



Construct or Constrain?

Intermodal Inconsistencies in Infrastructure Interventions

Simon Blainey

Transportation Research Group, University of Southampton

Why build transport infrastructure?

- Economy
 - Stimulate growth
 - Reduce costs
- Efficiency
 - Reduce congestion
 - Reduce journey times
- Environment
 - Reduce emissions

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“Transport is an engine for growth... well connected and high-performing networks with sufficient capacity are vital to meet the country’s long term needs and support a prosperous economy”

(DfT, 2013)

Why build transport infrastructure?

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 - Stimulate growth
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 - Reduce journey times
- Environment
 - **Reduce emissions**

Why build transport infrastructure?

“I should have been fiercer in climate change review”

“Governments are fooling themselves if they think this [climate change] will only have a modest impact on their economies”

Lord Stern, Jan 2014

- IPCC report due imminently expected to emphasise potential economic impact of climate change
- UK committed to 80% reduction in emissions from 1990 baseline by 2050

...but is this reflected in our infrastructure policy?

Approaches to infrastructure provision



Build infrastructure
to meet demand

Do nothing

Restrict access to
manage demand

Paradigms in transport infrastructure provision: Predict and Provide

- Private sector:
 - Inland waterways (1750-1830)
 - Railways (1825-1900)



Source: Wikipedia

Paradigms in transport infrastructure provision: Predict and Provide

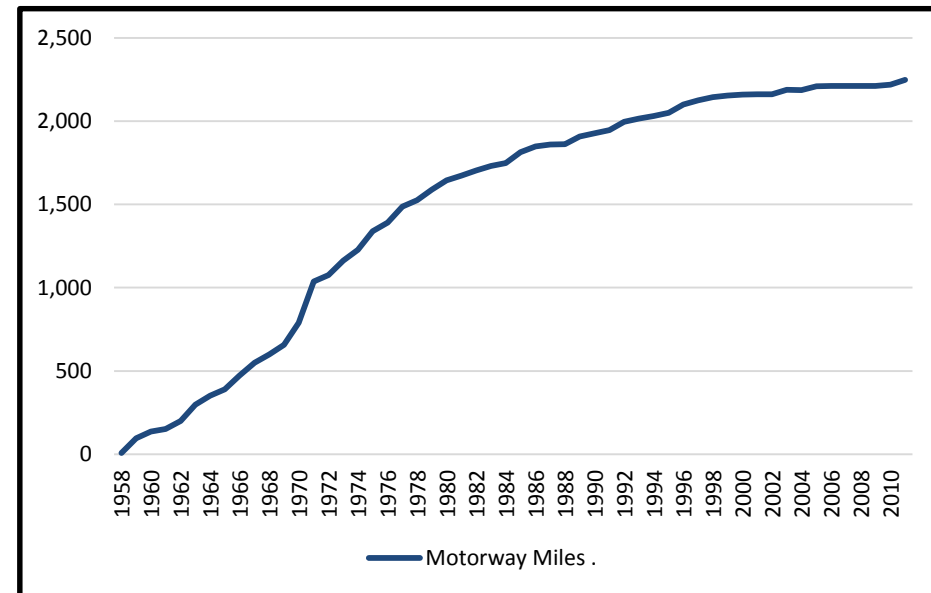
- Private sector:
 - Inland waterways (1750-1830)
 - Railways (1825-1900)
- Public sector:
 - Roads (1955-1996)
 - Latent demand release
 - Huge externalities
 - Increasing public opposition



Paradigms in transport infrastructure provision:

Demand management

- Can't build your way out of congestion
- No more large scale road construction
- Focus on pinchpoints
- Move towards pricing to constrain and redistribute demand?



Current infrastructure planning: Roads

- Have the lessons been learned?
- National road pricing “ruled out”
- Demand constraint, smarter choices, and public transport don’t reduce pressure on SRN
- New capacity may be needed “to meet demand”
- Environmental case questionable
- Growth seen as inevitable but not desirable?



Draft National Policy Statement for National Networks

Presented to Parliament pursuant to section 5(9) of the Planning Act 2008

December 2013

London: The Stationery Office

£21.25

Current infrastructure planning: Railways

- Substantial investment in capacity
 - HS2 – predict and provide?
- Substantial increases in fares
 - Commuters – price and constrain?
- Capacity expansion environmentally justified?
- Growth seen as desirable but expensive?

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Rail fares 'to rise by 4.1%' in England as unions protest

COMMENTS (1695)



Campaigners protested at stations across England

Commuters in England face an average 4.1% rise in regulated rail fares - including season tickets - next year.

Ministers say the rises will pay for investment in the rail network.

Trade unions organised protests at stations around the country and called for the rail network to be returned to public ownership.

Labour said those travelling on busy lines could be "clobbered" with rises of up to 9.1% as train companies add extra increases to some tickets.

Regulated fares are those the government controls, and include season tickets, "anytime" single tickets around major cities, and off-peak inter-city return tickets.

They will go up by an average of inflation - as measured by the retail prices index (RPI) for July - plus 1%.

Related Stories

- ▶ Rail fares: What do you think?
- Why not... nationalise the railways?
- Why are rail fares going up again?

Source: bbc.co.uk

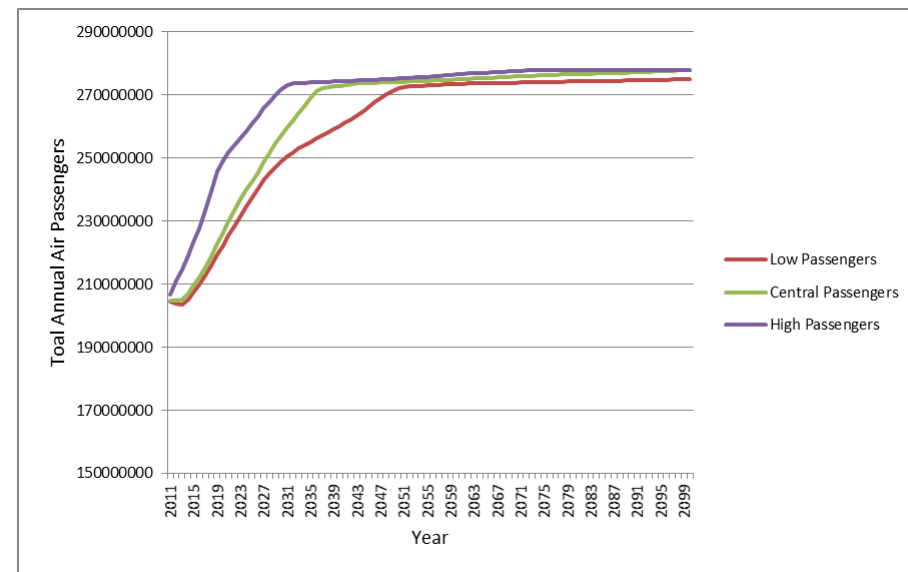
Current infrastructure planning: Air

- Crucial for economic success?
- Airports Commission
 - Predict and Provide?
- Latent demand release
 - Most air travel discretionary
 - Latent demand means efficiency gains are short-lived
 - Passenger numbers still 4.8% below 2007 peak
 - ITRC model predicts huge growth....



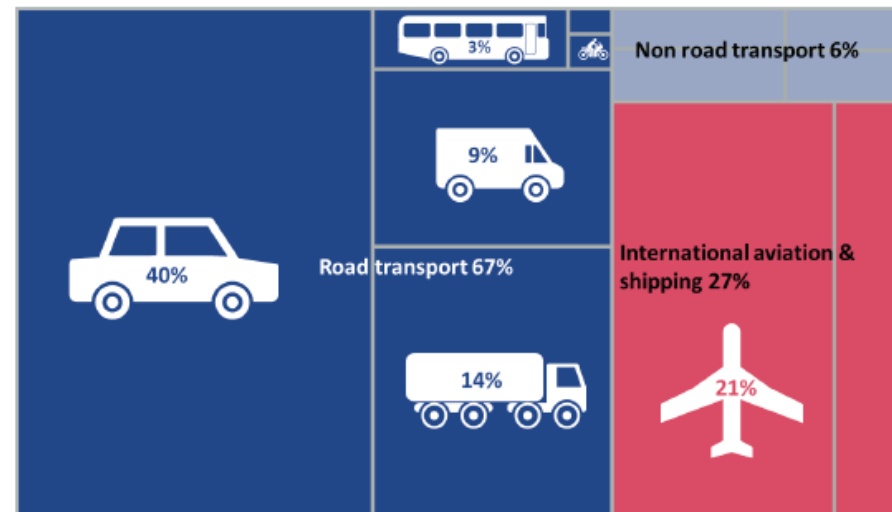
Current infrastructure planning: Air

- Latent demand release
 - ITRC model predicts huge growth....
 -if capacity is provided
 - If not, then constraint is binding
 - Constraint a (relatively) painless way to limit emissions?



Airports and climate change

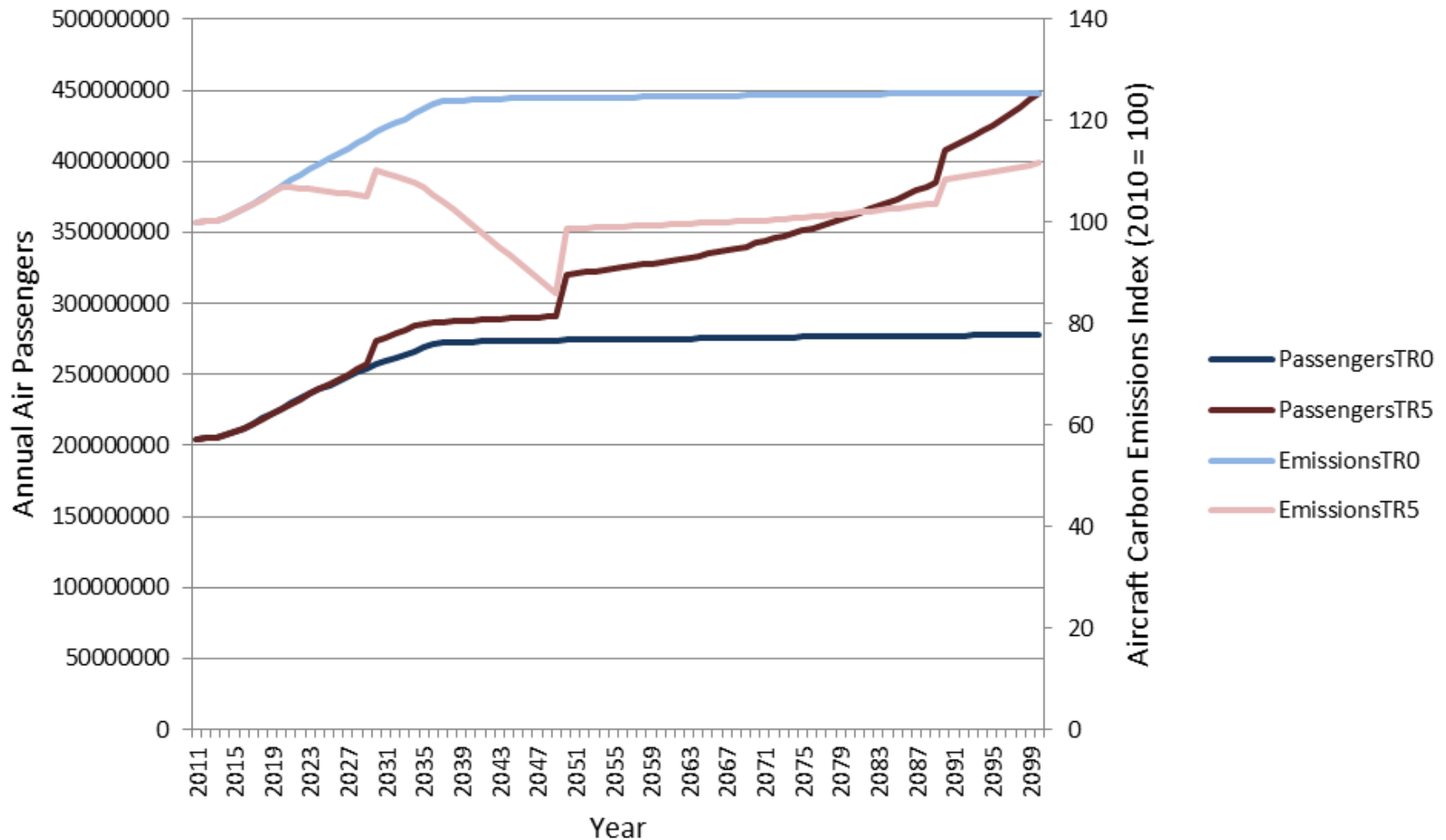
- Air emissions:
 - 21% of UK total from transport
 - 6% of all UK emissions
 - 102% increase 1990-2010
- Can this trend be allowed to continue?



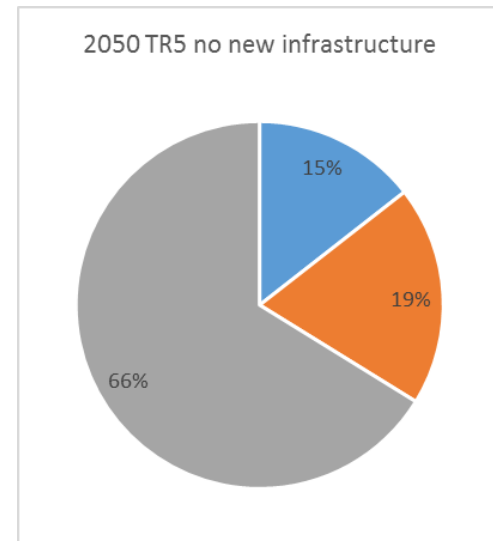
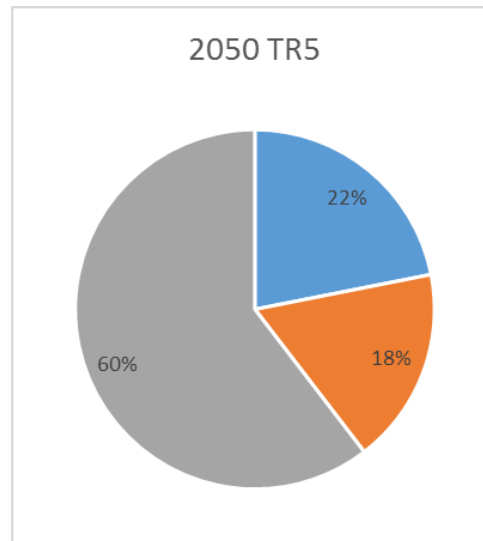
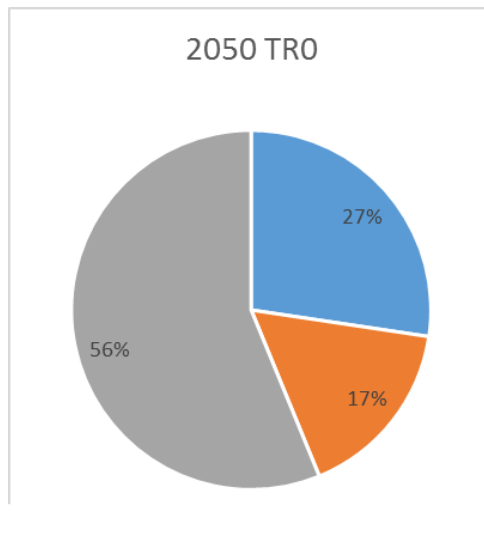
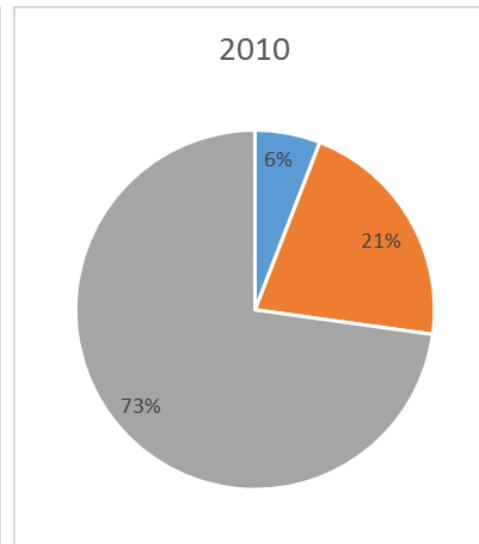
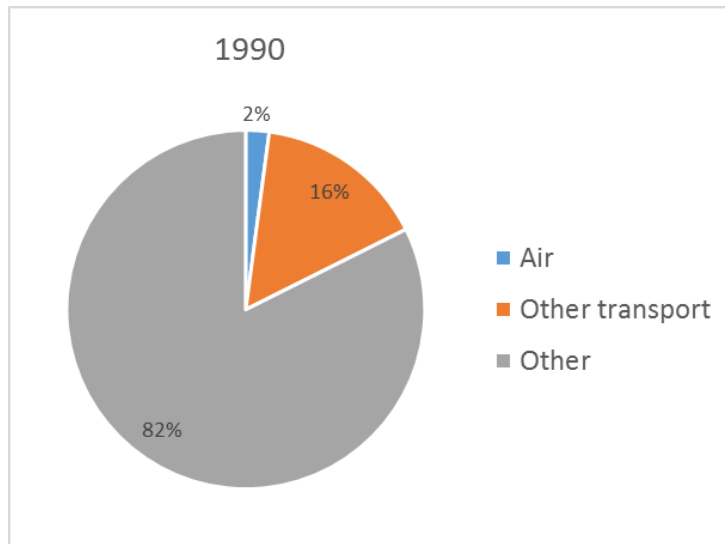
**Non road transport consists mainly of domestic aviation and shipping and rail.*

Source: Transport Statistics GB

Future aircraft emissions: ITRC modelling



Do aircraft emissions matter?



Emissions v Economy?

- Is air's importance to economy sufficient to account for 22% of emissions?
- Aviation responsible for £18b GVA and £7.3b tax in 2009
 - Total UK GVA in 2009 £1234b
- 22% of trips via British airports made by business travellers
- 60% of international trips made by British tourists (World Bank)
 - Net economic impact of air passengers negative?
 - Total spend abroad by British residents travelling by air £27.5 billion pa
 - Total spend in UK by overseas residents travelling by air £15.6 billion pa

Emissions v Economy

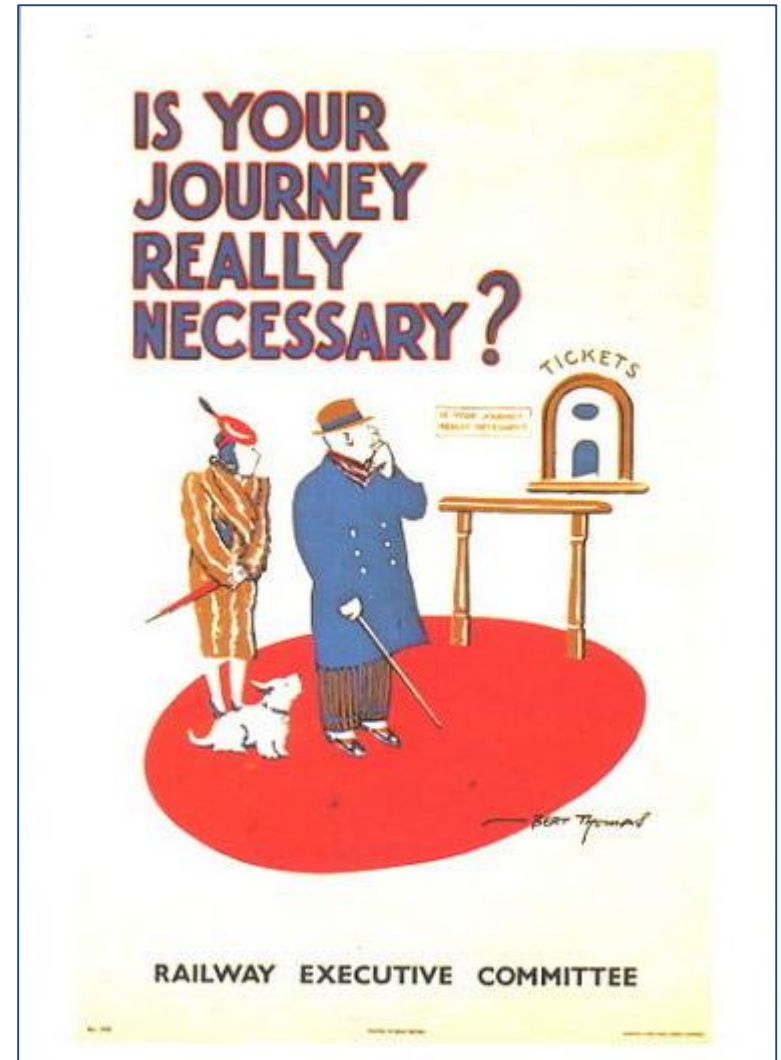
- Focus investment on less carbon-intensive industries?
- Invest in infrastructure for alternative modes
- Airports are not like roads
 - Congestion is controllable
- Legislate to limit landing slots
- Reallocate slots to prioritise business destinations
- Increase tax on charter/tourist flights?
 - Side-effect – boost to domestic tourism!

Infrastructure investment – ways forward

- 80% emission reduction should be the starting point
- Focus on environmental efficiency
 - Prioritise economically/socially essential trips
 - Mode shift rather than growth
 - Economic benefits a welcome (and likely) side-effect
- Multimodal infrastructure planning authority?
 - Using consistent emissions-based criteria

ITRC – How sustainable is our travel?

- Average GB resident made 1.05 return flights in 2013
- “He that is without sin among you, let him first cast a stone...”





Questions?