

# Why do children travel by car so much, and does it matter?

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# According to the National Travel Survey:

- Children are making fewer trips
- BUT, when they do travel
  - they travel further than they used to
  - they travel more by car than they used to
- Children's car use is growing faster than adults'
- Most children's trips are not to or from school
- Non-education trips are
  - longer than education trips
  - more likely to be by car



# Why does the amount of children's car use matter?

- Similar reasons as for everyone else:
  - reducing environmental damage
  - reducing congestion
  - increasing inclusion, etc, etc
- To increase their amount of exercise
- To reduce their potential long-term health damage (e.g. through obesity)
- To reduce their possible long-term car dependency

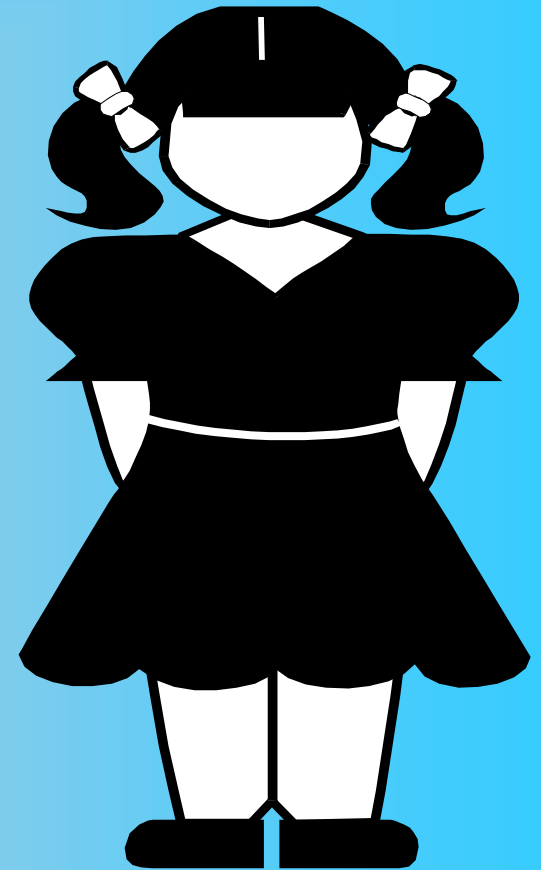


# Children are getting fatter

According to the UK Chief  
Medical Officer:

8.5% of 6 year olds and 15% of  
15 year olds are obese

Between 1996 and 2001 the  
proportion of overweight  
children increased by 7%  
and obese children by 3.5%



# Reducing children's car use: the health and potential car dependency impacts

- 3-year project funded by EPSRC under the FIT programme
- Started January 2001
- Includes
  - Hertfordshire County Council
  - health experts
  - an epidemiologist
  - a health promotion expert



# The work packages

- Surveys of children and parents, plus anthropometric measurements
- Evaluation of walking buses
- Monitoring of children's activity patterns using RT3s
- Attitudes of teenagers to the car
- Effects of car use on children's cognitive and mental development
- Role of women in children's decisions



# Reasons given by parents for driving their children to school (%)

School is on route to work	39
Too far to walk	38
Peace of mind	31
Roads are too dangerous to walk or cycle	31
Time – quicker by car	28
Taking children to several schools	16
Lack of a suitable bus route	9
Other	7



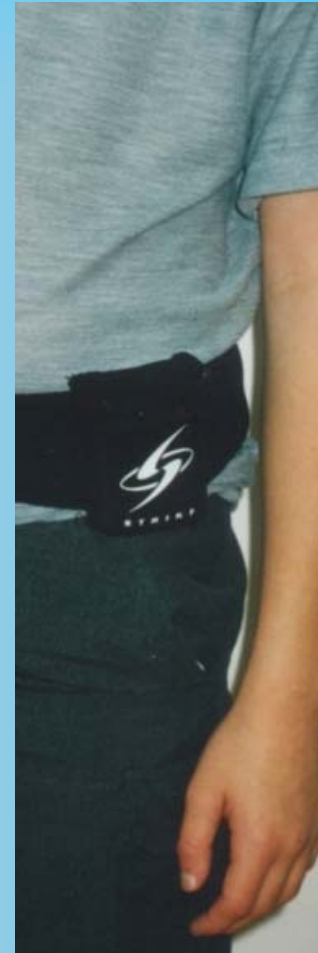
# The nature of trips to school by car (%)

Trip made solely to take child to school	28
Child dropped off in course of trip to work	47
Child dropped off in course of trip to another school or nursery	15
Child dropped off in course of trip to another destination	7
Not answered	4
<b>Total</b>	<b>100</b>

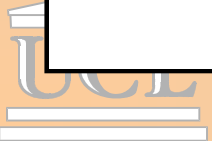
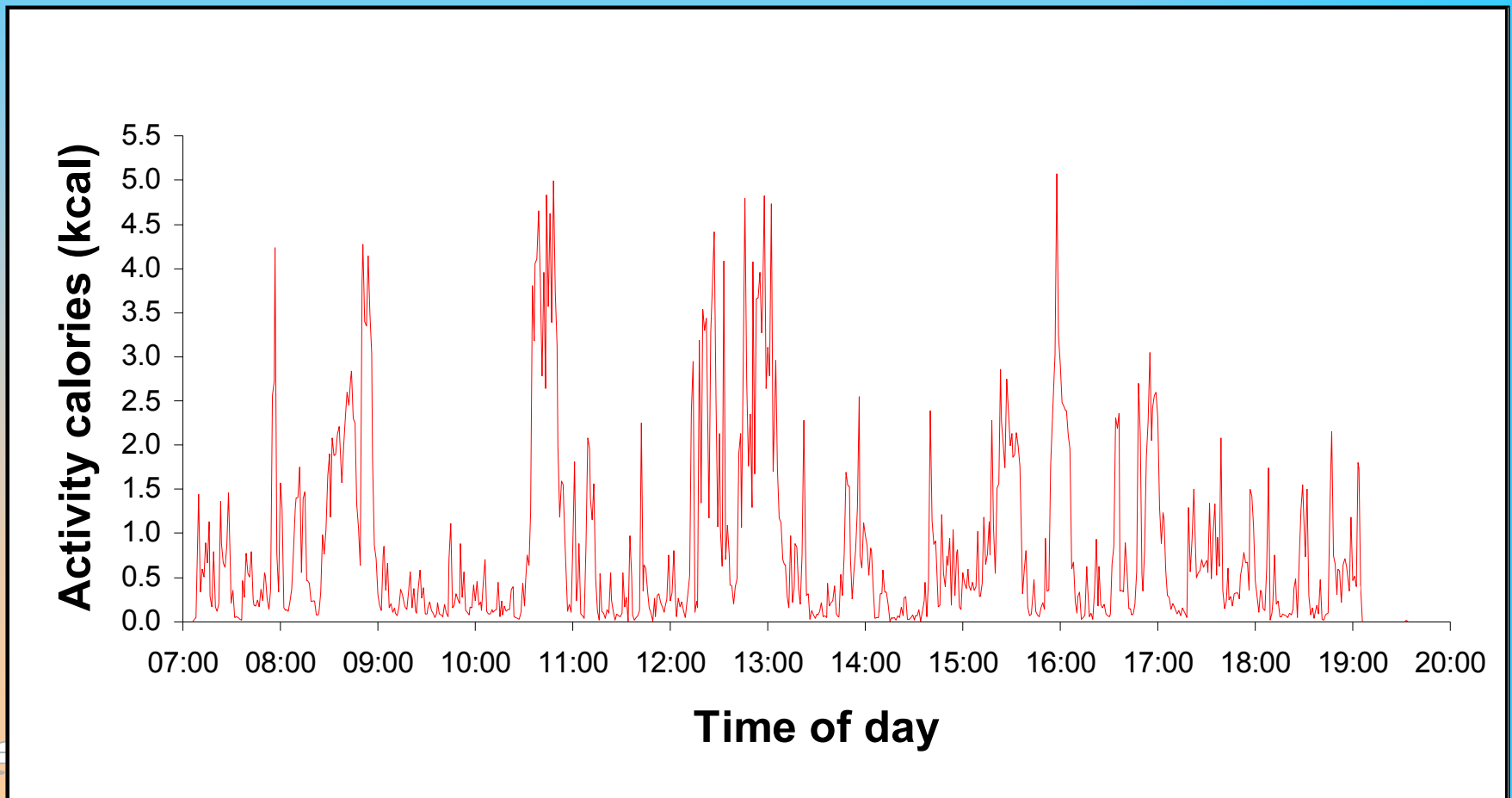




# The RT3 motion sensor



# An example output from an RT3

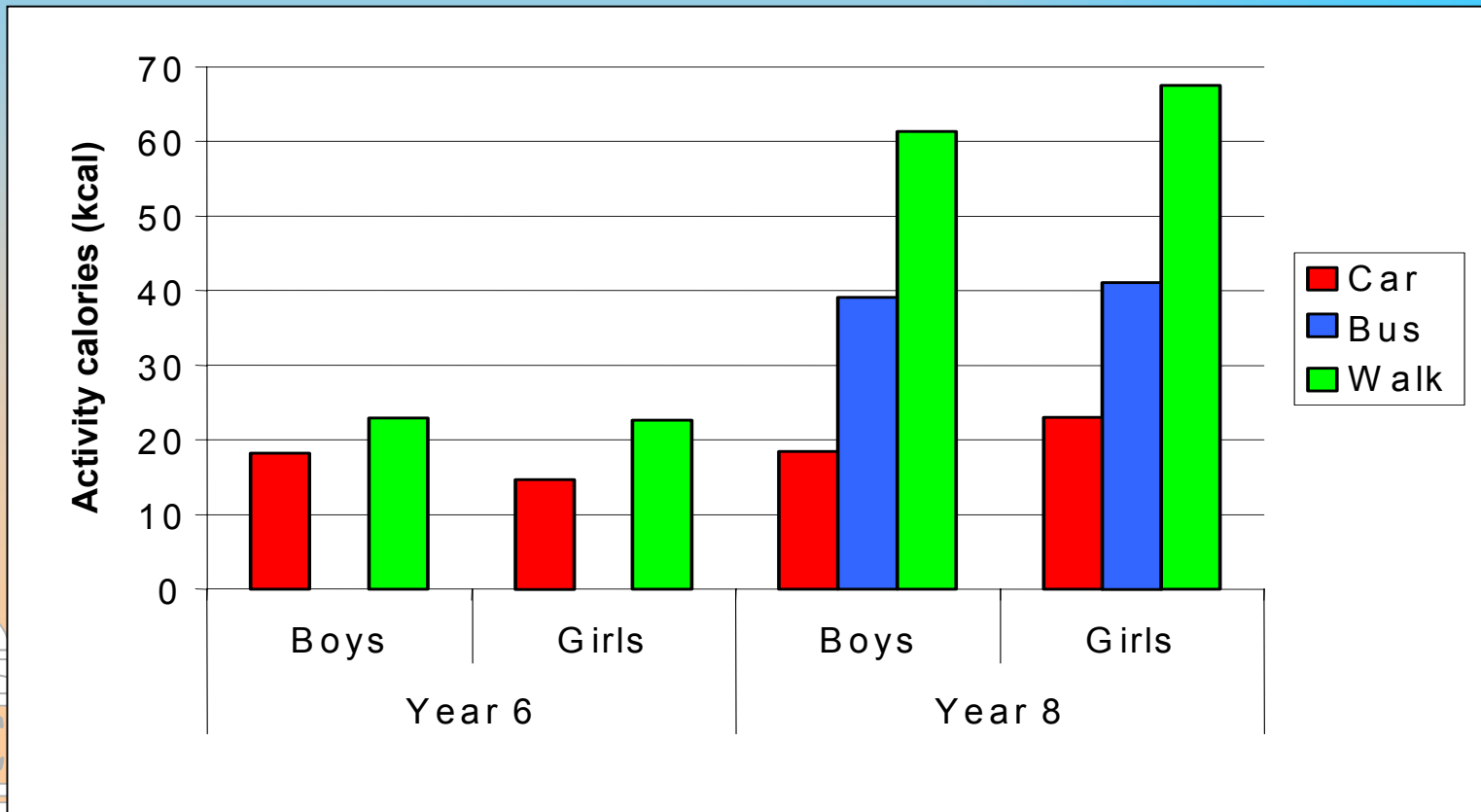


# A child's travel and activity diary

Then I went to... Peter's house	I got there at 15:20 I travelled there by Walked	Played on the computer then played football  I left at 18:40
Then I went to... Home	I got there at 19:00 I travelled there by Car	Watched TV and went to bed  I left at :

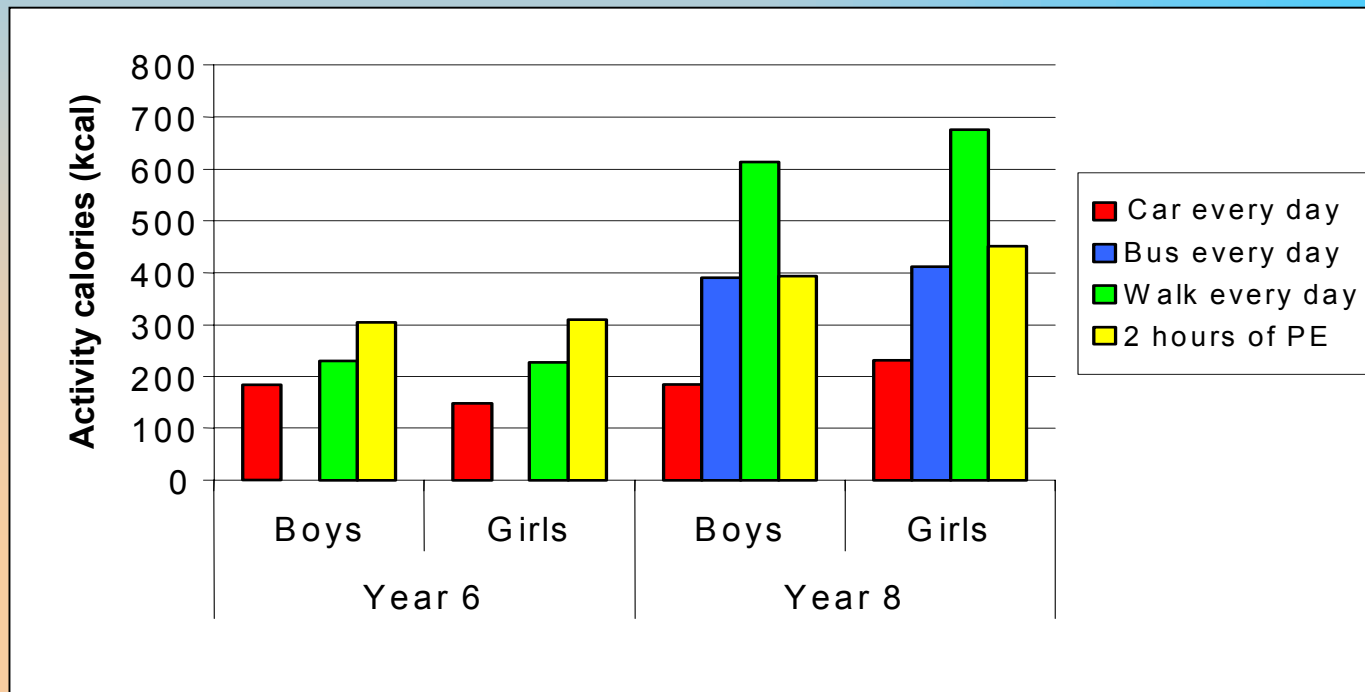
# Travelling to and from school

- Walking to school uses more calories than going by car or bus, especially for older children



# Travelling to and from school and PE

- Schools are recommended to offer 2 hours of PE a week
- The older children use lots more calories walking to and from school than in 2 hours of PE in a week



# What is a walking bus?



# Assessing the effectiveness of walking buses

- Postal survey of all primary schools in Hertfordshire
- Monitoring of five walking buses over time, collecting data from:
  - headteachers, co-ordinators, volunteers
  - children and parents (including former users)
- Assembly of data within a systematic framework



# Headteachers' objectives in setting up walking buses

(based on 22 schools in Hertfordshire)

	No
Reduce congestion at the school entrance	20
Give the children more exercise	12
Increase walking to school	7
Reduce car use to school	2
Ensure children reach school on time	2





# Achievement of objectives

	Total	Objective achieved?		Success rate %
		Yes	In part	
Reduce congestion	20	10	4	60
More exercise	12	9	1	79
More walking	7	3	1	50
Less car use	2	3	-	100
Punctuality	2	1	1	75
Total	50	28	9	65



# Shift from cars

(based on data from 11 schools)

- Number of children = 172
- Number of children who used to travel by car = 107
- % who used to travel by car = 62%
- Range of % shift: 31% to 100%
- Note: not all children previously travelled by car every day and not all use the walking bus every day



# Walking buses in Hertfordshire

	Schools	Routes
Number at Spring 1998	1	1
Number registered at January 2002	41	68
Number active at January 2003	22	26



# Why have walking buses ceased operation?

	Number	%
Lack of volunteers	9	75
Too few children	5	42
Lack of a co-ordinator	3	25
Bad weather	1	8
Lack of incentives	1	8

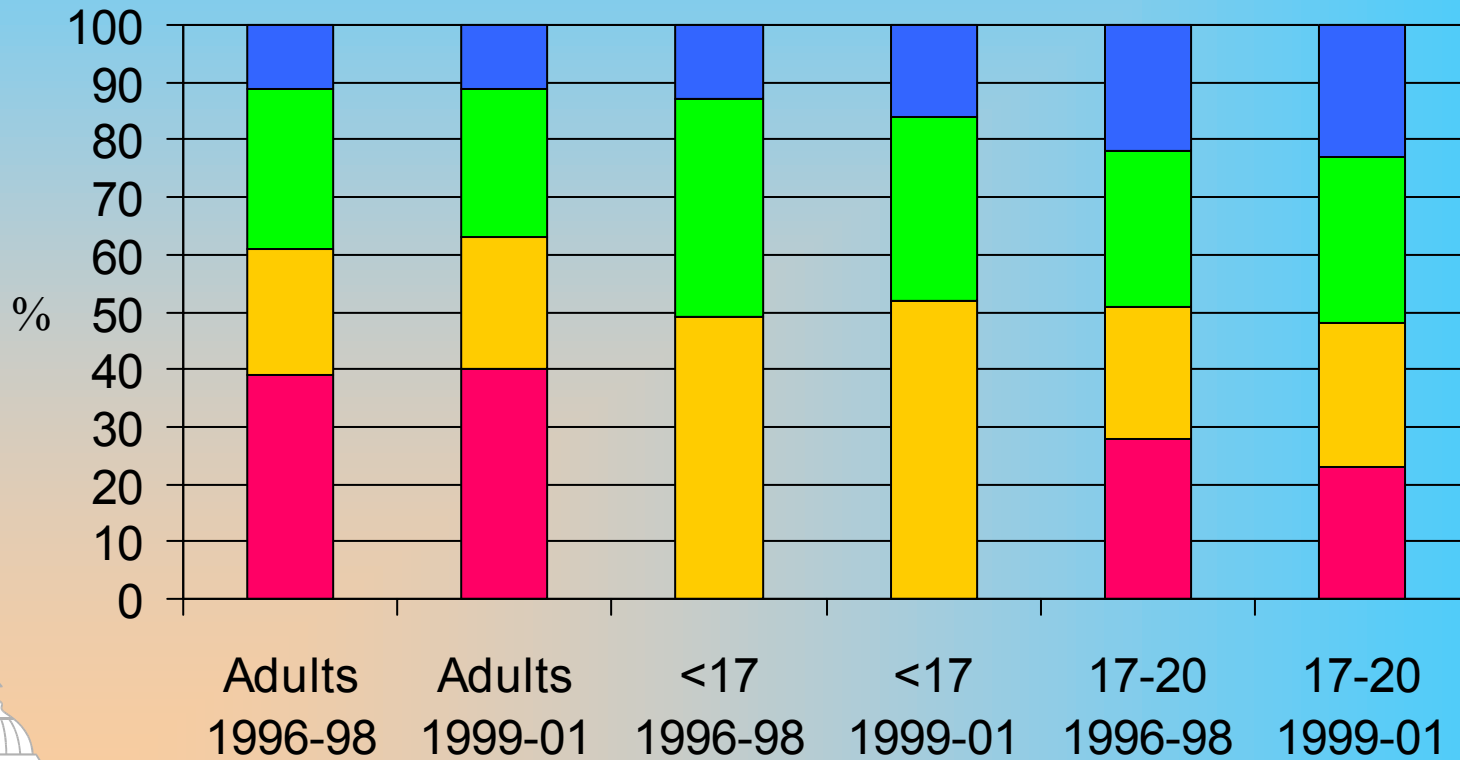


# Young adults (aged 16-19)

- See the car as the mode of choice for most trips
- See learning to drive as something they should do as soon as possible
- See the ability to drive as a means of obtaining independence from parents
- Parents support their children in becoming car users because it relieves their own concerns about their children's safety

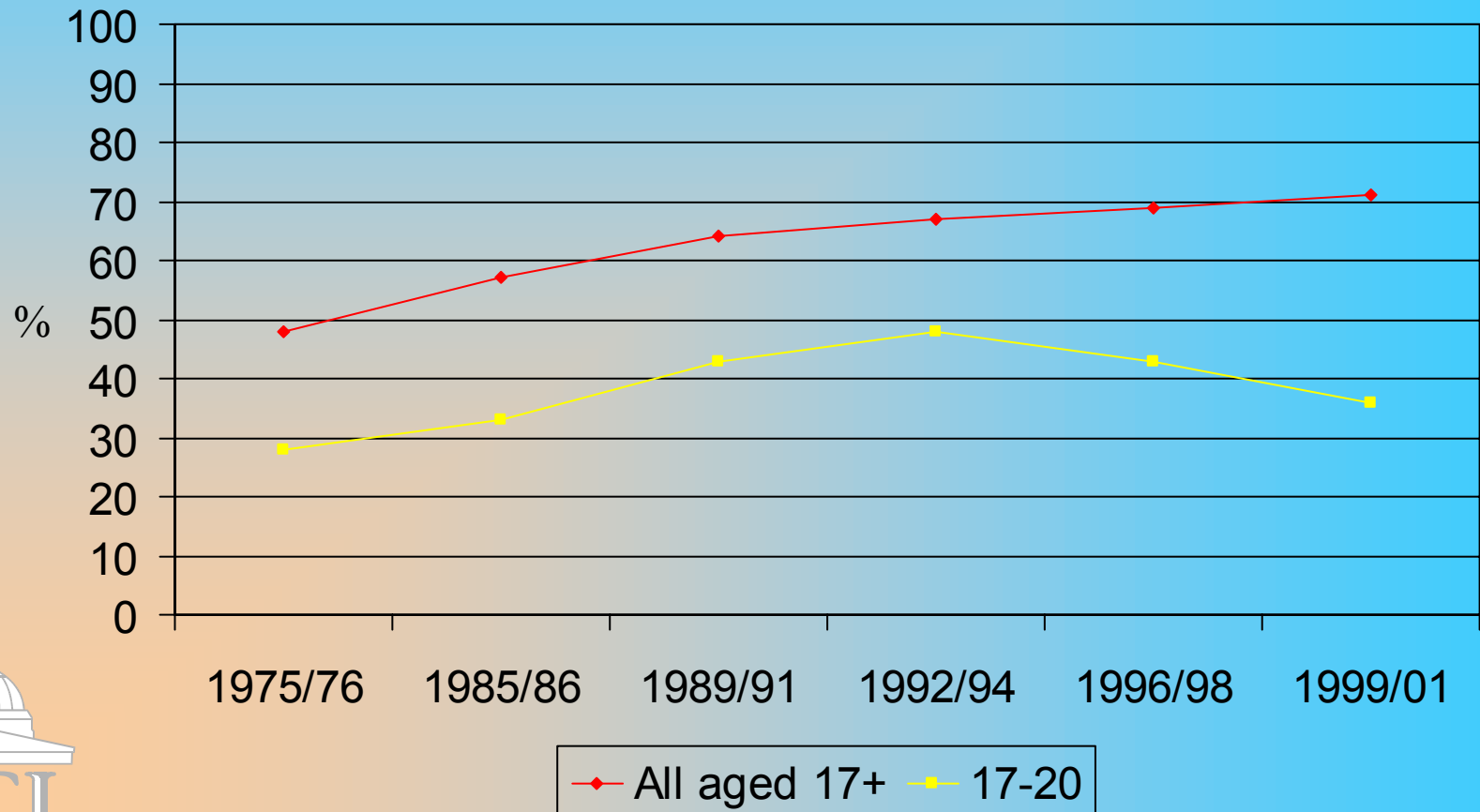


# Trips by mode



■ Car driver ■ Car passenger ■ Walk ■ Other

# Percentage with car driving licence



# Conclusions

- Children's car use is increasing rapidly
- This has various implications especially for their health
- Few car trips to school are made solely for that purpose
  - hence getting children out of cars will not do much to reduce traffic





# More conclusions

- Walking to school can provide significant quantities of exercise
  - comparable in scale to PE lessons
- Walking buses are an initiative that is perceived to be effective
  - about half the trips on them were previously made by car
- But, walking buses are liable to collapse without on-going support



# More conclusions

- Young adults say they are keen to drive  
– but, nationally, their car use is decreasing

Why? Is this a real phenomenon?

