual location relative to where he lived was not very clear. He explained:

*I go to my Uncle and Aunty's every weekend.*

*Where do they live?*

*Up the road. I can't go every weekend now so I go every second weekend. 'Cause that's where I grew up.*

*And how do you get there?*

*They come pick me up or my mum drops me off.*

Luke [224] Young, male participant, 15 years,  
Blacktown Central

When asked about the places that would be the most difficult to get to without a car? Luke [224] answered simply:

*My uncle and Aunty's and my brother's place.*

Similarly, Joshua [28] a young man from Blacktown outer west, who travels to Blacktown Central High School, reported his grandmothers' homes as both the most special places for him and the most difficult places to get to without a car.

*Are there other places you go besides the movies?*

*Nan's, Gran's.*

*And whereabouts are they?*

*I can't remember. My Gran has two places one up here and one down in Cowra<sup>19</sup>. And my Gran lives in an apartment, where I can't remember.*

*How do you usually get there?*

*By car.*

*And which of the places you go is most special to you?*

*Nan's and Gran's*

*And what places would be most difficult to get to without a car.*

*Both of them. [Nan's and Gran's]*

Joshua, young male participant, 14 years,  
Blacktown Central [28]

The range of places mentioned by both Luke [224] and Joshua [28] as places they usually go are very limited which raises (at least) two issues. The first issue concerns the impact of accessibility to a range of opportunities on the individual, and relates to the social implications for children and young people's livelihoods of *not* being able to access a number or a range of opportunities for social participation and support. The other relates to spatial distribution of opportunities and whether there may be differences in the degree of accessibility to the same type of opportunity across different localities.

In other words, the discussion with children and young people in Blacktown pointed to another pathway of inquiry for mobilities research: to identify factors that influence the number and type of activities to which children and young people can access and how the distribution of opportunities varies across the city space. Consideration of the social impacts of not being able to contact social supports without the use of a private vehicle would another subject for further research.

## **Conclusion**

This chapter has explored the nature of children and young people's everyday mobilities in terms of their access to opportunities to participate in sporting, cultural and leisure activities and to engage in the civic life of the city. Using these examples, the chapter has highlighted, once again, that the spatial dimensions of children and young people's mobilities extend well beyond the local neighbourhood to the

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<sup>19</sup> Cowra is a rural town in the central west of New South Wales, approximately four hours' drive from of Sydney.

metropolitan scale. At the metropolitan scale the interrelationship between land use and transport has a greater structuring role in differentiating children and young people's mobilities than at the local scale.

From the point of view of the young participants, participation in sporting, cultural and leisure activities were important to them not just for the skill development or physical exercise that promotes their individual health and wellbeing. These opportunities for social participation are integral to the formation of their identities and connected them with new peer and adult social networks that support their future engagement both in the civic life of the city at the metropolitan scale and the wider society.

What was apparent from the discussion with the children and young people was that their participation in activities were part and parcel of the social networks and everyday mobilities of their households. Children and young people's participation in sporting and cultural activities are another point of connection between the household and the local and metropolitan scales. It is through their social participation in these activities, that children and young people's everyday mobilities are embedded in, and constitutive of contemporary urbanism.

Notably, their participation in sport or cultural activities was rarely assisted by any mode of transport other than their parent's car. This is not to say that children and young people who participate in sport and cultural activities are necessarily a privileged group, being 'bubble-wrapped' or 'chauffeured'. Nor that car travel is the only mode of transport that might enable their participation. There were examples of children and young people from across all localities who were participating in sporting and cultural activities. And there were examples of children and young people travelling to these types of activities either on foot or by public transport. But what the study did find was that the children and young people's participation in sporting and cultural activities is *predominantly reliant* on car travel and certainly *more difficult* without a car.

The aim of this chapter was to explore in more depth the spatial dimensions of children and young people's mobilities to illuminate how they are differentiated



across space. By thinking about accessibility as a spatial distribution of opportunities for social participation, this chapter has illustrated that individual accessibility is influenced by the interaction between the spatial arrangement of land use and transport and the enabling and constraining dynamics of households situated within and across the urban space relative to this structure. The range and type of activities that were easily accessed by children and young people from the different neighbourhoods by active travel or public transport modes varied considerably. The reality is that any given locality cannot accommodate all the facilities that would satisfy the diversity and range of social, cultural and recreational needs of individuals and households within its walkable distances. This means that accessibility should be considered not just at the local scale, of the neighbourhood or town centre, but across the greater metropolitan area. In this way, urban accessibility might be better considered in terms of metropolitan connectivity than simply access to public transport stops or major centres.

The research also highlights the temporalities of children's and young people's mobilities, and how they vary not just throughout the day and evening (morning, afternoon, evening) but on weekends and seasonally. This temporal variability is not adequately catered for by public transport timetabling that has fewer services on weekends, nor accommodates seasonal changes in sporting and recreation activities. Closer attention to these changing needs of children and young people may be better served by planning for flexible local and metropolitan services. These and other potential implications of this study are considered in the next chapter.

## Returning home

This thesis has challenged the conceptualising of children's and young people's mobilities as 'travel behaviour' that is adult (parent)-constrained and car-dependent by taking a view of urban mobilities as situated within households, communities and in the context of the city space at the metropolitan scale. The research with children and young people in Blacktown, Western Sydney has shown that the role that transport plays in children's and young people's lives is not just a matter of facilitating or inhibiting mobility *per se*, of using one mode or another, such as car travel over active travel, or of being independently mobile or not. Rather, transport in the broadest sense contributes to shaping and differentiating children's and young people's mobilities in the way that it enables access to resources and opportunities that fulfil their needs during a formative period of their lives. It is argued that it is the configuration of transport, *in relation to* the distribution of such resources and opportunities, for learning, connecting, participating and contributing to civil society across the city, that structures the degree of accessibility that children and young people (and their families) experience. From the perspective of situated mobilities, transport acts as an 'affordance,' not only of mobility, but of accessibility, which in turn has an impact on children's and young people's wellbeing and life trajectories. Exploring the role of transport in the everyday mobilities of children and young people in this way, therefore, points to the need for a more flexible, age-responsive approach to urban transport as part of a socially-inclusive urban sustainability agenda.

### **Exploring new pathways of inquiry**

By setting out to explore the role of transport in the everyday urban mobilities with a diverse group of children and young people living in different types of households and neighbourhoods in Blacktown, Western Sydney, this thesis has extended the

conventional pathways of inquiry related to children and young people's everyday travel in three important ways and uncovered a number of under-researched aspects of their mobilities in contemporary urban Australia. Firstly, the discussion of the everyday patterns of travel and the perspectives of children and young people in the three preceding chapters expanded on the localised view of children's travel as a collection of individual trips at the neighbourhood scale. It examined their everyday travel to a wide variety of destinations and activities, including, but not limited to, the journey to school. The study examined their mobilities across various temporalities: on weekdays, evening, weekends, seasonal and occasional. More importantly, it explored from their point of view, some of their reasons for using different transport modes for different trip purposes in specific social contexts and at varying spatial scales. It showed that children's and young people's mobilities are not so much mode-dependent, as purpose-driven. They travel to fulfil their needs for learning (and earning), consuming, connecting and social participation. Through their everyday mobilities, children and young people not only fulfil their personal needs or familial obligations, but participate in (and thereby, contribute to) the social life of the city.

Secondly, the research challenged the conceptualisation of children and young people (to age 15 years) as a homogenous population group of 'non-drivers' that can be fixed into dichotomous transport-user categories: adult-dependent or independent travellers. Such a categorical view of children's and young people's mobilities fails to recognise the interrelationships between personal, social and cultural factors, such as gender, household dynamics and cultural background, that have an influence on the nature of their everyday mobilities.

Where many urban and transport geographical studies have been focussed on a single age cohort (children under 12 years of age), this study explored mobilities across two life stages: of children (in the pre-teen years, 9 to 12) as well as young people (in early adolescence, 13 to 15). Treating the two cohorts separately provided an opportunity to explore the circumstances surrounding their travel that highlight the iterative processes through which children and young people negotiate their transition to independent mobility. It allowed for consideration of factors that might

influence mobilities at these different life stages both within the household and beyond the physical environment of their local neighbourhood to the wider spatial context of the city. Notably, it demonstrated that the transition to secondary school marks a step change in the transition to independent mobility, where all other factors, including travel distances, might remain much the same. The comments by the young people suggest that both their parents and they themselves perceive this life course transition, rather than a particular age (in years), as the point at which many young people begin to use public transport to travel independently beyond their local neighbourhood.

The comments on the use of public transport opened a third pathway of inquiry for children's and young people's mobilities: that of their accessibility to opportunities for social participation in sporting, leisure and cultural activities. These opportunities for social participation are important not only for children and young people individually, but form part of the social life of the city. The discussion of accessibility to sporting and cultural activities in Chapter 6 showed how children's and young people's mobilities are spatially situated and structured with the city space. The use of public transport, which, in the case of Blacktown, includes buses and trains, means that the spatial range of young people's mobilities are potentially expanded well beyond their local neighbourhood, providing access to a much wider range of opportunities and resources. Conversely, young people living in localities with a paucity of public transport options potentially have access to fewer opportunities.

### **Situated mobilities: diverse, purposeful, temporary and spatial**

There are a number of conclusions that can be drawn from having explored these aspects of the mobilities of children and young people: diversity of everyday travels, mode use for purpose, transitions to independent mobility and accessibility.

#### *Children and young people have diverse travel needs*

As explained in Chapter 4, the journey to school, while important, is only a small part of the rich tapestry which the patterns of everyday travels of children and young people weave through the urban fabric. The variety of other places and activities that

constitute a large part of their mobilities are highly valued by children and young people. These places of collective social participation and cultural connection, such as sporting and recreational facilities, churches, temples and the like, have fixed locations within the city space, but travel to these various destinations has commonly been considered by transport planners in a single category of 'social and recreational travel' and treated as discretionary trips rather than as an integral component of the urban travel task let alone as important for supporting individual and community wellbeing. Travel to such locations are rarely factored into strategic public transport policy and planning to the same degree as travel to work or school. By prising apart the variety of trips that constitutes social and recreational travel, the Blacktown study revealed that travel to these many and varied activities, can be equally as frequent, often cover greater distances and, certainly from the children's and young people's perspective, as 'important' to their wellbeing as school travel.

*Children's and young people's mobilities are purposeful*

Children's and young people's mobilities from an urban and transport geography perspective has largely been conceptualised as a problem of demand for, use of, and adverse impacts arising from car travel. Through this transport lens, solutions to the problem of car-dependency have been sought by investigating how to effect 'mode shift' by changing travel behaviour from car travel to active travel.

The consideration of transport mode in the Blacktown study was also not limited by the binary of car travel versus other 'active' modes of travel (walking and cycling), as is often the case in transport studies related to children and young people. Intentionally, the study investigated the travel by children and young people by different modes of the public transport as well as by car, walking or cycling. Nor did it assume that the transport mode by which children and young people travel is simply a matter of 'choice'. Instead by asking why they travelled to various destinations by particular modes, the study highlighted that, although distance to destinations is associated with mode use, transport mode use is also related to trip purpose, the availability and the suitability of the transport mode for the purpose.

*The nature of children's and young people's mobilities changes over time*

The inclusion of public transport in the Blacktown study proved to be critical for illuminating the nature of the transition by children and young people to independent mobility. As shown in Chapter 5, independent mobility is not a singular attribute that is adult bestowed at such a time when children are deemed to be either 'old enough' or under circumstances which are deemed to be 'safe enough'. Rather, through the discussions with children and young people in Blacktown it was clear that the process of developing independent mobility, as young people progress toward adulthood, can be aided by the availability of safe and suitable public transport. It could be that having knowledge and experience with using public transport marks an important milestone in the transition to adulthood that can have implications for other aspects of young people's life course transitions, not least the transition from school to further education and employment.

*Children's and young people's mobilities are embedded within households*

From the perspective of children's and young people's geography, research concerning children and young people's mobilities has tended to focus on their levels of independent mobility and individual agency in negotiating the places to which they travel and the modes they use. Children and young people have been conceptualised as 'mobile subjects' (Cresswell and Merriman 2011, Adey, Bissell et al. 2014). As subjects, children and young people's mobilities have tended to be treated as both 'distinctive from', and 'fashioned by' adult mobility, not only in a paternal way, but through interactions, relationships and (inter)dependencies with adults (Holdsworth 2014).

In the now 'substantial literature on children's mobilities' (Holdsworth 2014 p422), and the less substantial literature on young people's mobilities, the focus has been on how children and young people mobilities are personally experienced and socially-constructed. The tendency has been to limit discussion to how children and young people move, or the places they frequent, rather than to consider instead, how transport structures their mobilities. In contrast, this thesis has questioned to some

degree whether the prevailing urban transport system is universally accessible, flexible or suitable to meet children's and young people's travel needs.

This thesis poses a reconsideration of the conceptualisation of children's and young people's urban mobilities' by asking how to make transport more responsive to, and inclusive of, children and young people's mobility needs. In developing solutions it is necessary to consider:

- the range and diversity of children's and young people's mobilities;
- the role (influence) that transport has on their mobilities; and
- how transport and mobilities change over time and across space.

This thesis, although centring children and young people, also moves away from compartmentalising children and young people by recognising that they are embedded within family households. At the same time they are transitioning through the life course along with their households. Thus, there are multiple and overlapping mobilities which children and young people are negotiating at any one time. They continue to practice their everyday mobilities for learning, participating, connecting, while moving through their own life course transitions within households which may be simultaneously undertaking other types of mobilities, including residential mobility, migration or having household members moving in and out of home.

*Children' and young people's mobilities are practised within city spaces*

From an urban perspective the 'problem' of catering for the mobility of children and young people has been conceptualised in a similar way but the solution has been focussed on how to plan and design urban spaces and built environments to encourage sustainable, healthy (active) travel. This thesis builds on a resurgent interest in the influence of urban environments on children's and young people's health and wellbeing more generally by considering the factors that affect their mobilities both at the micro-level within households and beyond the local environment at the metropolitan scale.

### **Significance of the study**

Transport in this thesis is regarded not simply as a means of mobility but as an enabler of accessibility to opportunities for social support and participation. This approach suggests that transport and urban policy and planning should broaden their focus beyond modelling where and how people are travelling to seek a better understanding what needs people may have that require them to travel, and where they need to travel to be able to meet those needs.

From this perspective, children and young people are not one dimensional mobile subjects, school commuters, travelling to school and back home or tagging along with their families in the back of the car for everything else. Children and young people have agency to negotiate their mobilities but this varies across different time scales, day/evening, week/weekend, school days holidays and seasons. Likewise, their mobilities are not restricted to local or neighbourhood space but range across larger spaces and operate at multiple scales. This suggests that transport policy and planning needs to be more flexible to respond to their diverse needs.

So what does this mean for children and young people? In so far as mobility enables access to opportunities for social participation, the nature of children's and young people's mobilities has implications both their individual wellbeing and life trajectories. As a result, transport policy needs to consider its social impact, of accessibility to employment, social participation and civic participation not just on individuals but the cumulative effect for communities. This means that transport policy and planning not only has to be integrated with land-use planning for the purpose of achieving desired travel outcomes, such as greater use of public or active transport, it must be considered essential to achieving broader social policy goals.

### **Evaluation of methodology**

At the outset, the study adopted the epistemological position that children and young people are capable of expressing their own views about their lives as participants in research. This position is aligned with the foundational premise of children's and young people's geographies and sociological studies of childhood and youth of more



than a decade. From this starting point, the Blacktown study sought the views of children and young people using qualitative methods rather than using typically adult-centric and survey-based methods of conventional transport research. The Blacktown study demonstrated that the descriptions by children and young people of their travel and transport needs and experiences, though frequently brief, are meaningful and equally as valid as those of adults.

Taking a grounded, exploratory approach to children's and young people's mobilities has investigated the role of transport in shaping and differentiating the everyday mobilities but has also answered a slightly different question: that is, what can be learned from children and young people about the role of transport in their everyday mobilities? The methodological question is predicated on a respect for children and young people as active and equal citizens (United Nations 1990). It values their knowledge and experience (Skelton 2007). Respecting and valuing the knowledge and experience of children and young people is consistent with current policy and practice in Australia that promotes their participation in decisions that affect their lives. These principles form the basis of child/youth-focussed research undertaken in the health and social welfare fields (Goodwin and Young 2013). These principles have been adopted in urban design and planning (Simpson 1997), especially in practices associated with 'child-friendly cities' (Wilks and Rudner 2011) but have yet to be widely adopted here in transport policy and planning. In contrast, the Blacktown study has highlighted the inherent value of listening to the perspectives of children and young people in describing and negotiating their mobilities and transport within their social and physical environments as a methodology that can be applied in transport research and planning too.

The Blacktown study demonstrated that a child/youth focussed approach and use of suitably engaging qualitative methods provided an insight into a range of unmet travel and transport needs that might otherwise be overlooked, taken for granted, or difficult to capture in conventional household travel survey methods. The contribution of the children and young people to the research supports an emerging recognition within the field of transport geography that qualitative and quantitative

methods can be complementary, and indeed necessary, in undertaking multi-disciplinary research (Goetz, Vowles et al. 2009, Attoh 2014).

Importantly, the use of a child/youth focussed design allowed the children and young people to express their ideas about the aspects of their mobilities that were most important to them. This not only engaged their interest in the research, it affirmed that their individual contribution to the research was valued.

### **Limitations of the research**

While the child/youth focussed design and qualitative methods produced a wealth of information about the views of children and young people about their everyday travel, the labour-intensive nature of the research methods meant that the study was limited to a single local government area. Urban transport, however, operates across the metropolitan area and there would be benefit in considering how the variations in accessibility at the metropolitan scale might produce differences in the nature of children's and young people's mobilities in different locations across the city.

Similarly the fact that children and young people grow up and move away from their families, that households move residential location and that urban development brings change to urban form, means that the population profiles of neighbourhoods change over time. The youngest participants in the Blacktown study would by now be in the later stages of their secondary education, the older participants would be adults and some may have children of their own. This means that the study is a snapshot of children and young people's mobilities in Blacktown in the first decade of the twenty-first century. There would be value in undertaking a longitudinal study to further investigate and substantiate the links suggested here between young people's mobilities and their life trajectories.

### **Practical applications and implications**

Greater acknowledgement of the structuring influence that transport has on children and young people's mobilities necessitates a shift of focus away from the prevailing view of travel behaviour as a 'mode choice'. In much the same vein as Fiona Rajé's (2007) research on the impact of transport on the lived experience of adults has

shown, this thesis has demonstrated that there is a need for urban and transport planning and policy to better understand the diversity of needs within populations to inform a more inclusive approach to service planning and policy making.

The research for this thesis has gone further, however, to show that such needs must be understood as being related to personal capabilities, household/familial circumstances and social and physical environments, *as well as* in relation to the spatial distribution of opportunities and the availability of suitable transport to enable access for social participation. In this way transport is positioned less as a means of mobility but as an affordance of accessibility: not so much a means to get from A to B but a means to satisfy human needs.

An emphasis on the way transport affords accessibility underscores the interrelationship between social dimensions of transport and the spatial dimensions of mobilities. What determines the way people travel in cities is primarily the needs that require them to travel. A better understanding travel of the needs of children and young people, therefore, can provide insights into possible alternative scenarios and support the shift towards inclusive urbanism more generally.

### **Conclusion - From Blacktown to ‘Green City’**

There are already signs in Australian cities that the car-dependent urbanism of the last half-century is in transition, with vehicle kilometres travelled by car per capita levelling off since around 2004 (BITRE 2009). What this thesis suggests is that many travel needs can be met using active modes and public transport where the right conditions, both material and social, support these alternatives to car travel, regardless of the nature of the urban form. Therefore, it may be better to focus more on where people need to travel for what purpose (an accessibility approach) rather than to focus on changing urban form or physical environments (a physical determinist approach). As Paul Mees (2010, p66) pointed out, ‘the infrastructures and urban forms that exist today are not easily, moved, removed or replaced’ and that ‘transport policy can be changed more quickly and cheaply, and with less disruption’.

Although there has been more than a decade of research and practice in accessibility-based transport policy and planning in the United Kingdom (Lucas 2012). There have been similar people-centred approaches to sustainable urban mobility planning in Europe (European Commission 2013). In Australia, however, transport policy and planning has only relatively recently begun to undertake work to better understand the travel needs of different population groups (Morris and Kinnear 2011). Based on these trends, there is strong argument for more direct and urgent action by federal, state and local government levels in Australia, to move away from the conventional approach to transport planning focussed on transport modes. Such mode-based transport planning fails to take into account the broader social and spatial implications of transport. What is needed is a shift to a more age-responsive, socially inclusive and equitable approach to transport planning and provision.

The current rhetoric of the NSW Government is promising, suggesting a move towards adopting a ‘customer-centred’ approach to service delivery (NSW Government 2014). With the burgeoning interest in children’s and young people’s geographies and mobilities, there is much scope for further research and practice to refine and apply child-focussed methods in studies investigating travel needs. Similarly there is much scope to develop more authentically participatory approaches to urban transport policy and planning. Indeed a recent UN HABITAT (2013) report on cities argues that taking a participatory approach to transport policy and planning is integral to the process of developing sustainable urban mobility. The report states:

There is a need for an open and democratic planning and decision-making process ... This will not only bring the voices of all citizens – women and men, children, the elderly, the disabled, businesses, governments, NGOs and civil society at large – to the table, but will also ensure that the needs of the least advantaged are clearly recognized and fully acted upon (p203).

This thesis, by exploring role of transport in the urban mobilities of children and young people, has attempted to show that if making a transition to sustainable mobility is to be supported, it is necessary to first understand the needs of different social groups within urban populations, and the social and spatial contexts in which their mobilities are situated.

Taking a child/youth focussed approach to urban and transport research, policy and planning is not an end in and of itself, however. Nor do the views of children and young people pertain to their needs alone. Rather, by listening to the views of children and young people, as with other groups who are frequently marginalised in decision-making processes, there is much that can be learned that can help improve the way transport enables accessibility for all.

## APPENDIX A: PARTICIPANT PROFILE

PARTICIPANT CHARACTERISTICS			
SEX		Number	%
	Female	46	43%
	Male	61	57%
	Total	107	100%
AGE			
	9-12 years	51	48%
	13-15 years	56	52%
	Total	107	100%
INDIGENOUS STATUS			
	Aboriginal	4	4%
	Non-Aboriginal	103	96%
	Total	107	100%
COUNTRY OF BIRTH			
	Australia	70	65%
	Overseas-born	33	31%
	Not stated	4	4%
	Total	107	100%
LANGUAGE SPOKEN AT HOME			
	English	57	53%
	Language other than English	50	47%
	Total	107	100%

HOUSEHOLD CHARACTERISTICS			
HOUSEHOLD TYPE		Number	%
	Sole parent family	15	14%
	Couple family	70	65%
	Other	22	21%
	Total	107	100%
PRIMARY ADULT IN HOUSEHOLD			
	Mother	93	87%
	Father	8	7%
	Other (Aunt, Grandmother)	2	2%
	Not stated	4	4%
	Total	107	100%
NUMBER OF PERSONS IN HOUSEHOLD			
	Two	3	3%
	Three	15	14%
	Four	38	36%
	Five	24	22%
	Six	12	11%
	Seven or more	10	9%
	Not Stated	5	5%
	Total	107	100%

<b>RESIDENTIAL STATUS</b>			
<b>YEARS AT CURRENT RESIDENCE</b>			<b>%</b>
	Less than one	7	7%
	1 to 5 years	48	45%
	6 to 10 years	28	26%
	11 or more years	24	22%
	Total	107	100%
<b>DWELLING TYPE</b>			
	Single detached house	87	81%
	Apartment, Flat or Unit	14	13%
	Townhouse, villa	4	4%
	Not stated	2	2%
	Total	107	100%
<b>NUMBER OF BEDROOMS</b>			
	Two	13	12%
	Three	22	21%
	Four	48	45%
	Five	11	10%
	Six	4	4%
	Not stated	9	8%
	Total	107	100%

<b>SOCIOECONOMIC STATUS</b>			
<b>NUMBER OF VEHICLES</b>	<b>No.</b>	<b>%</b>	
	None	9	8%
	One	27	25%
	Two	55	51%
	Three or more	15	14%
	Not Stated	1	1%
	Total	107	100%
<b>EMPLOYMENT STATUS OF ADULT 1</b>			
	Employed	63	59%
	Other	37	41%
<b>EMPLOYMENT STATUS OF ADULT 2</b>			
	Employed	60	56%
	Other	40	44%
<b>RESIDENTIAL STATUS</b>			
	Renting	33	31%
	Buying or owning	49	46%
	Government- owned	1	1%
	Not Stated	24	22%
		107	100%

## APPENDIX B: STUDENT INTERVIEW QUESTIONS

*Explain the research is trying to find out how children/young people travel around the place where they live and what they think about it. Obtain child's permission to proceed and record the interview.*

Name	Age
Male/Female	Suburb
School	Language spoken at home

### **Residential History**

1. How long have you lived in this area?
2. Have you always lived in the same house? If not, Where else have you lived? Why did you move?
3. What type of house do you live in now?
4. Is your family renting, buying the house or own it outright?
5. How would you describe the area where you live?
6. What do you like or don't like about where you live?

### **Vehicles at home**

7. Do you have any cars at your house? What sort of car is it?
8. Who usually drives the car(s)? Where do they mainly travel to?

### **Travel to school**

9. How do you travel to school?
10. Who do you travel with?
11. Why do you travel this mode of transport?
12. How do you travel home? Who with?

### **Activity and travel**

Using the child's drawing of the area around where they live ask the child to show the places where they do things or spend time and how they travel.

13. **Where are the places you usually travel to?**



**14. Why do you like to go there?**

- 15. What do you do there?
- 16. When do you usually go there?
- 17. How often do you go there?
- 18. How much time do you spend there?
- 19. Do you go there by yourself or with someone else?

**20. How you do travel there?**

- 21. How long does it take to get there?

**22. Why do you use this form of transport to get there?**

- 23. What do you like or not like about this place?

- 24. What would you change about this place if you could?

**Autonomy**

- 25. Are there any places outside of your home that you can go to by yourself?  
How do you travel there?

- 26. Do you own a bicycle? Where do you ride it?

**Table 1. *Special places***

- 27. Which of these places is the most special to you? Why?

**Table 2. *Problem places***

- 28. Are there places in your area where you don't like to go? Why don't you like them?

- 29. What would you like to change about these places?

**Travel restrictions**

- 30. Are there places you would like to go but can't? Where are they?

- 31. What's prevents you going there?

- 32. What would make it easier for you to go there?

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## ENDNOTE

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<sup>1</sup> A Boolean search of citation databases using the words combination 'urban' AND 'transport' AND (child\* OR youth) was regularly reviewed between 2006 and 2014. The most recent search on 18 October 2014 produced the following results:

- EBSCO Megafire Complete (EBSCO) a multi-disciplinary collection that offers access to 11,955 full text titles produced 273 articles of which 176 (65 per cent ) were related to school travel. There were 59 articles related to physical activity; 13 related to environmental factors; and 8 on independent mobility.
- Web of Science- Thomson Reuters including - Science Citation Index Expanded - a multidisciplinary index to the journal literature of the sciences and covers more than 6,500 notable and significant journals, across 150 disciplines, from 1900 to the present - produced 323 articles of which 113 (35 per cent) were related to school travel. There were 79 related to physical activity, 27 related to environmental factors and 11 related independent mobility.