

# THE PACE OF COMMUTER BEHAVIOUR CHANGE AND IMPLICATIONS FOR TDM IMPLEMENTATION: FINDINGS OF A RETROSPECTIVE TRAVEL SURVEY IN CAPE TOWN



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## Introduction



- It is posited:
  - that travel choices are **not made deliberately** every day;
  - that travel choices, if proven in past experiences to be of benefit or at least satisfactory to the traveller, become **habitual**; and
  - that travel habits are typically broken when some form of **'life shock' or 'life event' occurs** which triggers a reappraisal of the habit and leads to an alternative deliberate habit-forming decision
- Successful TDM implementation should take account of
  - the **nature and frequency** of life events
  - the extent to which life events represent **opportunities for positive change** for more sustainable travel
  - ways in which positive change can be **reinforced**

## Introduction



- paper discusses the **findings of a retrospective travel survey** (n=250p) conducted in Cape Town during August 2006
- data were collected in 4 residential areas in which a large portion of households fall within the medium income band (households in the car-owning or 'car-aspirant' income group)
- interviewed one worker per household about commute to work and changes in aspects of the trip (without TDM interventions)
- the **aim of this paper** is to report upon findings with respect to:
  - the pace at which survey respondents change different elements of their commute travel behaviour,
  - the pace at which commuters consider change, even if they do not act upon it
  - the triggers or life events associated with each change
  - implications for TDM implementation

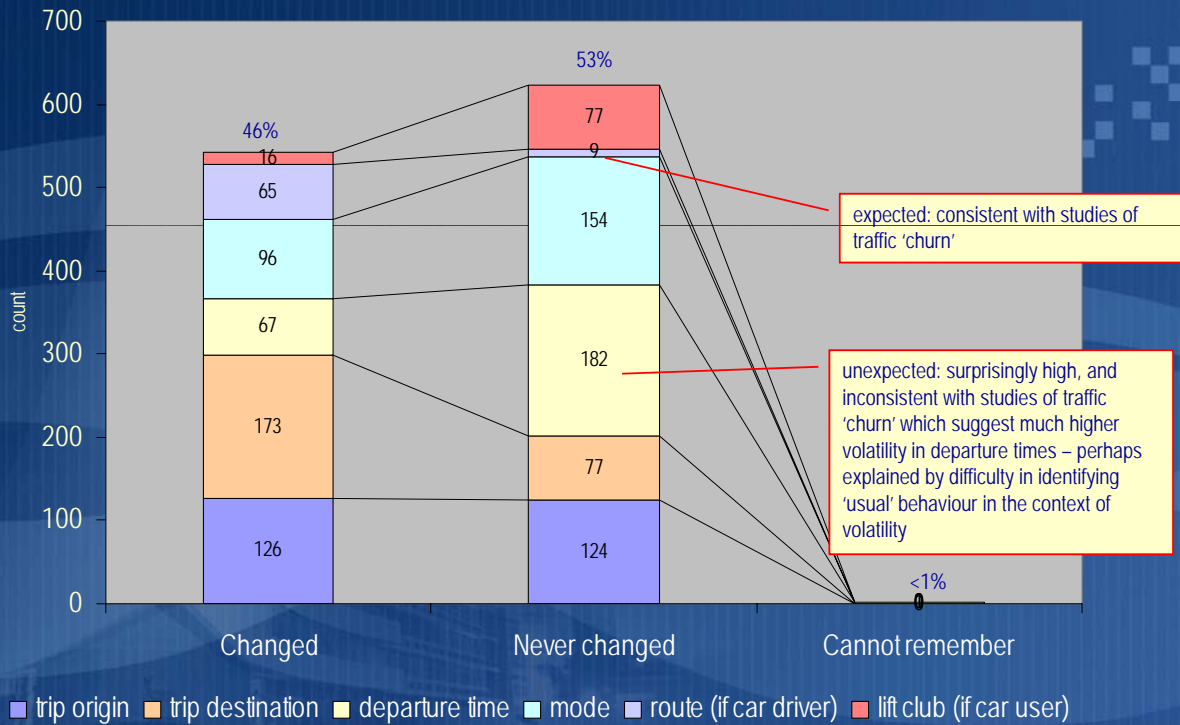
## Introduction

### Questioning framework:

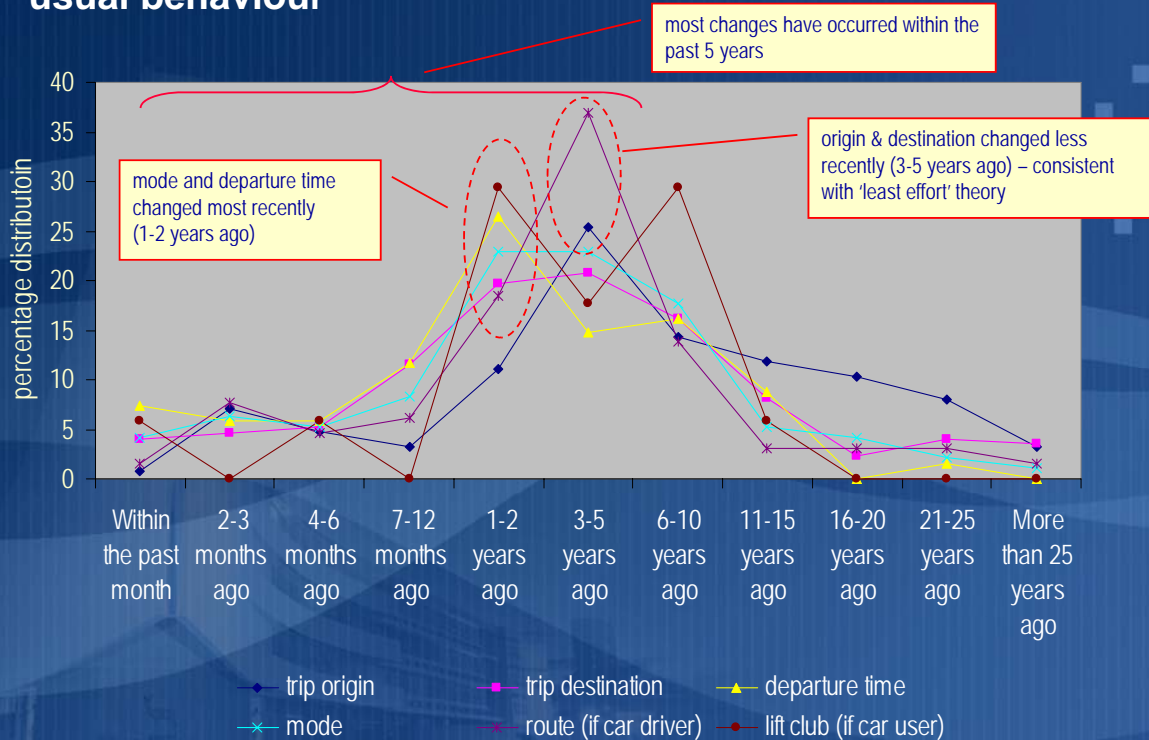
	current usual behaviour	time elapsed since last change in usual behaviour	previous usual behaviour	what triggered last change
origin				
departure time				
mode used				
occupancy (if car user)				
route (if car driver)				
destination				

... If no change ever, ask same questions about *considering change*

## Survey findings: Change vs No change



## Survey findings: Time elapsed since change in usual behaviour



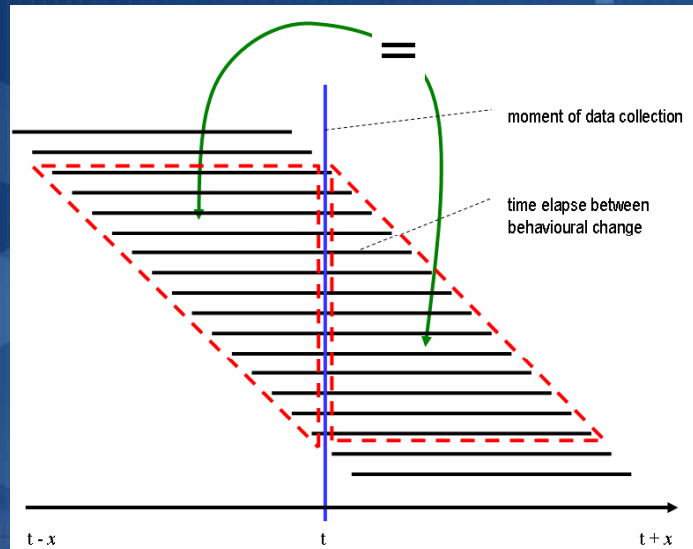
## Survey findings: Mean pace of change

If it is assumed that:

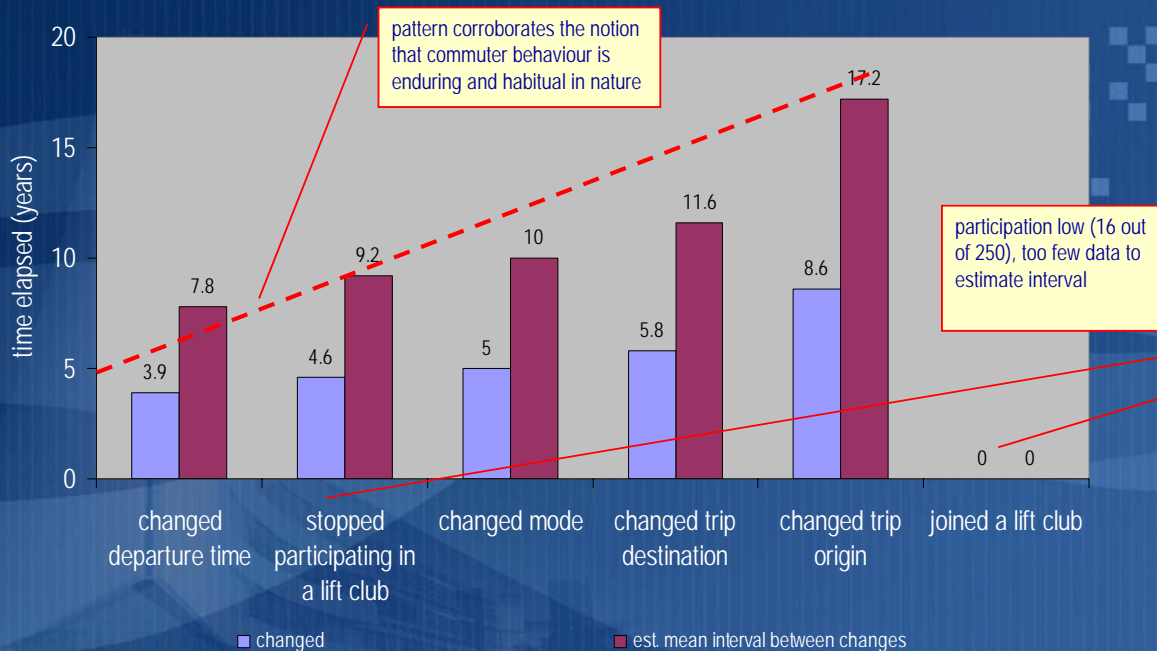
- the *rate* of change is constant across the entire sample population
- the *frequency* of change is also constant over time

then:

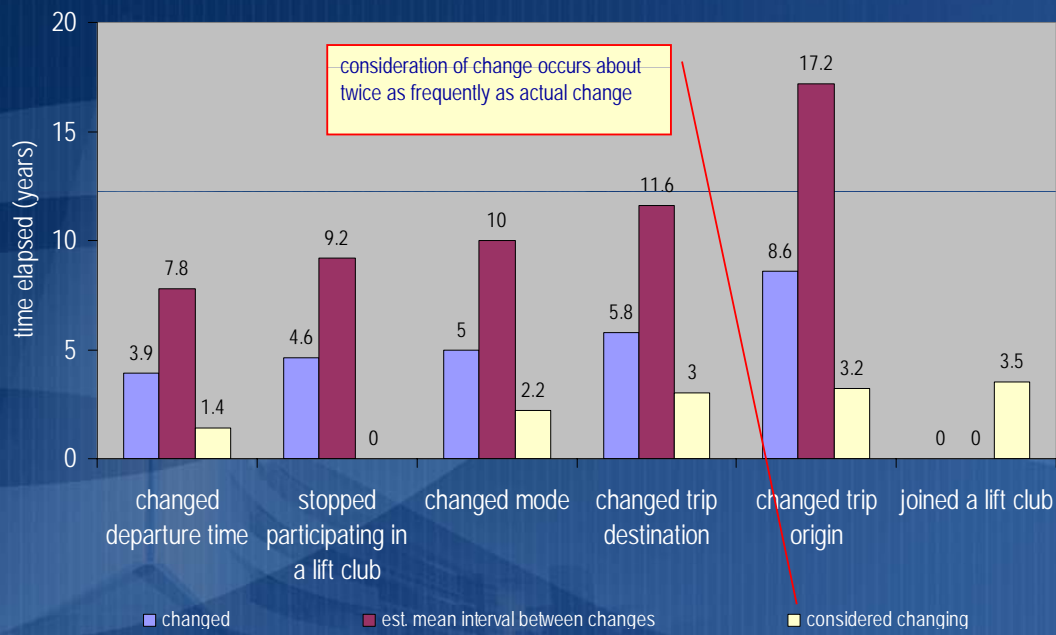
- the mean of 'time elapsed since change' values are half the mean frequency of behaviour changes
- a doubling of the 'time elapsed since change' value provides a very rough indication of the pace at which change is happening



## Survey findings: Mean interval between changes



## Survey findings: Considering changing



## Survey findings: Triggers of change

### TRIGGERS MENTIONED

RESPONSES	Total	Family	Work	Transport	Other
Changed home address	141	57	-	19	57
Changed work place	173	118	42	6	7
Changed mode	119	2	-	79	38
Changed departure time	74	3	59	5	-

Life cycle triggers contribute most to change in home and work place:  
-got married, changed household size  
-improve housing or change jobs

More common among very young and old

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Both life cycle triggers, e.g.  
 -got married, changed job, changed home  
 And transport triggers, e.g.  
 -gained/lost use of car; convenience, cost  
 Contributed to mode change

## Conclusion: Implications for TDM implementation

- the **pace of change** following the initiation of TDM strategies can be expected to be slow
- in the absence of a TDM intervention that changes the generalised cost of single occupancy car travel considerably, behavioural responses to TDM strategies are likely to occur slowly, at a pace determined by 'churning' changes that are occurring anyway
- indicative findings: on average in the order of once every 8 to 17 years, depending on which trip decision element is considered

## Conclusion: Implications for TDM implementation

- some TDM measures are likely to have **shorter response lags** than others, because some elements of trip decisions change more rapidly than others
- findings show that TDM measures aimed at changing trip timing behaviour are likely to have shorter term response rates, followed by measures aimed at route choice, then vehicle occupancy, and in the longer term, mode switching, and origin/destination choice
- to satisfy political demands for demonstrable short term impacts, it may be necessary to choose TDM measures with shorter term response rates for implementation in initial phases
- the **timeframes of TDM strategy monitoring and assessment** needs to occur over the medium- to long-term

## Conclusion: Implications for TDM implementation

- non-transport related reasons (e.g. getting married, changing household size, moving to better area, getting a better job) are the most significant **triggers** for changes in travel behaviour, rather than transport reasons directly
- mode change is often preceded by **changes in travel context** (e.g. changed jobs, gained/lost car) that force habit-breaking, and change in travel behaviour

## Acknowledgments

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