10,000 extra killed due to an obsession about speed enforcement and speed cameras

Present road safety polices, particularly with speed cameras, date from the mid 1990s. As shown by Figure 1, since then the downward trend in deaths, per vehicle kilometre, has greatly slowed, instead of accelerating under the impact of those policies. This is despite the cameras being supported by a multitude of speed humps and traffic management schemes, which have caused further needless delay and congestion. Any progress since then can realistically be attributed to improved vehicles, better roads and enhanced casualty treatment.

Figure 2 shows how annual deaths exceeded those that would have been achieved with pre speed-camera policies and trends, comparing them with annual speeding penalties and prosecutions (referred to as penalties). The penalties didn't cause the extra deaths, but the astounding 99% correlation shows an inexcusable neglect of the underlying issues because of the obsession about speeding. We see how the extra deaths peaked and declined with the penalties, how vigorously the policy was pursued and that from 1995 to 2007 there were approaching 10,000 extra deaths in conjunction with the 13.6 million penalties. Table 1 lists the data used.

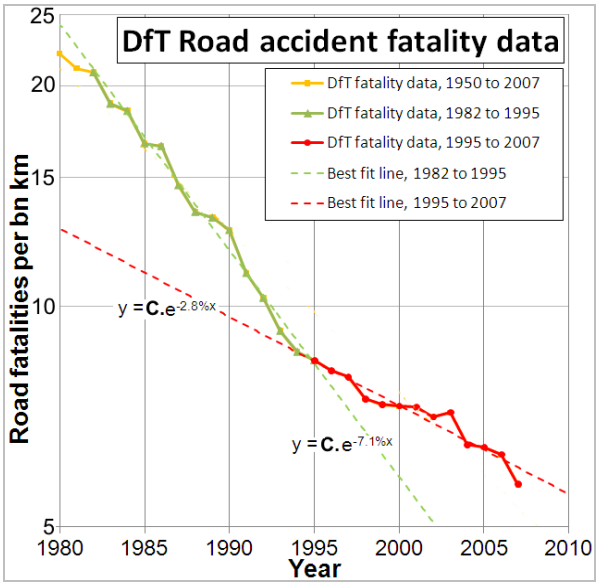

Figure 1

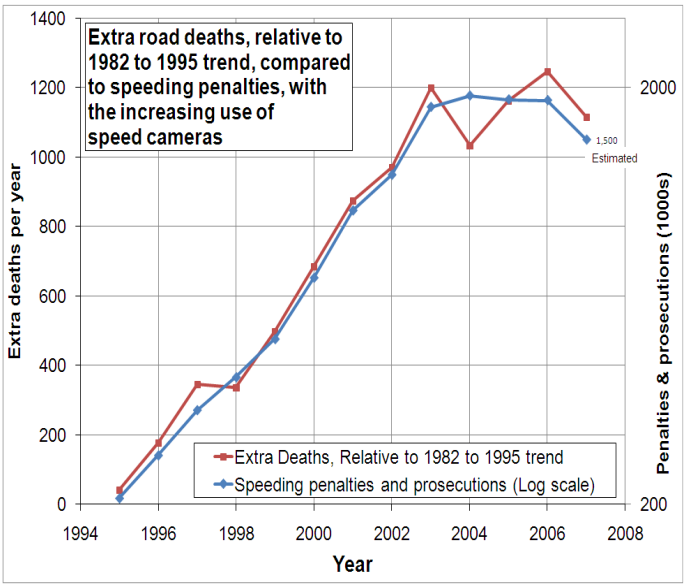

Figure 2

Contrary to speed camera supporters, speeding (exceeding the speed limit), all that speed cameras can enforce, is a minor contributor to accidents. In 2007 it was just 2.4% of the contributory factors to accidents, 3.2% to serious accidents and 5.4% to fatal accidents. Ministers continue the pointless war on speed, while vaunting speed elsewhere, making fraudulent claims, such as speeding causes 30% of accidents. Rather than relying on automated machines, we need to deal with the underlying causes. The top 6 factors, not related to speed, of "Failing to look", "Loss of control", "Reckless, in a hurry", "Pedestrians not looking", "Poor judgement" and "Poor manoeuvre", are 46% of the contribution to serious accidents, 14 times more than speeding.

Rather than acknowledge the medicine does not and cannot work, we now have the prospect of yet a further large dose, with speed limits reduced to 20mph in towns and 50mph on rural roads, for a target we could have readily achieved by 2006, without speed cameras. The lower speed limits and extra speed cameras will yet further adversely affect road safety, distract drivers and waste more time and resources, while we struggle with the worst economy for a generation, with a 2 minute delay on each journey costing £11 billion a year.

The depressing reality is that the great progress of the 1980s and early 1990s in road safety, with the valuable lessons and wisdom then learned, without speed cameras, was dumped in favour of indiscriminate, automated, punitive, cash harvesting speed camera enforcement that has been a disaster for road safety.

Table 1, Fatalities

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
Trend (a)	3580	3422	3253	3085	2926	2725	2577	2461	2310	2187	2040	1926	1831	
Actual	3621	3598	3599	3421	3423	3409	3450	3431	3508	3221	3201	3172	2946	**Totals**
Extra deaths (b)	41	176	346	336	497	684	873	970	1198	1034	1161	1246	1115	**9674**
Penalties 1000s (c)	207	262	337	404	499	699	1015	1236	1797	1914	1873	1865	1500	**13608**

(a) These are the deaths that would have occurred had the policies and trend of 1982 to 1995 been continued.
(b) The "Extra deaths" are the differences between the actual deaths and the trend deaths.
(c) The 2007 value is based upon the reported 23% reduction in fixed penalties.

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Addendum

Following the original publication of this note we had criticism about the choice of break points, reference Figure 1 above. However, those points were not selected lightly. Instead there was considerable analysis as summarised below.

(1) The source data consisted of fatalities and vehicle-km by year for the period 1950 to 2007. Using the statistical package within Excel we fitted the best fit line to that, which gave and overall an annual rate of decline of 5.1%.

(2) We then plotted the differences between the observed death rates and the trend line from (1) above using (a) the actual death rates and (b) the 7 year rolling average. The latter smoothed the data and allowed trends and breaks in the overall trend to be identified

(3) The result of that is in figure 3. From that it is clear that there are 4 major phases, namely 1950 to 1960, 1960 to 1982 and 1982 to 1995 and 1995 to 2007. Where the lines on that figure slope upwards, from left to right, the rate of reduction in deaths per veh-km is less than for the overall (1950 to 2007) trend line. Where the lines slope downward, from left to right, the rate of reduction in deaths per veh-km is greater than for the overall trend.

(4) By far the most striking transition identified was in 1995, from when speed cameras were being increasingly deployed, so forming a sensible basis for the selection of that year in subsequent analysis. Likewise there was a significant change around 1982.

(5) Subsequent curve fitting provided the following rates of decline in deaths per veh-km.

a) 1950 – 1960.....4.0%
b) 1960 – 1982.....4.8%
c) 1982 – 1995.....7.1%
d) 1995 - 2007..... 2.8% (lowest rate of reduction since 1950)

All the correlation coefficients were above 95%. An important aspect of this is that up to 1995 the rate of decline was steadily improving, when the progress being made then collapsed.

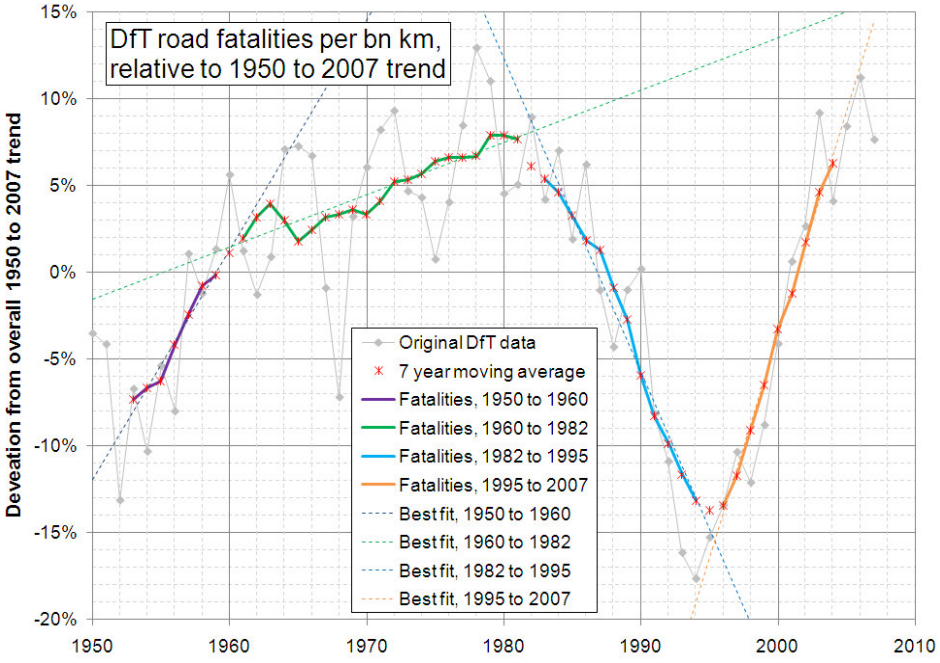

Figure 3

Note: the breaks in the smoothed data are to reduce overlap from the 7 year central moving average.

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