

Absurd DfT “values” of collisions

Cost/benefit analysis of cameras

One curious aspect of many analyses of the **effectiveness** of cameras is that **they fail to mention cost/benefit ratios**, either in isolation or in comparison to alternative road safety methods. Needless to say, any project engineer in a commercial organisation who failed to mention alternatives, let alone provide comparisons with them, would soon be out of job.

Perhaps the most outrageous example of clearly deliberate misrepresentation of such facts was covered in detail by this analyst on his web site www.fightbackwithfacts.com/cameras-versus-activated-signs/. In summary, the DfT gave the Commons Transport Select Committee a comparison of cost effectiveness of cameras and vehicle-activated signs that was **deliberately skewed in favour of cameras by a factor of 50 (yes fifty!) to one**, though the Minister’s subsequently letter to the Committee **admitted only to having been wrong by a factor of 10!**

Method of estimating cost/benefit ratios

There may comparisons of the cost-effectiveness of cameras with that of other road safety methods but this analyst is not aware of any valid ones.

More commonly, **estimate of the cost/benefit ratios of cameras in isolation** are calculated by comparing **operating costs** on the one hand with the DfT’s annually-updated **“Average value of prevention of road accidents by severity and element of cost”** multiplied by the numbers of collisions of each severity the cameras supposedly prevented.

One obvious problem with this approach is that even if those “values” were reasonably accurate, the DfT itself **warns against treating them as if they were cash** saved by preventing accidents (see below) because major elements of those values are **subjective figures for pain and suffering avoided, not cash**. Yet that is exactly what every analysis does!

Continued....

Wildly exaggerated DfT values

The (2012) DfT figures are at

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/254720/rrcgb-valuation-methodology.pdf

Table 2: Average value of prevention of road accidents by severity and element of cost: £GB 2012

<u>Accident Severity</u>	<u>Casualty related costs</u>		
	<u>Lost output</u>	<u>Medical and Ambulance</u>	<u>Human costs</u>
<i>Fatal</i>	635,233	5,529	1,247,433
<i>Serious</i>	25,157	15,095	171,356
<i>Slight</i>	3,163	1,342	15,073
<i>All injury accidents</i>	13,429	3,364	51,370

Human costs reflect the non-resource element of the costs associated with human life of the effects of injury, such as the pain and distress felt by the accident victims or their relatives, as well as the intrinsic loss of enjoyment of life in the case of fatalities. Costs are based on estimates of people's WTP [Willingness to Pay] for small reductions in the risk of exposure to such effects.

*Estimates of the total value of prevention of road casualties and road accidents in Great Britain during 2012 are provided below. The estimates were derived using the values for prevention of casualties and accidents listed above, and are cost benefit values that represent the **benefits** which would be obtained by prevention of road accidents. The estimates do not represent actual costs incurred as the result of road accidents.*

Further, any economist should realise that the **lost output of anyone who dies on the road** (or anywhere else for that matter) **is offset by what he no longer consumes!** In simple terms, 30m workers support a population of 60m so average output is double average consumption. The average age of a road fatality being 46, some 20 years output are "lost" if no one else takes his place but this would be more or less cancelled out by what he no longer consumes over 40 years.

Several years after this analyst pointed this out, Professor Richard Allsop, author of camera reports for the RAC Foundation, advised that the NERA Report of 18th March 2011 advised the DfT that **"the net lost output of road fatalities is on average negligible"** and that,

For fatalities, the current convention for estimating lost net output is incomplete. It omits the "negative output" of individuals over some periods of their lives, in particular in later life in the form of consumption funded by, especially, pensions and state funded health and personal social services.

When this analyst checked this with the DfT recently they copied 4 successive updates of a **VPF/ VPI – Post Phase 1 work plan including**

Lost net output for road fatalities: This should be assumed to be negligible.	On full update of VPF	Agreed	No immediate action	n/a
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Also, as **output is largely determined by demand not by labour supply, it is at least arguable that lost output for non-fatal injuries should also be assumed to be negligible** because casualties will be routinely be replaced by others **to ensure that output meets demand**, in the same way that employees who retire, change jobs, become unable to work for other reasons or die are replaced.

Table 3 of the same DfT document shows totals of casualty and accident related values:

Totals..... £10,589bn
 Remove the non-cash Human Costs of.....£7,478bn.....£3,111bn
 Remove the spurious Lost Output of fatalities.....£1,040bn.....£2,071bn
 Remove arguably spurious Serious and Slight Lost Output.....£915bn.....£1,156bn

The DfT’s figure is therefore exaggerated at least by a factor of 5 and arguably by a factor of 10.

This is not of course to say that factors such as pain and suffering are not important, only that the values assigned to them are **not cash costs that could be avoided but subjective values for use in Willingness to Pay calculations.**

That speed cameras do not in any case reduce collisions (see below) means that the above figures are relevant only in relation to the **additional costs** incurred when cameras cause collision rates to worsen.

Idris Francis

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