UWE Bristol | University of the West of England

To what extent does new cycling infrastructure prompt people to switch from car to cycling?

Dr Ben Clark and Prof. John Parkin

Documents

Cycling diversion factors rapid evidence assessment: summary report

PDF, 685 KB, 53 pages

Direct observation of diversion factors UK: evidence summary tables

PDF, 722 KB, 42 pages

This file may not be suitable for users of assistive technology.

Related content

Collection

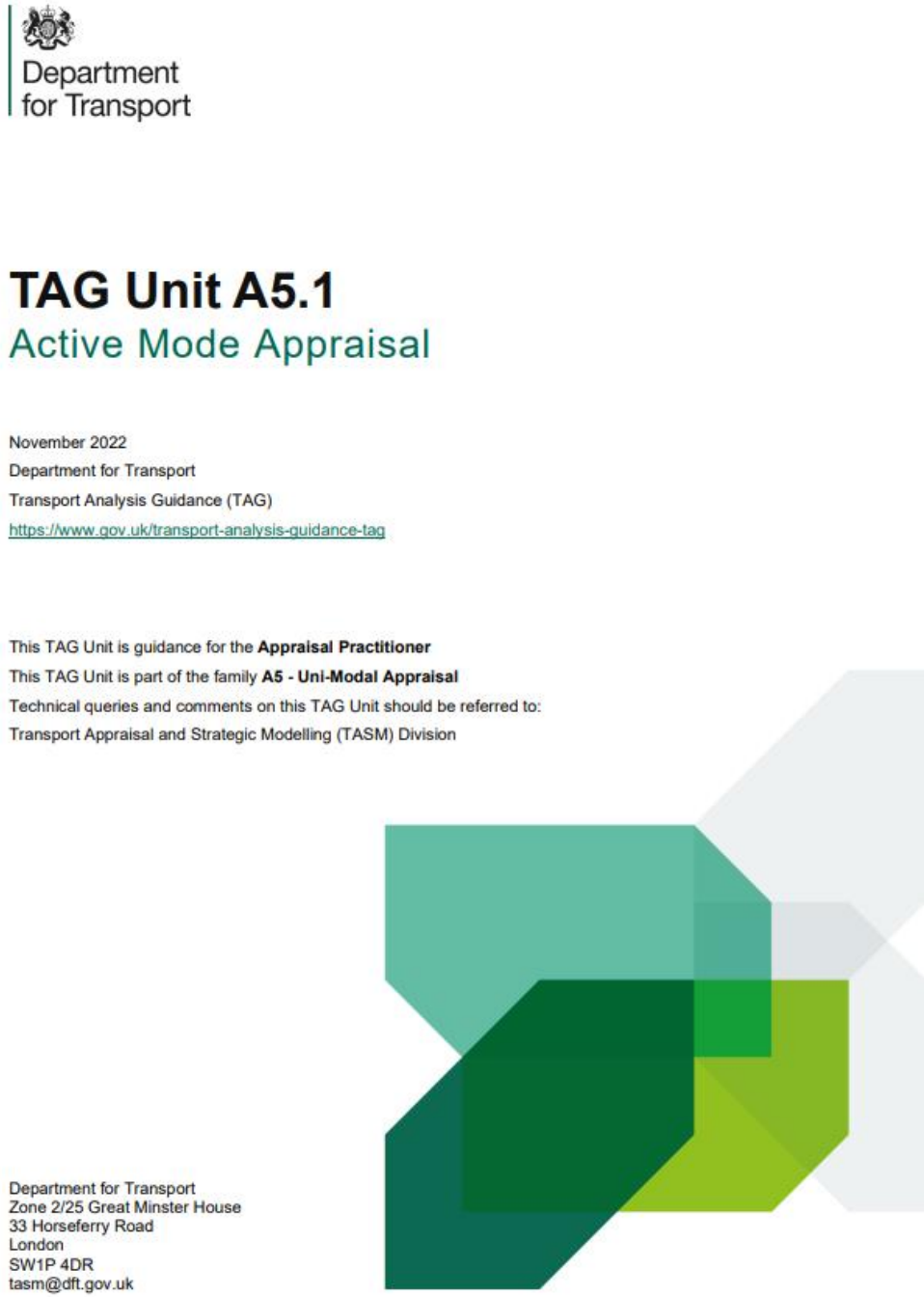
Transport appraisal and strategic modelling (TASM) research reports

*"**3.7 Decongestion and Indirect Tax Benefits***

…Mode switch from car to active modes will benefit those who continue to use the highways (decongestion benefit)

The diversion factors in TAG data book table A.5.4.7 can be used to calculate the change in vehicle kilometres

*…with a full choice set, **if there are 100 new cyclists, there are 24 fewer people travelling by car…**"*



Department for Transport

TAG Unit A5.1

Active Mode Appraisal

November 2022

Department for Transport

Transport Analysis Guidance (TAG)

https://www.gov.uk/transport-analysis-guidance-tag

This TAG Unit is guidance for the **Appraisal Practitioner**

This TAG Unit is part of the family **A5 - Uni-Modal Appraisal**

Technical queries and comments on this TAG Unit should be referred to:

Transport Appraisal and Strategic Modelling (TASM) Division

Department for Transport
Zone 2/25 Great Minster House
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London
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really...?

Some questions….

1. Where did this figure (“24 fewer people travelling by car…”) come from?
2. How strong is the evidence underpinning the figure?
3. What problems are there with the premise of the question: “To what extent does new cycling infrastructure prompt people to switch from car to cycling”?
4. How do you think we should be making informed decisions about investment in cycling infrastructure to boost cycling rates?

1. Where did this figure come from?

- Largely based on the Cycling City Ambition Fund Evaluation Study

- Very few published studies providing direct evidence of UK cycling diversion rates from car to cycle

- Our rapid evidence assessment involved
  - Online search and direct requests for evidence to academics, transport authorities and cycling organisations
  - Search generated 87 sources which were screened to return 15 UK studies and 5 international studies
  - But the CCA study was found to be the best source of evidence on cycling diversion rates
  - [There may be unpublished data out there…]

Route User Intercept Surveys, CCA, response to question "How would you travel if this scheme was not available?" (from Table E.2 in final technical evaluation report)										Proportion of new cycle trips that would otherwise have been…		
City	Year of survey	No. cyclist respondents	No mode change (would still cycle)	Would use car (as driver or passenger)	Would use other modes	Would not make this journey				…made by car	…made by other modes	..not made (i.e. generated trips)
Birmingham	2017	352	48%	10%	19%	23%				19%	37%	45%
Greater Manchester	2019	175	88%	4%	4%	3%				32%	28%	27%
Newcastle	2017	582	90%	1%	6%	3%				12%	55%	33%
Norwich	2017	1032	87%	4%	8%	0%				32%	65%	2%
Norwich	2018-19	1138	82%	7%	10%	1%				40%	55%	5%
Oxford	2016	179	98%	0%	2%	1%				0%	77%	27%
West of England	2016	69	57%	16%	22%	6%				37%	50%	13%
West of England	2017	351	95%	2%	3%	0%				33%	67%	0%
West Yorkshire	2017-18	322	69%	6%	22%	3%				18%	72%	10%
Programme		**2920**	**80%**	**5%**	**11%**	**4%**				**26%**	**52%**	**22%**

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Programme		**2920**	**80%**	**5%**	**11%**	**4%**		**26%**	**52%**	**22%**

2. How strong is the evidence underpinning the figure?

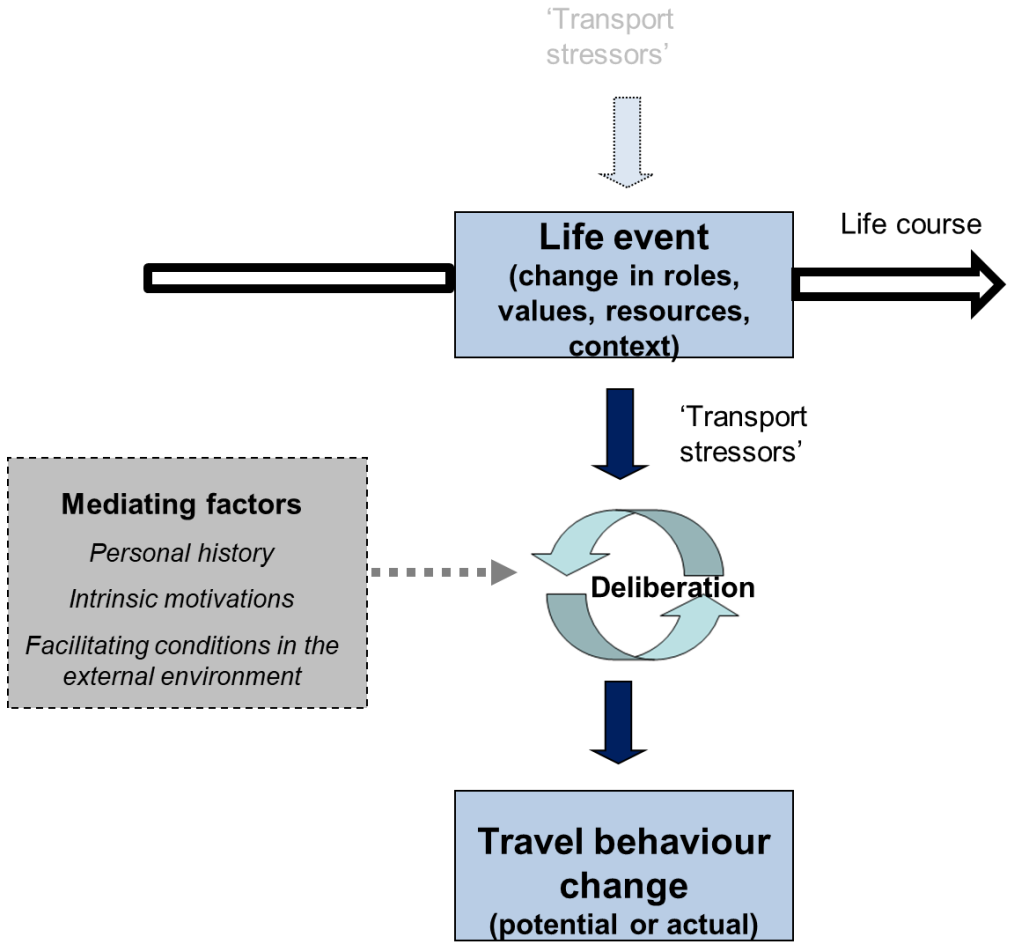
....not very....

3. What problems are there with the premise of the question?

"To what extent does **new cycling infrastructure** prompt people to switch from car to cycling"?

Travel behaviour change is complex

- No simple cause and effect relationship between infrastructure change and behaviour change
- Short sections of e.g. cycle track in isolation will have limited impact on mode shift
  - But beneficial to existing cyclists
- Network effects on behaviour change
  - Complete cycle networks > fragmented cycle infrastructure
  - Fragmented cycling funding = fragmented cycle networks
- Long run behaviour change > Short run behaviour change
  - Very few new cycle trips in the immediate term



4. How do you think we should be making informed decisions about investment in cycling infrastructure to boost cycling rates?

A simplistic(?) logic

- If there is an agreed national objective to boost cycling rates in towns / cities

- Then there needs to be investment in infrastructure that is
  - Coherent
  - Direct
  - Safe
  - Comfortable
  - Attractive

  } A necessary condition for behaviour change

- Which requires long term / certain funding settlements to enable the planning and implementation of coherent networks

- Involving appropriate checks and monitoring to ensure value for money and infrastructure quality

Department for Transport

Cycle Infrastructure Design