

10 Public Order and Safety

Introduction

10.1 This chapter explains the current UK Public Order and Safety measure, and recommendations for the future, in five sections:

- Introduction – including scope and objectives of Public Order and Safety
- Current methods of output measurement, and a critique against the criteria in Recommendation 6.1 (see paragraph 6.5)
- Future methods of output measurement
- Inputs and deflators
- Triangulation and productivity measurement

10.2 Under the international Classification of the Functions of Government (COFOG) used in the National Accounts, Public Order and Safety has six subsections. These are:

- Police
- Fire
- Law Courts
- Prisons
- Research and Development in Public Order and Safety
- Public Order and Safety not elsewhere classified

10.3 Three government departments in England and Wales take principal responsibility for the Public Order and Safety function.

- Police, Probation, Prisons, and Research and Development are the responsibility of the Home Office.
- Fire is the responsibility of the Office of the Deputy Prime Minister.
- Courts are the responsibility of the Department for Constitutional Affairs (DCA).

Other bodies, such as the Crown Prosecution Service (CPS), also play an important role. There is thus greater breadth to the functions in this chapter than for either Health or Education – though also interconnections, as discussed below.

10.4 In all these areas, there are distinct legal and structural arrangements for Scotland and Northern Ireland. Services for Wales follow the same systems as in England, although most of them are the responsibility of the Welsh Assembly Government. The exceptions are the police forces in Wales, which are the responsibility of the Home Office, and the criminal and civil courts in Wales, which are the responsibility of the DCA. In Scotland, responsibility for criminal justice rests with the Scottish Executive and the Crown Office and Procurator Fiscal Service.

10.5 Attributing final output to the particular activities on individual services is difficult across all areas of government, but the problem is particularly acute in the Criminal Justice System (CJS). It is hard to separate out the various functions of Police, Law Courts and Prisons and tidily quantify their contribution to output. The effectiveness of each agent of the CJS depends, to varying degrees, on the effectiveness of the others. This is reflected in the fact that there is a Public Service Agreement (PSA) for the CJS as a whole, which the Home Secretary shares with the Lord Chancellor and the Attorney General. Each department has its own exclusive targets, but joint ones from 2004 include the following three.

- Reduce crime by 15 per cent, and further in high crime areas, by 2007-2008.
- Reassure the public, reducing the fear of crime and anti-social behaviour, and building confidence in the Criminal Justice System without compromising fairness.
- Improve the delivery of justice by increasing the number of crimes for which an offender is brought to justice to 1.25m by 2007-2008.

Separate, but largely similar targets exist for Scotland. In Northern Ireland responsibility for criminal justice is shared between the Lord Chancellor, the Northern Ireland Office (NIO) and the Attorney General for Northern Ireland. NIO has a number of specific PSA targets dealing with cross-community matters.

Current Methods of Output Measurement, and Critique

10.6 The paragraphs that follow describe briefly the methods employed for the different functions and identify some of the principal concerns about the current methods. In the UK national accounts, all Public Order and Safety, except for Police, is estimated using activity indicators, without quality adjustment. Police output is measured using deflated inputs.

Courts and Administration of Justice

10.7 These are currently estimated using direct output methods. The output of county (civil) courts, crown courts and magistrates' courts are measured separately, with the workload broken down by type of case. For county courts, there is also a measure of the administrative workload, measured by number of hours. The weights used to produce the overall index for magistrates' courts and crown courts are calculated by expenditure on types of cases. County courts activities are weighted together using an average time on case, because of limited data sources.

10.8 Output for the CPS and the Legal Services Commission (legal aid) and their corresponding weights are calculated in similar fashion, with a workload measure of output and an average time/cost weighting system.

10.9 The current methods for measuring the output of the courts have a number of defects. For instance, in county courts administrative hours are used as a volume indicator of output, although they are clearly inputs. In recent years, administrative work has become much more efficient, which ought to result in a measured productivity increase. Instead, the output is deemed to have declined. Some important areas, such as divorce work, are not measured at all, and there is no quality adjustment.

Probation

10.10 Probation output is currently estimated using direct output methods. The current indicators used for Probation are probation starts; community service; combination orders and licences; numbers of pre-sentence reports (PSRs) completed; and a measure of probation work done in the family court. An experimental cost-weighted activity index, constructed by the Home Office, is used to weight these various services. However, there are no up-to-date data and the index is extrapolated from a short time series, which is now a few years old.

Prisons

10.11 Prison service output is currently measured by numbers of nights spent in prison by: any prisoners on remand; prisoners under sentence; non-criminal prisoners; and prisoners in police cells. The current method has evident defects.

- It fails to quality adjust for overcrowding, reoffending, and achievements during incarceration such as educational attainment or drug rehabilitation.
- It fails to weight according to cost – eg high risk/ low risk prisoners.

Fire

10.12 Fire output is currently measured directly. There are three broad output categories:

- fighting fires;
- preventing fires; and
- special services.

10.13 The categories are further divided into sub-categories, or incident types, and output weights for these are assumed to be proportional to average staff hours spent on each one. The total weight of each incident type is calculated as the product of the weight for one incident and the number of such incidents in the base year. For prevention, the output measure is staff hours, based on survey data. These measures reflect the volume of activity rather than the effectiveness, quality or impact on final outcomes.

Police

10.14 Although Police output is currently measured using deflated expenditure, some experimental output indicators had been constructed for Police by ONS prior to the initiation of this review. They divided work into:

- crime related incidents;
- non-crime road incidents; and
- other non-incident related activities, such as patrols, crime prevention and special operations and events.

10.15 The output indicators for crime related incidents and non-crime road incidents were fairly comprehensive in their coverage but, for lack of data, indicators for the third area are inadequate, with data only covering the licensing of fire arms (see paragraph 10.32 for possible future improvements in this area). There was also no proposed method for quality adjustment in any of the three areas.

10.16 The proposed weights to be used for each indicator reflected the relative cost of clearing up a crime, taken from a survey conducted of the Humberside Police force, although with an adjustment for the Metropolitan Police. This was necessitated by data limitations at the time, but the assumption that one police force was representative enough to use for the construction of output weights is probably not a safe one.

10.17 Some general data issues need to be addressed, as well as the individual problems set out above. Four areas where ONS's current output methods could be improved are summarised in Table 10.1. Coverage is generally only for England and Wales, making use only of Home Office statistics. There is no quality adjustment in the current methods. Development of more detailed indices of activity and better weighting systems should capture some quality changes in the services provided, by better disaggregation (see paragraphs 4.11-4.12).

Table 10.1 Current methods and summary of their limitations

		ASSESSMENT OF CURRENT METHODS			
		Output coverage	Detail of coverage and weights	Quality adjustment	UK coverage
DELIVERY AGENCY	Police (experimental)	Incomplete coverage of non-incident activity	Detail is often patchy. Weighting done by survey of one unrepresentative force	No quality adjustment	Wales already included in data. England and Wales data grossed up for Scottish and N. Irish measure
	CPS	Complete coverage	No disaggregation between guilty pleas, not-guilty pleas and acquittals.	No quality adjustment	Wales already included in data. England and Wales data grossed up for Scottish and N. Irish measure
	Crown Courts	Full coverage but some measures of inputs still used	Coverage not full enough to differentiate between work of differing values	No quality adjustment	Wales already included in data. England and Wales data grossed up for Scottish and N. Irish measure
	Magistrates Courts	Complete coverage	Weights taken from 1995 data	No quality adjustment	Wales already included in data. England and Wales data grossed up for Scottish and N. Irish measure
	Fire	Full coverage	Based on activities count with poor weighting data	No quality adjustment	Great Britain coverage (i.e. ex Northern Ireland)
	Probation	Coverage fairly complete	Activities index	No quality adjustment	Wales already included in data. England and Wales data grossed up for Scottish and N. Irish measure
	Prisons	Complete coverage of custodial function, but no measure of other outputs – eg educational, rehabilitative function	No weighting, or division by category of prisoner	No quality adjustment	Wales already included in data. England and Wales data grossed up for Scottish and N. Irish measure

Future Methods of Output Measurement

- 10.18** Ideally, we want to capture the attributable incremental contribution of government spending on public order to outcomes, but practical measures are constrained by the available data. As a result, three approaches were explored in parallel, recognising that there was likely to be trade off between what was immediately achievable and what was desirable. One approach essentially improves the current ONS methodology. This is a straightforward activities index. Another, the ‘administration of justice’ approach, is closer to a direct output measure. A third approach was to capture the CJS’s contribution to crime reduction using econometric modelling (see box on page 153). Work has been carried out on data mainly from England and Wales, but the aim is to extend the work to the whole of the United Kingdom and incorporate data from Scotland and Northern Ireland into the modelling framework.
- 10.19** We have made a distinction between those Public Order and Safety services categorised as ‘collective’ and those categorised as ‘individual’ for the reasons given in paragraphs 6.12-6.15. The *System of National Accounts* (SNA) summarises collective services as those that can be delivered simultaneously, do not require the explicit agreement or active participation of all the individuals concerned and for which there is no rivalry in acquisition (see Appendix B). An activities or disaggregated inputs method would count as a B method for collective services, under the Eurostat classification, and therefore be acceptable.
- 10.20** The SNA defines Public Order and Safety as a collective service. The distinction between collective and individual is not always straightforward, and that is particularly the case in this area. Clearly, some of the services under discussion combine elements of both collective and individual services. Arguably, there may be rivalry in acquisition for the fire service, the police service, or the use of the courts. A fire engine, when on active service, is devoted to servicing individuals or individual buildings. There may be times when the demand for fire engines in a locality exceeds their supply. But the fire service is a collective service in so far as the intention of the authorities is to provide sufficient capacity to meet all demand. The purpose is that it should be universally available, within a reasonable response time, wherever and whenever the demand arises, in the same way as street lighting.
- 10.21** A similar point could be made about the police service. The aim of the service is to provide the public with universal and continuous protection. But, in the event of a failure of this protection, the police also provide a service in clearing up crime, and this is delivered to the individual victims. Here, there will often be rivalry in acquisition and so, for instance, the police may not always have the resources available to follow up instances of vandalism or domestic burglary.

- 10.22** The CJS as a whole can be seen as a collective service. The police, prisons and other areas of the system involve the arrest, prosecution and incarceration of individual offenders, but the service being provided is a collective one to society as a whole, rather than an uninvited one provided to those prosecuted, arrested or incarcerated. Nevertheless, the fact that the service provided by the CJS involves bringing offenders to justice, gives it the flavour of an individual service and enables it to be treated as an individual service, for the purposes of statistical measurement.
- 10.23** Our work has tried to separate out those services that are more obviously collective, such as non-incident related police work, and treat them separately from those areas that have more of an individual aspect – mainly, but not exclusively, activities relating to the CJS. The non-incident related work of the Fire and Rescue services is arguably collective, although less obviously so than the non-incident police work. We have treated these two areas separately from the incident-related work of the CJS and the Fire service to allow for the different international guidance on the measurement of collective services.
- 10.24** By contrast, the civil responsibilities of the courts are more obviously individual, since the services they provide are provided to the individuals or companies involved. A divorce settlement, or a compensation claim, or a libel case do not meet the SNA criteria for collective services outlined in Appendix B. A measure of civil courts output is being developed separately from the CJS-related work of the courts.

Incremental Improvements to the Current ONS Methodology

- 10.25** This section describes the first of three parallel approaches: to maintain the broad method now in the National Accounts, but to improve its coverage and detail. The outputs of individual delivery agencies – Police, Courts, Prisons and the CPS – are measured separately. But, with the close cooperation of the Home Office, ODPM and DCA, much more detailed data have been used, both to improve coverage of activities and to improve weighting. For instance, the weights used for Courts and the CPS have been weighted using the Home Office Flows and Costs model, which provides detailed information on the costs incurred by different delivery agencies in processing individuals through the various stages of the CJS. The police Activity Based Costing data have been used to weight police activities. Together with a greater disaggregation of output indices, this weighting of data helps to pick up movements in the mix of outputs better than do current approaches.
- 10.26** A comprehensive list of activities and outputs was compiled. Once outputs were identified, input costs were attributed to activities, which were in turn linked to the outputs from each CJS delivery agency. These outputs derived from each CJS delivery agency were then weighted according to their associated input costs to produce a final agency output measure.

10.27 Police output is captured using investigations data, Courts and CPS output by using the number of cases processed, and Prisons output by the number of places filled (prisoner years detained). Output is split into offences (for Police and Courts) and category of prisoner (Prisons). The CPS data are not currently split by offence, but this would be desirable and will be a future area of work, subject to the appropriate weighting data being available. No new measure has been developed for probation services, because the current methodology is fairly full in its coverage, although there are data collection problems. The organisation of correctional services as a whole (Prisons and Probation) will be brought under the auspices of the National Offender Management System (NOMS) in the near future and further work will be needed after these machinery of government changes.

10.28 The output of Crown Courts is currently measured by:

- actual trials;
- referrals from magistrates' courts, where the defendant has been found guilty, but is referred for sentencing; and
- appeals from magistrates' courts.

The expenditure for each category has been weighted by the average expenditure for each category of work in the base period.

10.29 The new method still divides the activities of the crown courts into the three categories, but each of these categories is subdivided further by type of crime, which are the standard categories for which the Home Office collates data. These are:

- Violence against the person;
- Sexual offences;
- Burglary;
- Robbery;
- Theft and handling stolen goods;
- Fraud and forgery;
- Criminal damage;
- Drug offences;
- Other indictable offences;
- Indictable motoring offences;
- Summary offences (excluding motoring); and
- Summary motoring offences.

- 10.30** For each category of offence, at each stage of the process (i.e. trial, guilty pleas and sentencing), average time weights have been constructed. These are used to produce an index for each category of offence across the entire process. The next step is to weight these offence categories together by expenditure. Expenditure weights have been calculated by taking expenditure data for each category of offence and dividing by the aggregate output (eg the volume of trials or sentences). This gives a base-year unit cost for each offence category that can then be aggregated together.
- 10.31** An almost identical methodology is used to measure the output of magistrates' courts (criminal only). The three relevant processes in this case are proceedings, trials and sentences, although for the time being data limitations mean that cases can only be split between proceedings and sentences. For both crown courts and magistrates' courts the data used to construct the output weights are taken from the Flows and Costs model. The police Activity Based Costing data are used to calculate the weights for police activities within the CJS, since this is a better source than the Flows and Costs model. The Police measure only covers the output of the police relating to the CJS – i.e. detections and arrests.
- 10.32** Other areas of police activity, such as patrols and public order work, are not covered. In current experimental methods, these are measured by a count of non-crime road incidents and other non-incident related activities, such as patrols, crime prevention work and special operations and events. More work is required on what should be measured to capture the output of this side of police work, before anything is included in the National Accounts. A new scheme, the National Standards for Incident Reporting (NSIR), has just been piloted. If fully implemented, it could provide greater coverage of police activity for non-crime incidents and could serve as the basis for a detailed cost-weighted activity index for this area. This could be supplemented by using data on how secure individuals feel and other measures of the effectiveness of these areas of police work covered in the British Crime Survey.
- 10.33** Prison output measures (as with probation) will need to be reviewed further after the introduction of NOMS, but a possible quality adjustment has been developed. Intuitively, it is plausible that overcrowded cells should be given a lower weight in output. No robust evidence has yet been found to justify a precise weight, but the Home Office has suggested giving an overcrowded cell a weight of 0.8 rather than 1. We note this suggestion, and regard it as a good example of a proposal that should be validated by external experts, as recommended in Recommendation 6.2 (see paragraph 6.8).

Table 10.2 Summary of CJS measures after improvements outlined above

	Output coverage	IMPROVEMENT TO CJS METHODS		UK coverage	
		Detail of coverage and weights	Quality adjustment		
DELIVERY AGENCY	Police	Restricted to outputs of contribution to CJS. (Would be extended if NSIR adopted)	Greatly improved detail of outputs and activities and of weights	No separate QA factor yet, but introduced through improved coverage	Wales already included in data. Scottish and N. Irish work being undertaken through 2005
	CPS	Full coverage of court work, but omits measurement of some areas (eg work with victims, charging)	Weighted index of activity, split by court and outcome of case	No separate QA factor yet, but introduced through improved coverage	Wales already included in data. Scottish and N. Irish work being undertaken through 2005
	Crown Courts	Full coverage	Much fuller coverage with type of work broken down by crime type and procedural type	No separate QA factor yet, but introduced through improved coverage	Wales already included in data. Scottish and N. Irish work being undertaken through 2005
	Magistrates Courts	Full coverage	Much fuller coverage with type of work broken down by crime type and procedural type	No separate QA factor yet, but introduced through improved coverage	Wales already included in data. Scottish and N. Irish work being undertaken through 2005
	Prisons	Full coverage		Quality adjustment for crowded cells	Wales already included in data. Scottish and N. Irish work being undertaken through 2005

10.34 Recommendation 10.1: we recommend that current methods for measuring Police, Courts and other Criminal Justice System delivery agencies are improved by extending detail of coverage and improving weights. This work should be extended to include information from Scotland and Northern Ireland as soon as possible. The measure for correctional services output should be reviewed when the National Offender Management System is in place. In the interim, we consider it would be reasonable to adopt a quality adjustment to reduce the output value of crowded prison cells.

Administration of Justice output approach

- 10.35** This section sets out the second approach, described as ‘administration of justice’. The first approach is an improvement on current methods, but suffers from the shortcoming that each delivery agent is treated as a separate entity, with separate outputs. This is clearly not the case, since, as noted earlier, many of the outputs of one agency are effectively the inputs of another – eg an arrest by the police is an input of the CPS. The Home Office’s chief objective is not to increase the activities, or output, of the police, but to reduce crime. The CJS plays a central role in reducing crime, by the successful detection, prosecution and sentencing of offenders. It acts as a deterrent to future crime by imposing an expected cost on criminal activity.
- 10.36** The output of the CJS is ‘justice’. An effective system will convict the guilty and acquit the innocent. Because prosecutions are undertaken on the balance of probability, but convictions made only when the case is ‘beyond reasonable doubt’ acquittals should be included in the output measures. They do not represent a failure of the system. The administration of justice method defines outputs as CJS disposals which are delivered by the system as a whole, looking at the joint output of the police, CPS and the courts; and then separately for the combined outputs of the correctional services, i.e. offender management and offender interventions.
- 10.37** If, for illustration, the police had made a successful arrest, but the CPS failed to formulate an adequate case, and the prosecution was thrown out of court on technical grounds, any initial value added by the police would be lost. (Our concern is with a case where the individual was actually guilty, not with those where a court properly acquits because the evidence was insufficient.) This aspect of the joint output of the CJS is not picked up in the first approach, but it is in this one.
- 10.38** The methodology traces the progress of individuals through the system to the point of sanction or acquittal. For any given crime type, there might be a range of disposals: an acquittal, caution, fine, community penalty or custodial sentence. These have different resource costs for the CJS. A caution is issued by the police and does not involve the CPS, or the courts. To see how various offences flow through the system, we need to relate each type of crime to its observed frequency of receiving the corresponding sanction.
- 10.39** A matrix can be constructed with the different types of crimes in the rows and the different types of disposal in the columns. These categorised pairs of offences and disposals capture something of the homogeneity of individual cases, for which weights can be calculated. Weights are the average expenditure shares for each pair of offence and disposal.

Table 10.3 Crime-sanction matrix

GRID	Disposal				
Crime type	Caution	Discharge	...	Community penalty	Custody
Violence	(1,1)	(2,1)	...		(X,1)
Sexual	(1,2)	...			
Burglary	...				
...					
Other indictable					
Summary	(1,Y)				(X,Y)

10.40 These are not the only weights that could be used to measure criminal justice output.

The relative cost of clearing up a crime is not necessarily proportional to the social value of that work. However, in so far as the object is to capture the CJS's contribution to clearing up the crimes, expenditure weights should be used in the National Accounts, since that gives us the closest approximation to the government's contribution. Alternative methods are discussed further in the triangulation and productivity section below.

10.41 The administration of justice method is undoubtedly an improvement on the current ONS methods from a theoretical point of view. It measures a direct final output of the CJS and eliminates the element of double counting present in the improved version of the current methodology. However, questions still remain about the extent to which a measure captures the attributable incremental contribution of the CJS to reducing crime. Clearly, many factors influence the level of crime, of which the CJS is just one.

10.42 A full measure of the output of the CJS in the United Kingdom should include information from the separate criminal justice systems of Scotland and Northern Ireland. Work is in hand on this with the appropriate authorities.

10.43 Recommendation 10.2: we recommend that the administration of justice approach be developed further for future use in the National Accounts, and that work is undertaken to replicate this approach for Scotland and Northern Ireland.

Econometric approach

This box sets out the third, most ambitious approach. In an attempt to estimate the extent to which the CJS influences crime reduction, the Home Office has built an econometric model to assess trends in recorded crime, using economic, demographic and criminal justice variables. The model can be used to forecast trends in crime by varying assumptions about the change in the explanatory variables. It has been used to assess what would happen to forecast crime, if the CJS variables were reduced to insignificance. The difference between crime rates with and without the CJS variables could then be valued, using cost of crime weightings as an estimate of gross added value.

However, the initial results were not stable and the information was not sufficiently plausible to be of immediate use. The crime prevention outcome series generated by this method is volatile. But the model is still being developed and could be of further interest in the future.

Civil courts

10.44 Work to develop a measure of output for civil courts has proceeded along similar lines and the suggested improvements are comparable with those in the first method suggested for the CJS. A framework for a more detailed cost-weighted activity index has been developed. As with the CJS, the basis of the new index is a detailed matrix of types of case, to yield a reasonable degree of homogenisation and then construction of weights for the individual components, based on average unit costs of each type of case. The matrix combines 15 case types (eg personal injury, adoption, divorce), with three activities: applications, hearings and enforcements. This would give a desirable improvement, but more work is needed to identify the unit costs. Further work with Scotland and Northern Ireland is also required.

Table 10.4 Civil courts case types

Court	County	Family	Insolvency	Probate	High
Activity	Specified money	Divorce	Debtors	Solicitors	Chancery
	Personal injury	Private law – children	Creditors	Personal	Queen’s bench
	Land repossession	Adoption	Companies winding up		
	Other	Public law – children			

10.45 Recommendation 10.3: we recommend that ONS should measure civil courts output through a detailed cost weighted activity index, subject to the Department for Constitutional Affairs completing work to identify unit costs for each type of case, and to further work to replicate the approach for Scotland and Northern Ireland.

Fire

- 10.46** Fire Service work is separable into three areas – fire response, fire prevention and other incidents (such as road traffic accidents). For response, the current methodology uses a cost-weighted index of incidents. It might seem odd, at first sight, to use the actual number of fires as an output measure, since the objective of the Fire Service is to prevent fires. However, the number of fires occurring is one way of estimating the probability of future fires. Interpreted in this way, the approach makes much more sense, although it would be more reasonable to take a smoothed average of past fires, as a basis for assessing the probability. Work has been undertaken on the long-run trend in fires, but no *ex ante* measure of the risk of fires has yet been constructed.
- 10.47** As was pointed out in paragraphs 4.34-4.35, an ‘incident’ count for fire response output is inadequate because it fails to take account of the value of the property protected. Fires have been divided into various categories such as dwellings, commercial buildings and grasslands. ODPM’s *Economic Cost of Fire* publication includes two average costs for each type of fire. There is a ‘consequential’ cost, which measures the damage to life and property, and a ‘response’ cost that measures the cost to the Fire Service in terms of labour and capital used. The ‘response’ cost corresponds to ‘c’ as discussed in paragraphs 6.17-6.19, and the ‘consequential’ cost to ‘v’. In other areas we have found it difficult to get an adequate measure of ‘v’ and so have used a measure of ‘c’. Here, the consequential costs are much closer to what we would ideally want, since they constitute a measure of average damage by type of property – as we pointed out in paragraph 4.34, the ‘benefit’ of saving a property from fire needs to be calculated by the replacement cost of the property, but not including the value of the site. Nevertheless, it would be important to continue to calculate a response-cost weighted index alongside this one to monitor the sensitivities of the indices to different weights. Adjustments may be made in the light of such work.
- 10.48** Formulating a measure of fire prevention work has not been easy. The Fire Service attaches importance to this work and it relates to its principal PSA target – ‘To reduce the number of accidental fire-related deaths in the home by 20 per cent by 2010.’ Since we are unable to measure the contribution of this work directly, an activities measure is needed. The current activities measure needs to be regularly assessed to ensure that all activities are captured. ODPM has developed an outcome-based measure and this is discussed in the productivity and triangulation section below (see paragraph 10.61).
- 10.49** The Fire Service also deals with non-fire activities, such as road traffic accidents, animal rescue and flooding. Data are available on the volume of incidents, but there are no data with which to construct values for them. The data only give the number of hours spent on road traffic accidents and all other incidents. Given these limitations, any index is likely to be crude, and it would be worth waiting for improved data on the value of this work before introducing any change to the existing output measure.

10.50 Recommendation 10.4: we recommend that ONS should measure fire response output using an index based on consequential costs, which measure damage to life and property, but should also continue to calculate an alternative index based on response costs which reflect the costs to the Fire Service, and monitor the sensitivity of the index to different weights. We also recommend continued work on the output of fire prevention and non-fire activities.

Inputs and Deflators

10.51 Departmental responsibilities do not dovetail neatly with internationally recognised classifications of government spending. Table 10.5 gives the contribution of various government departments to spending on Public Order and Safety in the United Kingdom. The Home Office (which covers Wales), together with the Scottish Executive and Northern Ireland Office, account for more than three-quarters of all expenditure. The Department of Constitutional Affairs (running the courts) and ODPM (Fire and Rescue Services in England) account for nearly all the rest. A review of the classification of government spending by COFOG category is being undertaken as part of the review and this may result in some minor reclassifications both into and out of the Public Order and Safety function.

Table 10.5 Public Order and Safety spending by department (2002-03)

	Home Office	DCA	Law Officer's Depts	ODPM	NI Office (inc. NI Executive)	Scotland	Other Depts	Total
Spend £bn	16.1	3.3	0.5	2.0	1.1	1.8	0.2	25
per cent of total	64.4 %	13.2%	2%	8%	4.4%	7.2%	0.8%	100%

10.52 Since we are looking for a volume measure of inputs, we require accurate deflators TO convert current price expenditure data into constant prices. The deflators for Public Order and Safety previously used by ONS are set out in Table 10.6.

Table 10.6 Public Order and Safety deflators

	Pay	Procurement	Capital
Police	LA: specific CG: AEI	LA: specific CG: specific	Public admin, non-military administration capital consumption (CG)
Fire	LA: specific CG:AEI	LA:composite price index CG: composite price index	Public admin, non-military administration capital consumption (LA)
Prison	AEI	Specific prisons procurement deflator	Public admin, non-military administration capital consumption (CG)
Probation	AEI	LA:composite price index CG: comp price index	Public admin, non-military administration capital consumption (LA and CG)
CPS	AEI	CG: comp price index	Public admin, non-military administration capital consumption (CG)
Crown and County Courts	AEI	Specific crown and county court procurement deflator	Public admin, non-military administration capital consumption (CG)
Magistrates Courts	Local government pay index	LA: courts procurement deflator	Public admin, non-military administration capital consumption (LA)

10.53 There are already specific pay deflators for Police and Fire. The local authority Police deflator covers the vast majority of police pay, since the central government component accounts for only a very small amount. The local government deflator used for Fire is already fire-specific, covering operational staff (fire officers) and other local government employees. However, it is undesirable to rely on the average earnings index in other areas where more specific pay deflators should be available, and it is important that all indicators are based on earnings rather than pay settlements, allow for changes in skill and grade mix, and incorporate costs of national insurance and pension contributions. Any differences in pay systems for Scotland and Northern Ireland should also be taken into account, rather than using the same deflators for all labour costs.

10.54 Total procurement expenditure is available for each area, except for Police, where a sample of procurement spending from 14 police forces has been used. This has been broken down into categories of expenditure that can be matched to comparable elements in the various indices produced by ONS – RPI, CPI, PPI or CSPI – that can then be aggregated together to produce an overall deflator for each area of procurement. Some areas need to be further disaggregated, but initial findings have shown that a few spending categories are likely to dominate the final deflators. For instance ‘transport expenses’ and ‘police communications’ constitute around 20 per cent of all police procurement, and 50 per cent of all CPS procurement is spent on ‘legal services’.

10.55 Price deflators are needed for Public Order and Safety capital consumption which are specific to the capital expenditure in these areas, which may be very specialised, rather than to rely on a general public sector capital deflator.

- 10.56 Recommendation 10.5:** we recommend that specific deflators for labour, intermediate consumption and capital consumption should be developed for expenditure on Public Order and Safety where they do not already exist.

Productivity and Triangulation

- 10.57** The measures of output and input in the National Accounts give an implied or residual measure of productivity. It is important to assess this residual against any other information available to provide corroboration, or otherwise, of productivity estimates derived from the National Accounts. There are a variety of sources of corroborative evidence. One is performance data for the various delivery agencies. For instance, the Police Performance Assessment Framework that assesses all forces on their improvement in clearing up crimes, and increasing public safety and reassurance. Similarly the different departments have PSA targets and Key Performance Indicators. Performance against these should be taken into consideration.
- 10.58** National Accounts output measures are normally based on cost weights. However, the cost of clearing up a crime is not necessarily related to its social value. If all crime types were equally easy or hard to solve, then we would expect greater resources to be devoted to solving those crimes with a higher social cost. But some crimes from which the public most wishes to be protected are not necessarily the ones that require the greatest resources to solve. A measure that weights outputs by social value rather than resource cost gives a useful alternative perspective on the way resources have been used.
- 10.59** The proposed method for a new measure of output for the civil courts is an improvement on previous methods, but it is important to understand its limitations. Significant economic and social value lies in ensuring that disputes are resolved with the least possible involvement of the civil and family courts. So it is possible for there to be a fall in measured Courts output, even though the benefits to society may have risen as the number of court cases decreases through better legal advice or mediation. It would therefore be helpful to monitor fluctuations in output to assess the extent to which they are driven by changes in the number or proportion of disputes solved without recourse to the courts.
- 10.60** Similar triangulation work should be undertaken to test the robustness of the Fire measures. ODPM are developing analysis of workload of the metropolitan fire authorities to provide a measure of the utilisation of fire and rescue appliances. Optimal utilisation rates have been estimated as a benchmark with which to assess the performance of individual fire and rescue services. This information would be outside the scope of the output measures of the National Accounts, but would provide an important context in which to assess productivity. Each Fire and Rescue Service is also developing its own Integrated Risk Management Plan. This provides the management structure and improvement strategy for them to deliver their performance targets and efficiency savings as outlined in ODPM's Technical Efficiency Note.
- 10.61** We also see value in monitoring and maintaining an outcome-based measure of FRS preventative work. The proposed outcome measures for FRS fire safety and prevention work, together with their weights, are inverted indices of:

- number of fire fatalities, weighted by the statistical value of life;
- number of serious fire injuries, weighted by the statistical cost of a serious injury;
- number of building fires, weighted by the average value of property damage per building fire; and
- number of malicious false alarms, weighted by the average cost of the FRS responding to a false alarm.

These represent the principal areas in which FRS concentrate their fire-prevention resources and may provide useful evidence to corroborate (or not) the results obtained from the activities index.

10.62 Recommendation 10.6: we recommend that ONS should analyse changes in productivity in Public Order and Safety services in the context of a range of other triangulation information, and should continue to develop analysis in this area.