ITF Round Table on Zero Car Growth? Managing Urban Traffic
16-17 December 2019, Paris

Main Trends in Car Use, Travel Demand and Policy Thinking on how to deal with Uncertainties

Phil Goodwin

A hypothesis

A *near-universal* urban experience: over a century of a *contested* and *unresolved* conflict

Provide for increasing car traffic

or

Limit and reverse that increase

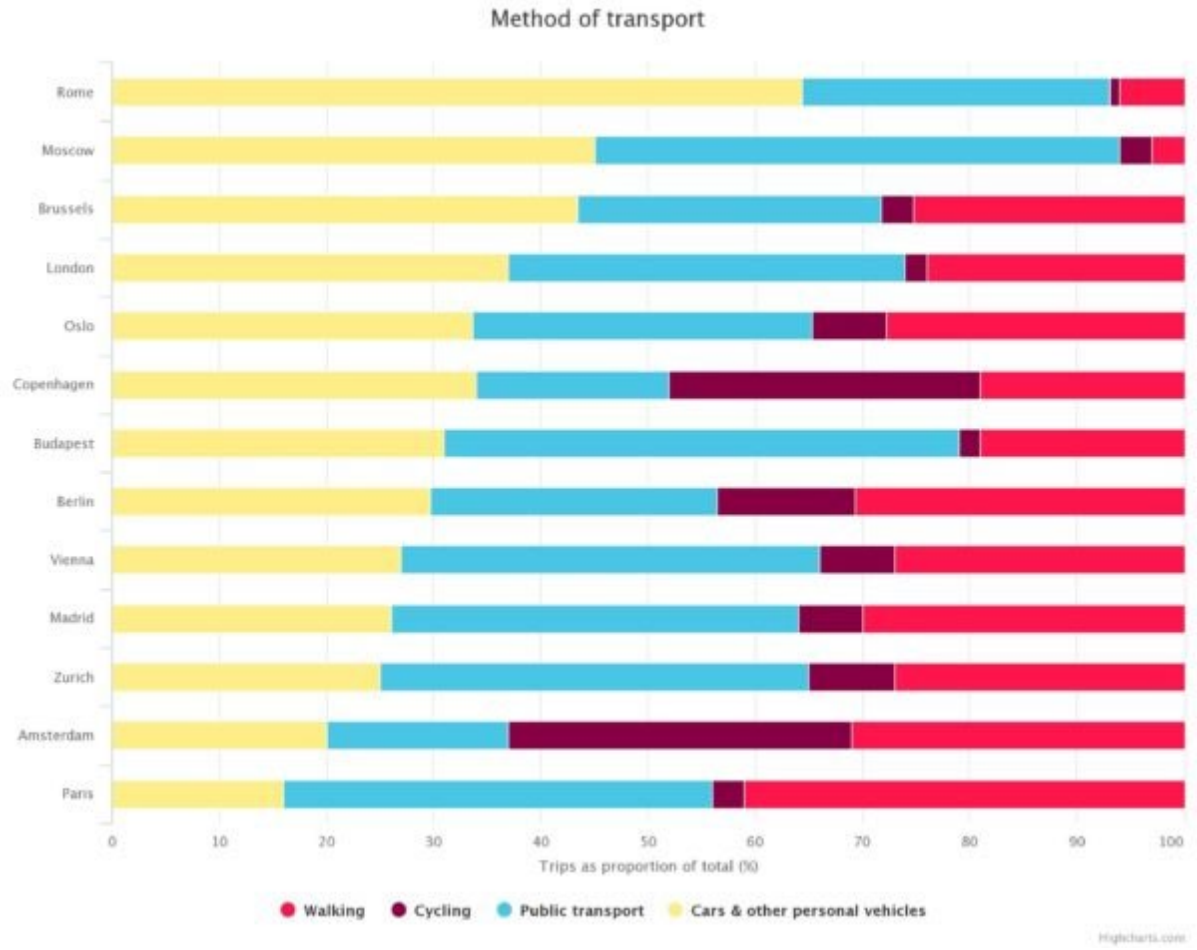
(Current policy debate is not new, but it is now unavoidable, for reasons of congestion, health, social well-being, equity and climate change)

How to discuss?

- Each city (& country) has its own distinct history
- From time to time leaders or role models emerge – Freiburg & Nurnberg on early pedestrianisation; London & Stockholm on pricing; Amsterdam & Copenhagen on cycling; Paris on road reallocation…
- But there is no city that has yet used all the instruments of policy in a consistent and coherent way?

Paris, Amsterdam, Zurich, Madrid, Vienna, Berlin, Budapest, Copenhagen, Oslo, London, Brussels, Moscow, Rome

https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=2ahUKEwij7rLLnq3mAhXSDGMBHbaYCogQjB16BAgBEAM&url=https%3A%2F%2Funearthed.greenpeace.org%2F2018%2F05%2F22%2Fgreen-transport-european-cities-five-charts%2F&psig=AOvVaw16znJHuFRftcsOkRWD03QR&ust=1576141038242500



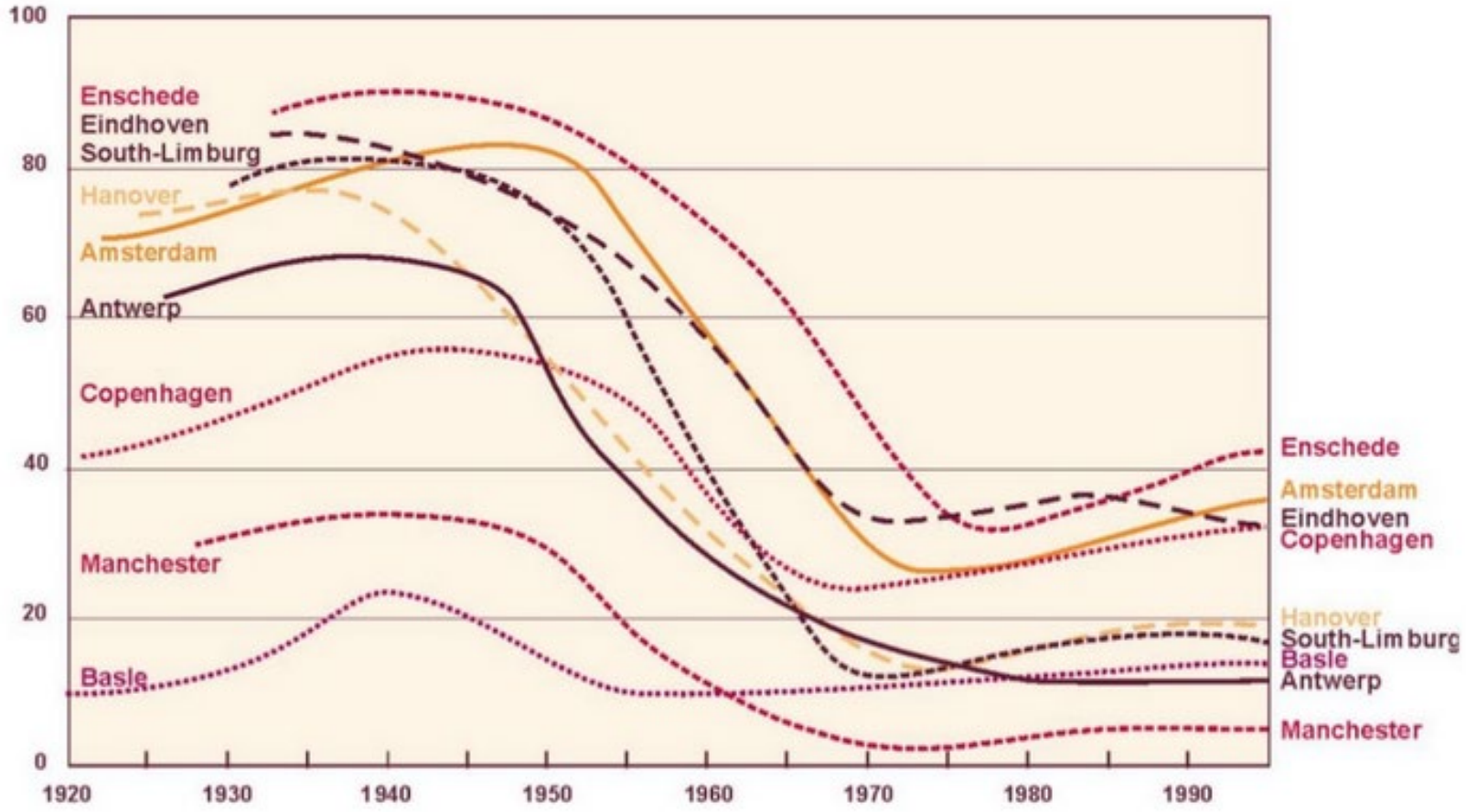
Freiburg

Modal Shares in Freiburg
(Percent of Travel by Mode)

Year	*Cars*	*Public Transit*	*Bicycle*
1976	60%	22%	18%
1989	48%	25%	27%
1996	43%	28%	29%

Source: Ungern-Sternberg (1997b)

Cycling – turning point pre 1980



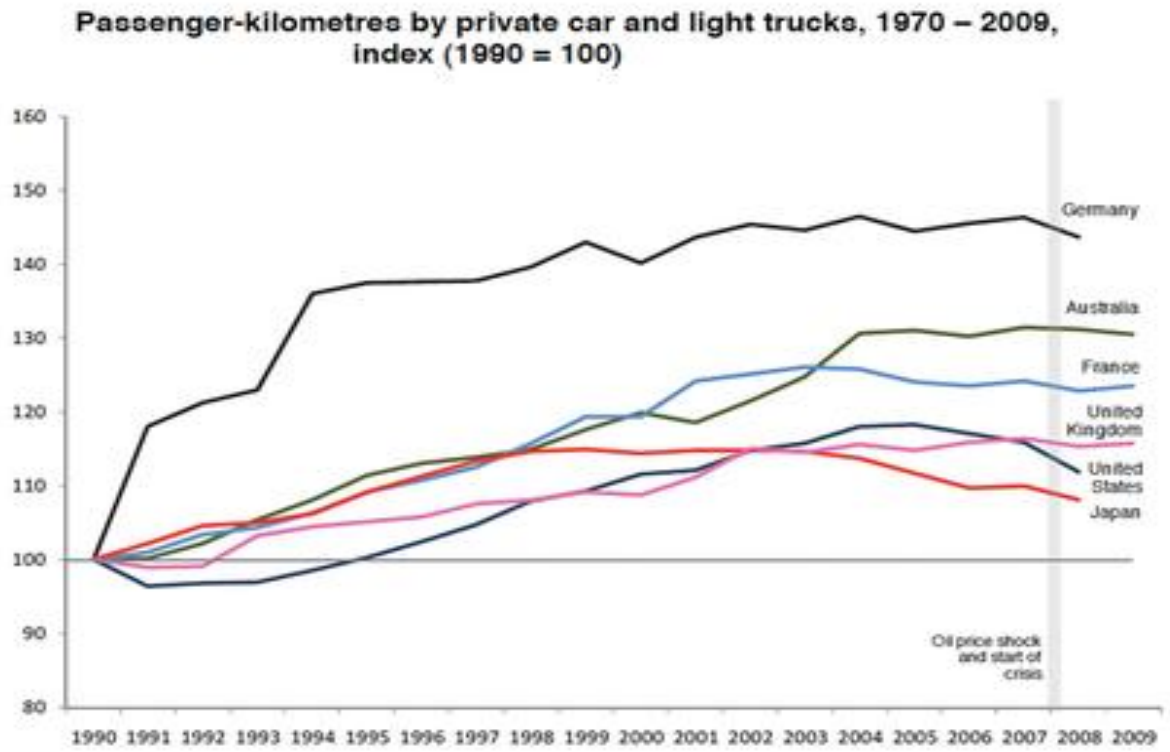
International policy guidelines since the 1990s (and even these were not the first)

Unanimous policy statement by ECMT Ministers of Transport 1990

"effective and acceptable means of reducing the use of the private car in urban areas need to be applied"

(taxes & regulations to reduce fuel consumption, measures to reduce the 'greenhouse effect', traffic management to change modal split, 'polluter pays' charging to reduce environmental damage, appraisal to include not *building roads…)*

2010-2016 a debate – are we already reaching ‘peak car’?



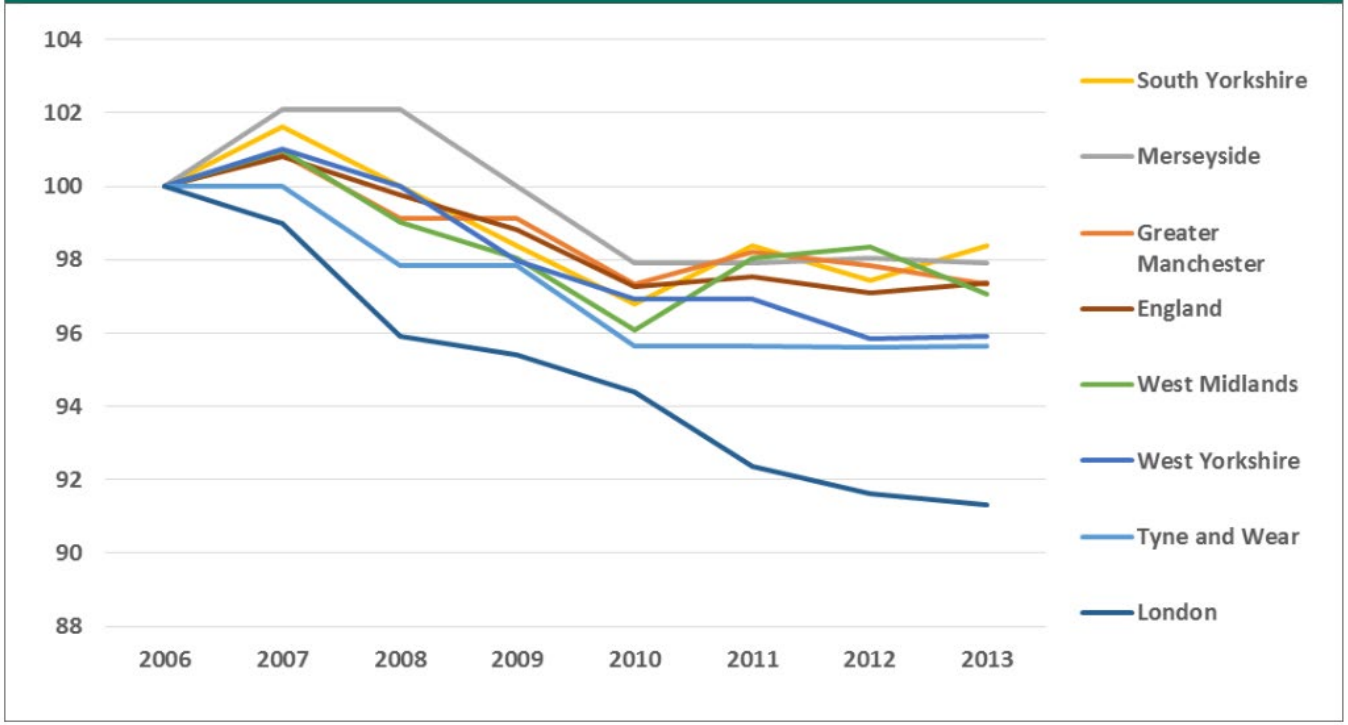
Source: International Transport Forum statistics.

The ‘Peak car’ question had to be disaggregated…

- The question could not be resolved using national traffic growth
- Because if the national trend was showing little or no growth, but some places or groups were growing, there *must be others who were declining? Who? and Why?*

Main English Cities 2006-2013

Figure 2.21: Motor vehicle traffic in London and former metropolitan counties; index: 2006=100[38]



But the turning point was earlier, around 1991 in London, others 2000

Figure 7: Miles travelled by car/person/year by local authority area type[52]

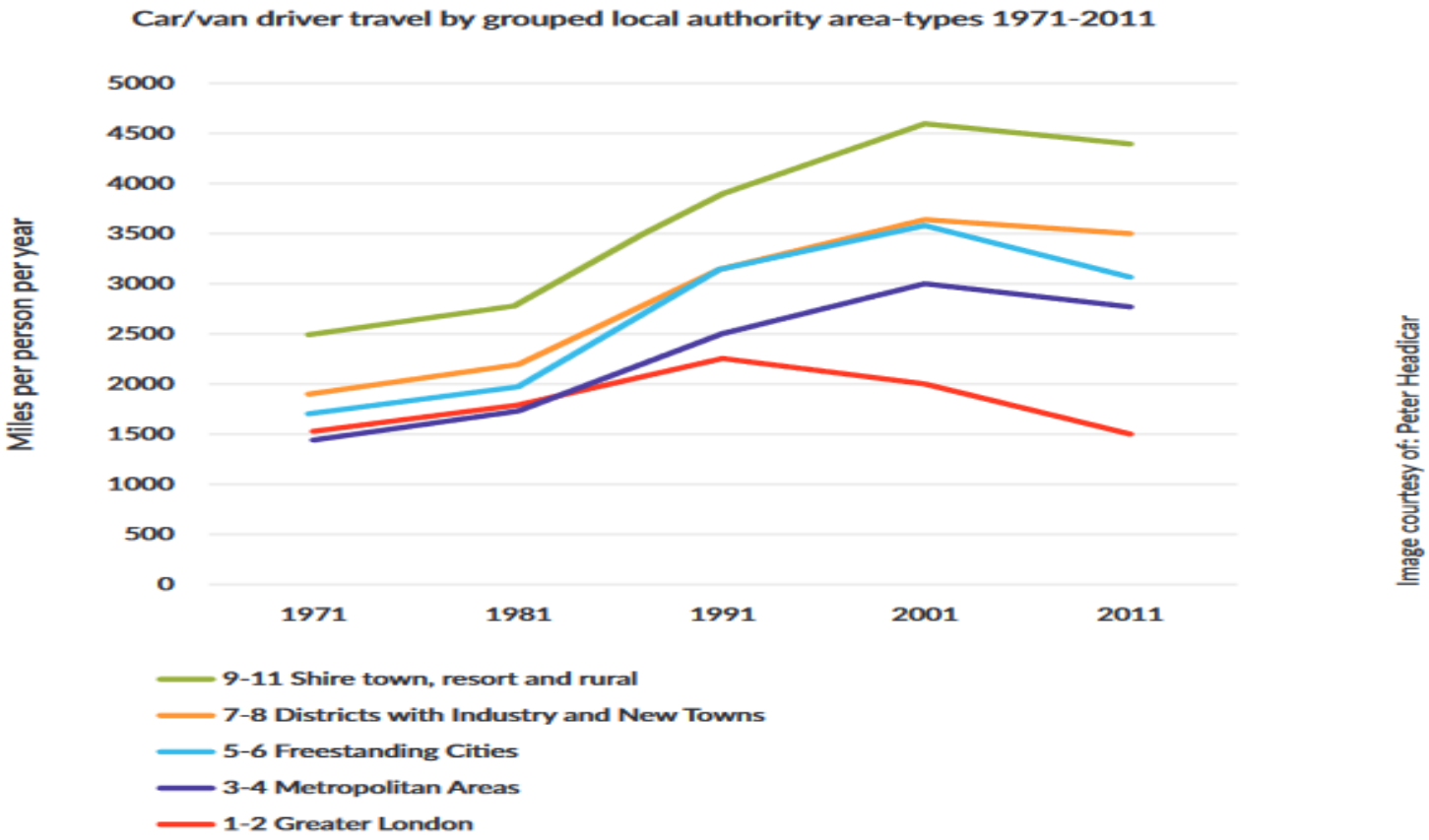
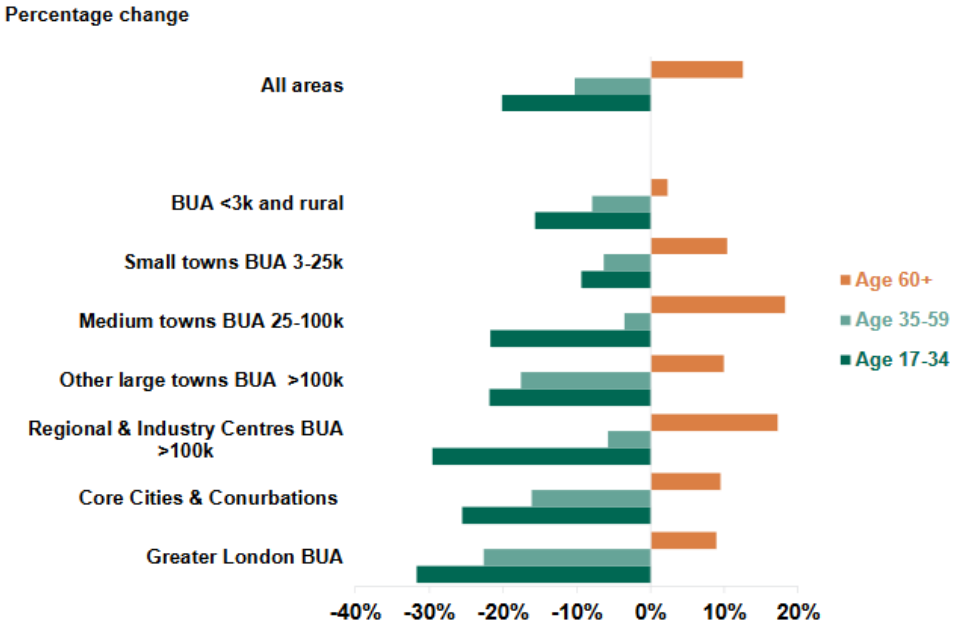


Image courtesy of: Peter Headicar

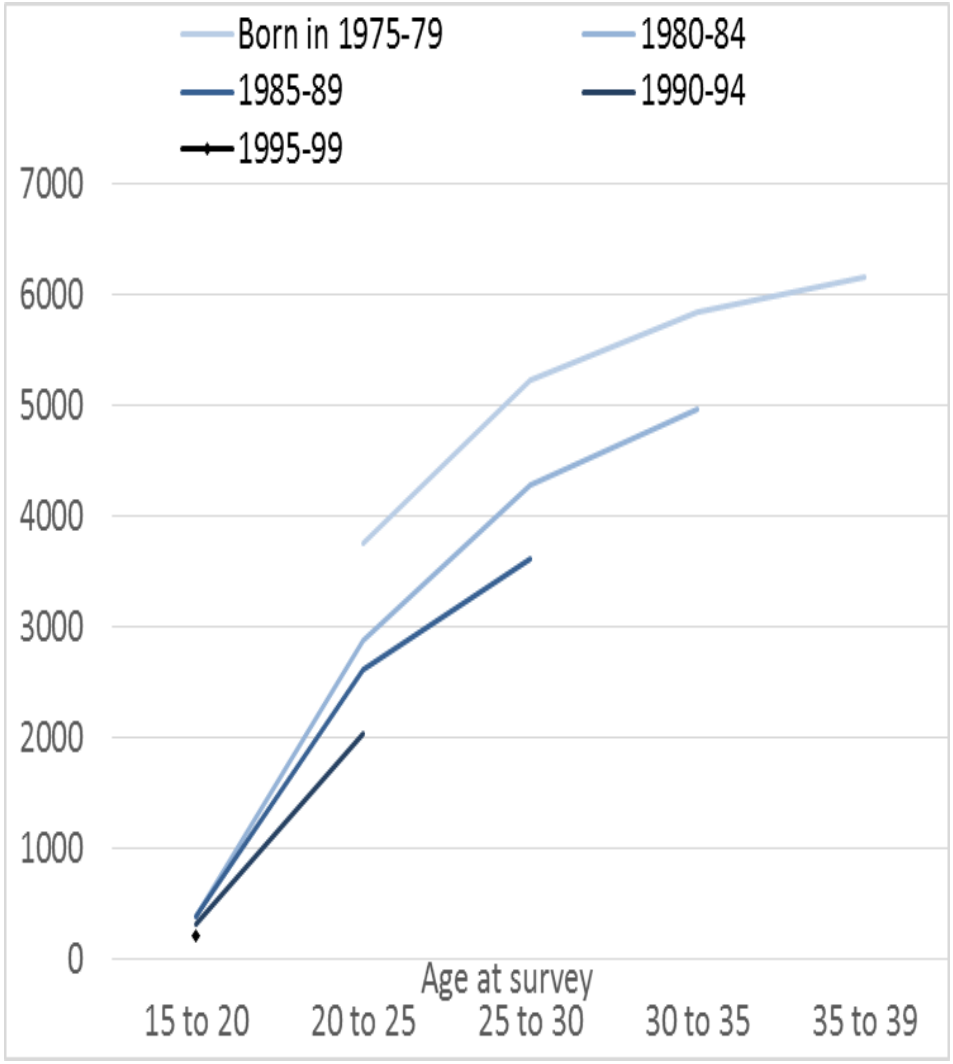
...especially for young people

(Peter Headicar, Chatterjee et al)

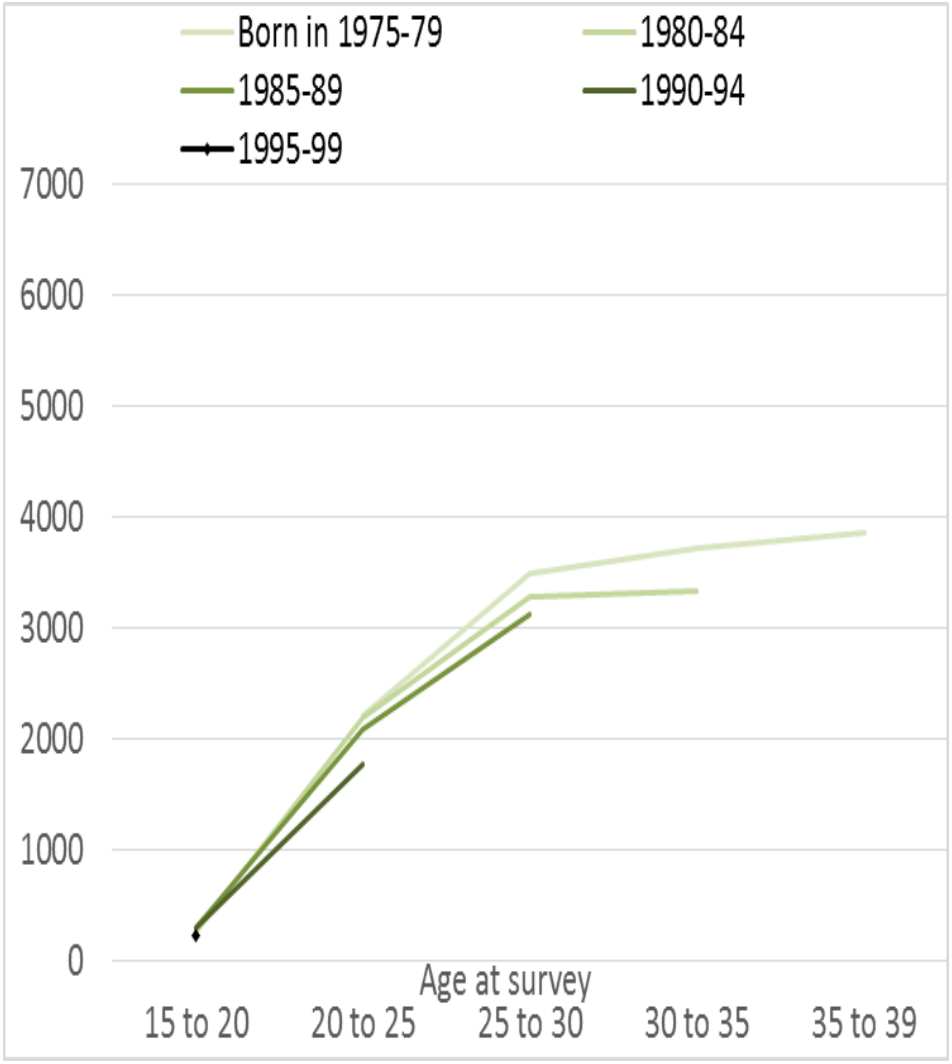
Chart 17: Percentage change in car driver miles per head per year by age group and area type and BUA size: England 2002-5 to 2011-14



Miles driven rose as people got older, but to lower level for successive cohorts

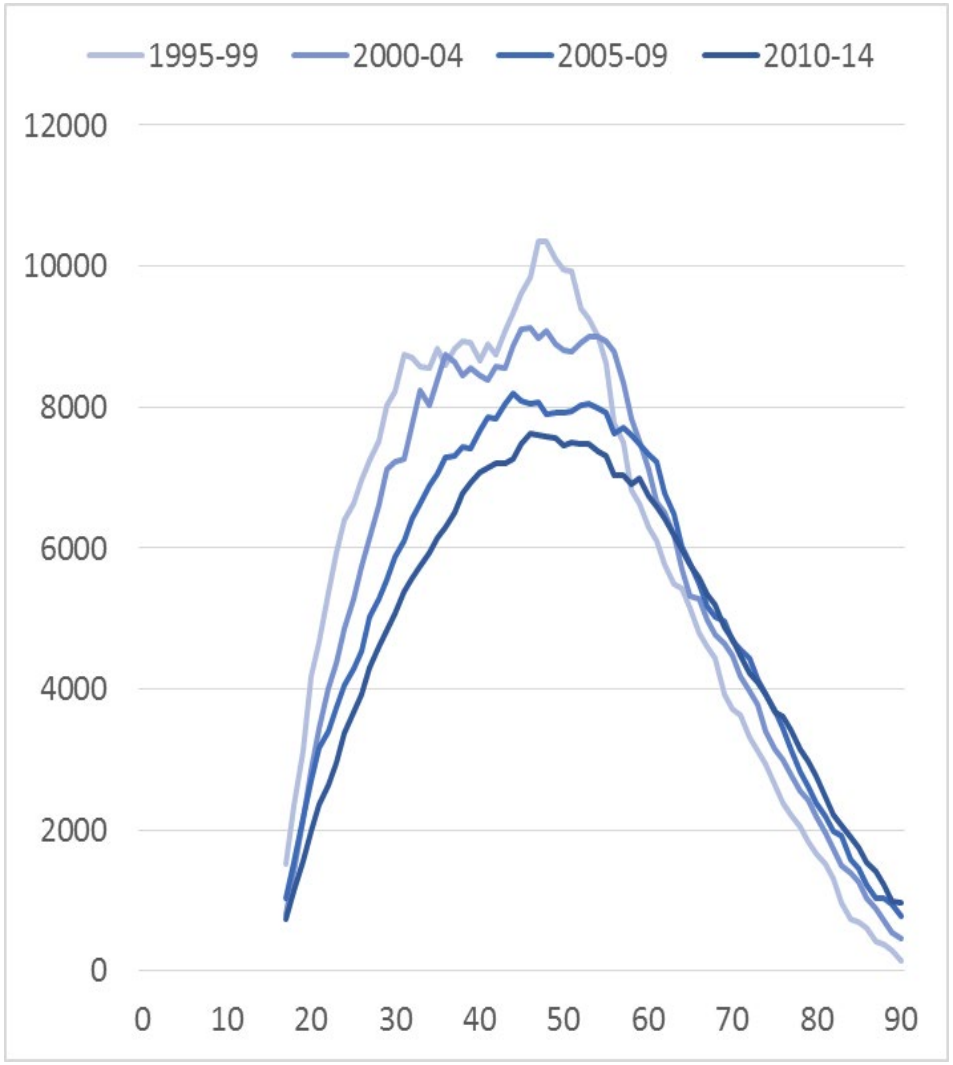


Men

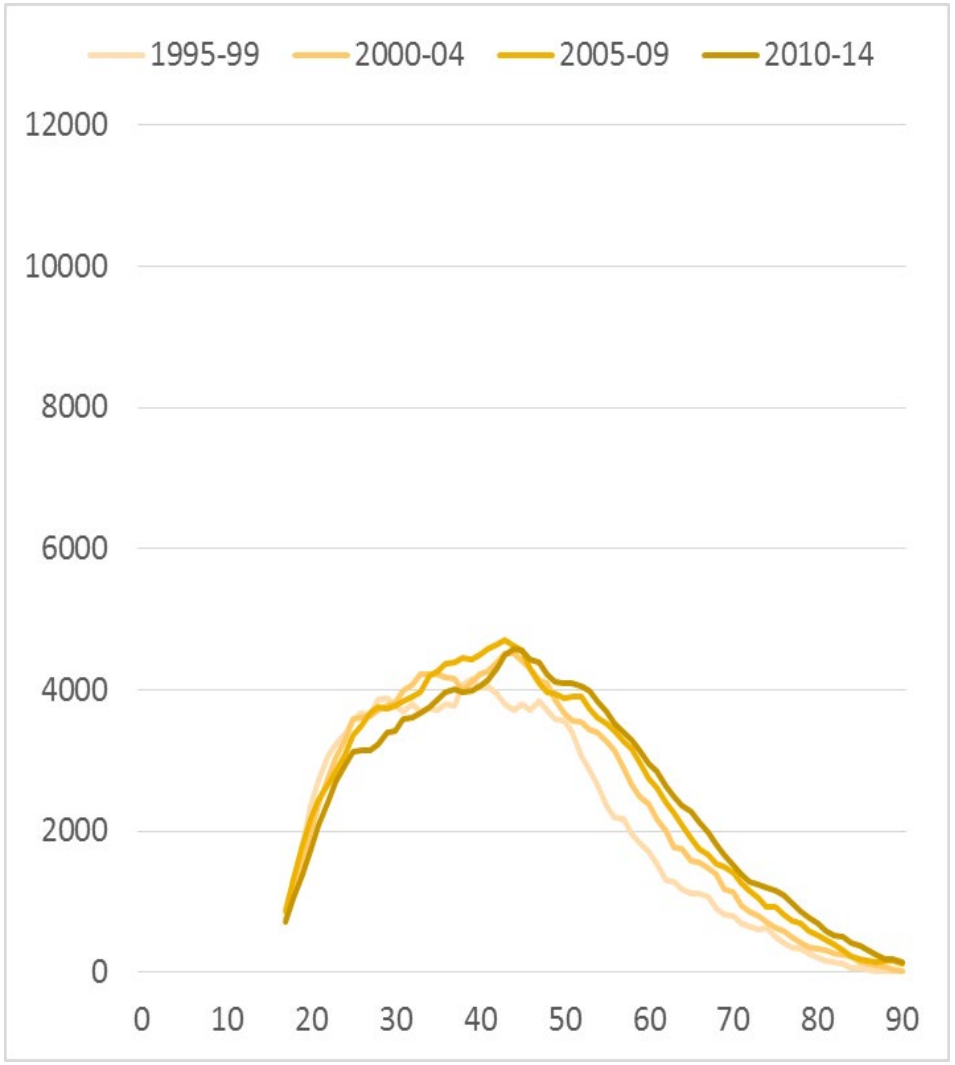


Women

Young people driving fewer miles, older people driving more (turning point age 50)

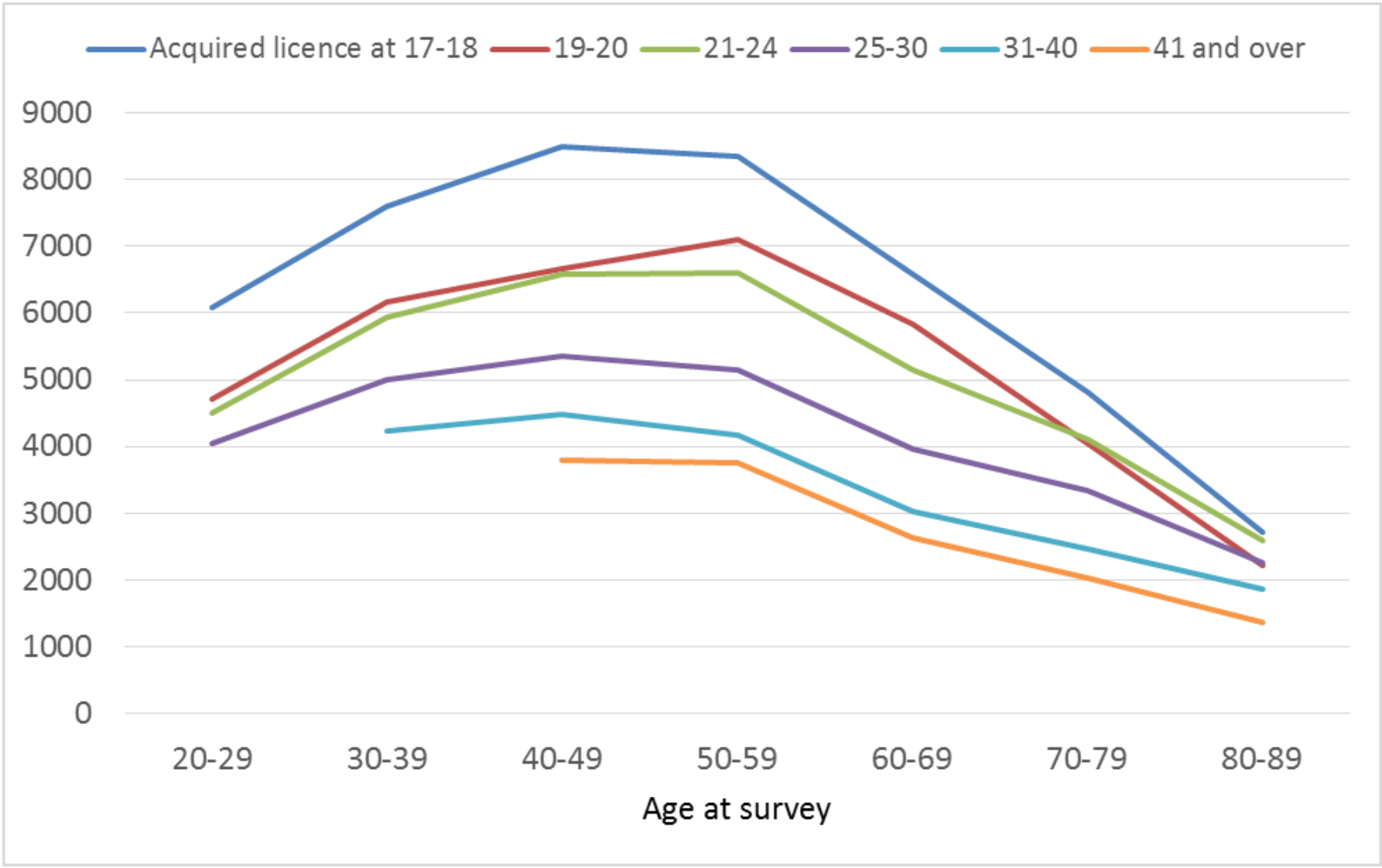


Men



Women

The later you learn to drive, the less you drive



Car miles per person per year

Stockholm (Bastian & Borjesson 2017)

http://www.demand.ac.uk/wp-content/uploads/2017/03/CTDCall1Evidencecombined1.pdf

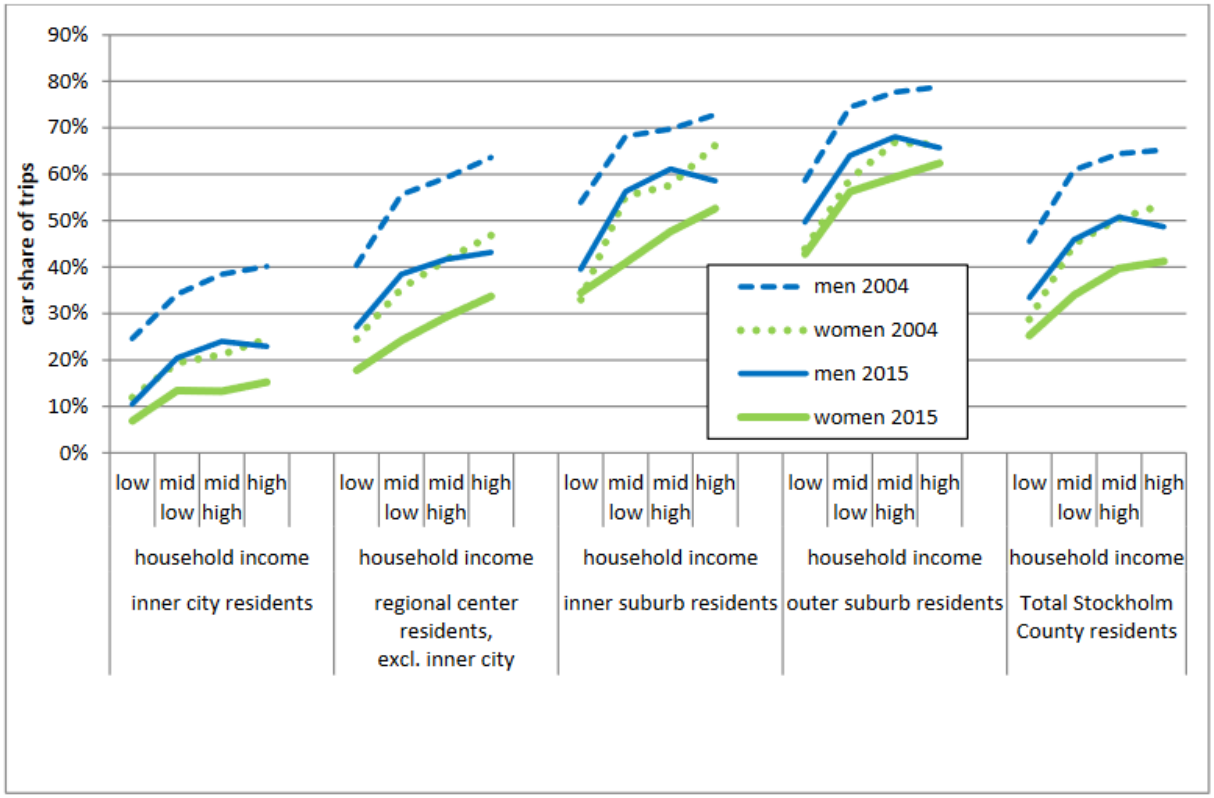


Figure 3: car share (driver or passenger) of trips within Stockholm County, by residence location, household income and gender and year

Research in Paris and Montreal…

- Dejoux, V., Bussière, Y., Madre*, J-L., Armoogum, J., 2009, "Projection of the daily travel of an ageing population: The Paris and Montreal case, 1975-2020", Transport Reviews, Vol. 30 issue 4 2010 (pp. 495-515)

- In progress ParcAuto panel surveys (1984-2018)

(* present at the Round Table…)

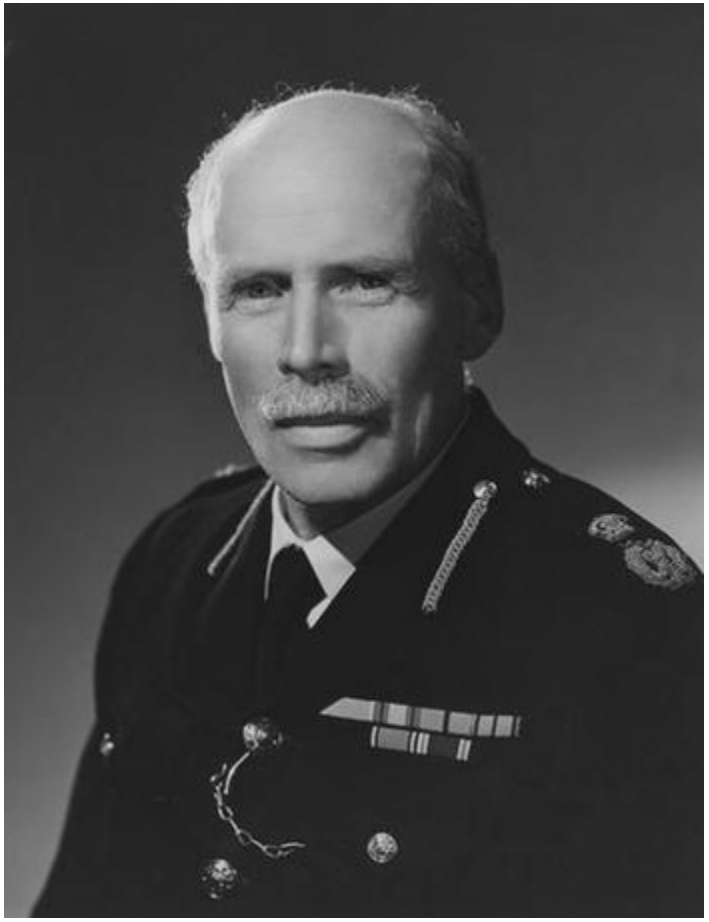
Potential influences

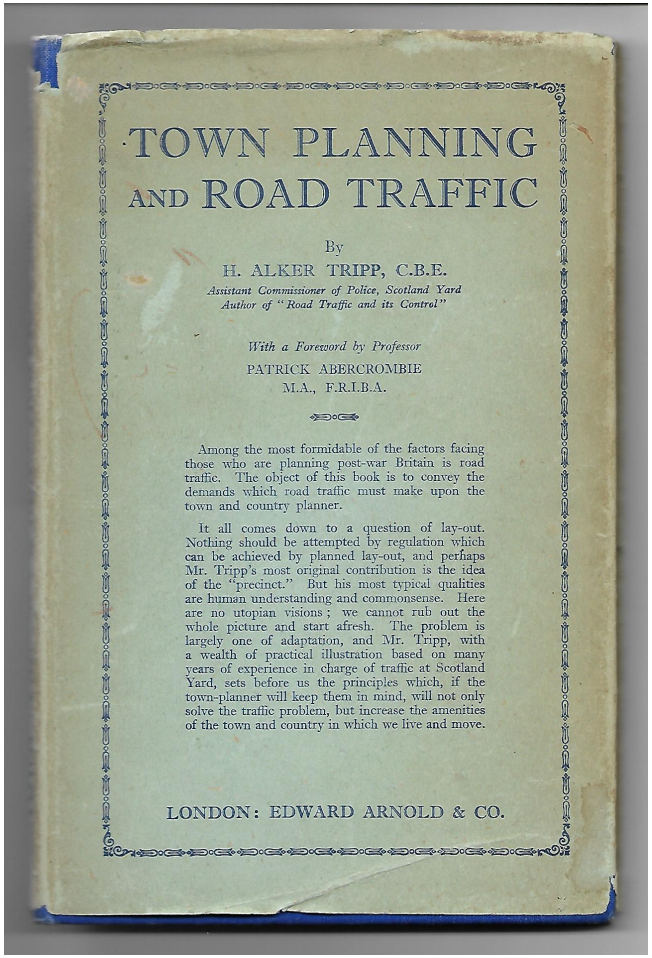
Main Category	Specific Factors
Demographic situation	Postponing of parenthood Increase in cohabitation Migration to the UK
Living situation	Living with parents longer Decline in private home ownership Increased urbanisation
Socio-economic situation	Increased participation in higher education Increase in women's labour force participation Increased work in the service sector Increase in low-waged, uncontracted work Decline in disposable income
ICTs	Increased ICT use Use of mobile devices to arrange everyday life ICT use whilst travelling on public transport Increase in gaming
Values and attitudes	Extended youth Rise of pro-environmental attitudes Decline in cars as status symbols
Transport and mobility	Improvements in public transport Stricter driver licensing regime Increased car insurance costs Increased spending on transport Rise of shared mobility

The Planning Tradition 1900s-1950s

A strong welfare tradition in town planning, often with socialist orientation, which sought better living conditions by new towns, slum clearance, decentralisation, modern suburbs, and roads to match - but simply did not understand the feedback mechanisms that would increase car ownership and undermine the intentions.

Alker Tripp, Assistant Commissioner of Police, the 'father of traffic calming'...





TOWN PLANNING
AND ROAD TRAFFIC

By
H. ALKER TRIPP, C.B.E.
Assistant Commissioner of Police, Scotland Yard
Author of "Road Traffic and its Control"

With a Foreword by Professor
PATRICK ABERCROMBIE
M.A., F.R.I.B.A.

Among the most formidable of the factors facing those who are planning post-war Britain is road traffic. The object of this book is to convey the demands which road traffic must make upon the town and country planner.

It all comes down to a question of lay-out. Nothing should be attempted by regulation which can be achieved by planned lay-out, and perhaps Mr. Tripp's most original contribution is the idea of the "precinct." But his most typical qualities are human understanding and commonsense. Here are no utopian visions; we cannot rub out the whole picture and start afresh. The problem is largely one of adaptation, and Mr. Tripp, with a wealth of practical illustration based on many years of experience in charge of traffic at Scotland Yard, sets before us the principles which, if the town-planner will keep them in mind, will not only solve the traffic problem, but increase the amenities of the town and country in which we live and move.

LONDON: EDWARD ARNOLD & CO.

… in precincts, vehicle priority on arterials, and fresh air in the country

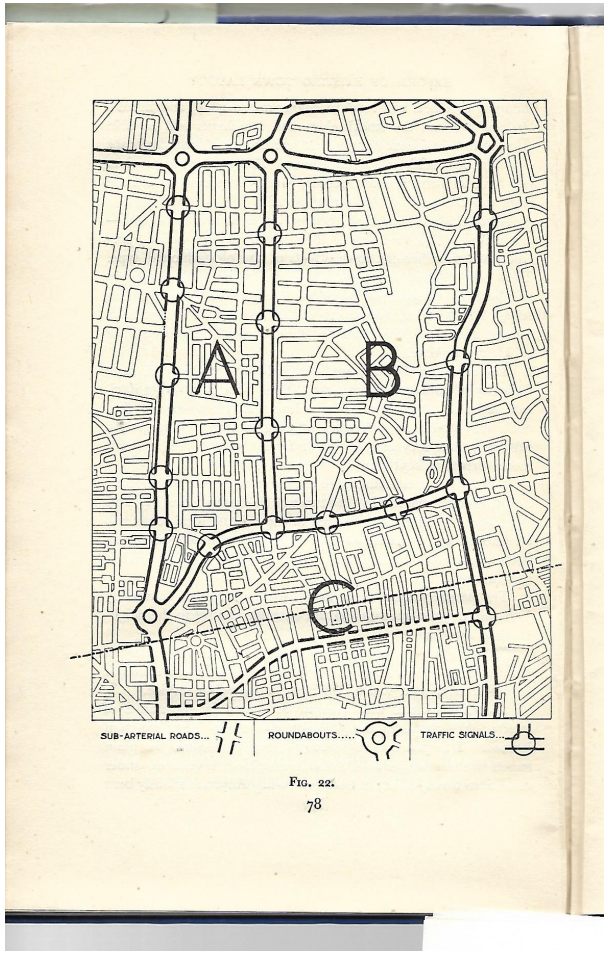


FIG. 22.

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Plan ahead

It is largely because of these factors that we consider it essential to plan ahead on comprehensive lines. The road plan we put forward takes cognisance of and uses most of the main thoroughfares and, with the help of additional ones where deemed necessary, co-ordinates both new and old into a carefully ordered and workable system. As mentioned earlier, the Highway Development Survey, 1937, has been taken as a basis for the proposals. Recent destruction of buildings has, however, opened up possibilities which did not exist when this Survey was prepared. In addition we have been encouraged by the prospect of new legislation which promises to remove many of the difficulties under which planning authorities have been labouring in the past.

[196

Abercrombie, 1944

A new road plan, based on decentralisation of population and employment...


REATER LONDON PLAN 1944
COMMUNITIES 5
PROPOSED EXTENSION OF EXISTING BUILT-UP AREAS AND SITES FOR NEW SATELLITE TOWNS
N
W
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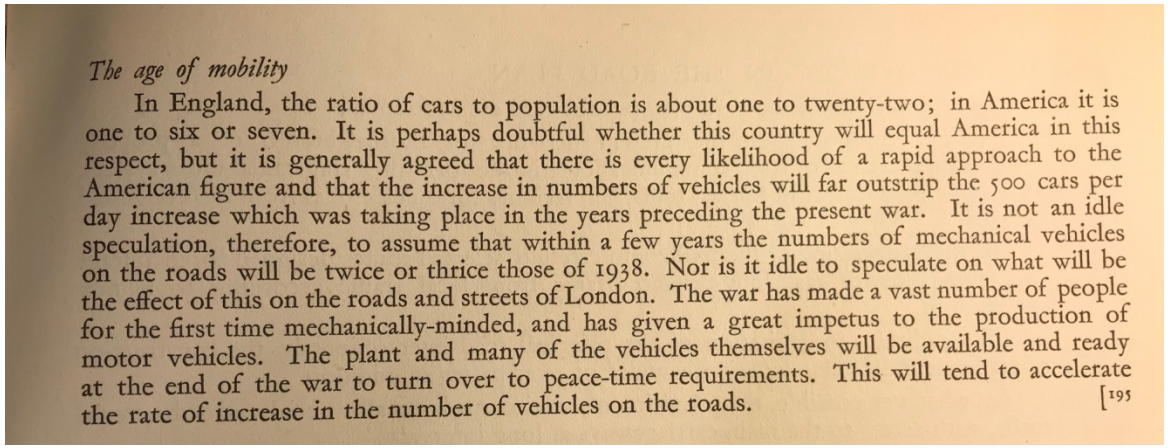


The age of mobility

In England, the ratio of cars to population is about one to twenty-two; in America it is one to six or seven. It is perhaps doubtful whether this country will equal America in this respect, but it is generally agreed that there is every likelihood of a rapid approach to the American figure and that the increase in numbers of vehicles will far outstrip the 500 cars per day increase which was taking place in the years preceding the present war. It is not an idle speculation, therefore, to assume that within a few years the numbers of mechanical vehicles on the roads will be twice or thrice those of 1938. Nor is it idle to speculate on what will be the effect of this on the roads and streets of London. The war has made a vast number of people for the first time mechanically-minded, and has given a great impetus to the production of motor vehicles. The plant and many of the vehicles themselves will be available and ready at the end of the war to turn over to peace-time requirements. This will tend to accelerate the rate of increase in the number of vehicles on the roads. [195

... and increases in car ownership. County of London Plan 1943 “it is not an idle speculation, therefore, to assume that within a few years the numbers of mechanical vehicles will be twice or thrice those of 1938....The war has made a vast number of people for the first time mechnaically minded, and has given a great impetus to the production of moter vehicles...”

Buchanan 1964

Figure 5: Los Angeles, USA "*There is nothing to suggest that we would gain by spreading out our own cities, or still further spreading the conurbations, in order to reproduce the conditions of Los Angeles. All the American experience of sprawl suggests that in our small country we would do well to have no more of it*", Traffic in Towns para. 424

BUT London Plan 1966

Population, employment & incomes would rise.

- Car ownership X2 in 20 years.
- The total number of trips + 50%, most by car.
- New roads to meet the demand.
- Public transport for the ‘residue’

(It was rejected by political campaign, demonstrations, and public inquiry, and elections)

1989 Turning Point

- 1989 traffic forecasts prompted infeasible road building plans (and were overestimates)
- 1990s Research – induced traffic from road building, but ‘disappearing’ or ‘evaporating’ traffic from reallocation of road capacity to public transport and pedestrians…
- 1995 ‘From Predict and Provide’ to ‘Predict and Prevent’ (Owens)
- 1998 Government policies to encourage road pricing in cities (but only London took up)

Uncertainty in traffic forecasts

- 2015 and 2018 forecasts had a wide range of different traffic scenarios (including nearly level at national level, which implied reducing in cities, but not explicit).
- Scenarios not used in road appraisal yet – substantial growth of traffic still mostly applied.
- (at the time of preparing these slides, an election in progress with different environmental and transport policies between the main parties…)

Where next on urban transport policy?

- Considerations of *congestion, health, air quality, and social inclusion* support reducing car traffic in towns, carefully, by 1-2% a year for 20 years or more, by a focus on land-use planning, public transport improvements, much higher space allocation to walking and cycling, stronger enforcement, and pricing, *and* stopping policies which undermine these, eg on extra road and parking capacity, and reducing fuel costs.

BUT Climate emergency?

- 1-2% a year insufficient. Even on most optimistic assumptions about transition to electric vehicles, there needs to be overall reductions of traffic of substantially more than this, eg 6% a year (and more than this on less optimistic assumptions, eg current trends in SUV sales which are devastating for climate policy and urban traffic and parking management).

It’s not only plans and research…

The policy argument is also carried out in images

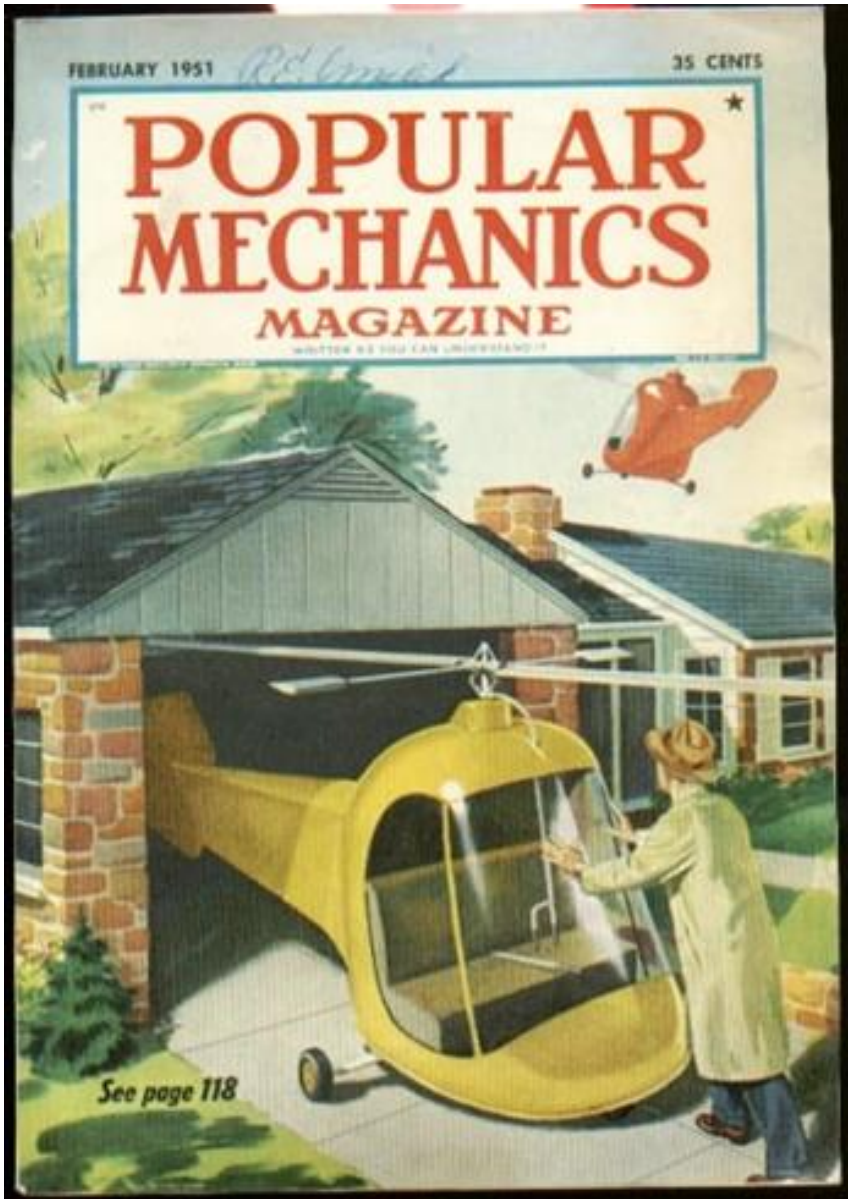
‘The hidden beauty of Spaghetti Junction’ (Mail Online 2012)

Liveable NEIGHBOURHOODS 2019

by:

In partnership with:

TRANSPORT FOR LONDON


FEBRUARY 1951
35 CENTS
POPULAR MECHANICS
MAGAZINE
See page 118

“Flying cars could cut emissions, replace planes, and free up roads”

but “not soon enough”

‘Zero Car Growth’

- In one sense, ‘zero car growth in urban areas’ is a compromise between increasing and reducing, and it resembles a ‘peak car’ stabilisation.
- But I think it is an unstable policy, very difficult to think how it could be sustained, or to satisfy the needs for urban improvement and environmental imperatives.