

A Preliminary Analysis of the Latest Statistics on Speed Limit Enforcement

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Introduction

In my recent study for the RAC Foundation – *Automated Road Traffic Enforcement: Regulation, Governance and Use* – I noted that variations between police forces – hidden beneath the headline national figures – made it difficult to make sweeping conclusions about why certain detection practices were in place, and the reasons behind the level of penalties issued.¹ Just-released data² from the Home Office for 2016, is now available to give us insights into some of these variations – though these insights raise as many questions as they provide answers about what is happening with motoring enforcement, at both national and local level.

We know from the released statistics that speeding enforcement is increasing (up 1.3% between 2015 and 2016). However, the detection of other offences where there is also an obvious safety issue – failure to observe traffic lights, seat belt non-compliance, illegal use of mobile phones and obstruction offences – appears to have fallen. One reason for this might be that the safety message is getting across and that there have been corresponding large-scale reductions in this kind of offending behaviour. Alternatively, it could be that the reductions in dedicated road traffic police officers means that the focus on these offences has reduced. Or it might be down to local priorities.

Elsewhere, record-keeping offences (such as driving with a driving licence, driving without insurance and various associated paperwork style offences) have increased significantly over the last year, up 19% (or 13,700 extra offences).

But all this national data still often hides significant variation at constabulary level. This variation can be particularly difficult to understand, because it requires an appreciation of complex local peculiarities and priorities which are not discernible from the bald national data tables published by government. With that important caveat, what follows is a narrative of what the latest Home Office figures show when it comes to speeding.

Speeding

Table 1 below documents how the number of speeding offences detected varies by constabulary. It is worth repeating that this report is not seeking to criticise individual practice in the various police

¹http://www.racfoundation.org/assets/rac_foundation/content/downloadables/Automated_Road_Traffic_Enforcement_Dr_Adam_Snow_October_2017.pdf

² www.gov.uk/government/statistics/police-powers-and-procedures-england-and-wales-year-ending-31-march-2017 – the spreadsheet ‘Fixed penalty notices for motoring offences statistics data tables: police powers and procedures year ending 31 March 2017’ is the source of the data in this note.

force areas; it is merely looking to provide some tentative means through which we can identify regional disparities.

Table 1: Total number of speeding offences detected by police forces in 2016 and how they were detected

Police force area	Total number of speeding offences detected	Total number of speeding offences detected by camera	Proportion of offences detected by camera
Avon and Somerset	184,654	152,585	83%
Bedfordshire	68,262	54,695	80%
Cambridgeshire	38,486	30,932	80%
Cheshire	54,787	47,603	87%
City of London / Metropolitan Police	83,687	65,637	78%
Cleveland	13,486	12,846	95%
Cumbria	45,734	41,930	92%
Derbyshire	10,201	8,521	84%
Devon and Cornwall	41,994	39,858	95%
Dorset	24,978	18,751	75%
Durham	7,430	6,661	90%
Dyfed-Powys	1,355	0	0%
Essex	98,544	88,668	90%
Gloucestershire	24,987	19,216	77%
Greater Manchester	120,094	85,785	71%
Gwent	151	8	5%
Hampshire	81,212	68,317	84%
Hertfordshire	66,912	54,818	82%
Humberside	54,948	50,101	91%
Kent	18,347	15,916	87%
Lancashire	64,680	58,754	91%
Leicestershire	40,445	34,428	85%
Lincolnshire	54,190	48,066	89%
Merseyside	66,828	52,152	78%
Norfolk	88,493	71,890	81%
North Wales	19,891	16,909	85%
North Yorkshire	30,459	28,851	95%
Northamptonshire	51,592	44,007	85%
Northumbria	57,074	52,581	92%
Nottinghamshire	26,101	24,874	95%
South Wales	37,288	32,659	88%
South Yorkshire	41,090	39,217	95%
Staffordshire	29,396	27,949	95%

Police force area	Total number of speeding offences detected	Total number of speeding offences detected by camera	Proportion of offences detected by camera
Suffolk ³	7	–	0%
Surrey	47,720	44,939	94%
Sussex	68,541	58,309	85%
Thames Valley	138,271	119,817	87%
Warwickshire	47,185	41,402	88%
West Mercia	81,989	73,298	89%
West Midlands	53,097	40,014	75%
West Yorkshire	123,217	99,840	81%
Wiltshire	989	0	0%

Note: The first column of figures encompasses literally all the 2016 offences detected, whether endorsable or not, including the categories “Fine registered” and “Incomplete” (see note to Table 3).

Perhaps the most striking statistic in Table 1 is the comparison between the neighbouring police authorities of Avon and Somerset, and Wiltshire. These two neighbours have seemingly radically different approaches to the enforcement of speeding. Avon and Somerset detected 184,654 speeding offences in 2016, whereas in Wiltshire, literally down the road, just 989 speeding offences were recorded, none of them by camera. Press reports suggest that Wiltshire no longer operates speed cameras within its force area and as a consequence the number of offences detected is likely to be much lower than in a policing area where cameras are commonplace. Avon and Somerset would appear to be one such place, as 83% of the speeding offences detected there were by camera. Even allowing for that fact, this means that in Avon and Somerset over 30,000 offences were detected with the involvement of a police officer rather than by a camera. Clearly there are interesting regional variations occurring which require further analysis to see whether reasons can be identified that explain the often-major differentials.

The Avon and Somerset police force actually detected the most speeding offences of any of the 43 constabularies in England and Wales (though in our tables the Metropolitan and City of London forces are combined, making a total of 42)⁴ in 2016. The total figure includes every detected offence regardless of the eventual outcome (attendance at a speed awareness course, payment of a penalty

³ The Suffolk data for 2016 appears anomalous. See historical data going back to 2011 in Table 3.

Investigation suggests the Suffolk figures are now being broadly incorporated in the data for Norfolk.

⁴ The Home Office releases data from the 43 Police Force Areas, however in the analysis in this document the author has amalgamated the figures for the City of London Police and the Metropolitan Police. The reason for joining the two forces allows for later analysis by population density and the length of the major road network. The City of London police force is primarily a specialist organisation dealing with financial crime and policing the square mile, they do not have any full time officers dedicated to road traffic enforcement and in 2016 and detected only 5,345 incidence of speeding.

and taking of points, court action or a cancelled notice; see note at Table 2 for other very infrequent outcomes). Avon and Somerset also detected the most speeding penalty offences per 100 head of population: 11 offences are detected for every 100 citizens of Avon and Somerset's police force area. Similar police authorities, in terms of population levels, detect far fewer speeding offences. The forces of Devon and Cornwall (41,994 speeding offences in total), Sussex (68,541) and Lancashire (64,680) all cover areas that are broadly similar to Avon and Somerset in terms of population size (they are its three nearest neighbours in terms of population) and yet, combined, these three authorities detect a total of about 9,500 fewer speeding offences.

Perhaps the disparity can in part be explained in terms of the length of the major road network within the police force area. Avon and Somerset police cover 1,844 miles of motorways and major trunk roads and based on the data it detects 100 offences of speeding for each mile of the major road network. Its three closest neighbours in this regard are Norfolk, Hampshire and Northumbria constabularies. Together they issued 226,779 notices, 42,125 more than Avon and Somerset (over a combined motorway and major road network of 5,823 miles, or 38.9 detected offences per mile of major road network). If we took the two nearest neighbours, Norfolk and Hampshire, then 169,705 offences were detected by these two constabularies over a combined road network of 3,679 miles (giving a figure of 46 detected speeding offences per mile). Combined these two constabularies issue 14,949 fewer than Avon and Somerset. It would appear that the length of road network is more reliable an indicator of speed offence detection (rather than population density) although there are more regional disparities here. For example, Dyfed-Powys police has the largest major road network coverage (4,230 miles) and yet only detected 1,335 offences in 2016 (0.3 offences per mile); likewise, Devon and Cornwall cover a road network of 3,965 miles and detected 41,994 offences over this period (a total of 10.6 offences per mile). The police authority with the highest number of offences per mile is Merseyside Police, which has a relatively small major road network (250 miles) and detected 68,828 speeding offences last year, or 267 offences per mile of major road network. Table 2 notes the figures for offences per road mile for the 43 police forces (including combined City of London / Metropolitan Police)

Table 2: Speeding Offences Detected per Road Mile, ranked by most offences per road mile

Police Force Area	<u>Speeding Offences Detected</u>	<u>Road Miles</u>	<u>Detected offences per mile of major road network</u>
Merseyside	66,828	250	267
Essex	98,544	400	246
Greater Manchester	120,094	493	244
West Yorkshire	123,217	783	157
West Midlands	53,097	348	153
Bedfordshire	68,262	477	143
City of London / Metropolitan Police	83,687	608	138
Hertfordshire	66,912	634	106
Avon and Somerset	184,654	1,844	100
Surrey	47,720	642	74
South Yorkshire	41,090	599	69
Thames Valley	138,271	2,216	62
Warwickshire	47,185	763	62
Cheshire	54,787	905	61
Cleveland	13,486	230	59
Northamptonshire	51,592	913	57
Lancashire	64,680	1,187	54
Hampshire	81,212	1,602	51
Sussex	68,541	1,460	47
South Wales	37,288	803	46
Norfolk	88,493	2,077	43
Leicestershire	40,445	980	41

Police Force Area	Speeding Offences Detected	Road Miles	Detected offences per mile of major road network
Humberside	54,948	1,357	40
Nottinghamshire	26,101	834	31
Cambridgeshire	38,486	1,309	29
West Mercia	81,989	2,860	29
Staffordshire	29,396	1,048	28
Northumbria	57,074	2,144	27
Gloucestershire	24,987	1,024	24
Dorset	24,978	1,024	24
Lincolnshire	54,190	2,292	24
Cumbria	45,734	2,613	18
Kent	18,347	1,443	13
Devon and Cornwall	41,994	3,965	11
Derbyshire	10,201	1,013	10
North Yorkshire	30,459	3,208	9
North Wales	19,891	2,375	8
Durham	7,430	936	8
Wiltshire	989	1,346	1
Dyfed-Powys	1,355	4,230	0
Gwent	151	600	0
Suffolk	7	1,467	0

Unfortunately, due to the way the statistics are reported, it has not been possible to examine the relationship between traffic volume and speeding offences detected. This could be a potential factor

in explaining the regional variations between police forces; however, that data is reported at regional level rather than at police force area level.

The number of people killed or seriously injured (KSI) on our roads has recently increased (DfT, 2016)⁵ although looking over the medium term – twenty years or so – it has fallen quite markedly. One reason posited for the broader improvement has been the focus on speeding enforcement and its effectiveness in making the roads safer (see Allsop, 2010; Wilson et al, 2010). For present purposes, and at a simplistic level, one might intuitively suppose that those police forces with the highest KSI numbers among motorists per 100,000 population would be those where speed enforcement is at its lowest, but again the picture is complex and varies by region.

Certainly Dyfed-Powys constabulary fits this hypothesis. It has one of the highest KSI rates for traffic accidents (13 killed or seriously injured per 100,000 head of population) and has a relatively low level of speeding detection – just 263 detected offences per 100,000 head of population in 2016. West Mercia Police, on the other hand, has a relatively high level of detection (the eighth largest at 81,989 offences processed and 6,514 offences detected per 100,000 of population) but a KSI rate the same as Dyfed-Powys (13 KSI per 100,000 people). It's a similar picture in Cumbria which has one of the highest KSI statistics at 15.6 killed or seriously injured per 100,000 head of population and yet detects 9,185 offences per 100,000 head of population (It has the 4th highest detection rates per 100,000). Avon and Somerset, on the other hand, do fit the casualty reduction hypothesis with speeding detections. It has the highest detections per 100,000 population (at 10,987 detected speeding offences per 100,000) and has the 7th lowest KSI rate (at 4.11 per 100,000 head of population).

⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/648081/rrcgb2016-01.pdf

Table 3: How speeding offences were disposed of by police force area in 2016

Police force area	Total number of speeding offences detected	Total number of speeding offences dealt with by FPN	Proportion of offences dealt with by FPN	Total number of speeding offences dealt with by speed awareness courses	Proportion of offences dealt with by speed awareness courses	Total number of speeding offence detections cancelled	Proportion of offences cancelled	Number of speeding offences ending in court action	% taken to court
Avon and Somerset	184,654	61,576	33%	80,235	43%	30,892	17%	11,940	6%
Bedfordshire	68,262	18,060	26%	30,859	45%	13,040	19%	6,300	9%
Cambridgeshire	38,486	12,156	32%	16,819	44%	5,623	15%	3,887	10%
Cheshire	54,787	15,993	29%	27,450	50%	3,703	7%	7,640	14%
City of London / Metropolitan Police	83,687	29,634	36%	35,463	40%	6,502	6%	16,332	19%
Cleveland	13,486	3,872	29%	8,078	60%	342	3%	1,194	9%
Cumbria	45,734	15,042	33%	24,157	53%	3,291	7%	3,224	7%
Derbyshire	10,201	8,672	85%	210	2%	1,251	12%	68	1%
Devon and Cornwall	41,994	17,740	42%	21,829	52%	852	2%	1,572	4%
Dorset	24,978	19,108	76%	1,566	6%	3,420	14%	806	3%
Durham	7,430	2,199	30%	4,598	62%	196	3%	437	6%
Dyfed-Powys	1,355	1,146	85%	0	0%	34	3%	175	13%
Essex	98,544	38,508	39%	51,764	53%	3,352	3%	4,918	5%
Gloucestershire	24,987	9,275	37%	9,248	37%	5,296	21%	1,167	5%
Greater Manchester	120,094	28,788	24%	48,495	40%	33,893	28%	8,895	7%
Gwent	151	91	60%	24	16%	8	5%	28	19%
Hampshire	81,212	26,633	33%	43,962	54%	5,579	7%	5,033	6%
Hertfordshire	66,912	20,035	30%	30,600	46%	10,703	16%	5,571	8%
Humberside	54,948	18,362	33%	29,309	53%	2,450	4%	4,827	9%
Kent	18,347	14,476	79%	163	1%	1,273	7%	2,333	13%
Lancashire	64,680	19,044	29%	31,436	49%	5,064	8%	9,135	14%

Police force area	Total number of speeding offences detected	Total number of speeding offences dealt with by FPN	Proportion of offences dealt with by FPN	Total number of speeding offences dealt with by speed awareness courses	Proportion of offences dealt with by speed awareness courses	Total number of speeding offence detections cancelled	Proportion of offences cancelled	Number of speeding offences ending in court action	% taken to court
Leicestershire	40,445	10,903	27%	19,306	48%	5,465	14%	4,768	12%
Lincolnshire	54,190	17,687	33%	23,826	44%	4,829	9%	7,767	14%
Merseyside	66,828	17,083	26%	31,242	47%	7,605	11%	10,896	16%
Norfolk	88,493	27,743	31%	44,287	50%	10,950	12%	5,513	6%
North Wales	19,891	16,654	84%	278	1%	259	1%	2,700	14%
North Yorkshire	30,459	26,070	86%	199	1%	763	3%	3,426	11%
Northamptonshire	51,592	15,763	31%	25,540	50%	7,407	14%	2,870	6%
Northumbria	57,074	17,151	30%	31,549	55%	3,677	6%	4,609	8%
Nottinghamshire	26,101	23,293	89%	142	1%	713	3%	1,953	7%
South Wales	37,288	28,834	77%	78	0%	4,382	12%	3,994	11%
South Yorkshire	41,090	14,903	36%	22,201	54%	1,169	3%	2,817	7%
Staffordshire	29,396	10,947	37%	15,703	53%	354	1%	2,380	8%
Suffolk ³	7	5	71%	–	0%	1	14%	1	14%
Surrey	47,720	15,363	32%	23,785	50%	1,894	4%	6,673	14%
Sussex	68,541	21,452	31%	31,577	46%	8,057	12%	7,455	11%
Thames Valley	138,271	52,992	38%	73,159	53%	6,615	5%	4,706	3%
Warwickshire	47,185	13,388	28%	24,359	52%	5,088	11%	4,254	9%
West Mercia	81,989	27,877	34%	41,838	51%	6,991	9%	5,283	6%
West Midlands	53,097	12,647	24%	21,904	41%	11,014	21%	7,488	14%
West Yorkshire	123,217	32,515	26%	53,188	43%	19,016	15%	18,489	15%
Wiltshire	989	888	90%	0	0%	15	2%	37	4%

Note: All non-endorsable offences in the subcategory columns of the table have been excluded. They amount to 109 offences, less than 0.005% of all 2016 offences; it is thought that these relate to contraventions of minimum speed limits, a non-endorsable offence (code 305.031)

November 2017

under the Road Traffic Regulation Act 1984.⁶ The category “Fine registered” has also been excluded from the detailed breakdown – these are cases where the offender has not responded in any way, and the police force has instructed the court to recover the fine. The category “Incomplete” has been excluded as well – these are believed to be the cases in the process of being finalised. These two categories amount to 1,565 offences, or less than 0.07% of 2016’s total offences.

⁶ www.cps.gov.uk/legal/assets/uploads/files/OD_000055.pdf

Table 3, above, uses the most recent figures available (2016) to show the differing means of dealing with a speeding offence once it has been detected. Interestingly, Avon and Somerset also cancels a significant number of their penalty notices (30,892), which represents 17% of all offences detected, although they were not the authority with the highest such proportion: Greater Manchester police cancelled over a quarter – 33,893, or 28% – of detected offences. In police areas where more than 90,000 speeding offences were detected, Essex cancelled the fewest notices, at just 3,352, or 3% of notices.

The relative proportion of speeding offenders sent on a speed awareness course is another interesting statistic that likewise shows widespread regional variation. In general, the number proportion of speeding offences that are dealt with by an awareness course increases as the number of detected offences increases. However, Both Durham and Cleveland detect relatively few offences, just 7,430 offences and 13,486 respectively, and yet nearly two thirds of those they do detect are sent on a speed awareness course. Once again regional variations are apparent that are difficult to explain at the national level. The speed awareness course rivals the fixed penalty notice (FPN) as the main means of dealing with motoring offending, at a national level 44% of all speeding offences detected are dealt with by the awareness course, whereas only 35% are dealt with by FPN⁷.

Table 4 below shows how the total number of detected speeding offences has changed over recent years, from 2011 to 2016, force by force.

⁷ The other 21% of offences are either cancelled, have court fines registered against them, are still going through the process as at the date of the statistical release, or are awaiting or have gone a court hearing.

Table 4: Detected speeding offences by police force area for the years 2011–2016

Police force area	2011	2012	2013	2014	2015	2016
Avon and Somerset	38,654	95,105	88,428	111,502	120,037	184,654
Thames Valley	137,206	152,328	153,430	139,674	145,639	138,275
West Yorkshire	102,694	108,314	78,267	88,855	130,174	123,217
Greater Manchester	114,278	118,471	82,740	91,064	127,367	120,094
Essex	25,980	28,823	45,706	73,170	79,049	98,545
Norfolk	37,825	35,521	45,806	52,093	64,328	88,493
City of London / Metropolitan Police	74,567	86,693	91,259	95,996	79,432	88,044
West Mercia	84,038	83,577	78,580	98,560	86,992	81,989
Hampshire	68,901	88,183	84,857	80,907	88,658	81,213
Sussex	80,422	68,030	56,974	58,975	63,651	68,541
Bedfordshire	14,060	15,156	35,019	50,401	47,546	68,262
Hertfordshire	49,090	49,330	47,715	58,826	78,131	66,912
Merseyside	48,235	46,467	50,379	50,503	59,611	66,828
Lancashire	55,862	52,860	55,617	65,109	69,547	64,680
Northumbria	59,737	73,936	94,093	67,476	62,838	57,074
Humberside	43,814	48,291	56,811	53,058	53,732	54,948
Cheshire	40,446	38,418	35,319	49,762	49,843	54,787
Lincolnshire	18,277	22,182	48,003	51,310	48,280	54,190
West Midlands	78,087	74,707	56,587	52,580	44,395	53,097
Northamptonshire	25,780	21,440	22,004	42,023	59,628	51,664
Surrey	49,904	51,086	54,310	51,745	72,218	47,732
Warwickshire	33,731	35,765	43,488	41,353	48,821	47,185
Cumbria	37,674	38,772	37,556	38,462	38,377	45,734
Devon and Cornwall	14,085	15,132	13,199	17,177	25,210	41,994
South Yorkshire	55,961	45,523	52,243	41,951	46,093	41,090
Leicestershire	44,488	33,759	34,189	47,043	38,696	40,445
Cambridgeshire	34,827	36,577	26,014	50,582	44,703	38,486
South Wales	30,927	42,372	34,203	47,483	43,493	37,289
North Yorkshire	21,151	20,411	41,896	45,517	30,370	30,459
Staffordshire	15,472	19,923	50,517	51,861	41,373	29,396
Nottinghamshire	23,406	24,195	27,082	34,545	35,626	26,101
Gloucestershire	10,847	12,495	15,001	20,934	18,090	24,988
Dorset	33,440	27,265	27,484	24,630	26,227	24,980
North Wales	11,683	14,234	14,356	18,866	17,416	19,891
Kent	24,080	24,758	28,818	26,885	21,660	18,347
Cleveland	20,980	17,028	11,983	7,889	10,796	13,486
Derbyshire	7,525	10,015	9,158	18,034	11,984	10,202
Durham	8,076	8,143	7,586	7,044	6,846	7,430
Dyfed-Powys	4,021	4,598	4,145	2,048	1,640	1,358
Wiltshire	5,447	3,819	4,782	2,108	1,287	989
Gwent	809	651	495	382	135	161
Suffolk	53,730	42,647	41,959	38,064	11,413	7

Note: The figures shown encompass all the 2016 offences detected, whether endorsable or not, including the categories “Fine registered” and “Incomplete” (see note to Table 2).

Conclusion

The above analysis should not be taken as a criticism of Avon and Somerset, or indeed any of the other authorities discussed. There may be very genuine reasons why they issue or cancel more notices than any other police authority: it may be, for example, that other similar authorities are too lenient rather than Avon and Somerset being too punitive. Until we know, or at least have some estimate of, the underlying so-called ‘dark figure’ of speeding offending (the amount of offending that isn’t captured in official enforcement data, which – when added to the data for detected crime would allow us to determine the true level of offending), then we really can’t judge whether any particular police force is too punitive or lenient. All we can say with confidence at this stage is that certain forces detect and punish speeding offences more (or less) than we would probably expect given their similarity to other police forces. So, there is an element of regional variation between police forces which could be due to a number of factors. It could be that the overall level of offending in one area is higher or lower than in another. One thing is certain: further research is needed in this area, and particularly the kind that involves working alongside some of these police forces to examine why and how penalty notices are issued, and what differentiates one authority from other similar forces.

All of the above must be quite confusing for motorists, as it gives rise to questions about what messages the public should take home from the large differences in enforcement approaches, and in numbers of offenders detected, between one police force and another.

The foregoing discussion has been no more than a preliminary attempt to examine widespread regional variations in the enforcement of one aspect of road traffic law, variations that defy obvious and easy explanation; quite what we should make of this analysis is uncertain. If we want to understand public acceptance of road traffic enforcement, and what makes that enforcement fair, as I called for in my Automated Enforcement report, then we need to understand that road traffic enforcement is a complex matter which varies quite substantially from region to region and from area to area, and that any sweeping claims about it need to be seen in this light. Whilst assertions about inappropriate enforcement are easy to make, they are difficult to substantiate at constabulary level, given the wide variety of factors in play.

November 2017

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