

Children in the Intensifying City: Lessons from Auckland's Walking School Buses

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Part I: Introduction, Context, and Description of the Study

Introduction

Urban children's opportunities for outdoor play and active travel are being rapidly eroded:

- **Urban intensification** – backyards, fields, and wooded areas are increasingly clear-cut, filled-in and paved-over.
- In deprived areas, **degraded public spaces** may be antithetical to safe and happy childhoods.
- In privileged areas, children may be **confined to the private, fortified spaces** of home and motor vehicle.
- A **culture of fear**, especially among parents.

Introducing the Walking School Bus

- WSBs offer groups of children a structured walk to and from school under adult supervision.
- Standard features:
 - Formal timetable
 - Set route
 - Specified stops
 - Adult 'drivers' and 'conductors'

A partial response to increasing reliance on the motor vehicle for short, everyday journeys.

A volunteer-driven, community initiative that agitates against the marginal status of walking.

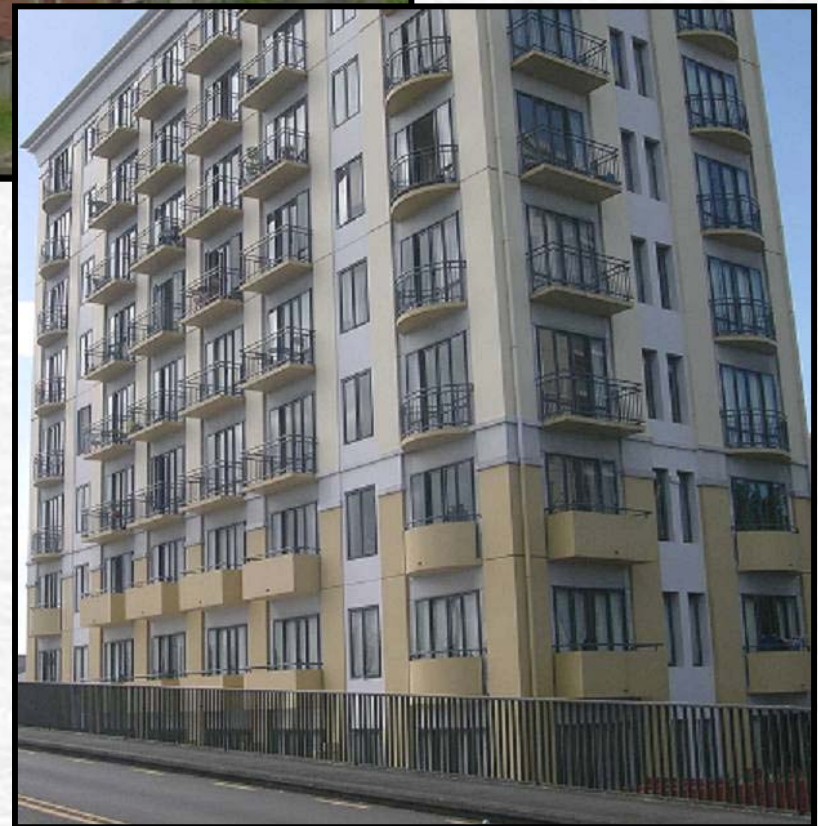
Everyday Marginalization of Pedestrians



Image: Collins, 2003

Context: Auckland, NZ

- ☞ Population of the urban region:
2003: 1.2 million 2050: 2.2 million (est.)
- ☞ Regional planning strategy seeks a more compact urban form, and slowed sprawl.
- ☞ Intensification: the move towards higher housing and population densities
 - Planned and ad-hoc property redevelopment
 - Subdivision of larger suburban properties
 - Some greenfield development of larger houses on small, treeless lots.



Images: Lyne & Moore, 2004

Context: Auckland, NZ

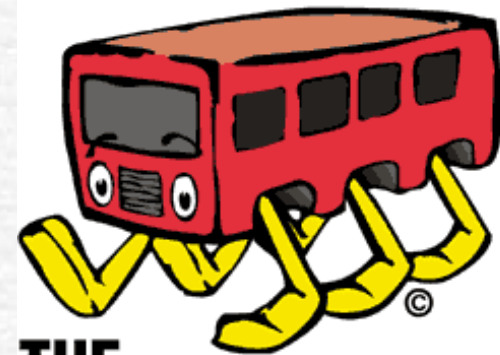
- The practice of allowing, or even encouraging, children to walk to and from school has declined.
- The health-promoting aspects of walking are perceived to be more than offset by the risks.
- Approx. 40% of children are 'chauffeured' to and from school in private motor vehicles.
- The school run is associated with intense congestion.
- Part of a broader retreat from the public realm.

Context: Auckland, NZ

- Child pedestrian injury is a significant cause of morbidity and mortality, and is highest in most deprived neighbourhoods.
- This is one dimension of a broader social gradient in health status, in which poorer areas bear the greatest burden of disease and injury.
- However, WSBs have been clustered in wealthier neighbourhoods, where the risk of injury is generally lower.

Auckland Region Walking Bus Study

- WSBs operating at 53 primary schools in the Auckland region at the end of 2003.
- WSBs serve 17% of all primary schools in the region.
- Interviews conducted with 42 WSB 'coordinators'.

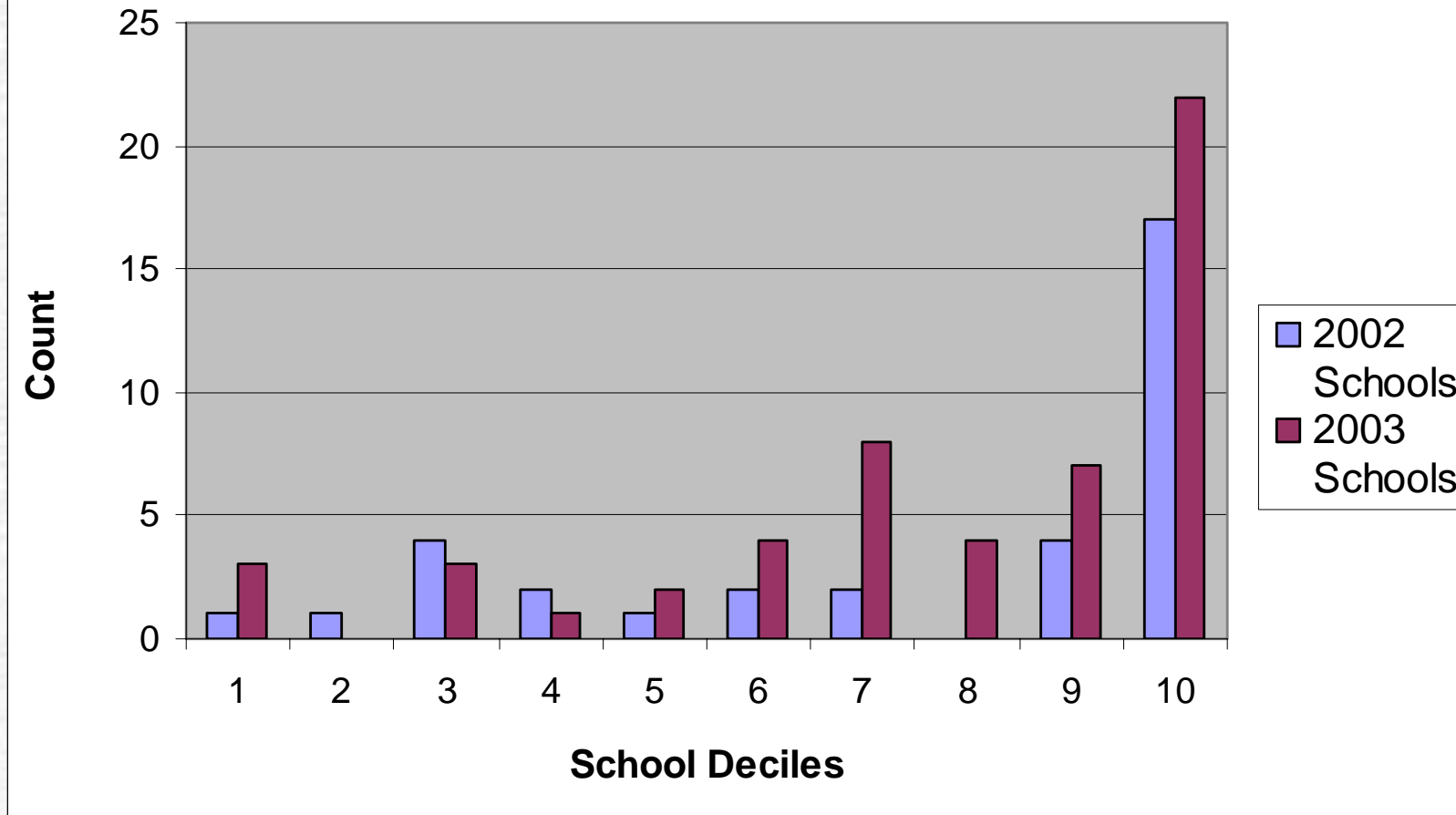


**THE
WALKING
SCHOOL BUS**

Outline of Findings

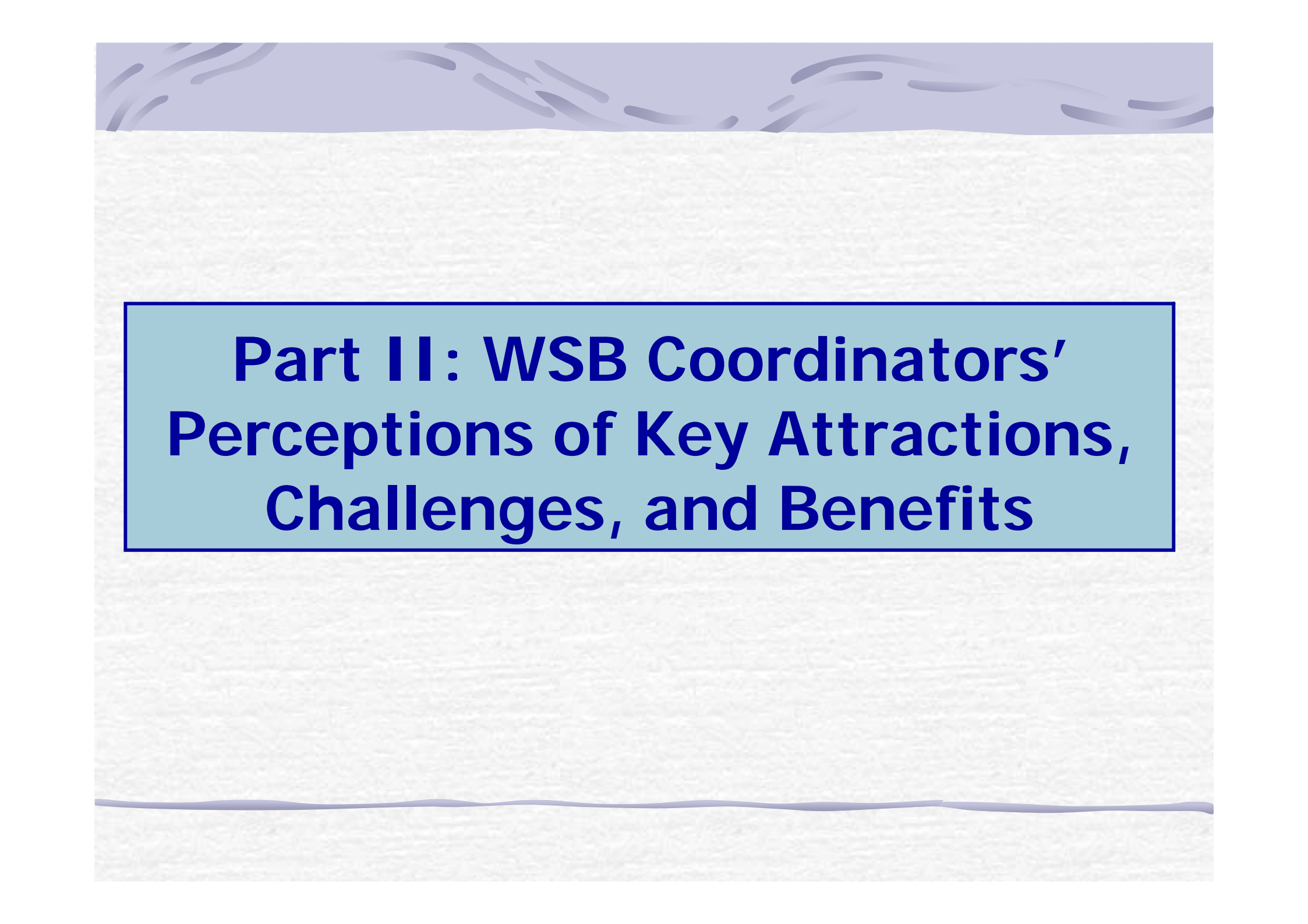
- **53** schools operate at least one WSB route.
- Walking bus routes in operation: **106**
- Numbers involved: **1738** children per day
- Car journeys saved: **1046** per day
- On rainy days, participation falls by 40%, and some routes do not operate at all.
- WSBs continue to be strongly concentrated in wealthier school communities.

Figure 1: Auckland WSBs by Decile 2002 & 2003



Most deprived

Least deprived



**Part II: WSB Coordinators'
Perceptions of Key Attractions,
Challenges, and Benefits**

Key Attractions...

Why did you establish a WSB? (n=30)

Response	Frequency
● To address traffic congestion	19
● To provide exercise for children	12
● In response to parental demand	12
● To improve children's road safety	10

More broadly, WSB seen as attractive on multiple grounds.

Key Challenges...

What have been the key challenges & difficulties in running the WSB at your school? (n=42)

Response	Frequency
● Recruiting and retaining adult drivers and conductors	27
● Recruiting child passengers	11
● Organizing schedule	7
● Obtaining school support	5

Key Benefits...

BENEFIT	All respondents (n=42)	Low decile sample (n=6)	High decile sample (n=6)
	Relative Importance	Relative Importance	Relative Importance
Exercise for children	0.32	0.17	0.39
Alleviate traffic congestion	0.27	0.10	0.22
Reduce stranger danger	0.25	0.42	0.10
Injury prevention	0.08	0.14	0.17

Has your WSB actually reduced congestion at the school gate?

- Significant reduction 14%
- Modest reduction 24%
- Slight reduction 12%
- **No reduction 38%**

- WSBs have a limited ability to address dense, chronic traffic congestion.
- Developments beyond the school gates affect local traffic levels:

Now there's a high density housing development being built across the road from the school – how can we reduce the congestion when Council does this?

Has your WSB led to any practical improvements in the local environment?

- 27 (64%) of the coordinators reported city council upgrades to neighbourhood infrastructure related to WSB developments.

Tree-trimming	11
Footpaths improved	9
Garbage removed	6

- But others expressed frustration with local authorities.

But how do children perceive neighbourhood hazards?

- Mitchell (2004) asked 6 year-olds to identify hazards in their neighbourhoods.
- Children expressed concern at increased housing density and associated traffic.
- 'Photo voice' technique.

Part III: WSB Sustainability

Programme Sustainability I

Have any routes stopped operating?

No 34

Yes 7*

No data 1

* only 2 schools had entirely ceased WSB operations

Programme Sustainability II

Is the number of children involved in your WSB increasing, decreasing, or stable?

Increasing 23

Stable 11

Decreasing 6

Environmental Sustainability

- WSBs reduce families' dependence on the private car for short, neighbourhood-level journeys
- Potential to reduce congestion
- Highly valued in Auckland, by both participants & public policy makers.
- An interruption to the vicious cycle of increased car dependence
- Make children accustomed to active travel; offer interconnecting opportunities for collective & personal well-being.

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Part IV: Lessons from the Auckland Experience

Specific Lessons

- ☞ Agents of Change
- ☞ Ongoing evaluation
- ☞ Incentives for children
- ☞ Keeping older children involved
- ☞ Neighbourhood improvements

General Lessons

- ☞ Child pedestrian safety concerns tend to generate either agency- or structure-oriented responses.
- ☞ ...i.e. enhancing education vs. altering the environment.
- ☞ WSB developments tread a middle ground & achieve both!

Conclusions...

- Urban intensification, liveability & sustainability.
- A child-friendly city is a healthy community!
- WSBs as one starting point for reinvigorating communities.

Conclusions...

- WSBs are only a beginning in terms of:
 - safeguarding child pedestrians
 - effecting positive change in driver behaviour
 - shifting the priorities of urban planning

Conclusions...

- WSBs as countercultural to privatised & neoliberal urban spaces:
 - safeguarding child pedestrians
 - gated communities
 - CCTV-equipped schools
 - fortified houses
 - 4-wheel drive vehicles

Conclusions...

“healthy children are those able to access & use city streets for work & play, move about their local area with a reasonable degree of independence & safety...& have some sense of ownership” (Davis & Jones, 1996).

WSB: a street-level intervention promising steps in this direction