

PACTS Conference 2013

Lies, Damn Lies and Statistics

Crime Statistics in the Dock

the truth, the whole truth and nothing but the truth?

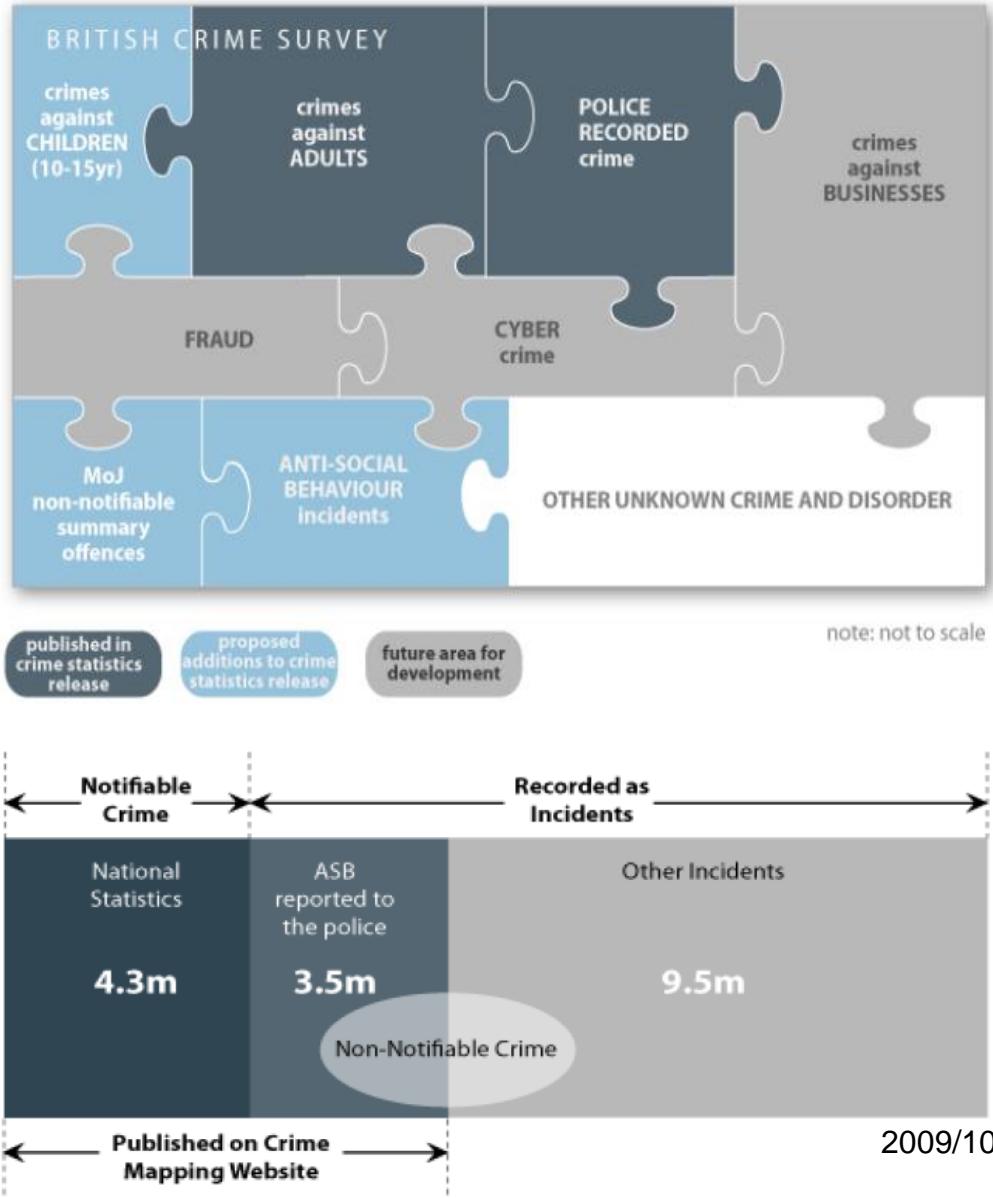
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Crime Statistics



Official version of government statistics:

- The law is democratically arrived at and applied equally to all people at all times
- The criminal act takes place and the law is broken
- The crime is known by a member of the public and reported, or the police detect a crime
- The police react and all similar incidents are treated without prejudice
- The crime is recorded and becomes part of the official statistics

Alternative version of government statistics:

- The law changes over time and is not applied equally to all people at all times
- A crime is committed, but is it reported?
- If reported, are the decisions of the police equally applied to all similar crimes?
- The crime may be reported but not recorded.
- If recorded not all offences are included in the statistics
- Official statistics thus compiled are neither valid nor reliable

From May (2011) *Social Research*. OUP

CSEW vs. PRC

Crime Survey for England and Wales (formerly British Crime Survey)	Police recorded crime
<p>Face-to-face victim survey of 67,000 invited households (with 75% response rate) that provides a nationally representative sample.</p> <p>Started in 1982 and ran every two years, but is annually since 2001.</p> <p>Respondents are asked about their experiences of a range of crimes in the 12 months prior to the interview.</p> <p>A key aim of the survey is to provide robust trends for the crime types and population it covers. It does not aim to provide a count of crime.</p> <p>From 2009 the survey has included a separate survey to record the experiences of young people aged 10-15.</p>	<p>43 Police Forces + British Transport Police</p> <p>Notifiable Offences List (NOL) 1,494 crimes which Forces notify Home Office and form the basis of National Statistics.</p> <p>National Crime Recording Standard (NCRS) Introduced in 2002, it governs police recording practices for notifiable offences.</p> <p>Home Office Counting Rules (HOCR) How crimes are classified and counted under the NCRS.</p> <p>National Standard for Incident Recording (NSIR) Governs recording of no-crime incidents.</p> <p>Crime Registrars Authority to determine whether or not an incident is recorded as a crime and the crime classification to be applied.</p> <p>Her Majesty's Inspectorate of Constabulary (HMIC) Limited audits of crime and incident reports.</p>



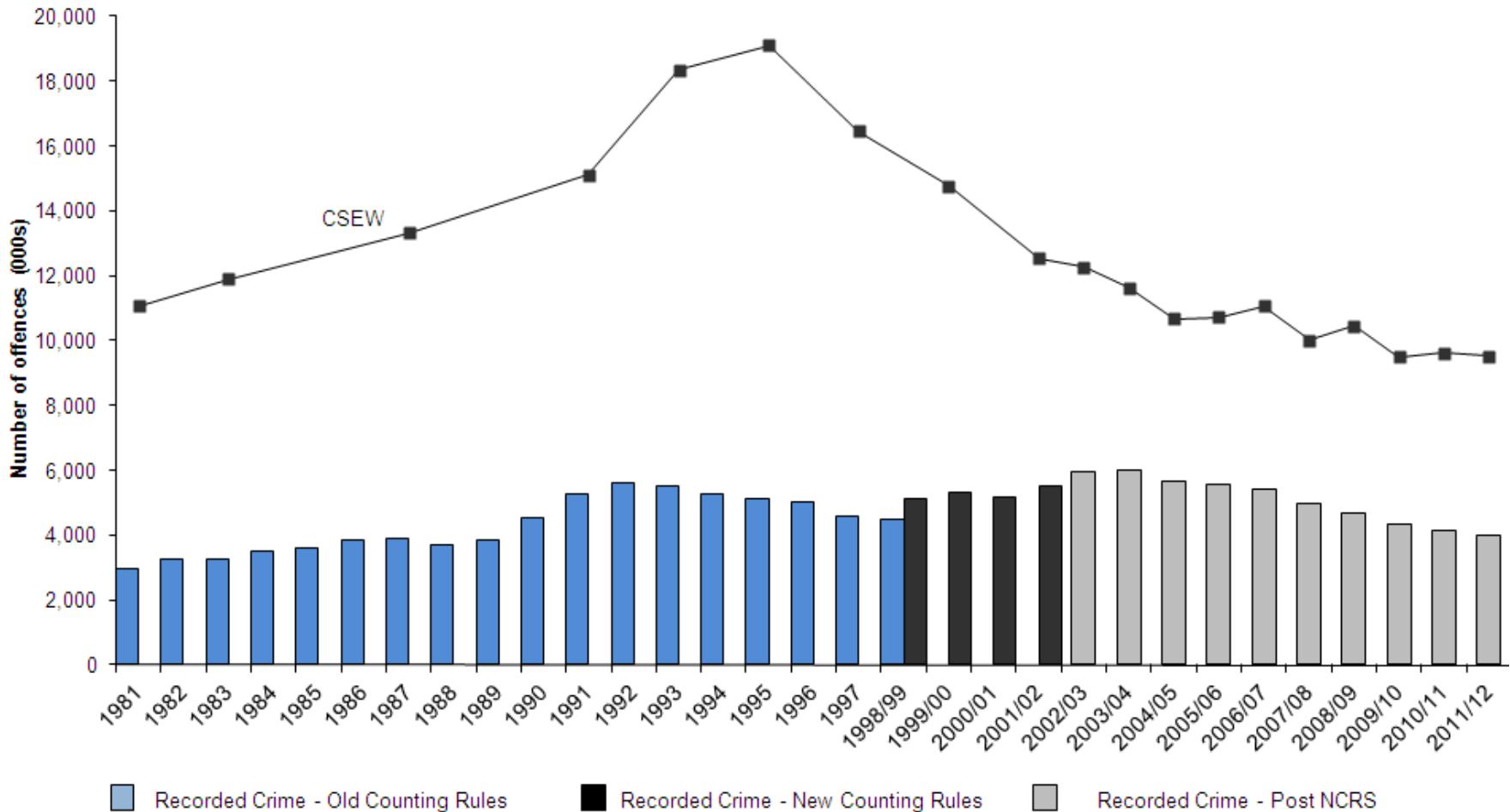
CSEW vs. PRC

Crime Survey for England and Wales		Police recorded crime	
Strengths	Limitations	Strengths	Limitations
Large nationally representative sample survey which provides a good measure of long-term trends for the crime types and the population it covers (for example those resident in households)	Survey is subject to error associated with sampling and respondents recalling past events	Has wider offence coverage and population coverage than the CSEW	Excludes offences that are not reported to, or not recorded by, the police and does not include less serious offences dealt with by magistrates courts (e.g. motoring offences)
Consistent methodology over time	Excludes crimes against businesses and those not resident in households (e.g. residents of institutions and visitors)	Good measure of offences that are well-reported to the police	Trends can be influenced by changes in recording practices or police activity
Covers crimes not reported to the police and is not affected by changes in police recording practice; is therefore a better measure of long term trends	Headline estimates exclude offences that are difficult to estimate robustly (such as sexual offences) or that have no victim who can be interviewed (e.g. homicides, and drug offences)	Is the primary source of local crime statistics and for lower-volume crimes (e.g. homicide)	Not possible to make long-term comparisons due to fundamental changes in recording practice introduced in 1998 and 2002/03
Coverage of survey extended in 2009 to include children aged 10-15 resident in households		Provides whole counts (rather than estimates that are subject to sampling variation)	
Independent collection of crime figures		Time lag between occurrence of crime and reporting results tends to be short, providing an indication of emerging trends	

From ONS (2012) *Trends in crime: a short story 2011/12*



CSEW vs. PRC



From ONS (2012) *Crime in England and Wales, Quarterly First Release to March 2012*

Long-term fall in crime since ~1995, that the public might not believe given the amount of reporting in the media.



Trust in Crime Statistics



Overcoming Barriers to Trust in Crime Statistics: England and Wales

May 2010



Strengthening User Engagement

June 2010



National Statistician's Review of Crime Statistics: England and Wales

June 2011

Continued mistrust in the way crime statistics are used and quoted.

Likely increase in demand for local explanations/narratives of what is going on.

The public's right to local information has a risk that the statistics will be open to misinterpretation.

Mistaken or ill-informed use of statistics could reduce trust in local information.

Without a clear understanding of the needs of users of statistics, a question hangs over the business case for the resources currently employed.

Supporting local services and the public is equally important as government – need to support all the uses that deliver public value.

Production of official statistics is largely a monopoly without consumer choice, but that is changing.

Move CSEW and publication of crime statistics to ONS.

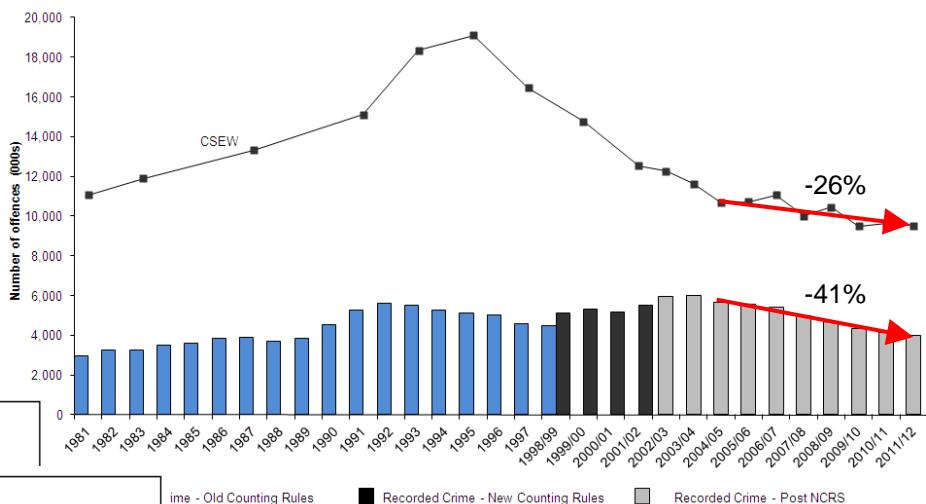
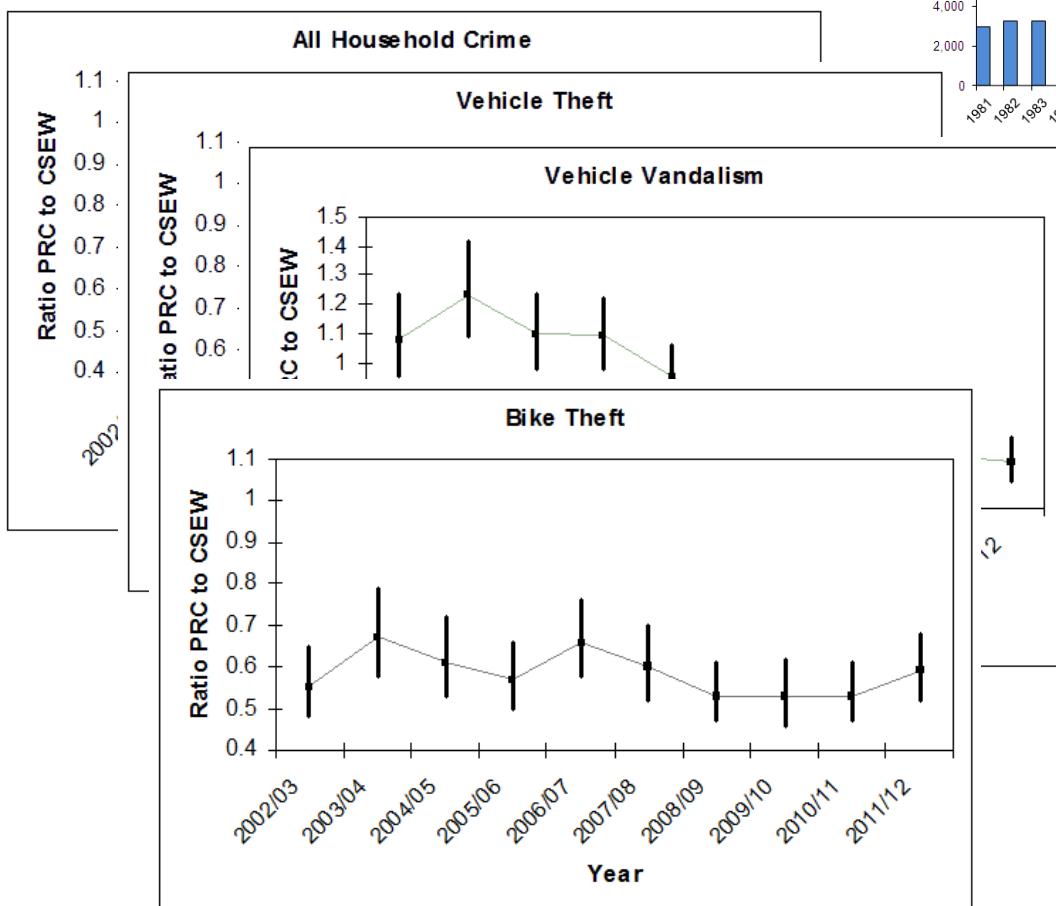
Compilation and validation of PRC to remain with HO.

Create an independent Crime Statistics Advisory Committee.

Improve presentation of crime statistics to give the public a clearer understanding.



CSEW vs. PRC – the drift

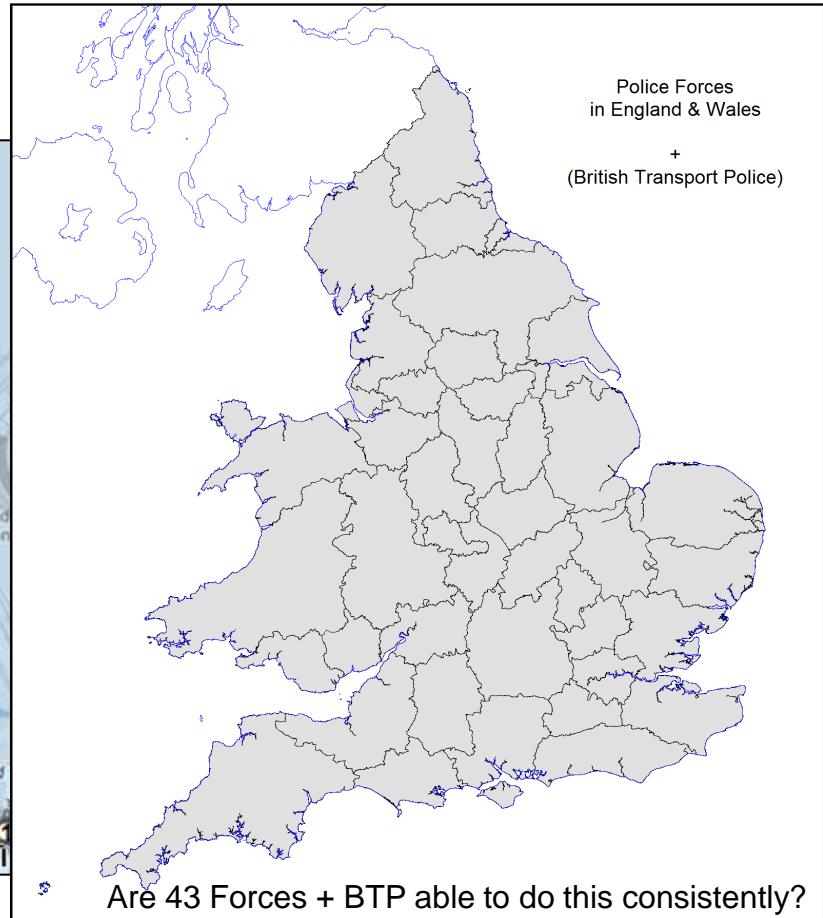
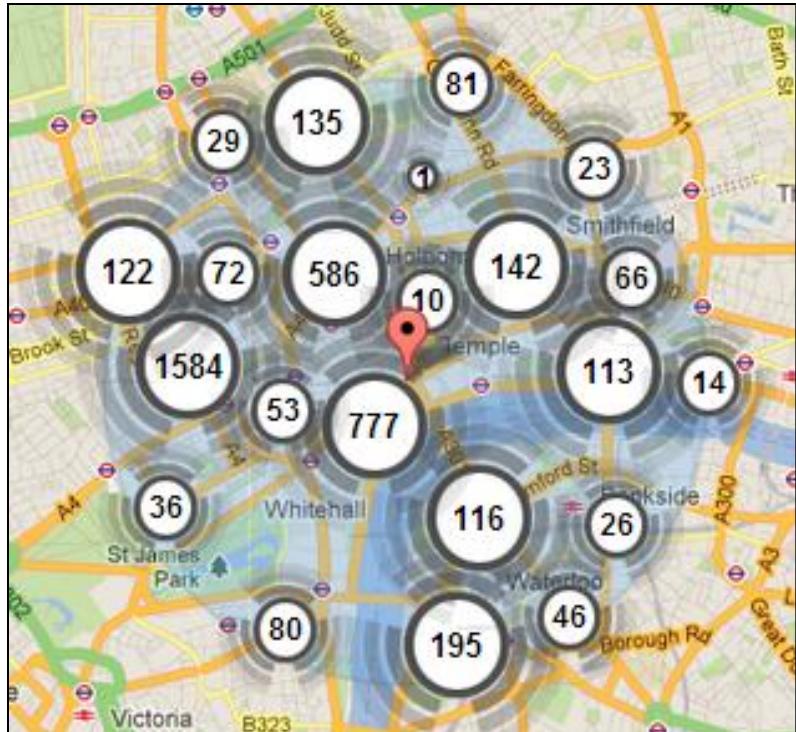


Hypothesised reasons for the 'drift':

1. CSEW might be over-reporting due to respondents 'telescoping' past experiences into the current timeframe.
2. Declining understanding of NCRS since its first introduction.
3. Pressure around police performance targets acting as perverse incentives to downgrade incidents.
4. Cessation of independent audits (by Audit Commission) from 2006/07.
5. Neighbourhood Policing has lead to a more informal approach to many incidents.

Publicly accessible crime mapping

A politically-driven initiative that is also about making policing more accountable to local communities



The geographical dimension is in the ascendancy – crimes not only need to be correctly classified, they now need to be put in the right place.



Publicly accessible crime data

NPIA Data (www.police.uk)

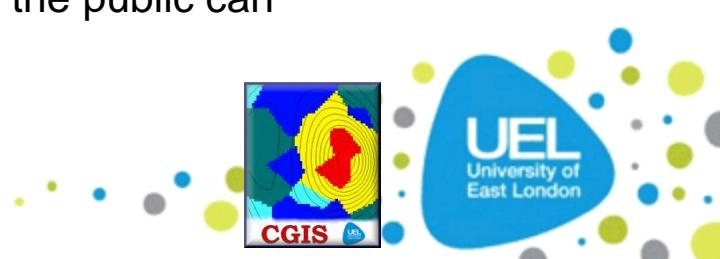
	Force	Geography	All Crime	All crime & ASB	Burglary	Robbery	Vehicle crime	Violent crime	Other crime	ASB
Feb 2011	Norfolk Constabulary	Neighbourhood	3,149	6,568	391	15	227	648	1,868	3,419
		Street	3,083	6,503	391	15	161	648	1,868	3,420
	Merseyside Police	Neighbourhood	7,530	12,521	1,075	117	690	1,102	4,546	4,991
		Street	7,410	12,404	1,075	112	687	1,071	4,465	4,994
Mar 2011	Metropolitan Police	Neighbourhood	94,179	126,264	7,778	3,113	7,532	11,852	63,904	32,085
		Street	62,894	94,179	7,778	3,113	7,532	11,852	31,819	32,085
	Metropolitan Police	Neighbourhood	104,861	140,666	8,314	3,253	8,451	13,018	71,825	35,805
		Street	69,056	104,861	8,314	3,253	8,451	13,018	36,020	35,805

Metropolitan Police Data (maps.met.police.uk)

		Geography	NOL
Feb 2011	Metropolitan Police	Neighbourhood	62,244
Mar 2011	Metropolitan Police	Neighbourhood	69,233

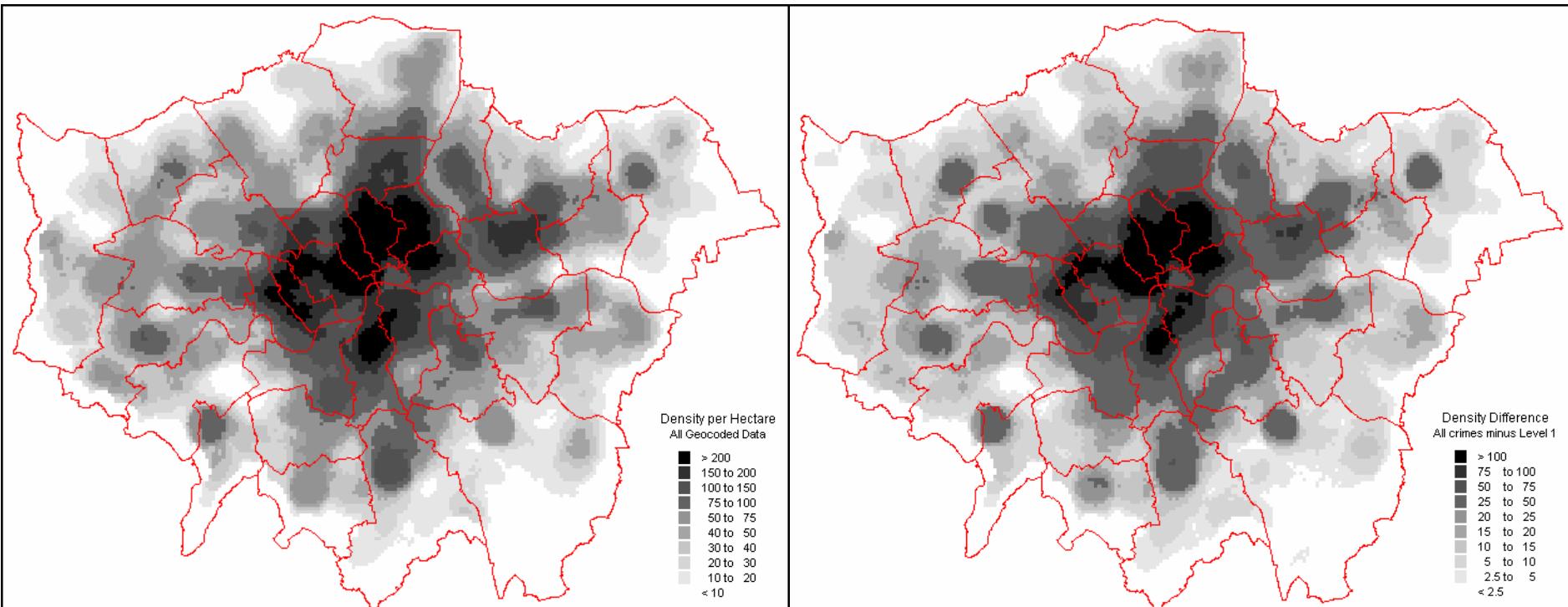
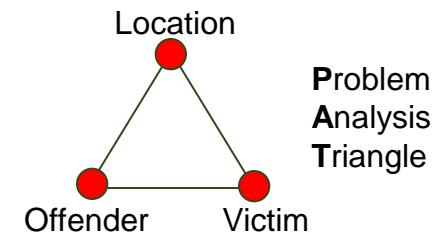
	Burglary	Robbery	Vehicle crime	Violent crime	Other crime
	7,774	3,104	7,490	11,775	32,101
	8,328	3,253	8,444	12,999	36,209

- For many Forces, the neighbourhood units do not correspond with census units and cannot be studied in relation to underlying population.
- Files are often retrospectively changed to reflect amendments in crime databases, without a versioning system.
- What is relationship of these data to National Statistics?
- The transparency agenda is built on the premise that the public can scrutinise the same data that decision-makers are, but these data are specifically compiled for this particular website.



Geocoding crime locations

Identification of hotspots and devising interventions to disrupt them is a central pillar of problem-oriented policing



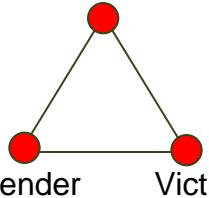
Maximum automated geocoding (91%) of 90,904 crimes

Maximum geocoding minus address matched

Hotspots of crime can be hotspots of missing or uncertain data

Looking at victims....

Location

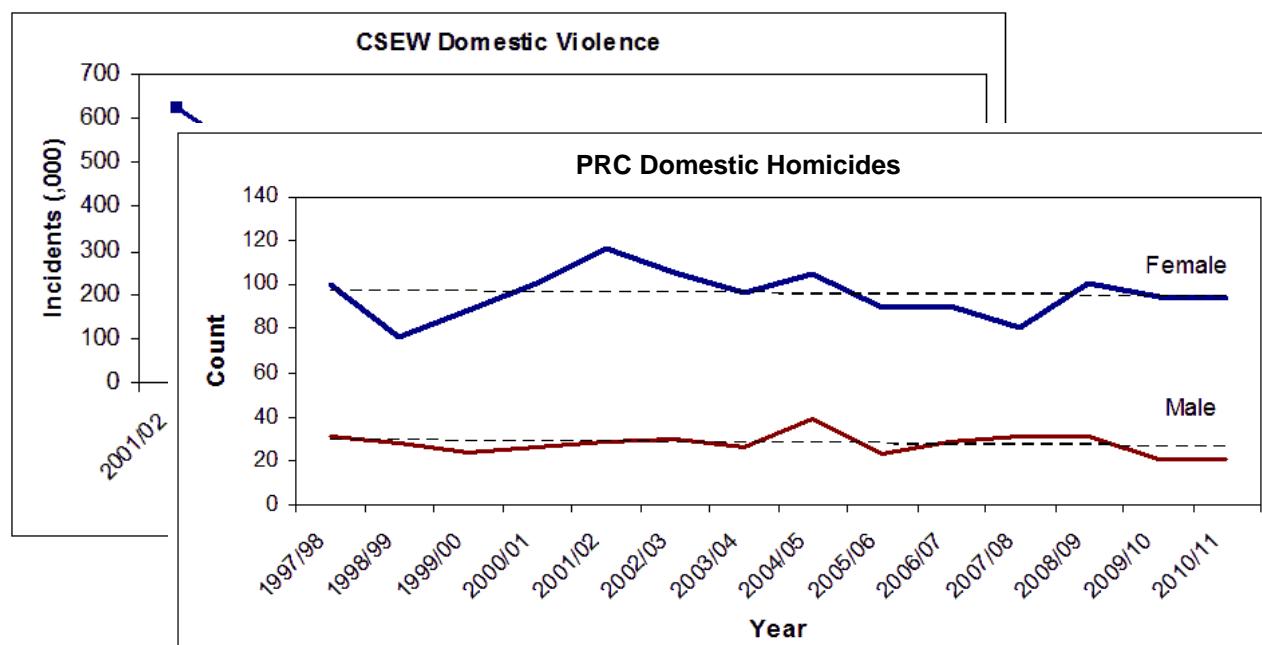


Problem
Analysis
Triangle

	All Crimes	Burglary Dwelling	Vehicle Crime	Street Crime	Domestic Violence	Hate Crime
Victims	50082	4930	4811	4417	8152	1010
Repeat Victims	6981	187	204	113	1280	82
% Repeat Victims	13.9%	3.8%	4.2%	2.6%	15.7%	8.1%
Total Victimization	66338	5163	5051	4534	10363	1143
Repeat Victimization	23237	420	444	230	3491	215
% Repeat Victimization	35.0%	8.1%	8.8%	5.1%	33.7%	18.8%

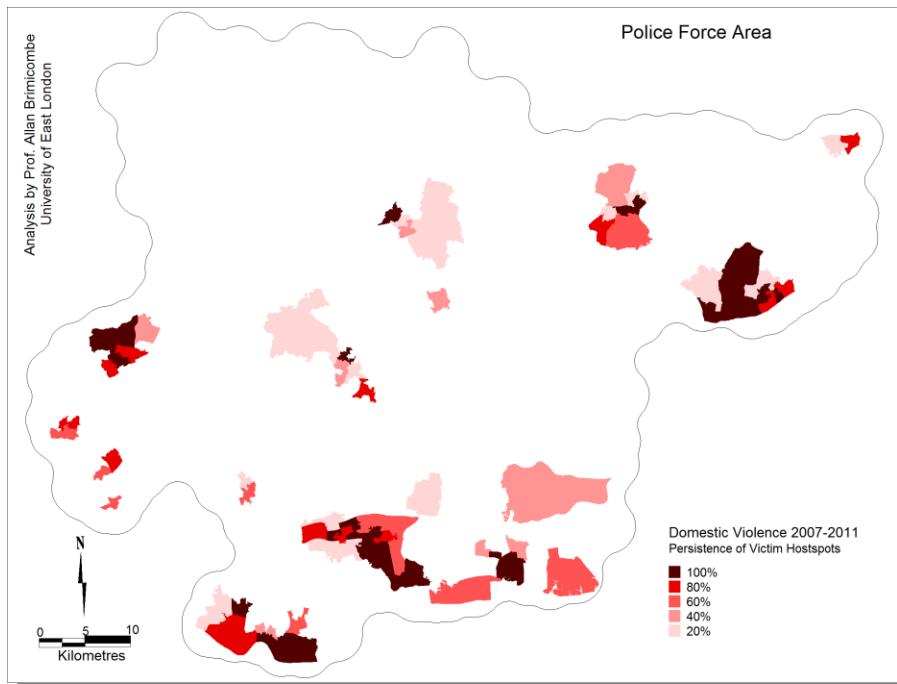
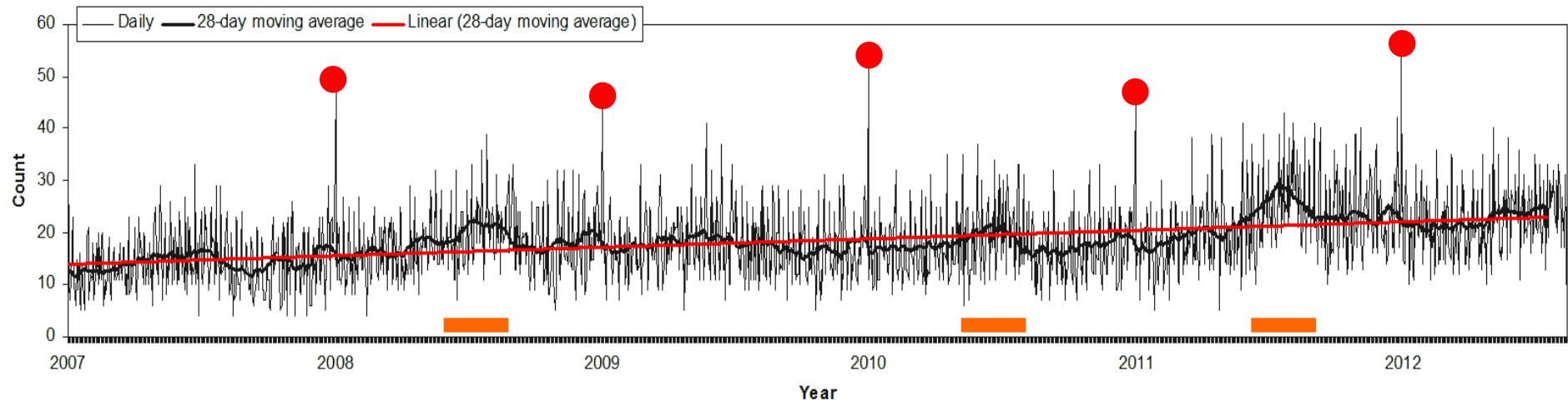
London Borough of Newham Jan 2004 to Dec 2005

Based on this evidence.....
what would you target for
crime reduction measures?



Domestic violence

A Police Force: Recorded Domestic Violence 2007 to mid-2012

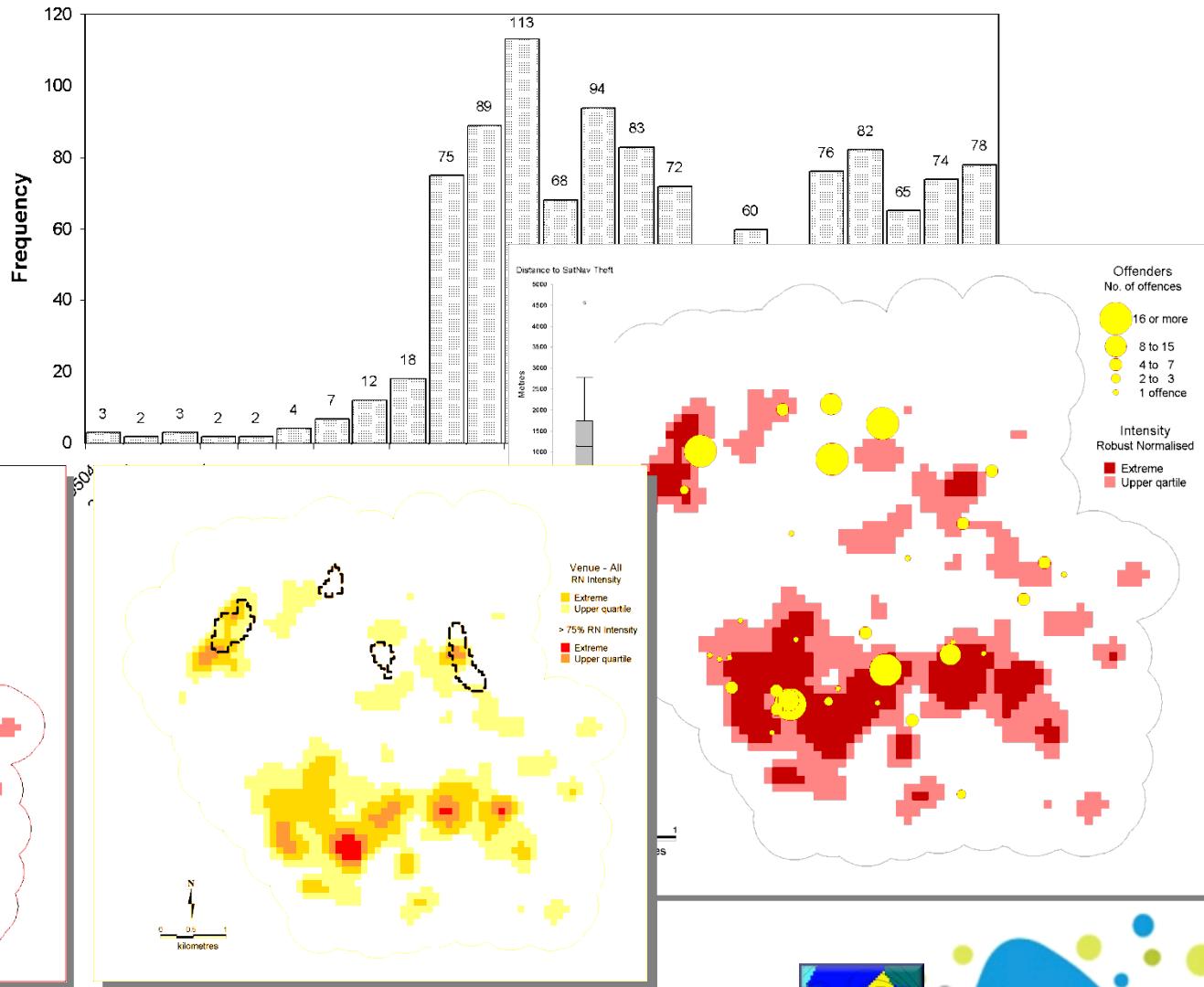
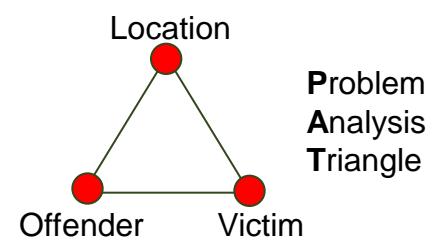


Persistence of geographical hotspots
(based on Poisson probability) of
where victims live.

80% of domestic homicides (and
attempted murders) of repeat victims
lived in a DV hotspot when first
contacting the police.



SatNav Theft



In conclusion....

1. There is no such thing as the perfect, 100% correct database.
2. UK crime statistics are generally considered amongst the most robust in the world by the international community.
3. Due to excessive spin in the past there has been public distrust.
4. Crime has been falling since 1995 but is perhaps bottoming out.
5. Crime is a complex phenomenon but the standards put in place for PRC alongside the independent CSEW should give us reliable National Statistics.
6. Nevertheless, a ‘drift’ between the two has recently been evidenced and will be investigated further.
7. Some volume crimes, such as domestic violence, are below the horizon of National Statistics – the important issue of repeat victimisation (the many suffered by the few) remains little understood from the statistics.
8. New crimes and targets of crime continue to emerge, particularly related to technology.

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