



Finance Toolkit

Introduction

The research team has developed a destination map for a transformed learning and development (L and D) organization. One of the destination map's essential delivery criteria is that there should be systems and processes for accurately assessing the cost and value of L and D activity.

Along with this "must have" delivery criterion there are three supporting criteria ("should haves") in the Destination Map which are also related to the financial management:

- having outcome-based rather than output-based measurement systems
- having a model for determining the return on investment (ROI) of L and D activity
- having defined benchmarks for L and D delivery and design.

Purpose

This paper provides guidance for L and D professionals to help them work towards financial management arrangements that meet the criteria set out in the Destination Map. It is unlikely that an L and D professional would be able to implement these financial management arrangements without assistance from finance colleagues and others, but it is written to enable L and D professionals to evaluate their current financial management arrangements and to identify what kinds of changes to the current systems and processes they might want to pursue, supported by finance colleagues.

First is a look at understanding the cost of L and D. This is followed by a section about understanding the value created by L and D teams. The third section is about return on investment (which is a combination of costs and value) and the final section is a brief commentary about benchmarking.

Understanding the cost of L and D

The first step towards understanding (and managing) the costs and value of L and D is bringing together all of the costs incurred by L and D even if they are not formally part of its budget.

The evidence from the deep dive visits was that the L and D budgets were generally well-controlled but that was tempered by the fact that not all of the income and expenditure items related to L and D were included in the accounts (budgets and actual) for the L and D cost centre(s).

It is all right for premises budgets, for example, to be managed by the estates manager: indeed it might be preferable since the estates manager has knowledge and experience that are appropriate to the task. The L and D manager should, however, have an understanding of the value of the premises they occupy/use in order to understand fully the cost of the L and D work. The finance team can help by gathering this information into reports which include the full costs of L and D not just the cost items that are under the control of the L and D manager. This does not mean changing the budgeting methods and allocations used by a force (although a force could do that if it wanted). It just means gathering financial information from wherever it is recorded in the financial systems into one place, probably a spreadsheet, where it can be analysed.

When using figures derived from this approach for comparison with other business areas or options L and D Managers should consider whether these other items have been costed in the same way. If they have not the comparison may not be like for like and therefore there is a risk that, because this approach accurately reflects actual costs, L and D costs may appear relatively higher.

Costs and expenses

It is important to understand that there is a difference between expenses and costs. A police force's **expenses are the amounts recorded in its accounting system that record all the financial transactions that take place**. These transactions include salary and pension payments through payroll, purchases of goods and services from suppliers, etc. These are factual amounts. Invoices, bank statements and so on can be found which prove the expenses.

On the other hand, **costs are calculations based on the expenses**. They are the result of reasoning and analysis; the allocation of the expenses to individual products or services. The cost per hour of a police constable dealing with an incident is not the amount of cash paid to

them but the result of a calculation that makes adjustments for holidays, sickness, training and other allowances.

Sometimes the cost of things managers are interested in can be very easily determined from the amounts paid to purchase them. In these cases the management accountant would need to find only the relevant expense transaction(s) in the accounting system and report them to the manager. More often, however, managers want to know something which cannot simply be retrieved from a purchase transaction in the ledgers or accounting system. This requires the accountant to do some calculations based on available data and assumptions.

There is no absolutely correct cost for a product or service because costs are the subject of calculations which are based on judgements. Different assumptions and different methodologies might be reasonable yet could result in different costs being calculated. L and D managers should bear this in mind when discussing costs and costing. Importantly, any agreed methodology should be consistently applied to allow accurate like for like and longitudinal comparisons to be undertaken.

By definition, the total of all the expenses incurred by an organisation in a given period must equal the total of the costs of all the products/services produced in that period. As an example, the table below shows, on the left, the expenses a training unit might incur in a year and on the right is a suggested cost breakdown.

Expenses	£'000	Costs	£'000
Employees: trainers	500	Training in classroom	750
Employees: support staff	300	Course preparation and development	75
Premises	100	Assessments and examinations	50
Travel	50	Other administration	225
Supplies and services	150		
Total	1,100	Total	1,100

In the example above, all of the expenses of the training unit would need to be allocated to one of the four categories of costs. This might mean calculating how much time each trainer spends on classroom teaching, how much on writing reports, and how much arranging tests. The same would be needed for all the other staff. And for the non-staff expenses there would need to be

calculations allocating the expenses to the activities. For example, the premises expenses might be allocated to classroom teaching on the basis of the area of all the classrooms as a proportion of the total area of the premises occupied by the force.

Classifying costs

Accountants classify costs according to the way they behave as the volume of goods/services produced rises or falls. This allows accountants to treat costs differently in their calculations and reports. A brief definition is provided in the table below followed by an explanation of each cost type:

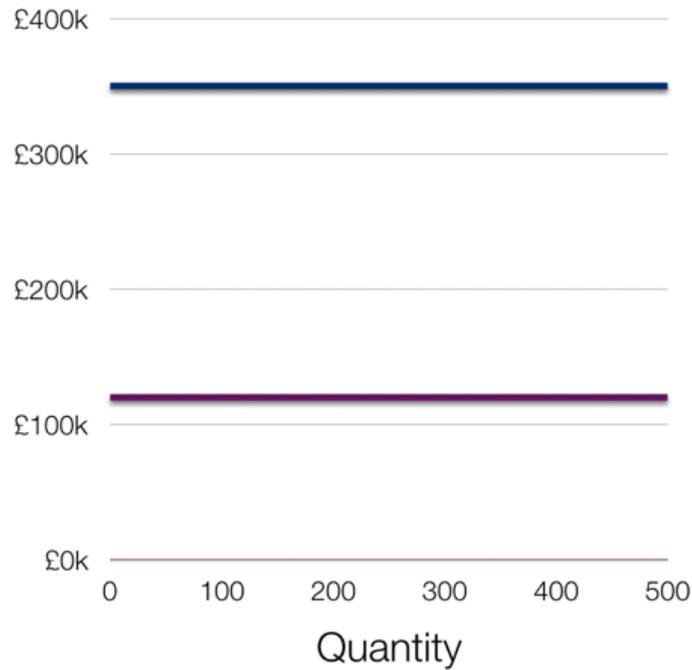
Fixed costs	cost items that are unchanged regardless of the volume of goods/services produced by the organization. The nature of fixed costs means that as the volume of outputs increases the average cost per unit of outputs decreases.
Variable costs	cost items that vary as a function of the level of output (i.e. as output rises or falls the costs rise and fall in proportion)
Cost structure	the particular combination of fixed and variable costs that make it up
Direct costs	costs which can be directly attributed to a particular product, service or area of business that the cost is to be established for (known as the cost objective)
Indirect costs (overheads)	all the other costs of the organization i.e. the costs cannot be directly attributed to a particular cost objective in an economically feasible way

Fixed costs

Fixed costs are cost items that are unchanged regardless of the volume of goods/services produced by the organization. The nature of fixed costs means that as the volume of outputs increases the average cost per unit of outputs decreases.

In a police force, for instance, the expense of rents, business rates and maintenance contracts for lifts would be fixed costs, having to be paid in full regardless of how much work is done within the force's buildings. The expenses of employing the chief constable and their direct support staff are also fixed costs because they do not vary each month or year as a result of the force dealing with more or fewer incidents.

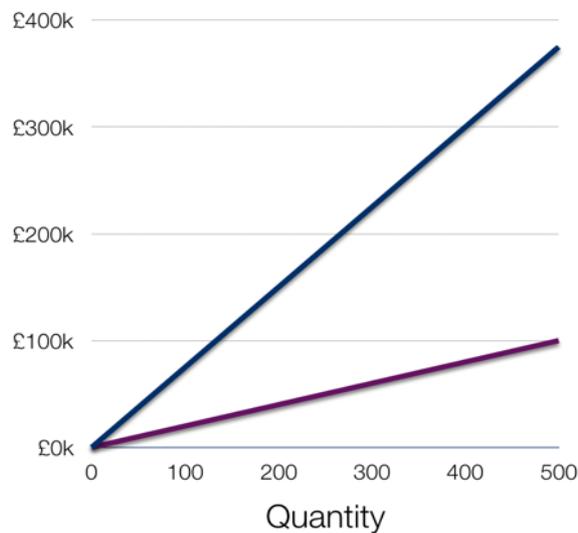
On a graph, fixed costs behave like this:



Fixed costs are fixed for the short to medium term, not forever. It may take time and resources to make the changes to its fixed costs but it can be done. A police force can change its fixed costs relating to premises, for example, through a programme of rationalising the buildings it uses.

Variable costs

Variable costs are cost items that vary as a function of the level of output (i.e. as output rises or falls the costs rise and fall in proportion). By definition, therefore, if an organization produces zero outputs (goods or services) its variable costs would be zero, as shown below.



For example, in a police force the cost of food in a custody suite varies as the number of detainees varies and this is a variable cost.

Cost items tend to remain in their classification as fixed or variable, but not always. Software is an example which has changed from a fixed cost to a variable one as software companies have changed their business models. At one time a police force had to buy software from the developer and pay an annual maintenance fee in order to get updates, etc. The force would also have the fixed costs of owning and running the computer servers on which the software was run. In more recent times the suppliers of all kinds of software, including Microsoft and its office products, have begun to offer their software as a service hosted on the supplier's computers. Instead of buying the software a force would pay a fee based on usage, such as user numbers, thus the more officers and staff using the software the greater the fee paid.

Cost structure

The cost structure for a police force, or a department or a project, is the particular combination of fixed and variable costs that make it up. It is important for a manager to know the cost structure of their department/service in order to understand how costs will change as the level of output changes. A department with a large proportion of its costs as fixed costs will change very little as output changes whereas a department which is mostly variable costs will change greatly as output changes.

An L and D unit would likely have some fixed costs in terms of its classrooms and offices and perhaps some expensive items of equipment. The majority of costs, however, are likely to be variable because the number of trainers and administrators, learning materials, etc will vary as the number of courses delivered varies. This means the total cost of an L and D department is relatively sensitive to the volume of outputs produced.

Direct costs

As well as being classified as fixed or variable, costs can also be classified as direct or indirect. Direct costs are costs which can be directly attributed to a particular product, service or area of business that the cost is to be established for (what is known as the cost objective).

In the context of police training a cost objective might be a specific course. The most obvious direct cost would be the cost of police officers and/or police staff and/or consultants working as trainers to deliver the course. There would be other direct costs, such as the time spent by a trainer designing the course and the cost of printing learning materials to be provided to learners.

Indirect costs (overheads)

Indirect costs are all the other costs of the organization i.e. the costs cannot be directly attributed to a particular cost objective in an economically feasible way. The economic feasibility point is important. Whilst it might be possible to record separately the electricity used by each department in a building it most likely would not be practical, with the cost of having each meter read, etc exceeding the benefit of the higher accuracy of the data.

Indirect costs are often referred to as **overheads** and for the purposes of this paper the two terms are interchangeable.

How to work out the cost of a product or service

The traditional approach to costing (known as absorption costing) obtains the full cost of a product by absorbing all the indirect costs of a business into the costs of the products it produces. One of the earliest examples of using costing to help make management decision comes the 18th century, at Josiah Wedgwood's potteries. He developed techniques so that he could understand every element of the cost of making vases from "the crude materials to the retail counter in London"¹.

The absorption costing requires allocating (spreading) indirect costs/overheads between the products and adding those amounts to the direct costs for each product. The process has three stages.

1. Direct costs are charged directly to the relevant cost unit or cost centre (this is called cost allocation).
2. Indirect costs (overheads) are collected in one or more cost centres separate from the direct costs.
3. An **overhead absorption rate** is calculated by which the indirect costs and overheads are allocated to individual units of output.

Let's look at a simple example. Assume a force has an L and D team of 10 people within a total HR department of 30 people. There is some simplified information in the table below.

	L and D team	Rest of HR	Total
Salaries and other direct employee expenses	£350,000	£600,000	£950,000

¹ Gleeson-White, J. (2012). *Josiah Wedgwood and the Origins of Cost Accounting*. Available from <http://costmgmt.org/dec2012-book-feature/>. Accessed 11 September 2019

Direct non-employee expenses	£50,000	£20,000	£70,000
Premises expenses	?	?	£60,000
HR Director	?	?	£90,000
Number of employees	10	20	30
Number of trainers	6		
Number of days of training courses delivered	1,000		
Office space occupied (including classrooms)	1,000m ²	200m ²	1,200m ²

To work out the total cost of the L and D team we can begin with the direct employee and non-employee costs of £400,000 (£350,000 plus £50,000).

We need to add to this the L and D team's share of the overheads for premises and the HR director.

The premises expenses are £ /per square metre. The L and D team have 1,000 m² so their allocation is £50,000 (£60,000 ÷ 1,200m²).

Assuming the HR director spends their time in proportion to the number of staff in each team, the share for L and D would be 10 (L and D staff) ÷ 30 (total staff) × £90,000 (HR Director costs) = £30,000.

The total cost of L and D is, therefore,

$$£400,000 + £50,000 + £30,000 = \mathbf{£480,000}.$$

This would give an average cost of **£480 per day of training** delivered (480,000 ÷ 1000 training days)

When deciding on the overhead absorption rate to use for a particular indirect cost the accountant has to find a base which is relevant as well as feasible. Allocating property costs between teams based on the floor area they occupy is more relevant than allocating them based on the size of each team's budget. More thought is needed than merely looking at relevance, though. It is cheaper to use data that the organization already has than setting-up a process to collect data solely for the purpose of allocating costs but sometimes the latter is necessary.

Below are some possible bases for overhead absorption rates for L and D teams:

- the number of courses (appropriate if all courses are identical or very similar)
- direct contact hours (appropriate for a labour-intensive products like face-to-face training)
- direct wages or employee headcount (for items that relate to staffing levels)
- floor area (for premises-related costs).

An L and D manager who wants to get started with assessing the costs of training courses could use the National Costing Model developed by Thames Valley Police in 2014. See the appendix for an explanation about how it works.

Absorption costing has a long history of use but it has limitations. It was developed at a time when organizations produced only a narrow range of products and overheads were a small fraction of the organization's total costs. This is often not how modern businesses are structured.

Absorption costing assumes all of an organization's products consume resources in relation to volume measures (direct labour or machine hours for example) or, in the case of police training units, there is an assumption that all the overheads (management, admin, premises, ICT, etc) are used on each course in proportion to how many days the course last or how many delegates are on the course.

Absorption costing can, therefore, give a distorted product cost where a diverse range of products exist, and with a mix of high and low volumes of products. In terms of policing this would mean that courses with a high volume of learners such as personal safety training would absorb a higher proportion of the overheads than a course which is delivered only occasionally for a small number of delegates. Perhaps this is right but perhaps the small, occasional course takes a lot more effort to set up and deliver than the standard safety course and should have a higher proportion of overheads allocated to it.

If the limitations of absorption costing become a problem then an L and D manager may wish to explore activity-based costing, as described in the next section.

Activity-based costing

Activity-based costing (ABC) is a more sophisticated method of allocated allocating overheads to outputs (i.e. training programmes and courses) based on how the production of the outputs drives the cost of the supporting activities. The key advantage of ABC is that it focuses on the causes of overhead costs. If used well this information can encourage collaboration and co-operation between departments and provide useful control information for managers.

Under ABC the allocation of direct costs (trainers' time, course-specific learning materials, etc) to a course is the same as for absorption costing. ABC is different when it comes to indirect costs/overheads. Under ABC there are four stages:

1. identify the major activities that take place
2. determine the cost driver for each of the major activities
3. create a 'cost pool' to collect the costs for each major activity
4. allocate the costs from each cost pool to products according to each product's demand for each activity.

The following are some suggested activities relating to a training course along with suggestions of suitable cost drivers for allocating the costs of each activity to the course.

Activity	Cost Driver
Student enrolment	Number of students
Course design & preparation	Length of course
Printed learning materials	Number of students
Use of classroom	Number of hours
Use of vehicles	Distance travelled
Student assessment	Number of students

This simple example above does not look so different from traditional absorption costing. In practice, however, there would need to be some analysis into all the activities undertaken by the trainers, managers, administrators, etc to identify what cost pools need to be created and what data collected. Within an L and D team this could include activities like:

- advertising/promoting course availability within (and perhaps outside) the force
- maintaining information in a learning management system or HR information system
- amending and cancelling enrolments
- commissioning external trainers
- setting-up classrooms
- invoicing third party students.

Going back to the example we used for absorption costing, a one day course would be costed at £480 and a 5 day course at £2,400 (regardless of how many learners were in each course). Under

the ABC approach there would need to be some analysis of the activities undertaken by the staff of the L and D team. Let's assume the following information has been collected:

Activity	Cost
Student enrolment	£5 per student
Course design & preparation	£500 per day of course
Printed learning materials	£10 per learner per course
Catering	£5 per student per day
Use of classroom	£200 per day
Trainer	£300 per day

If the 1 day course has 25 learners, and the 5 day course has 15 learners, we get the following estimated costs:

	1 day course	5 day course
	£	£
Student enrolment	125	75
Course design	500	2,500
Learning materials	250	150
Catering	125	375
Trainer	300	1,500
Use of classroom	200	1,000
Total	1,500	5,600
Unit cost per learner per day	60	75

Even in this simple example you can see differences begin to open up because some elements of the cost of a course are driven by how many learners there are whilst others are driven by how long it is.

ABC is not without its weaknesses and criticisms. ABC involves a lot more work than absorption costing. There are likely to be more cost pools (with associated cost drivers) than absorption costing uses and it requires detailed time-recording data from staff.

ABC may also have a poor reputation in policing. From around 2003 until 2008 all police forces carried out detailed activity-based costing work for submission to the Home Office. This practice ended (to be replaced by the annual completion of the Police Objective Analysis) after a report by Sir Ronnie Flanagan in 2008² recommended it was replaced with: “an alternative which costs less, is easier to use and has greater impact on productivity.”

As a matter of fact, the creators of ABC³ have acknowledged its complexity and the difficulty of maintaining the system within an organization because of all the time-recording etc. That does not mean they think organizations should abandon ABC. Instead they suggest a simpler version called time-driven ABC. This version avoids the expensive and time-consuming work in surveying employees to find out how they utilize their time on different activities and instead uses managers' estimates of employees' productive time to establish a productive cost per hour (or per minute) to multiply against standard timings to get the costs for each activity driver.

Without opening a debate about the 2003 to 2008 experience in policing, ABC or the newer time-driven ABC could be used by an L and D department without being used elsewhere in a force. This could help L and D managers (a) understand the full costs of training and (b) evaluate the value for money of training. To do the latter requires some consideration of how to measure the value created by training as discussed in the next section.

² Flanagan, R. (2008). *The Review of Policing: Final Report*. London: The Stationery Office

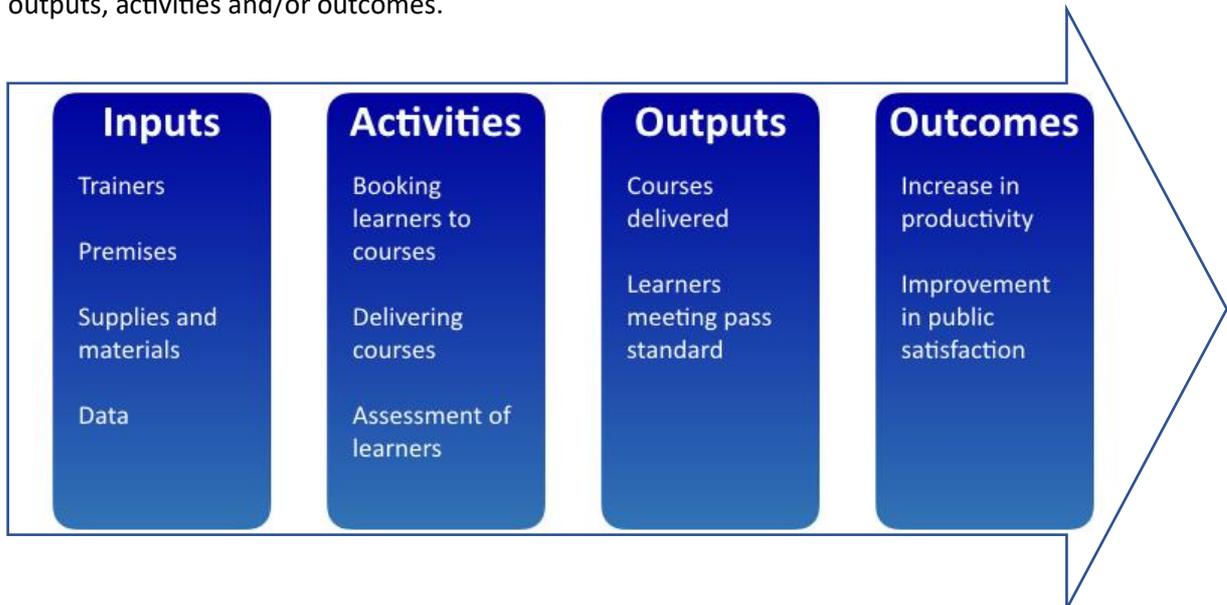
³ Kaplan, R. S., & Anderson, S. R. (2004). Time-driven activity-based costing. *Harvard Business Review*, 82(11), 131-138.

Understanding value

Having discussed how an L and D manager could work towards having systems and processes that enable a better understanding of costs the following looks at measuring the value of L and D work.

Outcome-based measures

In general terms the performance measures used by a manager could measure inputs, outputs, activities and/or outcomes.



Inputs are the resources used in the production of a course such employees, equipment, supplies, and technology. Input measures can more easily be measured in financial terms (by finding the financial transaction that paid for them) than output measures.

Activities are measures that quantify the processes that convert the inputs into outputs. For example, average time taken to respond to a request for training. An activity measure might cover the whole of a process but equally it might relate only to a stage of the whole process. Digging in to the details of a process with specific measures is one way to identify potential improvements to a process.

Outputs are the goods or services produced by the organization. Goods, being tangible products, ought to be easily countable. Measuring service outputs may be more difficult because of their intangible nature but in the case of L and D there are outputs like number of courses, number of students, number of contact hours delivered, etc which are tangible.

Input and output measures are often linked together in a ratio. For example, the total number of hours of training delivered in a year can be divided by the number of trainer to get average contact hours per trainer.

The National Costing Model described in the appendix calculates cost per delegate of each course which is a unit cost of delivery, i.e. an input measure. A better measure might use number of delegates successfully completing a course (whether success means attendance only or passing a test or whatever) as the divisor, giving a unit cost per successful completion.

The **outcomes** of a service is its external effect whether that be the effect on direct service users or citizens (publics) in general. An outcome measure would need to measure the impact of the learning beyond the individual or the force.

It can be argued that it is not the outputs that satisfies the users/society but the outcome(s) that the output(s) delivers. For instance, it is not how many police officers that have sat through a particular course but how that course has changed their ability to do their job that is the critical measure of value.

Outcomes can be much harder than outputs to identify and to measure for many reasons, including the following.

- They can be **intangible** and therefore hard to isolate and measure (but some techniques for putting a financial value on intangible benefits is discussed in the next section of this paper).
- There can be a significant **time-lag** between the delivery of the course and the ultimate outcome. This might not be the case with a technical course to learn to use a new piece of software or equipment but the pay-off from a management development course might be years later.
- Sometimes the outcomes are **co-produced** with others. For example, the initial training of a police officer is not wholly done by the L and D team; some of the outcome is created by experienced police officers working alongside the trainee.
- The outcome needs to be **attributable** to the output, i.e. there are reasonable grounds for connecting the effect that is measured to the course that was delivered. The extent to which the effect would have happened anyway (without the course) is called the **deadweight** and needs to be excluded from the calculations.

How to value the outcome of training

Direct financial benefits

Businesses are likely to identify the value of training by its impact on the bottom line, whether that is increasing sales revenue or reducing expenses (or both). In general this is not an appropriate approach for a police force because it does not train its personnel to improve its revenue potential. Police training, in general, is to ensure standards are met and to improve

performance. That said, sometimes it might be possible to use revenue as a measure of value such as when a force delivers training to other forces, whether under a collaboration agreement or something less formal.

Consider a situation where there is a direct operational performance benefit from a course. In those cases, the productivity increase can be measured in terms of time saved and readily monetized (converted into or expressed in money terms). For example, a training course that enables someone to use a new computer system that will save **N** minutes per shift can be monetized by multiplying the number of learners by the annual number of shifts, the hourly rate, and N minutes and then dividing by 60 minutes per hour.

If, for example, a new crime recording system saves, on average, a police constable 20 minutes per shift, this can be monetized as follows:

$$200 \text{ shifts per year} \times 20 \text{ minutes per shift} \times \text{£}40 \text{ per hour} \div 60 \text{ minutes per hour} \\ = \text{£}2,667 \text{ per year}$$

Perhaps the benefit from a course is not a reduction in spending but a cost avoided. For example, if a course results in lower sickness absence rates then this benefit can be monetized by collecting data about the sickness absence before and after the course and multiplying the number of sickness days avoided by a suitable daily rate.

For other courses this direct approach may not be suitable. In such cases the force can use revealed preference or stated preference methods for monetizing the benefits.

Revealed preference methods

Revealed preference methods are used in cost-benefit analyses. By collecting data about what people actually spend their money on it is possible to make inferences about the value they place on services. For example, finding out how much people spend to travel to a museum or a park gives an indication of the value of the park or museum. These methods can be used to estimate the value of a training course when direct financial benefits are not available.

Revealed preference methods might look at:

- the price of similar outputs/outcomes in the private sector
- the effect on earnings
- the impact on asset values
- the travel cost as mentioned above for parks and museums
- the costs that would have to be incurred if the service/output did not exist.

The first three of these are briefly explained below.

Many training courses provided within a police force may not have a direct counterpart in the open marketplace but some will, such as project management training, and the **price** for such courses could be used as a proxy value for the internal course.

An example using the **effect on earnings** might be a course that leads to promotion. A course which enables a police constable to become a police sergeant could be valued by looking at the increase in earnings over remaining working life of the officer, on the basis that the difference in salaries is a reflection of the extra value of work by a sergeant. There are a number of assumptions to make in the calculation. Using 2019 salary scales and assuming the promotion was at the end of 7 years (the top of the PC scale) and the working life is, assumed here to be, 30 years, gives a present value⁴ of the extra earnings of around £95,000. Provided the course costs less than £95,000 to deliver this would represent value for money.

The **impact on asset values** method could be used to put a value on reducing crime levels. By assessing the level of housing rents and house price in different neighbourhoods of a town or city it is possible to infer the value people place on living in a safer, lower crime neighbourhood. There are technical issues in doing this since the analysis would need to establish how much of the price difference relates to the safety aspect rather than other differences between the neighbourhoods, like the quality of local schools, transport connections, the size and spacing of the houses, etc.

Stated preference methods

Stated preference methods use surveys to collect data about how much people value goods or services. For example, people could be asked how much they would pay to receive a public service if it was not free.

The evidence from stated preference methods is not as strong as from revealed preference methods. Even where the surveys are well-designed there will always be a degree of uncertainty about whether people will actually pay the amount they say they will pay. However, in the absence of other measures of value surveys about improvements/changes in behaviour could be used as the basis of monetizing outputs.

Using such a technique to assess the value of police training might be challenging. Asking the public, for instance, would they prefer more of the budget to be spent on training or to be spent

⁴ A mathematical technique to recognize that money today is worth more than the same amount of money in the future.

on extra police officers is perhaps too blunt and simplistic. There would be issues about whether the public understand the relevance of the training or the implications of additional police officers. The survey would therefore need to be more sophisticated and nuanced.

Third party data

Calculating the money values for the outcomes from a course could be time-consuming, especially if data has to be collected over a period of time. One possible shortcut is to use data generated in studies and research projects done by academics, government departments, think tanks and other institutions. It is not possible here to give definitive advice about where to find data however [this database](#), produced in 2015 by New Economy in Manchester, includes 180 unit costs relating to crime, including links to the source studies and is one possible place to look.

Return on investment

If an L and D function has systems in place for assessing the cost and value of its activity **in financial terms** then it would be straightforward to calculate return on investment (ROI) figures. The value of a course, for example, will be the money value of the benefits produced by the course and the ROI will be the value of the benefits divided by the cost of producing the course.

None of the forces visited as part of this project reported that they make ROI calculations for courses or for L and D as a whole. In general the discussions about this topic with the forces' finance staff showed some interest in the topic and recognition that ROI data would be useful but quickly reached the point that there would be difficulties in valuing the benefits/outputs/outcomes of a course.

There is a dichotomy in this. ROI could be calculated in aggregate for L and D or on a course-by-course (or programme by programme) basis. Assessing the costs of L and D as a whole is much easier than assessing the costs of courses because the former does not require the apportionment of overheads onto each course, whether using traditional absorption costing or some form of ABC. The monetization of benefits, on the other hand, would be easier to do for a specific course or programme than an aggregate measure for the whole of L and D, because of the wide variety of benefits that would have to be identified and monetized to do the latter.

In practice, a balanced approach is perhaps to assess the ROI at the level of courses but not necessarily every single course. Adopting this methodology could be done on a prioritised basis. That is, the L and D manager identifies a small number of courses or programmes to focus on initially. These might be courses that are high profile in some way, or perhaps the courses which are most routinely delivered. Whatever the basis of selection, when ROI information is available for them the L and D manager will have some useful information to take into consideration when deciding whether more analysis is needed.

Benchmarking

Benchmarks are not just financial measures. There could be benchmarks for many aspects of training courses such as drop—out rates, pass rates, etc. This section only considers benchmarking in terms of financial benchmarks, which are typically expressed as unit costs.

There are a number of ways financial benchmarking could be used. A best-in-class approach would seek to gather benchmarks from similar forces, such as the groupings used by HMICFRS for its value for money profiles. The value for money profiles themselves only cover training at the highest level. Forces could, however, share data about unit costs at a more detailed level.

An alternative to the best-in-class approach would be Police L and D teams comparing their performance with non-police organizations. They could look for benchmarks from other public services such as local authorities or benchmark their costs against the prices charged by providers in the open market, even where the market is not providing police-specific courses.

From whichever organizations benchmark data is collected, on its own is of limited value. Comparing two numbers is likely to prompt questions in an analyst’s mind such as whether they have been calculated using the same methodology. For a meaningful analysis to be done, the benchmark data needs to be accompanied with some form of discussion or explanation. One way to do this is to have a “benchmarking club”. This would be a forum for the participants to agree common definitions or standards in their calculations and to explore reasons for the differences in their data. This is one way that a force could identify ways to improve its performance.

The National Costing Model

There is limited cost information available about police forces. Her Majesty's Inspectorate of Constabulary, Fire and Rescue Services (HMICFRS) create VFM profiles for each force from police force budget data and these include budgeted spending on training per capita and per full-time equivalent employee. This permits a very high-level comparison of training spending across forces but has no detail about the cost of individual courses or the like.

The research team searched academic databases for literature about the cost of police training and there was little published material to be found. In particular, nothing was found that was directly about the costs of training in UK policing. A paper written by Hayes⁵ in 2002 about costing of police training in Canada was found. This paper sets out how a traditional absorption costing approach would be applied to police training divisions which is not dissimilar from the National Cost Model.

The National Costing Model was developed by Thames Valley Police to provide a consistent framework for police forces to cost trainer-led training and is based on traditional (absorption) costing.

The model is a Microsoft Excel workbook accompanied by guidance notes in a separate document. The model allows a force to build up costs in "layers". At the base are the **direct trainer costs** involved in delivering all the training sessions/events that comprise a course. The next layer adds in other **direct delivery costs** such as externally-hired speakers or trainers and catering. The third layer are **indirect delivery costs** like premises. The fourth, and final, layer are the **management and administration costs** (i.e. overheads). Management is added as a daily rate per trainer per session/event, whilst administration is a rate per learner.

There are some limitations in the National Costing Model approach which reflect the limitations of absorption costing. These include:

- it calculates costs only for direct instruction courses and (by design) has no provision for other modes of course delivery such as online training or distance learning
- it is based on the assumption of a common hourly cost for course instructors

⁵ Hayes, C (2002). Reviewing the Cost of Police Training: A Cost Analysis Model. *The Police Journal* (75)

- it does not identify the cost of developing courses only delivering them (development costs are effectively taken into account when calculating the number of days per year a trainer is available to train)
- Management and administration overheads are allocated on basis of number of trainer days per course. This means a longer course would attract a larger share of management and administration charges than a shorter course but is this an accurate reflection of how management and administration time is spent?
- It does not consider the cost of the learners' time spent on a course
- It does not consider other costs to the force such as the cost of covering an officer extracted from their regular duty.

These limitations may not be a concern. There is no way to calculate costs perfectly and the costs derived from the National Costing Model may be sufficiently accurate for the decisions that an L and D manager wishes to base on them. If that is the case a manager may decide to live with the limitations. Indeed,

"It is a mistake to aim at an unattainable precision. It is better to be vaguely right than precisely wrong."⁶

Some of the limitations can be overcome fairly easily. The use of a single hourly rate for course instructors could be adapted to using separate rates for different groups of instructors. For example, a force could have different rates for police officer instructors and civilian instructors. The value of learner time participating in a course could be added to the model although it might be appropriate to have different rates for different ranks/grades of staff.

Other limitations are more difficult to overcome. Adapting the model to calculate costs for creating and delivering online courses or distance learning would be difficult. This is in contrast to a situation where online courses are commissioned externally. In that case there would be fees paid for the course which could easily be included in the National Cost Model as one of the direct delivery costs.

⁶Read, C. (2009). *Logic, Deductive and Inductive* (Kindle edn). Optal Ebooks. (Original work published in 1898)