Estimating costs and benefits of employment and skills programmes at housing associations
A Practical Guide

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1. What is cost-benefit analysis?
In its most basic form, a cost-benefit analysis for an employment and skills project compares how the costs of delivering activities to help people into work and improve their skills stack up against the potential or actual benefits that come as a result of the project. It is about telling a compelling story of how your investment in staff time, resources and cash made a difference to people in your community and your organisation.

One of the main outputs of a cost-benefit analysis is the **benefit/cost ratio**. This is a measure that translates the complexity of your projects into simple monetary values in a consistent manner. This allows you to assess the soundness of your activities, but also to compare it to other similar projects you may be delivering to support your strategic objectives. Arriving at a **benefit/cost ratio** requires translating into pounds the investment you have made in your project and the benefits it delivered.

Cost-benefit analysis says little about how resources were used to contribute to a particular **outcome**. This is why you may want to frame your cost-benefit analysis as part of a **logic model or story of change**.

This type of analysis should include **outcomes** for which the market does not provide a satisfactory measure of economic value. This means including so-called "soft outcomes" (e.g., increase in self-esteem) using estimates from secondary research or conducting **longitudinal studies**. In practice, however, these measures are seldom included due to lack of resources or time. Instead, soft outcomes are usually captured using interviews, focus groups or observations. This allows you to have a narrative of the impact of your projects on your participants' lives which can powerfully complement the outcomes you can capture quantitatively.
2. Why should I do a cost-benefit analysis?

- **To effectively navigate the ever changing funding landscape:** The funding landscape for employment projects has changed substantially in recent years, not least due to recent welfare reform changes. There has been a reduction of local and central funding, with on-going changes in the UK welfare-to-work programmes altering service provision substantially through a stronger focus on payment-by-results. There has also been an increased competition in local markets for skills funding. As more organisations -public and private- enter this landscape, there will be a higher demand for a standard language and metrics to make your case for investment. Cost-benefit analysis is one of the many standard metrics that are used by funders to assess the value of their investment and inform funding decisions.

- **To effectively promote the unique role that housing associations play in employment and skills:** Since the mid-1990s, there has been much attention in policy and practice on worklessness among social housing tenants and whether housing associations have the potential to support greater labour market participation. Although there seems to be consensus that worklessness should be on social housing policy agendas, there remains uncertainty as to why social landlords themselves should be responsible for employment and skills work, how employment and skills activities could be resourced, and how the outcomes and impact could be assessed and measured. There is substantial evidence on how housing associations have achieved notable successes in finding integrated approaches to community development. Similarly, the National Housing Federation has collected data on projects aimed at employment and training as well as the promotion of learning and skills in its Neighbourhood Audits in 2008 and 2012. However, the available research provides only limited insights on the success of housing associations in bringing people into work and other wider benefits from work-focused Housing Plus approaches. On-going use of cost-benefit analysis will shore up the reputation of housing associations in delivering good quality, high impact employment and skills programmes and encourage funding agencies to view us consistently and positively, as a ‘partner of choice’.

- **To support improvement of your projects:** The process and outputs from a cost-benefit analysis provide you with the tools and a neutral language to engage in discussions with colleagues and external partners about “what works, for whom and where”. The process of designing a cost-benefit analysis should be used as an opportunity to agree what the project is all about, for whom and how. It could facilitate discussions with partners to identify and remedy resourcing issues, funding gaps, and clarify how your investment will lead to your desired outcomes (your joined logic model or story of change). Similarly, results from your cost-benefit analysis should be used as opportunities to celebrate success or as basis for project improvement.
3. What should be included in my cost-benefit analysis?

There are three levels of cost-benefit analysis. How far you go into your analysis will depend on your reasons for capturing and telling this story, and the resources you have available.

If this is your first time undertaking a cost-benefit analysis, you may want to start at Level one, as described below. This requires looking at your existing cost centres and the information on participants you collect already. It will allow you to compare costs and service delivery, and inform resourcing decisions.

If you have the resources to track the journey your participants take during and after their involvement with your project, you may want to try Level two. This will allow you to compare your investment with outcomes your participants have achieved. These figures should be used with care as they do not fully take into account all the factors that may have led to some of these outcomes. Level one and Level two can be managed and delivered by project managers and play a key role in helping prove and improve your work.

Level three takes you closer to a full cost-benefit analysis. It may require the involvement of consultants or staff with background in research or evaluation. It will provide you with a compelling story linking your investment with the contribution you made to the outcomes your participants achieved.

1) Level one involves basic financial analysis linking your investment to tangible outputs (or benefits) from your project.

   Your investment should be measured in terms of:
   - cash spent (from your own cost centres)
   - sources of funding (e.g., self-funded, local authority),
   - in-kind support (e.g., value of your staff and partners’ time) and
   - value of the use of physical resources such as office space.

   You will have to find a consistent way to assign a cash value to in-kind support. For instance, you may want to use your organisation’s average salary as a way to monetise the time spent by staff indirectly involved in the project. Similarly, you could use rental costs to value the contribution of the facilities used to run your project. If you are working with partners, this is a good opportunity to agree an approach and discuss resourcing issues.

   At this level, the benefits can be assessed by measuring the projects’ direct tangible outputs. This includes capturing relevant information such as the number of participants in training events, number of apprentices, number of volunteers or volunteer hours.
This would allow you to arrive at figures such as:

- investment per participant/per apprentice
- investment per number of volunteers/number of volunteer hours
- ratio comparing own expenditures with matching funds
- ratio comparing in kind expenditures to cash invested

This is useful information to assess your own projects, discuss resourcing issues and what worked and what didn’t with partners, and for discussions with your senior management team and Board members.

2) Level two is about capturing the outcomes achieved by participants of your employment and skills project in terms of the investment you made.

This is about establishing what has happened as a result of the activities (for example, 10 CV surgeries) that were organised as part of your projects and the outputs achieved (for example, 100 participants).

As in Level one, your investment should be measured in terms of:

- cash spent (from your own cost centres)
- sources of funding (for example, self-funded, local authority),
- in-kind support (for example, value of your staff and partners time) and
- value of the use of physical resources such as office space.

At this level, consistency is only one of the considerations when assigning a cash value to in-kind support (see Level one). If you are planning to share this with external funders and use it as a way to raise awareness about your work, you may want to look at regional or national figures on salaries and rental costs. This will allow for easier comparisons with other similar projects, and add validity to your findings.

The outcomes at this level cover three aspects: outcomes for individuals, outcomes for the organisation and outcomes for society.

- Outcomes for individuals: These include tangible individual benefits such as full or part time employment, business start-ups or a certified qualification. It also covers less tangible benefits such as an increase in self-esteem, communication skills, and stronger team working skills - which could lead into employment in the longer run.
It is not necessary to track progress for all your participants. You could identify a number of participants at random or based on particular characteristics (e.g., gender, distance from job market). You could collect this information using short questionnaires, phone calls or as part of progress reports or learning contracts that are part of your projects.

- Organisational outcomes: If your employment and skills strategy explicitly includes organisational aims (for example, to support housing management), then you would want to capture organisational outcomes. These are benefits for the organisation which are directly or indirectly derived from the employment and skills projects. This could include tracking measures such as rent arrears, tenants’ satisfaction and community involvement. You could establish links between your project and any trends in these measures. These links are at best indicative and should not be seen as demonstrating causation. At this level, we are not identifying the contribution of your project to a particular outcome.

- Outcomes for society (also known as impact): These are likely to occur in the wider communities housing associations serve (for instance, an employment and skills project reduces the level of worklessness in the wider community and increases the number of role models for young people). This is also about how other members of society benefit from these outcomes. For instance, helping someone join or come back to the job market is likely to reduce benefit payments and increase tax receipts. Depending on your resources, this could be collected as a number of case studies or stories about the impact of your work in the wider community.

Level two allows you to arrive at figures such as:
- investment per start up
- investment per new job
- ratio comparing investment to savings in management costs

These figures should be used with care as they do not fully take into account all the factors that may have led to some of these outcomes. Some of these higher-level benefits need to be measured over a certain period of time while other wider benefits are ‘intangible’ in nature since they cannot be easily quantified (for example, the monetary value of improved communication skills). Similarly, there are many complex dynamics behind a person staying out or in the labour market or starting a business. Your project will be one of the many factors influencing these dynamics. At best, you can claim you have contributed to these outcomes, but will not be able to claim full causation.

The resulting figures are useful for internal discussions to assess and improve the delivery of your own projects. They can also be used as a way of raising awareness of the work you do in the media and with your existing partners and potential funders.

When presenting these results, keep in mind:
All evaluation and research projects are limited by resources, context and time. You should be explicit about the steps you used to arrive at your conclusions, and honest about the limitations of your analysis.

Present your figures as part of a wider story of change that clearly identifies the unique selling point of your project.

3) **Level three:** The third and highest level of analysis is about establishing:
   - how much your project contributed to the outcomes you have identified
   - monetising as many outcomes as possible
   - using some financial techniques such as discounting to compare your investment today with the potential future outcomes.

*Assessing your contribution:* To measure your contribution to the outcomes you have identified, you need to consider at least two factors:

- **Deadweight (or non-intervention)** refers mainly to the proportion of participants in your projects who would have found work without your help.

  Technically, to establish the level of non-intervention requires a comparison of two groups of people: project participants and non-participants. People with similar characteristics in both groups would need to be compared, with any differences highlighting the potential contribution of your project. In the absence of this information, we can review previous cost-benefit reports to identify and apply relevant deadweight measures.

  In practice, we apply a “low deadweight” (deduct only 10-20% of the outcome) to projects that involve people in long term unemployment or with low or no qualifications. We apply a “high deadweight” (deduct 50-60%) to projects that involve people with high qualifications or job experience.

- **Additionality** is the impact of the project itself. For instance, the percentage of people who found work with the help of training.

  Technically, additionality could be estimated using longitudinal data and regression analysis. This type of analysis requires panel modelling, with information on people’s training and employment status as well as other socio-economic and demographic characteristics over a period of time.

  In practice, we attribute a high additionality rate (assume the project contributed to 70% of the outcome) if we follow an approach for which other studies have identified substantial evidence of impact. For instance, we would attribute a higher additionality to creating apprenticeships than to organising work clubs.
Monetisation of benefits and discounting: In order to arrive at a benefit/cost ratio, your outcomes need to be translated into monetary values, whenever feasible. Similar to the process of valuing your inputs, you will need to apply this valuation consistently and in line with existing research and approaches to measuring outcomes.

Good practice suggests that a central estimate, together with a maximum and minimum plausible valuation, should be included. These figures should be included in sensitivity analyses to give assurance that benefit valuation is not critical to the results.

Finally, discounting is a technique used to compare costs and benefits that occur in different time periods. It is based on the assumption that people prefer to receive goods and services now rather than later. This is known as ‘time preference’. According to Treasury’s Green Book: “The discount rate is used to convert all costs and benefits to ‘present values’, so that they can be compared. The recommended discount rate is 3.5%. Calculating the present value of the differences between the streams of costs and benefits provides the net present value (NPV) of an option. The NPV is the primary criterion for deciding whether government action can be justified.”

Level three builds on all the work you have done in Levels one and two. It is likely that you will need an evaluator or someone in your organisation with a strong background in research methods to undertake this work. It also requires being comfortable making assumptions and inferences from other research and figures. For instance, it is difficult to identify the right additionality rate. There is still no professional body providing specific recommendations or ranges for discount rates or deadweight. However, we can use existing peer reviewed research that assesses some of this impact and apply some of their figures to our own work.

When presenting these results, keep in mind:

- All evaluation and research projects are limited by resources, context and time. You should be explicit about the steps you used to arrive at your conclusions, and honest about the limitations of your analysis.
- Present your figures as part of a wider story of change that clearly identifies the unique selling point of your project.
- There are many complex dynamics behind a person staying out or in the labour market or starting a business. Your project will be one of the many factors influencing these dynamics. At best, you can claim you have contributed to these outcomes, but will not be able to claim full causation.
4. How much information do I really need to collect?

Graph 1 provides an indicative list of the minimum data requirements to undertake Level one and Level two work.

Level one and Level two are when most of the data collection takes place. Level three involves mostly inferential analysis and interpretation of the data. Both processes require some investment of your time and resources.

The best way to start to implement a cost-benefit analysis is by fully integrating it with work that you are currently doing. Data on investment could be accessed from your own cost centres and funding applications. Information on participants should be part of monitoring and progress reports your project managers undertake.

Collecting information on participants after they leave the project doesn’t have to be onerous. For instance, it is not necessary to track the job market and training progress of all your participants. You could identify a number of participants at random or based on particular characteristics (e.g., gender, distance from job market). You could collect this information using short questionnaires, phone calls or as part of progress reports or learning contracts that are part of your projects.

Information on wider impacts could be collected from existing national, regional and local surveys and your own community market intelligence.

Tools such as Outcome Star provide a framework and guidance to capture other individual outcomes such as self-esteem and development of social networks.
**Cost-benefit analysis of HA’s employment and skills projects: Data needs**

### Level one

**Own investment**
- Staff input: full time equivalents and monetary value
- Financial inputs: overheads, imputed values items such as premises, council tax, etc.
- Direct project costs
- Any other costs associated with delivering your activities

**External funding**
- Level of matched funding
- Type of matched funding
- In-kind investment from partners

**Participant Outputs**
- Number of participants by employment status/benefit type at the start of scheme and whether they are own tenants or local residents
- Number of advised businesses/start-ups
- Number of volunteer hours
- Number of apprentices

### Level two

**Participants’ outcomes after end of project**
- Number of participants in work at end of scheme, 6 months, 1 year by employment status/benefit type at the start of scheme and whether they are own tenants or local residents
- Number of business founded/self-employed people/business survivors

**Wider social benefit**
- Socio-economic data at neighbourhood level (e.g. unemployment, persons in receipt of benefits, community surveys)
- Social enterprises and start-ups in local community

**Outcomes for organisation**
- Rent arrears
- Turnover costs
- Maintaining/repair costs
- Financial advice costs
- Other advice costs
- Tenant satisfaction
5. How do I bring together all the information I collect?

For Level one and Level two, you could develop performance indicators such as:

- HA's financial input per participant
- HA's financial input per apprentice in work
- Rent arrears before and after the project
- Reduction in turnover costs (related to tenants)
- Reduction in maintenance costs
- Reduction in financial advice costs
- Investment per start up
- Investment per new job
- Ratio comparing investment to savings in management costs
- Investment per number of volunteers/number of volunteer hours
- Ratio comparing own expenditures with matching funds
- Ratio comparing in kind expenditures to cash invested

These figures should be used with care as they do not fully take into account all the factors that may have led to some of the outputs and outcomes you have identified. Some of the higher-level benefits need to be measured over a certain period of time while other wider benefits are ‘intangible’ in nature since they cannot be easily measured or monetised. These figures are useful for internal discussions to assess and improve the delivery of your own projects. They can also be used as a way of raising awareness of the work you do in the media and with your existing partners.

A next step in your analysis could involve undertaking some basic correlation analysis of some of the figures listed above, using Excel. This will allow you to identify and focus on key areas where there is some indication of positive correlation.

If you are interested in analysing the contribution your project has made to some of these results, you need to consider factors such as:

- Deadweight
- Additionality
- Discounting
6. Do you have a cost-benefit template to help me get started?

There are useful guidance documents on how to frame and undertake your cost benefit analysis. The SROI network has developed an Impact Map that brings together data and analysis considerations. Do keep in mind that their approach goes beyond cost-benefit analysis. SROI follows a participative approach where a wide range of stakeholders inform the very framework and data collection processes used in a cost-benefit calculation.

This Excel file shows what a basic cost-benefit analysis calculation sheet would look like. It is not meant to be populated to arrive at a specific answer, but as a guide to help you build your own. It illustrates some of the steps in Levels one, two and three. It describes a typical volunteering project implemented by a housing association. Worksheet 1 identifies and quantifies most of the investment, outputs and outcomes from the project. Worksheet 2 provides you with examples of monetisation, additionality rates, deadweight rates and discounting. Worksheet 3 provides you with a suggested list of the type of additional external data (e.g., NI contributions, JSA rates) you will need to undertake Level three analysis.

Contact

For further information on cost benefit analysis or measuring social impact, please contact:

Javier Stanziola
Research and Analysis Manager
National Housing Federation
ph. 020 7067 1184
Javier.Stanziola@housing.org.uk
Glossary:

- **Benefit-cost ratio** is determined by dividing the estimated benefits of a project by its costs. A project having a high benefit–cost ratio would take priority over others with lower ratios.
- A **logic model or story of change** presents in a systematic way your understanding of how your available resources and planned activities will lead to the changes or results you hope to achieve.
- **Outcomes** are the specific changes in program participants' behaviour, knowledge, skills or employment status. **Outputs** are the direct result of your activities and may include number of participants and number of apprentices.
- **Longitudinal data** (longitudinal study) is collected over a given time period (for instance, tracking employment history of participants every three months for three years). “How long” varies by project and setting.
- **Regression analysis** is a statistical technique to estimate the relationships (or contribution) between a dependent variable (income) and an independent variable (project intervention). Excel and SPSS allow you to undertake some basic regression analysis.
- **Panel modelling** uses longitudinal data for different measurements (tracking employment history, income and well-being indicators over time) as the basis for analysis.
- **Treasury's Green Book** presents the techniques and issues that should be considered when carrying out assessments of all new government policies, programmes and projects.
- **Sensitivity analysis** explores by how much a variable would have to fall (if it is a benefit) or rise (if it is a cost) to significantly change your calculations and make it not worth undertaking a project.