

23 April 2012

Safer Roads Humber,
HG115,
East Riding of Yorkshire Council,
Beverley HU17 9BA

Attention Ruth Gore.

Claims for speed camera benefits are wildly overstated and must be withdrawn immediately

Dear Ms. Gore,

Before I continue this formal complaint about your organisation's false - indeed, ludicrous claims of speed camera benefit I should make the following points:

1/ It is an offence under the **Perjury Act 1911**, as amended, to publish false information in a public document - see <http://www.sfo.gov.uk/fraud/what-is-fraud/corporate-fraud/publishing-false-information.aspx>

2/ The Fraud Act 2006 covers http://www.cps.gov.uk/legal/d_to_g/fraud_act/#a07 covers, amongst other things, misrepresentation of information.

3/ Publishing palpably false information and analysis amounts to **Misconduct in a Public Office**, arguably made worse when those involved refuse to correct the false information when it is brought to their attention.

4/ All civil servants owe a **statutory duty of care** to the public they serve, including in this context not making false statements of policy effectiveness that risk skewing road safety spending decisions in favour of less effective and less cost-effective methods. This is of course not just a question of money but of the greater risk to which road users are subjected as a result of flawed analysis and decisions. Incidentally, Corporate Manslaughter legislation applies just as much to public bodies and their executives as to private companies and theirs.

5/ The **Advertising Standards Authority** have in the past ruled against Camera Partnerships. see for example <http://www.safespeed.org.uk/forum/viewtopic.php?p=86668&sid=79cb638de09e58aff396ab890b40aa6d> and have this morning confirmed to me in principle that their remit appears to cover the claims made in your 2010/11 report, on your website and elsewhere. I will send them today an outline of my complaint to confirm their remit applies.

6/ Unless your organisation confirms to me by **6pm on Wednesday 25th April** that the claims made in that report and others (and the claims you made recently to the Yorkshire Post) **will be withdrawn immediately**, and sensibly revised figures issued in due course, I will copy this complaint to **Humberside Police, local Councillors and MPs, the Department for Transport, and the Commons Transport Select Committee** for investigation and/or prosecution.

7/ As your email signature includes your three degrees - which imply a level of understanding of arithmetic and economics notable in your replies only by their absence - I should point out that I have been involved in a

daily basis with such things from well before my 1957 State Scholarship in Pure and Applied Mathematics, my 1960 1st Class Honours engineering degree, post-graduate research work and thirty years running my own electronics manufacturing and exporting company, including design, production, sales and accountancy. I also have a track record of proving the DfT and indeed Transcom wildly wrong on more than one occasion - see my web site www.fightbackwithfacts.com based on many thousands of hours studying road casualty data, trends and theories since 2000.

To summarise my complaint so far:

I copied you my comments on the Yorkshire Post web site

<http://www.yorkshirepost.co.uk/news/casualties-increase-on-speed-camera-roads-1-4400039>

pointing out that your claims quoted in the news article for camera benefit achieved by your Partnership were palpable nonsense, and also that the cash sums you claim to have saved for each accident or casualty supposedly prevented were ludicrously high.

Your reply, at my second request, was simply "**No comment**" - a response I have been sadly familiar with for years, usually from those who knows they have no credible defence. That ostrich-like response also suggests that you hoped that I would give up and go away. As you will find out, you were badly mistaken.

to continue:

When I complained again, this time about the analysis and claims contained in your organisation's 2010/11 report, pointing out that the figures were not remotely credible, you replied that "*Safer Roads Humber publishes it [sic] performance data following the methodology prescribed by the Department for Transport and will continue to use this method until the DfT advises otherwise.*"

As neither your reply nor the 2010/11 report itself explain the details of that methodology I then submitted a FOI request to the DfT for them and I await their reply in due course. Central to that methodology will of course be how it adjusts for the many and varied factors that bring about changes in accident and casualty numbers at any particular site, whether or not a speed camera has been installed:

(a) National long-term downward trend (better vehicles, roads, safety systems, better and faster medical attention etc.) Clearly corresponding falls would be expected, on average at all sites, with or without a camera.

(b) Changes in local traffic volume (where different from national trend) - e.g. changes in roads, local employment, weather patterns etc and - only where speed cameras have been installed - due to drivers diverting to avoid cameras.

(c) Local changes in roads, routes, speed limits etc.

(d) Changes in reporting levels of non-fatal injuries. The DfT estimates that KSI reporting levels fell in recent years from **1 in 2.7 to 1 in 3.5, a 24% fall**. (To an extent such trends are taken into account in national trends, but with such low reporting levels there is inevitably a risk that local reporting level changes could significantly affect results. Also, as has been documented in Thames Valley for example, the necessarily subjective decision (of each, non-medically-trained police officer when completing the police Stats19 form)

on whether an injury was **serious or slight, risks skewing data towards slight and away from SI** especially if, as at a camera site, there is even an unconscious incentive to come up with lower figures.

(e) and most importantly, **Regression to the Mean**, the statisticians' phrase for the way that fluctuating data tends to move back towards its long-term trend after departing from it. **Appendix H of the 4th Year Report** to which your own report refers, **estimates the effect of RTTM in KSI data as accounting for 60% of observed falls, three times the 20% supposed effect of cameras** and three times also that of the **20% or so trend contribution**.

(f) speed camera effect.

You wrote to my fellow campaigner Eric Bridgstock in April 2010 in response to his vehement and detailed complaints along the same lines as mine that your Data Manager states that: "***We do not claim that cameras are solely responsible for reducing casualties***" **YET IN REALITY THAT IS PRECISELY WHAT YOU DO!**

While waiting for the DfT's methodology I decided to look at the Excel spreadsheet <http://www.saferroadshumber.com/EasySiteWeb/GatewayLink.aspx?allId=114553> of your 2010/11 report <http://www.saferroadshumber.com/EasySiteWeb/GatewayLink.aspx?allId=114558>

KSI numbers for the A164 road to Coniston site will serve as an example, but the same applies to all sites and also to injury accident numbers (I show below only the directly relevant numbers):

	3 years Before		After		Period	% Fall	Avoided
	KSI	Average pa	KSI	Average			
Column	J	K	L	M	H + I	N	O
Number	4	1.33	4	0.58	6.92 yrs	56.63	5.22

(tables attached in Word in case of loss of formatting)

As shown the arithmetic is correct (though there is an error of 34.94 for 35.94 in line 3 column N. the A133 site)

What is **wholly and blatantly wrong is the interpretation put on these figures**, exemplified by the column heading on N being "[Effect of Enforcement on KSI Casualties](#)", as follows:

If you add KSI after (**4**) to Avoided (**5.22**) to get **9.22** and then divide that **9.22** by the period (**6.92** years) the average figure in the After period is precisely the same 1.33 as in the Before period!

In other words, the assumption made, throughout this spreadsheet, is that **had cameras not been installed the average KSI rate would have continued at exactly the same level as in the 3 year "before" (selection period) i.e. the other contributory factors (a) to (e) have been completely ignored** so that credit for the whole of the observed reduction can be claimed for the cameras.

If there remained any doubt that this is indeed what Humberside claim, it is removed by one sentence in the text of the report:

"In real terms there are 411 people alive and well today that would have been killed or seriously injured if safety cameras had not been introduced across the region."

We have all heard of Fantasy Football and Fantasy Economics, welcome to Fantasy Road Safety on the Humber! There is no basis whatever for these claims (paragraphs correspond to the list of factors above)

(a) National Trend contribution

As your figures do not include numbers for each year, but only totals and averages for before and after periods,

I am not able to adjust each site's results for national trend. However I can confirm that the national **KSI trend fell by 25% from 2000** (the mid point of most selection periods) to **2007** (the mid point of most enforcement periods) and that national trend alone **would have accounted for falls of something like 25% with no camera present.**

(b) Traffic volume at sites

Your figures show an overall fall of 5% from the selection period to the enforcement period, whereas the national figures changed little overall in the same period. Accordingly observed % falls claimed for cameras should have been reduced to that extent because the observed reductions at sites were probably cancelled out by increases on the other routes taken by those drivers)

(c) Local Road changes

I have no information on local road works etc.

(d) Falling reporting levels

Through much of the 2000 speed camera decade reporting levels of KSI fell, according to the BMJ report of 2006 <http://www.fightbackwithfacts.com/wp-content/uploads/2011/07/G.23-BMJ-report.pdf> and there was no real fall in KSI. I see no reason why Humberside camera sites would have been any different

(e) Regression to the Mean

If Appendix H of the 4th Year Report is a sound indication, some 60% of the observed fall in KSI would have been due to **Regression to the Mean** and nothing whatever to do with cameras.

Claimed casualty reductions could not possibly have been achieved by the speed reductions achieved.

Another way of seeing Humberside's claims as the self-serving nonsense they are is to consider first the relative significance of speeds above the speed limit in accident causation. Current DfT assessment for KSI is that about 10% of all KSI accidents involve, or might have involved, speeds above the limit - and "involve" does not necessarily equate to "caused by". That being the case, and as even the DfT admit - it is simply impossible for speed cameras to cut KSI accidents even by that 10% even if cameras totally eliminated speeding, because the many other causal factors (drunks, drugged, loss of concentration, mechanical failure, road conditions etc) would remain.

Your claims of 50/60/70% reductions due to cameras would therefore be laughable (if KSI were not so serious) even if cameras completely eliminated speeding, but your own data confirms that they do not remotely do so! The consistent pattern throughout your spreadsheet however is of little reduction in average speed, and modest reductions of 85th percentile speeds - not remotely related to the ludicrously high accident and casualty reductions they supposedly bring about.

Taking again the A165 Coniston site, a 40mph road, **the average speed after enforcement was the same 40mph as it had been before enforcement!** The 85th percentile fell from 48mph to 44mph and the percentage over the speed limit fell from 52% to 30%. **Who in his right mind could believe that these very modest reductions could lead to 56% falls in KSI and 60% falls in injury accidents**, when Stats19 contributory factor analysis shows that no more than 10% of KSI accidents even involves speeds above limits as a minor contributory factor, let alone a major one? Or 6% for all casualty accidents?

Out here in the real world, Ms Gore, the contribution of these other factors to the observed falls leaves precious little camera effect at all - but whatever the truth is, one thing is absolutely clear, **Humberside's claims of camera benefit as being the whole of the observed fall are unadulterated rubbish.**

We have all heard of **Fantasy Football, and Fantasy Economics** - now we are paying through the nose for **Fantasy Road Safety!**

DfT valuations of accidents and casualties

Here I can be less critical of the Humberside figures, because they have probably been grievously misled by the DfT (that same DfT I have proved wrong by a factor of 50 to 1 at least twice). However Eric Bridgstock pointed out to you two years ago that while the DfT and academics can put whatever notional values they like on accidents and casualties avoided, **nothing will ever turn that into real money in any ledger** - it is "funny money", notional or theoretical. **Yet the wording of your report - such as "The reduction in the number of people killed or seriously injured at Safer Roads Humber camera sites equates to a saving of 73,223,760 to society" consistently gives the impression that this is cash somehow saved. It is NOT!**

Apart from the utterly preposterous and wholly specious 8 digit precision you chose to allocate to the end result of multiplying an **estimate by a guess and then dividing by an approximation** (in my long experience people who make such mistakes do so because they do not understand how numbers work) and apart from the **wholly bogus claims of accident and casualty reductions achieved, the "human costs" part of these figures is not real money saved for the community and should not be presented as such.**

Bogus estimates of Lost Output.

The other cash factor (which the DfT is at last reviewing following my objections) is that the **large sums estimated as the value of "lost output" are almost entirely specious, because no output is actually lost!** Rather than re-write the detail of those arguments, already published on Conservative Home and in Classic Car Weekly, I refer you to them at <http://www.fightbackwithfacts.com/wp-content/uploads/2012/03/Idris-CCW-letter-accident-costs-14.3.121.pdf>. As any schoolboy economist surely knows, no output is lost when someone person becomes unable to work **because someone else takes his place to ensure that output continues to meet demand.** As it always does, under one of the most basic laws of economics.

In Summary

Your claims for accident and casualty reductions are **largely bogus and seriously misleading**

Your claims of cash savings are based on **nonensical and massive over-valuation** of the cash costs of accidents.

Multiplied together, your **claims of benefits achieved are massively overstated** (even without deduction the massive costs of accidents caused across the country by cameras)

I must therefore insist that your organisation immediately withdraws its 2010/11 and earlier reports, apologises for them, disciplines or fires those responsible and establishes without delay sensible and realistic methods of establishing the benefits, if any, that result from your cameras.

Finally - Freedom of Information

1/ KSI, which combines Fatal with Serious injuries, was rightly condemned by Transcom in its 2008 report as not a reliable indicator of road safety. Please therefore **copy to me the fatality data** in the same format as you publish for KSI.

2/ Please copy me the Fatality, KSI and All casualty data for each year of operation of each site.

Yours sincerely

Idris Francis