

Induced Restraint

Sally Cairns, C. Hass-Klau and Phil Goodwin, **Traffic Impacts of Highway Capacity Reductions: Assessment of the Evidence**, London Transport Planning (London; www.ucl.ac.uk/transportstudies/tsu/tpab9828.htm), 1998. This is a very short summary of a very long report.

Sally Cairns, Stephen Atkins and Phil Goodwin, “**Disappearing Traffic? The Story So Far,**” Proceedings of the Institution of Civil Engineers; Municipal Engineer, Vo. 151, Issue 1 (www.municipalengineer.com) March 2002, pp. 13-22; available at www.ucl.ac.uk/transport-studies/tsu/disapp.pdf .

The flip side is induced demand:

<http://www.sierraclub.org/sprawl/transportation/congestion.asp> has mix of readable and technical

http://www.vtpi.org/0_impact.htm and scroll down to generated traffic or jump direct to

<http://www.vtpi.org/gentraf.pdf> These are largely technical and cover induced demand.

Academic caveat: even though demand is induced and, thus, expansions don't solve problems, new users see a benefit or they would not be making the extra trips.

The solution to the congestion problem: moving toward direct pricing of car use inhibits demand at the same time the pricing generates revenue to deal with demand. Dealing with demand can mean more capacity, or more transit, or better land use balances (housing closer to jobs), or higher densities (supporting non-car modes), or some combination.

The congestion problem is not created by a free market, but by a market subsidized because of the power of benefitted interests using politics to provide capacity free to the user and because of the American ideology of carism (belief that support for cars should be provided as a public good through a tax and spend system).

From a recent Phil Goodwin speech at <http://www.cts.ucl.ac.uk/tsu/pbginau.htm>

"If road capacity will be inadequate to meet all the demands on it, are there ways of using it more effectively? This issue does not only, or even mainly, relate to pushing more vehicles along a road by clever traffic signals or one way systems. It relates to reallocating space away from 'general traffic' to more selective uses: bus lanes, or cycle lanes, disabled travelers, emergency services? Or lorry-lanes. Or pedestrianisation. In each case we deliberately change the use of space as a tool to achieve more efficient use of the network, environmental advantage, enhanced street attractiveness or improved safety.

The problem is that all of **these *improve conditions of movement for the favoured users, but tend to reduce capacity for other classes of traffic.***

Now, the technical assessment of such measures has most often been calculated on the assumption that all traffic displaced from one street will **simply divert** to another. If this is true, the predicted effect is at best displaced congestion, at worst total traffic chaos: For this reason, time and again such measures have been considered, assessed, but rejected. Or implemented in the most reduced, watered down, and ultimately ineffective, form.

But the interesting point is that many other cities - often led by politicians who arrogantly

disbelieve such technical advice - have introduced such measures. And succeeded. Often there has been a short period of disruption lasting a few days, but no gridlock, and no prolonged traffic chaos at levels worse than those which already prevailed. Sometimes there has not even been a short term problem. **The ubiquitous comment has been 'the traffic has disappeared and we don't know where it has gone to'.** You may remember the tone of utter bewilderment with which the London 'Evening Standard' reported that when Hammersmith Bridge was closed for repairs, the anticipated total breakdown of traffic flow simply did not happen.

We need to understand exactly what is going on in such cases. Can it be that traffic really does 'disappear'?

We are currently studying some hundreds of these experiences. The results will be ready before the end of the year. It is already public knowledge in a dozen countries that in practice there are **many occasions where capacity has been reallocated or reduced, without causing damaging disruption and chaos.**

Of course, this is encouraging. But how can it be?

Consider what people actually do when traveling conditions change - they can **change their driving styles to bunch up more, they can alter their route, the time of day they travel, the frequency of trips, the destinations they choose, the location of their home and workplace, the method of transport, the arrangements they come to with family or neighbours, the sequence of activities on a round trip, the substitution of trips for other forms of communication,** and many others. All of these responses are influenced by the real world, but also by the complex and not always accurate perceptions people have of the real world.

This complexity is sometimes difficult for transport professionals to accept. Surely, we think, such a minor stimulus as a new one-way system or closing a bridge could not have such wide ramifications? And if it does, how on earth are we to carry out formal technical assessments of them?

You see, transport assessments are largely built around a view of travel as stable and repetitive - the commuter who makes the same journey every day, the shopper doing the same journey every week. Without question, such repetitive patterns exist, and they dominate our perceptions of our own lives, and our interpretation of other people's. Such a view is reinforced when we see roughly the same traffic conditions at roughly the same time, day after day.

But the apparent stability is composed, we now know, of **volatile, unstable, changing undercurrents** - what the pollsters call 'churn'. It is surprising (though Peter Bonsall and Steve Atkins both noticed this years before its significance was realised), but actual individuals in the traffic queue even at the same time on two successive mornings are not, in most part, the same individuals. Every year **anything up to a third of people change their jobs, up to one in seven move house. They get a pay increase. Or they get sacked. People leave home, get married, have babies. Their children change school. Some get divorced. They retire. A member of their family dies.** If car ownership grows by a steady 2% in a year, what that really means is that 12% of households increase their cars, and 10% reduce them. At each of these life events there may be a reason to reconsider travel patterns and choices.

So the response to changes in traveling conditions is composed of at least two quite different processes: first, there are responses by specific individuals, limited by habit, the desire to

experiment (or not to), ignorance, preferences, and by binding - but not permanent - domestic and economic constraints. For these, **minor adjustments may be quite swift, but bigger changes proceed at the pace of change in their own lives**, and the pace of evolution of their attitudes and tastes.. And secondly, each day or year some individuals simply leave the system, and are replaced by different people making a new set of trips. These, being new, can react to whatever prevailing conditions they find, sometimes bringing a more open mind to the new situation.

As a result, broadly speaking, the process of adaptation to a new policy starts on day one, but **takes between five and ten years** before it is near enough to completion to get lost in other even longer term processes.

Such responses are difficult to predict precisely, but they are vitally important because they give us space and time to manage the effects of policies on traffic."

...

"Primarily, this means that instruments tending to favour economically productive or efficient travel by reducing economically unproductive or inefficient travel, could improve economic efficiency. (So freight movements may sometimes need to be given precedence over passenger movements; high utilisation passenger vehicles given priority over low utilisation vehicles, and so on).

What I am saying here is that if we are in conditions where congestion is itself wasting economic resources, traffic restraint - **clever traffic restraint - is good for the economy, not bad for it**. This is primarily a theoretical argument, but we do have one set of **crucial empirical evidence**. It is now established that reducing traffic levels in town centres can improve the level of turnover and competitive position of those towns, provided this is done with style and ambition and favourable related policies including high quality public transport access. Much of that evidence has been brought to us, by Carmen Hass-Klau and others, from **other European countries, some twenty years ahead of us in this area of policy**, but we are now starting to grow our own experience, which tells much the same story."

Europe is ahead of Britain, which is ahead of Canada and Australia, which is ahead of the US. The city that anticipates the economy of the future will be more successful than one tied to the automobile.

-- Sherman Lewis, Professor Emeritus California State University, Hayward
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