

**Crime Reduction Programme**

# **Measuring Inputs – Guidance for Evaluators**

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## Contacts

Economics and Resource Analysis Unit, Home Office, 50 Queen Anne's Gate, London, SW1H 9AT. Telephone 020 - 7273 + extension number. The contact details of staff involved in the cost effectiveness study are provided below. Given the innovative nature of the Crime Reduction Programme, it is inevitable that both the Home Office and evaluators are learning from the programme as it progresses. We would therefore welcome comments on this guidance which may be incorporated into later versions where appropriate.

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This document examines a number of the key issues that have arisen concerning the measurement of inputs in the cost-effectiveness evaluation of the Crime Reduction Programme (CRP). A unique feature of the programme is that it aims to compare directly the costs and benefits of a wide range of approaches to reducing crime – from early interventions with children to new policing tactics and better sentencing procedures. This makes the need to establish a common currency for input measurement central to the programme, so that we can make reliable comparisons across the different initiatives and projects.

The main problem with regard to input measurement is balancing the need to ensure that information about input resource costs are collected in a way that enables comparison across projects and different policy approaches to crime reduction, against the requirement of providing flexibility to the teams collecting the information so that this process is not too onerous and does not result in poor quality research and misleading interpretations.

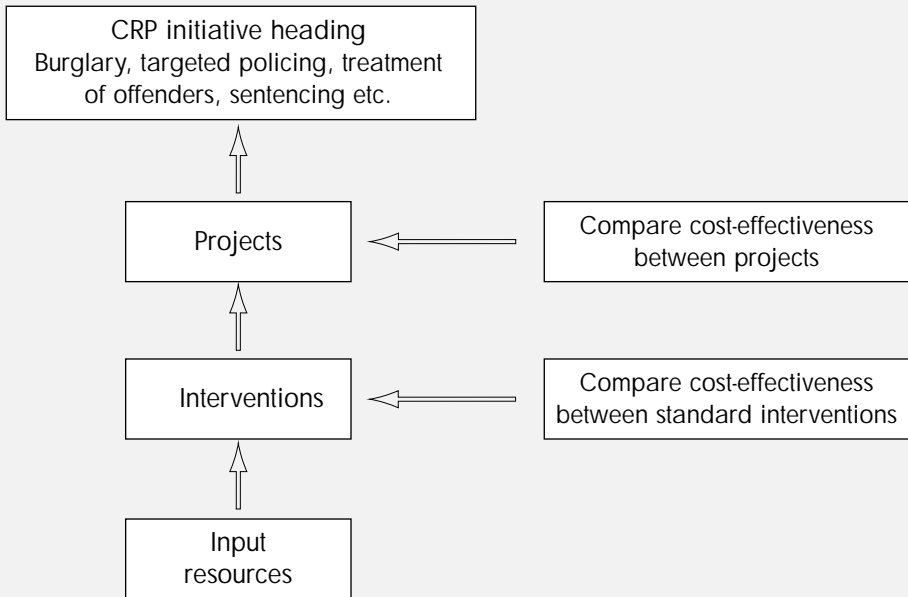
This document aims to address this problem by providing guidance for each of the evaluation teams to follow when collecting and processing input resource information. This approach enables teams to be flexible when collecting input resource information, however consistent assumptions must be made during the processing of this information.

Although we understand the need to be flexible in our approach to input data collection, the Home Office central team must be in a position to conduct a sensitivity analysis once all of the Crime Reduction Programme projects have been completed. We must therefore be able to change certain key variables (eg Staff employment costs) to test whether indeed a project will be cost-effective in other areas of the country. This will be vital information for testing the replication merits of a project. This means that some standard lines of resource information will need to be provided from each of the evaluation teams to enable this comparison to be made.

In addition, we must be able to compare the cost-effectiveness of the intervention or combination of interventions that occur within the projects, as well as the projects themselves (see Figure 1. below). The benefit of this approach is that it will enable us to make

comparisons both within and between projects. Evaluators will therefore need to apportion the resources used in each project to a number of standard intervention headings<sup>1</sup>. These standard intervention headings should be agreed prior to the data collection exercise.

**Figure 1: Cost Effectiveness Comparison**



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1. The standard intervention headings will provide a framework for making comparisons not only across all of the projects within each CRP initiative (burglary, sentencing, etc.) but also across the CRP initiatives themselves. Thus, similar interventions involved in the multiple intervention initiatives (Youth Inclusion, CRISS, On Track) should have the same classification as similar interventions involved in burglary and targeted policing.

Evaluators will be required to provide standard input data to enable the central Home Office team to build up a consistent and comparable database across the whole Crime Reduction Programme. The Home Office will be providing a standard input template for this information to be recorded and a separate guidance note will also be provided on how to use the input template.

The input template is designed to help evaluator teams record input cost data in a structured and consistent manner. It is recognised that each evaluator team may have their own procedures for collecting and collating information for their projects. However, to ensure consistency and comparability across all evaluations, the input template will need to be completed on a regular basis.

It is envisaged that regular meetings with each of the evaluation teams involved in the Crime Reduction Programme should take place to discuss the input data requirements. This will help us to spot and address inconsistencies in approaches between projects and is important, given that comparative evaluation has not previously been attempted across such a wide range of projects. It will also provide evaluators with the opportunity to review the data and make alterations where necessary.

The template will be designed in a standard format and will be applied across all of the initiatives under the Crime Reduction Programme. We appreciate that not all initiatives will generate data for every section of the template. However, evaluation teams should provide as much information as possible on the input resources utilised during a project's life to enable comprehensive cost-effectiveness and cost benefit studies to be completed.



This section sets out Home Office guidance on input measurement. A consistent approach is vital if valid comparisons are to be made across the different initiatives under the Crime Reduction Programme.

The guidance has been split into nine distinct categories:

- A: General guidance
- B: Staff guidance
- C: Training guidance
- D: Recruitment guidance
- E: Premises guidance
- F: Running cost guidance
- G: Equipment guidance
- H: Research guidance
- I: Publicity guidance.

In the left-hand column the issues relating to input measurement are raised. The right-hand column then provides guidance on how to deal with these issues. The intention is to add to the list as problems arise and further guidance is required. If any further clarification is required on any of these points please contact the relevant member of the Economics and Resource Analysis Unit team (contact details are provided at the beginning of this publication).

Issue	Guidance
<p><b>A: General guidance</b></p>	
<p>Which costs should be measured?</p>	<p>Each project will need to be fully costed in terms of resource use. All resources that are used in conjunction with the project must be recorded and measured. The general approach should be to identify, quantify and value each of the inputs.</p> <p>This information will be critical at the roll-out stage when interventions are applied more widely. The input data will provide a solid platform from which to plan future resource allocation.</p> <p>Economic costs should be used for valuing inputs. This approach values all resources at their opportunity cost. All costs associated with the project must therefore be measured (staff, equipment, accommodation etc.).</p> <p>In most cases the market value (financial cost) of a resource is assumed to reflect its opportunity cost and should be used. Otherwise a shadow price should be chosen, but assumptions for deriving the shadow price must be clearly stated. For example, an office can be used for several purposes. If it is utilised as a CRP co-ordination room, its alternative uses have been foregone. The cost of the room is therefore measured by the value of its next best use (assuming 100% utilisation). In this case that is the shadow rental value.</p>
<p>Local or national values?</p>	<p>When valuing resource inputs, evaluators should use local valuations as far as possible to determine the actual value of resources mobilised for a particular intervention. This will enable each intervention to be evaluated in terms of cost-effectiveness at a local level.</p> <p>Where evaluators are unable to find or derive reasonable local input values, national or average values can be used as a best estimate of the actual value of inputs used locally.</p> <p>These national values will be supplied by the central Home Office cost-effectiveness team on request.</p>

	<p>In a separate exercise, the Home Office team will be substituting national values for resource inputs used in CRP interventions in order to determine the likely costs of replicating interventions elsewhere.</p>
<p>When should inputs be measured?</p>	<p>Inputs must include the set up phase of the project. The project plan should therefore form the starting point for input collection.</p>
<p>What types of inputs should be identified?</p>	<p>Additional or diverted inputs associated with the project should both be identified and included in the input template at the time they are used on a project. It is envisaged that most of these inputs will be recorded during the set-up phase of the project. However, they may be introduced after the project has begun or as an ongoing input.</p>
<p>How should we treat diverted resources or sponsored resources, which impose no financial cost on the project?</p>	<p>Additional inputs are the extra resources that are employed as a direct result of the project. E.g. Buying additional equipment or hiring additional staff.</p> <p>Diverted or sponsored inputs are those resources that may either be diverted from other uses outside of the CRP or sponsored from outside of the CRP to support the project. These should still be measured and valued as inputs. Examples of a diverted input include a seconded worker or a room in an office that is provided at no charge. An example of a sponsored input could be a lock manufacturer sponsoring free locks for a burglary project. These types of resources may appear to be free in that they do not have any associated financial cost. However, the opportunity cost of employing these resources should still be valued.</p>
<p>Should bidding costs be included?</p>	<p>Costs associated with bidding for the project should be excluded from the inputs. A note of the bidding costs may be provided but the value should not be included within the project input resource costs.</p> <p>Excluding the bidding costs should provide a fairer reflection of the true inputs associated with a project. This is because bidding costs would not necessarily be incurred if the schemes were rolled out nationally.</p>

<p>How should input costs be recorded?</p>	<p>Input costs should be recorded as either a set-up cost or as an on going cost. Set-up costs may be defined as the costs incurred prior to the start of the intervention. They should typically include all training, recruitment and equipment purchases made before the start of the project operation. On going costs are defined as the costs incurred after the start of the intervention.</p>
<p>Should recruitment, training and equipment costs incurred after the intervention has begun be treated as an ongoing cost?</p>	<p>Yes. Recruitment and training costs that are incurred after the intervention has started should be treated as an on going cost. For example, if staff quit the project and need to be replaced then this should be recorded as an on going cost.</p>
<p>Do inputs need to be apportioned to each intervention within the project?</p>	<p>Yes. Inputs should be apportioned to a single intervention. This will enable us to compare not only the cost-effectiveness of the project but also the cost-effectiveness of the interventions taking place within the projects, for example two target hardening interventions. It is therefore necessary for evaluators to apportion the resources used in each project to the main interventions. The main intervention headings should be agreed in advance so that locally named interventions can be assigned to them.</p> <p>Thus, 120 hours of a police constable's time could be apportioned with 20 per cent (24 hours) on a high visibility policing intervention, 50 per cent (60 hours) on a household surveillance intervention and 30 per cent (36 hours) on a resident involvement intervention.</p>
<p>How should private resources that are mobilised in a similar way outside of the project be treated?</p>	<p>Private resources (external to the CRP project) that are mobilised in a similar way should not be included as an input. Any parallel interventions that take place within the same target group or area that also have an indirect impact on crime should be noted as part of the context within which the CRP intervention is taking place, but should not be included as an input.</p> <p>For example, a private owner of a block of flats may decide to invest in putting locks on all his/her tenant's flat doors in reaction to a CRP initiative that has put locks on houses in the</p>

	<p>same area. This action should be noted in the process evaluation and as a wider benefit of the scheme. However, an estimate for the input cost of the locks put on the flats should not be included in the input template.</p>
Should sunk costs be included?	<p>“Sunk costs” (such as staff time or equipment) that have already been incurred before a project begins should still be included as an input cost. This is because sunk costs are likely to still be required if the project were to be replicated in the future. Estimates of sunk costs should be made and included in the set-up section of the input template. If evaluators are concerned about how to deal with sunk costs then they should contact the Home Office central team who will provide further guidance if required.</p>
How should infrastructure inputs be dealt with?	<p>It is recognised that infrastructure will be a key driver in determining the success or failure of a project E.g. access to central information systems or access to Home Office staff for advice on project design. Where it is impossible to attach a value to these items they should still be noted as part of the process evaluation.</p>
Should staff time required for collecting data used in the evaluation be treated as an input?	<p>Yes, project staff required to collect data for evaluation purposes should have their time recorded as an input. It is reasonable to assume that if the project were to be replicated then data would still need to be collected for future evaluation purposes.</p>
Should VAT be included within input costs?	<p>VAT should be excluded at all times from inputs. This is because VAT cannot be considered as a resource that is used on the project.</p>
<b>B: Staff guidance</b>	
What time period should be chosen for measuring staff input?	<p>Hours worked should be the standard unit of measurement. Measuring staff on an hourly basis overcomes any difficulties surrounding a common unit of time and avoids the problem of what constitutes a day, a week etc. All data expressed in terms of days and weeks should therefore be converted into hours</p>

<p>What should be included in a staff unit employment cost?</p>	<p>The unit cost of one hour of employment should be based on local values if possible. It must include the basic salary, pension and national insurance contributions of each worker. It should also include the indirect overhead costs of general management, human resource departments, finance departments etc. This will ensure that the unit employment costs fully reflect the cost of employing each member of staff.</p>
<p>Standard assumptions for calculating employment costs</p>	<p>The unit cost of one hour of employment should be based on local values if possible. It must include the basic salary, pension and national insurance contributions of each worker. It should also include the indirect overhead costs of general management, human resource departments, finance departments etc. This will ensure that the unit employment costs fully reflect the cost of employing each member of staff.</p> <p>For simplicity a number of standard assumptions may be applied when calculating employment costs as follows:</p> <ul style="list-style-type: none"> <li>● If a mean salary cannot be determined for a staff category, then the midpoint within the salary scale should be used to measure basic salary costs.</li> <li>● On costs = 22 per cent on top of basic salary. (On costs include the national insurance contribution, pension, and indirect overheads of employing a person)</li> <li>● Non-pay running costs = 10 per cent on top of basic salary. (Non-pay running costs include an uplift for office space and equipment)</li> <li>● An hourly divisor of 1,600 should be used for junior staff earning less than a basic salary of £35,000. (assumes 7 hour day, 5 day week, 23 days leave, 8 days public holiday)</li> <li>● An hourly divisor of 1,840 should be used for senior staff earning more than a basic salary of £35,000. (assumes 40 hour week, 46 week year)</li> </ul>

	<p><i>Example</i>  Worker earning £18,000 basic salary  On costs = <math>0.22 \times £18,000 = £3,960</math>  Non-pay running costs = <math>0.10 \times £18,000 = £1,800</math>  Employment cost = <math>£18,000 + £3,960 + £1,800 = £23,760</math>  Hourly employment cost = <math>£23,760 / 1,600 = £14.85</math> per hour.</p> <p>Hours are the preferred standard unit of measurement, however, it is recognised that staff time may not always be recorded in hours and instead be recorded by days, weeks or months. The following standard conventions should be applied in such cases.</p> <p><i>Junior staff (earning less than £35,000 per annum)</i>  Day = 7 hrs, Week = 35 hrs, Month = 135 hrs, Year = 1,600 hrs</p> <p><i>Senior staff (earning more than £35,000 per annum)</i>  Day = 8 hrs, Week = 40 hrs, Month = 155 hrs, Year = 1,840 hrs</p>
How should workers involved in each project be categorised?	Staff should be grouped under standard headings. This may be done according to job function, rank, grade (or combination) and total hours worked for each category should be provided E.g. Police Constables = 240 hours; Senior Probation Officers = 290 hours.
How should overtime work be dealt with?	Overtime work should be recorded using the appropriate increased employment cost for undertaking this type of work. Hours should be the common unit of measurement for overtime work.
Should time that is not in face to face contact, or indirect work associated with the project, be included as an input resource?	<p>All time spent preparing for project work should be recorded, since this work will still contribute to the success or failure of the project.</p> <p>This includes all types of work that are indirectly linked to the project, such as administration, preparation and management. For example, if a social worker spends roughly an hour preparing for every hourly meeting then a 2:1 ratio could be used for recording actual work. Thus, if the social worker spent five hours in direct contact with an offender then the total hours worked could be raised to ten hours to reflect the preparation time.</p>

<p>How should voluntary labour be dealt with?</p>	<p>All voluntary staff joining the project should be recorded and valued no matter when they join. The work conducted by volunteers should be grouped together under appropriate headings, depending upon the role they are fulfilling in the project E.g. secretarial duties.</p> <p>Voluntary labour should be valued at the equivalent cost of a paid worker for carrying out these activities. It cannot be assumed that volunteers will be available for work if the project is replicated elsewhere. Thus, voluntary secretarial support should be valued at a local secretary wage cost.</p>
<p>What about “involuntary labour” such as community service?</p>	<p>If evaluators are unable to estimate an equivalent employment cost of a paid worker then the minimum wage of £3.80 should be used instead, but this should be clearly noted as an assumption.</p> <p>The one exception is where the volunteers are being forced to take part in a programme (rather than volunteering). In this case the work input should be valued as a free resource and therefore at zero unit employment costs. However, the time spent by this type of labour should still be noted, as should the costs of managing it.</p>
<p>Should input time in the form of advice provided by Home Office or government offices be included?</p>	<p>Special advice provided by either Home Office or regional government offices should not be included as an input into the project. It is highly unlikely that this type of technical advice would continue to be provided if the project were to be rolled out around the country.</p>
<p>Should travel and subsistence costs be recorded under staff costs?</p>	<p>All travel and subsistence costs associated with the project should be recorded separately and included under the staff section.</p>
<p>How should recruitment of staff be dealt with?</p>	<p>All labour resources used in recruiting staff must be recorded. This should include recruiting new staff and also resources used to recruit current staff who are seconded onto the project. Any publicity related to job adverts etc. should be recorded in the recruitment section described later.</p>

**C: Training guidance**

What training information is required?

Evaluators should record all types of training associated with the project. This will also involve measuring the value of resources devoted to the training. Training may be provided by external consultants, in which case it is sufficient to enter the consultancy fee as the value of training resources.

Training may also be provided internally, in which case the value of internal staff resource time (the trainers), internal equipment and internal accommodation should all be included to reflect the total internal value of training resources involved.

Should the opportunity cost of staff time on training be valued?

To avoid double counting, the opportunity cost of staff time on training courses should only be recorded in the staff costs. It is assumed that when employees are being trained they are still working on the project and their time should be recorded as a staff cost. The trainee's hours of training should therefore be included under the relevant category of worker and the unit employment cost should reflect the opportunity cost of training.

Can training inputs be apportioned to reflect that other staff (as well as project staff) are included on the training?

Training inputs should be apportioned where other non-project staff are included on the training. It is reasonable to assume that this situation may occur if the project were to be replicated around the country. For example, if we assume that only two trainees out of a total of 20 attending a training course were involved in the CRP project, then the input cost of the training apportioned to the CRP should be equal to one-tenth of the total resource cost of the training.

**D: Recruitment guidance**

How should staff recruitment publicity be dealt with?

All costs associated with recruiting staff, such as job advertisements, interview costs etc. should be included in the recruitment section of the input template. These will typically occur during the set-up phase of the project, although staff recruitment may still be required once the project is up and running. Staff time associated with recruitment should be recorded in the staff section.

<b>E: Premises guidance</b>	
<p>What premises information will be required by the Home Office?</p>	<p>CRP projects will involve a wide variety of premises such as schools, courts, police stations etc. Each different type of premises should be briefly described and a value attached for the period it is in use for CRP purposes.</p>
<p>How much detail is required for premises cost?</p>	<p>All premises that are used for the project should be valued according to local rents, where possible. If it is impossible to establish either a market rental rate or shadow rental rate then evaluators should contact the Home Office team for guidance about other measures.</p> <p>It is anticipated that premises used for the CRP will fall into one of two categories</p> <ul style="list-style-type: none"> <li>● Premises used on an ongoing basis during the project</li> <li>● Premises used on a temporary basis (E.g. daily or hourly).</li> </ul> <p>The valuation of premises will depend on the type, size and duration of use.</p>
<p>How should utility costs be treated?</p>	<p>A total utilities cost should also be provided for each type of accommodation, where possible. It is recognised that when accommodation is only used for a short period of time it may not be possible to estimate the cost of utilities. Utilities should include items such as gas, water, rates, electricity and cleaning services.</p>
<p>Can the premises and utilities inputs be apportioned?</p>	<p>The premises and utilities inputs may be apportioned either as a proportion of space used or as a proportion of time used or a combination of both.</p> <p><i>1) As a proportion of space used</i></p> <p>Project accommodation may be calculated as a proportion of total building size. Thus, if a building has five offices and only one office is used for the CRP project then one-fifth of the total building costs should be apportioned to the CRP premises input.</p>

	<p><i>2) As a proportion of time used</i></p> <p>CRP project accommodation may often be used for other purposes. Thus, it may be appropriate to only use the proportion of time that the accommodation is being specifically used for CRP purposes. In this second case a ratio of time premises spent on project divided by total time premises are in use should be the common method of calculation. The benefit of calculating it in this way is to take account of the different opening hours of buildings.</p> <p>Examples of the two types of apportionment are provided below</p> <p><i>Example 1</i></p> <p>Suppose an office is used for four hours a day on the project. However, the office is part of a building that is in use for eight hours. Then the proportion of time that the office is in use is one-half. In this example the input cost of the room would be half a day's rent.</p> <p><i>Example 2</i></p> <p>Suppose an office is used in a police station for four hours a day, however, the police station is constantly in use for twenty four hours. In this example the proportion of time that the office is in use is one-sixth. Here the input cost of the room would be one sixth of a day's rent.</p>
<p>What if the rent for CRP accommodation is paid in full before the project begins?</p>	<p>Where rent is paid in advance this should be included as an on going cost. Thus, £10,000 paid up front for a year's rent should be included as an on going cost rather than a set-up cost.</p>
<p>How should deposits be dealt with when they are paid in advance for a rented property?</p>	<p>Deposits should be included at the time that the payment is incurred. A deduction for the deposit should then be made from the final quarterly rent, as long as it has been repaid.</p>
<p>How should improvements made to premises be dealt with?</p>	<p>Improvements made to a premise that make it fit for the intended purpose should be included under the premise's section. Thus, items such as new curtains, lighting fixtures and network wiring should all be recorded as a premise cost rather than equipment.</p>

**F: Running costs guidance**

How often must running costs be recorded?

All running costs associated with the projects (telephone, post, insurance, stationery items etc.) should be recorded on an on going basis. Rented equipment should be recorded in the equipment section and not under running costs. Vehicle input costs should be included in this section. Maintenance agreements associated with project equipment should also be included as a running cost.

Can we apportion running costs?

Yes, running costs can be apportioned. For example, if ten staff out of 100 staff in a building are employed on the CRP project then it may be assumed that ten per cent of telephone costs should be attributed to the CRP.

How should vehicle costs be measured?

Vehicle running costs should be measured using an appropriate pence per mile rate (including depreciation, fuel, tax etc.).

**G: Equipment guidance**

What common approach should be made to valuing equipment, particularly equipment that will last beyond the life of the project?

All equipment used on a project must be recorded and valued, including equipment that is donated freely to the project.

Equipment should be grouped together where possible rather than listed by individual item (eg. five computers; 250 locks etc.).

An annuitised payment should then be calculated for each category of equipment, in accordance with Treasury “Green Book” guidance.

How will we know the standard expected life of equipment?

Equipment has been grouped into three categories which relate to the durability of the equipment and take into account the period in which it will need to be replaced. The following assumptions should be made for the standard expected life of general equipment:

<i>Equipment</i>	<i>Standard life</i>
Electrical appliances. IT hardware and software (computers, faxes, cameras, radios etc.)	5 years
Small miscellaneous items. Stationery.	

	<p>Office furniture and telephones. 10 years Target Hardening surveillance equipment (locks/bolts, security hardware, CCTV)</p> <p>Vehicles, fences, gates 15 years</p> <p>These assumptions do not cover all equipment types and so evaluators will be expected to note any other expected life of equipment assumptions.</p>
<p>What discount rate should be used?</p>	<p>In order to calculate an annuitised value of the equipment, a discount rate should be used.</p> <p>Treasury guidance currently states that the discount rate to be used for project and policy appraisal purposes should be six per cent in real terms (see Appendix 2).</p>
<p>How is borrowed or reallocated equipment to be treated?</p>	<p>Equipment input costs should be apportioned when the expected life of the equipment exceeds the time that the equipment is employed on the CRP project. Thus, if the equipment is borrowed for a period of time and then returned, or if the equipment is reallocated to another use after being employed on the project, then the equipment costs should be apportioned.</p>
<p>Can equipment costs be apportioned when the equipment is only partly used for the project?</p>	<p>The guidance is best explained by way of examples set out below:</p> <p><i>Case 1</i> Where the equipment is used on the project and then reallocated,</p> <p>Or, where the equipment is only used part time on the project</p> <p>E.g. Computer equipment is used for two years directly on the CRP project and afterwards the computer is used on other work for one more year (the expected equipment life for a computer is five years).</p> <p>The equipment cost should be apportioned by the ratio of the time the equipment is used on project over the expected life of the equipment. For the example this ratio is equal to 2/5,</p>

implying that two-fifths of the cost of the equipment should be apportioned to the project. When this situation occurs it is necessary to calculate an annuitised cost for the apportioned equipment following Treasury Guidance. This is explained below.

From the Green Book table for annuitised payments (Appendix 2), select the appropriate equivalent annual cost multiplier. This should be selected according to the expected life of the equipment. In the above example the expected life of the computer is five years and so the equivalent annual cost multiplier equals 0.2374.

Next multiply the real cost of the equipment by the equivalent annual cost multiplier.

Finally multiply this by the actual time that the equipment is used on the project (either in years or as a percentage of years).

#### *Example*

Supposing a computer's real cost = £2,000

Expected life of computer = 5 years

Actual use of computer on project = 2 years

From Appendix 2:

Equivalent annual cost of equipment = £2,000 x 0.2374 =  
£474.80

To calculate the total apportioned cost of equipment (in annuitised terms) = £474.80 x 2 years = £949.60

#### *Case 2*

Where the time the equipment is employed on the project is the same as the period of expected benefits.

E.g. Fencing on alleyways cost £10,000. The fence will be employed on the project for 15 years (the expected life of the fence) and benefits are anticipated over the same time period. In this case one hundred per cent of the fence cost should be apportioned to the project.

In this example, it is necessary for the fences to be in use for the full benefit to be realised. Therefore it is not possible to

	<p>apportion any of the input. Instead the full cost of the fence should be attributed to the project.</p> <p><i>Example</i>  Supposing the real cost of fencing = £10,000  Time fence is employed on project = 15 years  Expected life of fencing and benefits = 15 years  In this case the full cost of the fencing should be attributed to the project = £10,000.</p> <p>This calculation is complicated by the fact that often the actual time that equipment is to be used on the project may not be known. Evaluators will therefore need to distinguish between the following:</p> <p>(A) equipment that may only be used for a limited time on the project (E.g. computers)</p> <p>(B) equipment that is employed over the maximum period that benefits are received (E.g. fences).</p> <p>For equipment of type (A), evaluators will need to review the actual use of the equipment at the end of the project. This should ensure the correct apportionment of input costs.</p> <p>For equipment of type (B), the full cost of the equipment should be attributed to the project.</p>
<p>How should rented equipment be treated?</p> <p>How should installation and maintenance inputs be treated?</p>	<p>Rented equipment should be included under the equipment section. The rental cost should be recorded for this equipment.</p> <p>Any labour input associated with the installation of equipment should be recorded under the staff section. Other types of installation, such as the installation of software onto a computer, should be included as an equipment cost. The same apportionment procedure should be adopted as for equipment.</p> <p>Maintenance of equipment should be included as a running cost when this type of maintenance work is carried out.</p>

**H: Research guidance**

How should research costs be valued?

Any research or data collected as background or used during the project should be valued and included in the research costs section.

**I: Publicity guidance**

What should be included under publicity?

Publicity costs should include the materials and distribution costs.

Administration of publicity should be recorded in the staff section.

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<i>Additional inputs</i>	resources that have been specifically employed as a direct result of the project, such as equipment or staff employed specifically for the project.
<i>Annuitised Payment</i>	defined as the constant annual cost (or annuitised value) which is equivalent to (i.e. has the same present value as) a project's actual costs. Annuitised payments are used because equipment might last beyond the lifespan of the project and so these costs must be apportioned accordingly.
<i>Costs</i>	defined as the monetary value of inputs.
<i>Diverted inputs</i>	resources that were previously employed in alternative uses and have now been diverted for use in the CRP. Examples include staff seconded onto the project, office space in an existing building freed up for project use and sponsorship deals.
<i>Economic cost</i>	values all resources used in a project at their opportunity cost. This is different from financial cost that considers cash flow. Economic cost requires all resources to be valued including those inputs for which no financial payment is made. Note that even if a room is donated freely and there is no financial transaction to hire or buy it, there is still an economic cost. It is important that this cost is included not only to ensure that the economic costs are fully captured but also to determine the replicability of an intervention.
<i>Inputs</i>	defined as any additional human, physical and financial resources that are used to undertake a project. For example, in an intervention that installs fences across paths at the backs of houses as a target hardening measure to prevent domestic burglary, inputs would include the materials and labour used to install the fences.
<i>Local input values</i>	the costs of resource inputs valued according to local market prices. These values may vary across different regions of the country. Using

local input values provides a cost-effective measure of each project in its geographical location.

<i>National values</i>	the national average costs for resource inputs. The Home Office central team will be calculating average costs for staff and rental costs, as these two categories are likely to have the greatest amount of regional variation. Substituting local input values with national input values will measure whether projects would be cost-effective if they were rolled out nationally.
<i>Opportunity cost</i>	the value of using that resource in its next best alternative use. It will normally be the actual financial cost incurred, but may be the shadow cost where a resource is provided free of charge or with some subsidy. In such cases it is important to know the opportunity cost, both because it reflects the true cost to the economy of the project, but also – more practically – because we cannot assume that resources will be provided at a subsidised charge or free of charge if the intervention were to be replicated more widely.
<i>Set Up Phase</i>	relates to the pre-project phase before a project and associated interventions have begun. All resource requirements and costs incurred in this time period are assumed to be included in the set-up phase of the project. The measurement of the set-up phase indicates what resources are needed to start the project – this will be critical information for replicating the interventions.
<i>Shadow Price</i>	defined as the value ascribed to some quantity (E.g. equipment, staff, building etc.) in the absence of a market price. The shadow price reflects what the resource would earn if it were traded in a market. Shadow prices are assumed to be free from distortions and therefore accurate reflections of true market values.
<i>Sunk Costs</i>	the costs of goods and services that have already been incurred or are already irrevocably committed prior to the start of a project. These resource inputs will still need to be recorded by evaluators.

## Appendix 2

## Equivalent annual cost of £1

Assuming a discount rate of 6 per cent

Years		Years	
1	1.0600	21	0.0850
2	0.5454	22	0.0830
3	0.3741	23	0.0813
4	0.2886	24	0.0797
5	0.2374	25	0.0782
6	0.2034	26	0.0769
7	0.1791	27	0.0757
8	0.1610	28	0.0746
9	0.1470	29	0.0736
10	0.1359	30	0.0726
11	0.1268	40	0.0665
12	0.1193	50	0.0634
13	0.1130	60	0.0619
14	0.1076	70	0.0610
15	0.1030	80	0.0606
16	0.0990	90	0.0603
17	0.0954	100	0.0602
18	0.0924		
19	0.0896		
20	0.0872		

Source: Treasury Green Book Appraisal and Evaluation in Central Government, Annex H: Discounting Formulae and Tables, Table 2, p92.

