

## Productivity loss

**Cost category** Costs as a consequence of crime

**Cost item** Productivity loss

**Definition** Output is lost when employed crime victims have to take time off work. This is true irrespective of whether the victim has insurance against the losses.

**Theoretical discussion** [link to relevant section in Bibliography]

**Preferred estimation methodology** Use victim survey data to estimate the distribution of the days lost from work of victims. Multiply days lost by average wage rate to get productivity loss. May be possible to use health source to make these estimates.

**Comments** Use of national average figures for value of lost time even if individual level data on income loss are collected in victim survey.

### Usage

**Offences normally included** homicide, wounding, robbery, common assault, rape and sexual assault but may also include car crime, burglary etc. if victims have to take time off work

**Formula** 
$$\text{average cost per offence} = \frac{\text{proportion of offences in which time was lost from work} \times \text{estimated number of offences} \times \text{days lost per victim} \times \text{average daily earnings}}{\text{estimated number of offences}}$$

**Data sources** Some victim surveys ask about time lost from work (e.g. British Crime Survey). Data on average daily earnings normally available from national economic statistics or from international organisation such as IMF, OECD, Eurostat, etc.

### Example

Crime victimisation surveys are the principal source of data

The British Crime Survey, for example, asks victims how many hours or days of time they lost from work

Since reliable income estimates are not usually available from these surveys the time is valued at some average wage rate

Further time might be lost as a result of the victim having to attend court hearings, and this should be added

The value of lost output is then estimated as the product of the days or hours lost and the daily or hourly wage rate

## **homicide**

Questions about homicide are not usually included in victim surveys

The working assumption is that virtually all homicides are recorded

The output loss of crime victims who are killed is estimated from the number of working years lost and a projected wage profile

### **example for England and Wales**

	£	
<a href="http://www.homeoffice.gov.uk/rds/pdfs07/recorded-crime-2002-2007.xls">http://www.homeoffice.gov.uk/rds/pdfs07/recorded-crime-2002-2007.xls</a>	recorded offences 2004-05	1,349
<a href="http://www.dft.gov.uk/pgr/roadsafety/ea/pdfeconnote105">http://www.dft.gov.uk/pgr/roadsafety/ea/pdfeconnote105</a>	lost output per offence	490,960
	total lost output from homicide*	662,305,040

\* includes offences of:

homicide

causing death by dangerous driving or by careless driving under the influence of drink or drugs

causing death by aggravated vehicle taking

causing or allowing death of a child or vulnerable person