Changes in transport mode choices over time by size of city

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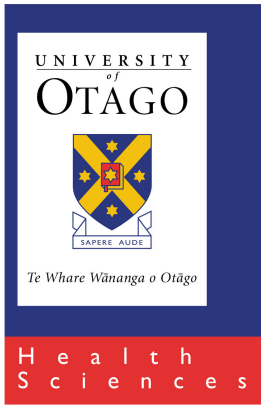


Outline of talk

- **An aside – travel and the way we spend our time**
- **Brief review of overall trends in travel behaviour in NZ**
- **Are there different trends by size of population centre?**
- **Can we assume that aspects of urban design are influencing travel patterns?**

Travel and Time Use

NZ Time Use Survey, 1998-99 (8,500 people)
NZ Travel Survey, 1997-98 (14,250 people)
(estimates for age 12 and over)

Environment	NZTUS	NZTrS
• Home	74%	73%
• Work & study	13%	12%
• Transport	6 %	5%
• Recreation	4%	8%
• Other	4%	2%

NZ travel surveys

- **1989/90** **(Ministry of Transport)**
- **1997/98** **(LTSA)**
- **2002 and ongoing** **(Ministry of Transport)**

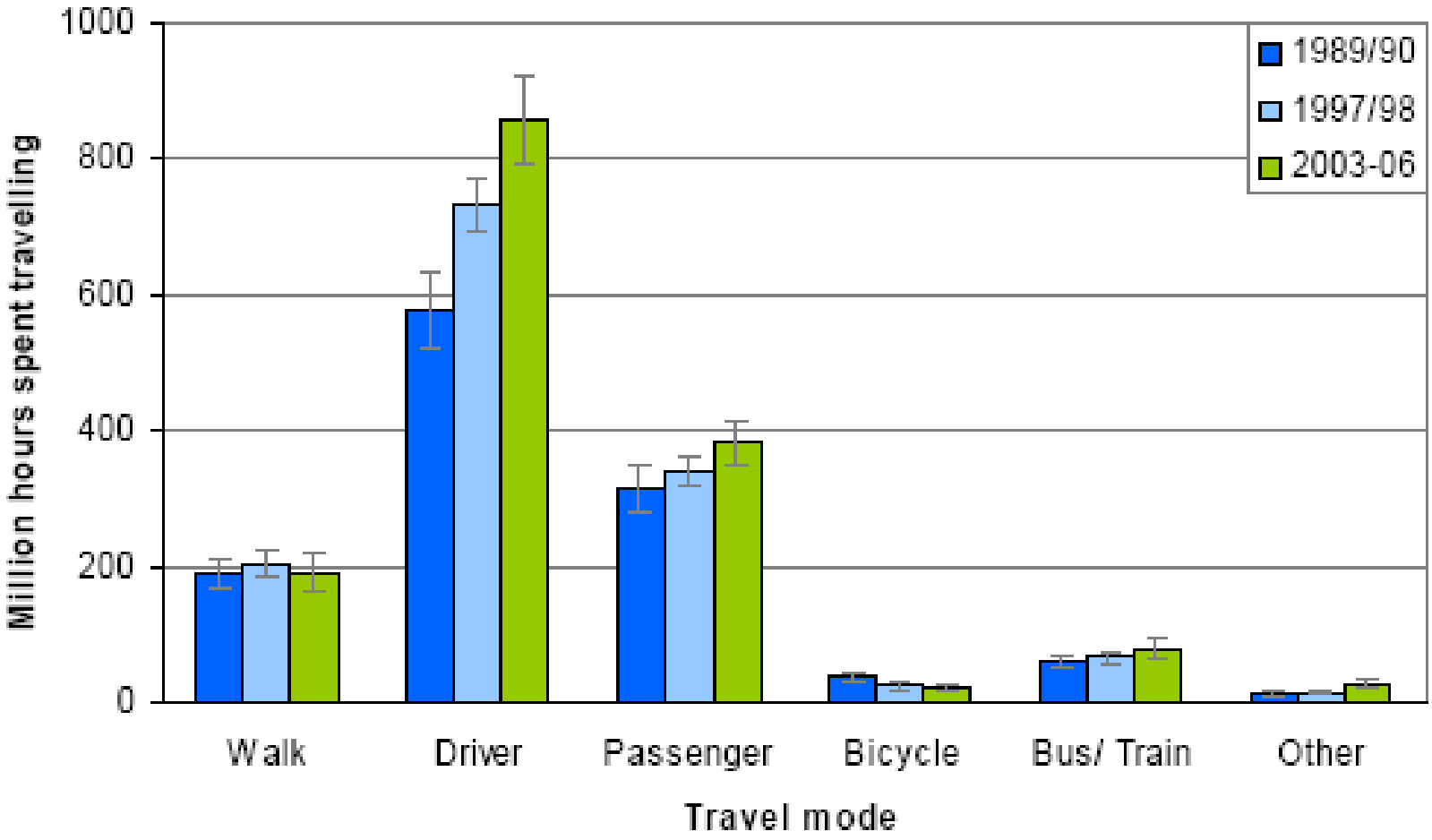
National coverage of all households and household members

Personal interviews based on travel diary

(Best method of collecting travel behaviour - other reporting methods severely underestimate travel)

Trips digitised (origin and destination addresses geocoded) and mapped onto road network

NZ trends duration by travel mode



From Ministry of Transport paper: "Household Travel Survey" May 2007

Summary of changes in travel behaviour over past 16 years

- The private car is becoming more and more dominant as the preferred means of transport
- Cycling has decreased
- Walking has changed little overall
- But children aged 5-14 are walking and cycling **much** less (weekly walking and cycling for
  2 hours and ten minutes 1989/90
  1 hour and twenty minutes 2003-06)
- Will we see a cohort effect where these same children are inactive as adults?
- Driving is safer per distance driven

Are our cities creating obesogenic and car-reliant environments?

Cities compared to small town/rural

- 24% of New Zealanders live in small towns (population less than 10,000) and rural areas
- They account for 30% of the total distance driven
- People in small towns (population less than 10,000) and rural areas drive on average one and a half times as far in a year as 'urban dwellers'
- The average driver trip leg length (between stops) is 8km for urban dwellers and 12 km for small town/ rural dwellers.
- The average urban dweller (across all age groups) walks for about 53 hours per year, compared to only 37 hours per year for small town/rural dwellers
- These figures do not include off-road walking, for example tramping or walking around private land

From Ministry of Transport paper: "Household Travel Survey" May 2007

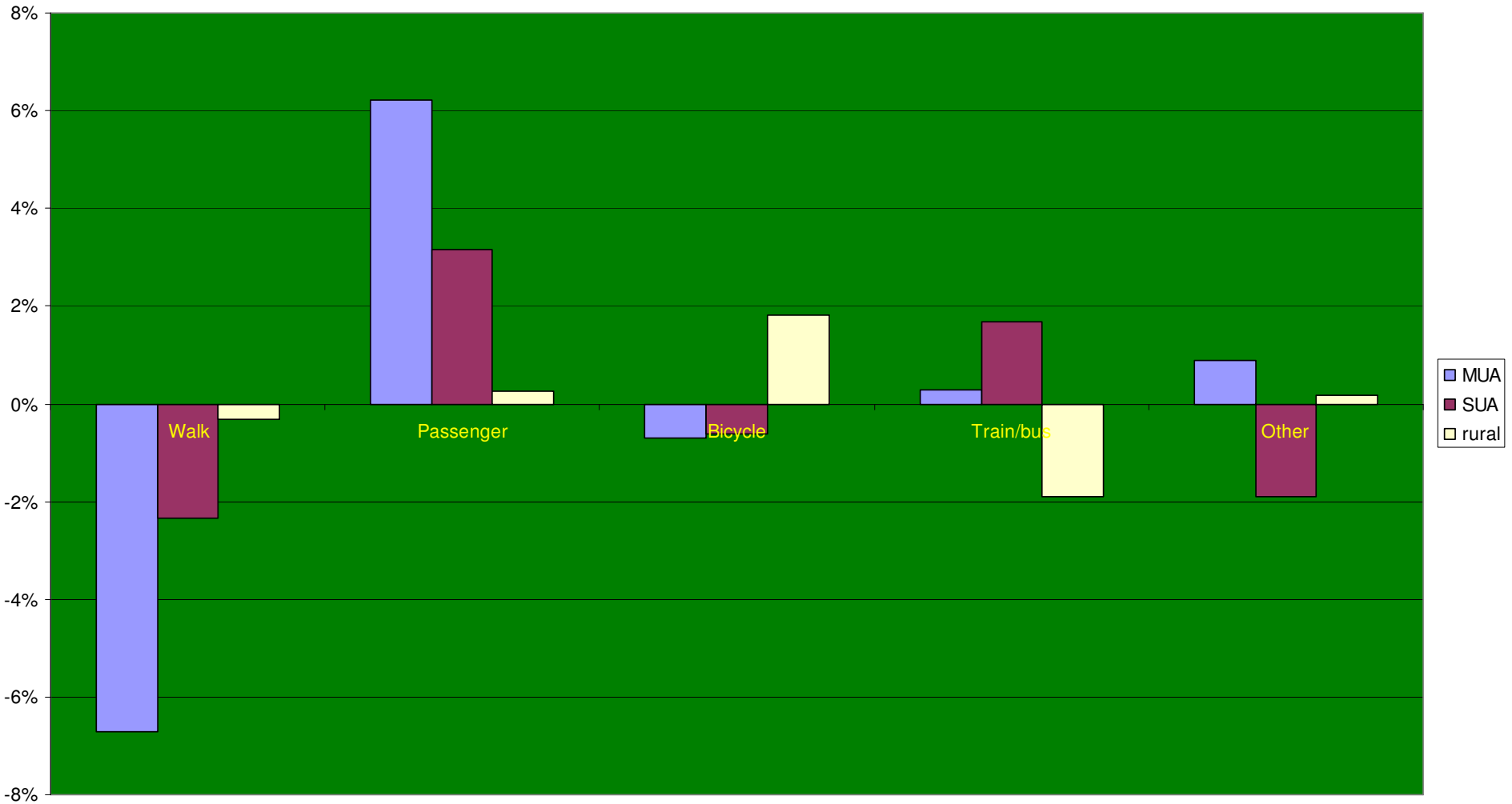
Definitions:

- **Main Urban Area (MUA): City with population of 30,000 or more – Auckland, Hamilton, Napier etc**

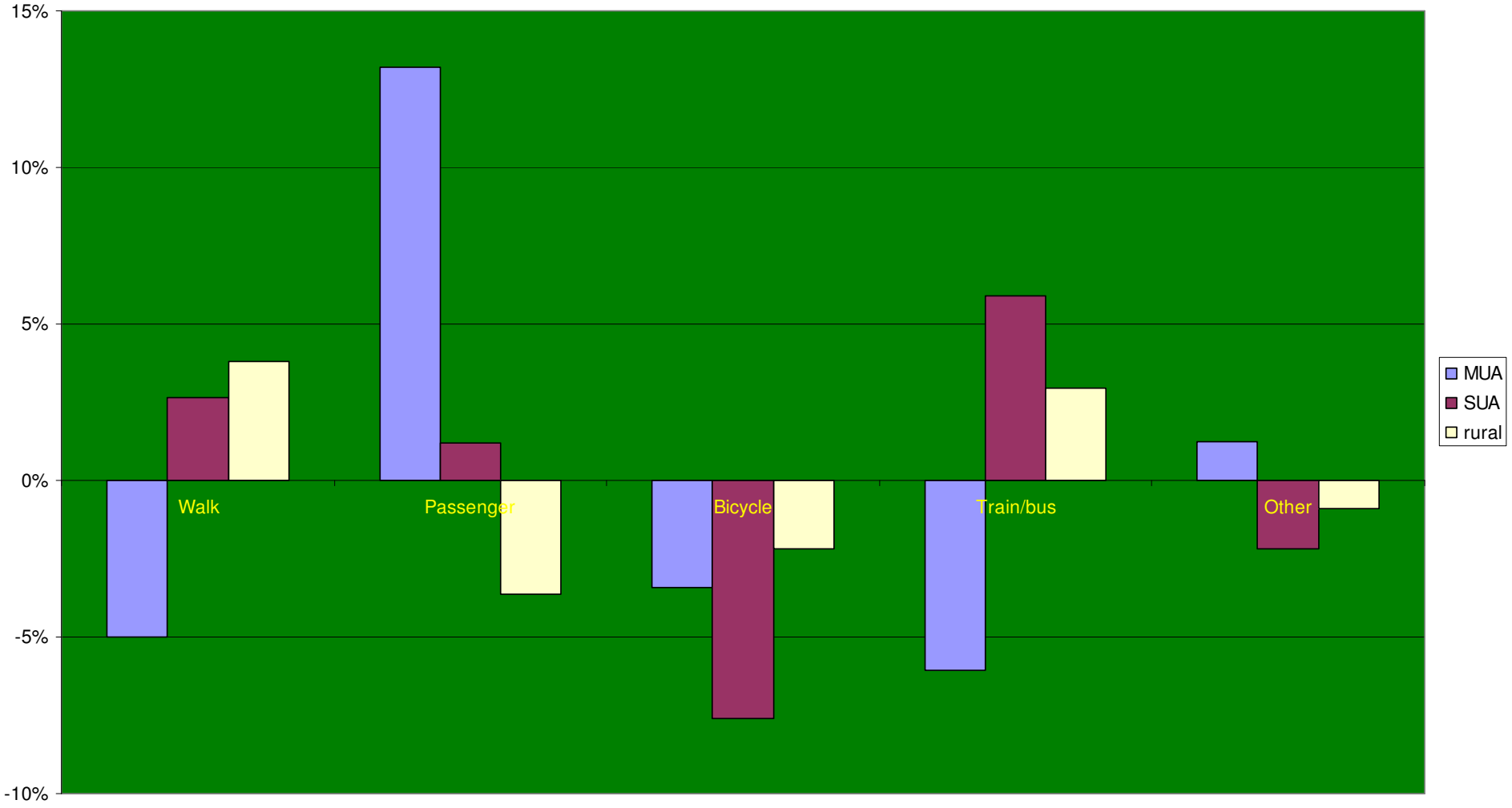
- **Secondary Urban Area (SUA): City with population of between 10,000 and 30,000 – Masterton, Taupo, Pukekohe, etc**

- **Minor Urban and rural (rural): Towns with population of less than 10,000 and rural areas – Westport, Thames, Kaikoura**

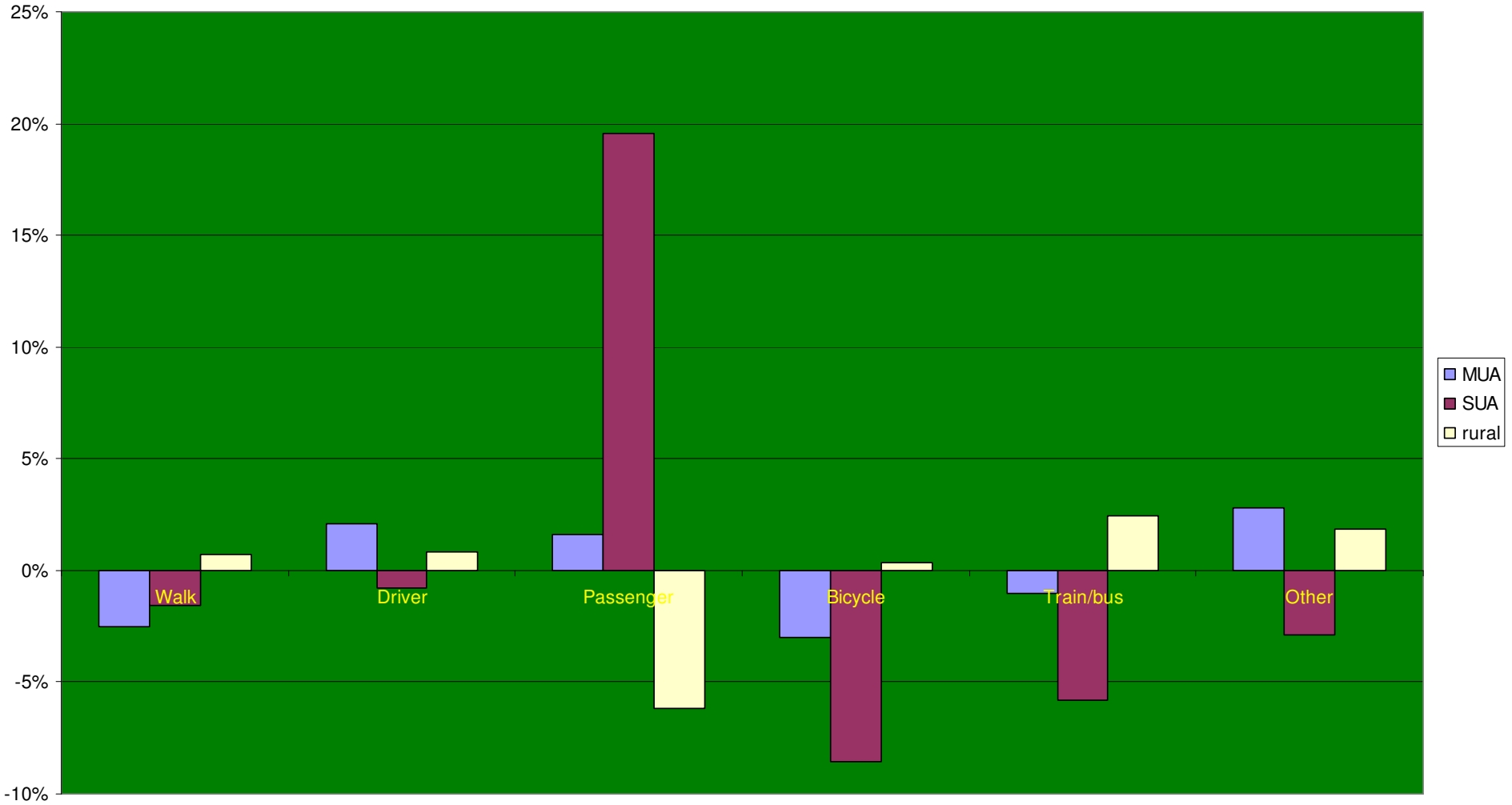
Change in %time travelling 97/98 to 03/06
Children aged <10



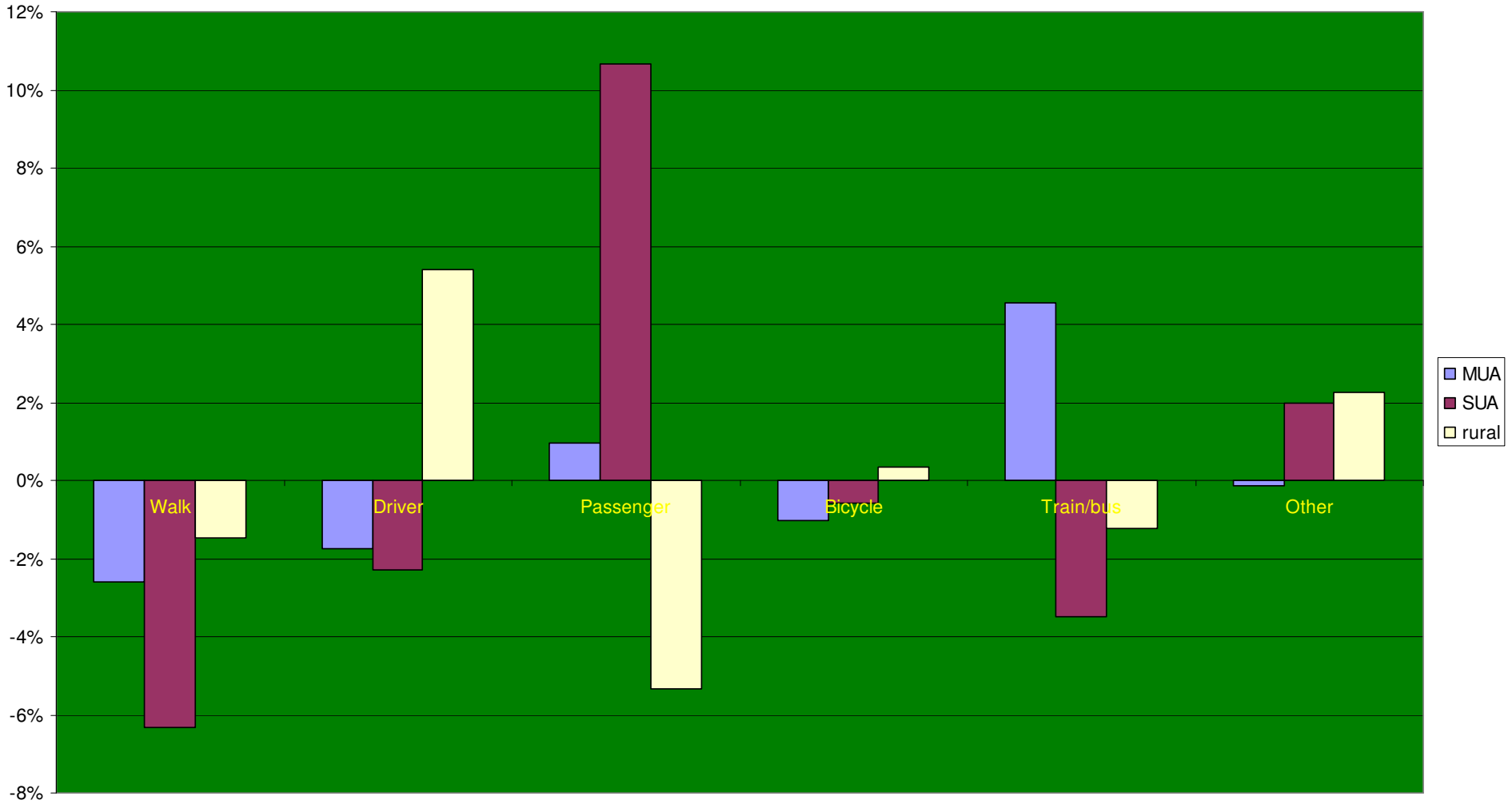
Change in %time travelling 97/98 to 03/06
Children aged 10-14



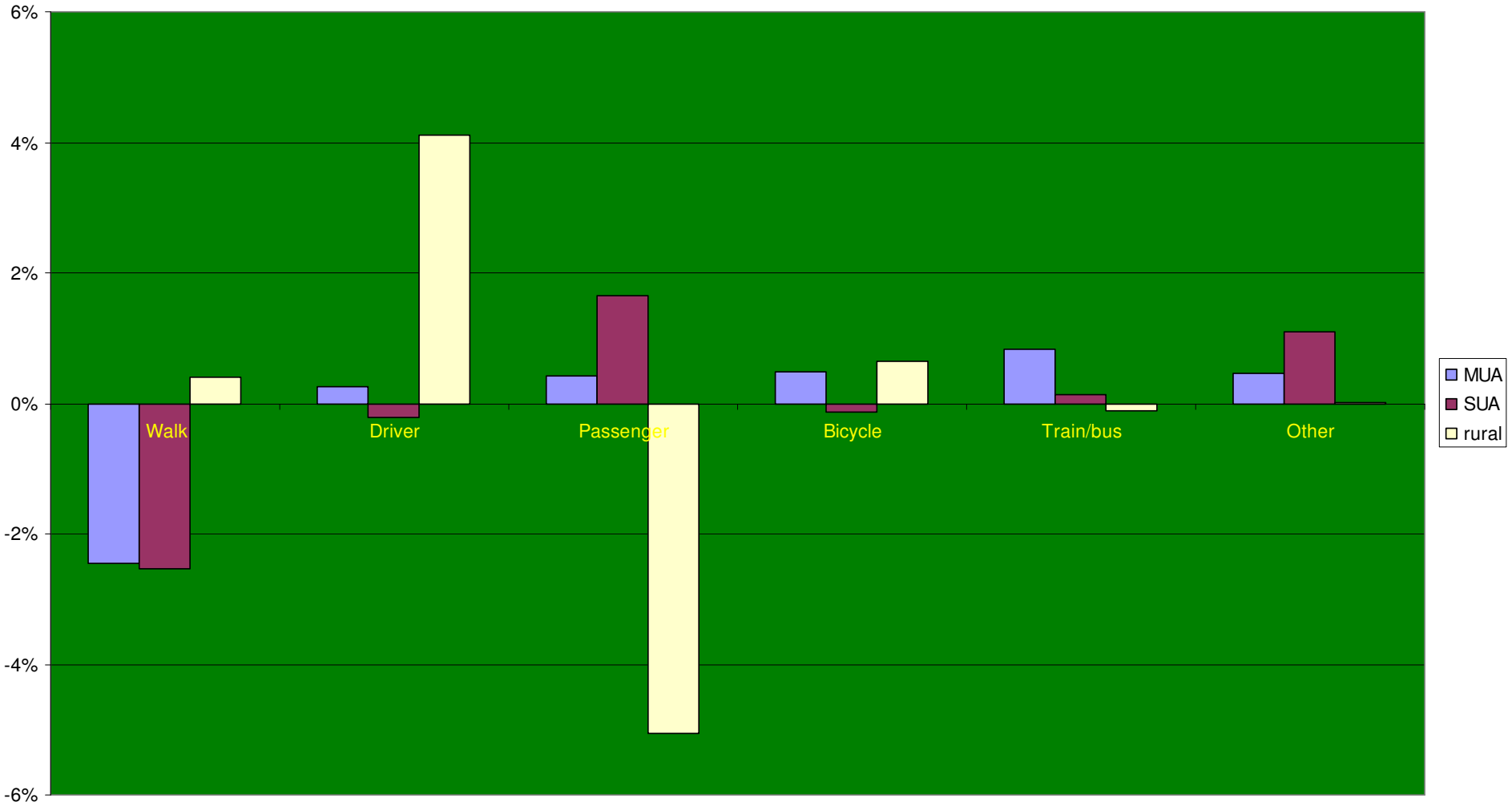
Change in %time travelling 97/98 to 03/06
ages 15-19



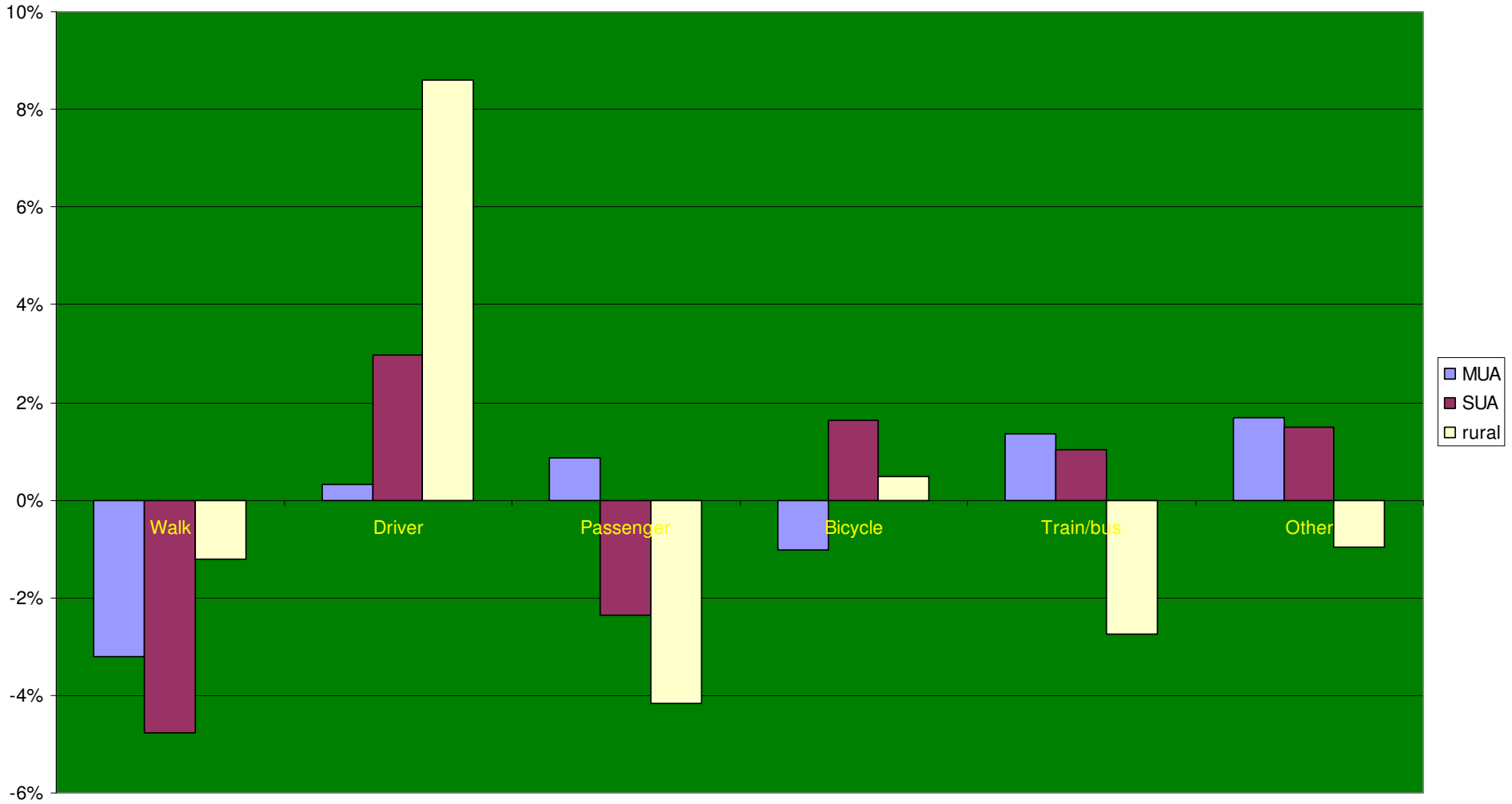
Change in %time travelling 97/98 to 03/06
ages 20-29



Change in %time travelling 97/98 to 03/06
ages 30-59



Change in %time travelling 97/98 to 03/06
ages 60 plus



Summary of how travel is changing in different areas

- **For children aged <10**
  - **In MUAs, walk less and are driven more**
  - **Same for SUAs, but less of a shift**
  - **Little change in rural**
- **For children aged 10-14**
  - **In MUAs, walk less and are driven more**
  - **More walking and more train/bus in rural and SUA**
- **So the change at the national level for children to be driven rather than to walk only occurred in MUAs**

Summary of how travel is changing in different areas (continued)

- **Train and bus in MUAs increase for ages 20+**
- **Walking generally fell for ages 20+, but only small change in rural areas**
- **Passenger travel**
  - **In SUAs, an increase for ages 15-59**
  - **In rural areas, a large decrease with corresponding increase in driving**

What can we infer from such different patterns?

- **The different urban environments either impose or reflect lifestyles that result in different travel behaviours**
- **Future travel survey analysis needs to contrast travel behaviour in different settings to shed further light on the influence of urban design**
- **There are some encouraging contrasts in travel behaviour, particularly for children**
- **Further research needs to identify what motivates travel mode choices**