

Cost Benefit Analysis

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Genevieve Knight
Policy Studies Institute



Prime objective

To determine
whether the benefits
of a government policy or program or project
exceed its costs

ERA Evaluation Components

- Process or implementation study
- Impact analysis
- Cost study
- Cost-benefit analysis

Role of the ERA impact

- Experiments measure the impact of policies/interventions in terms of their impact on outcomes.
- E.g. Does ERA increase earnings?
- The outcome measure is the earnings of the programme group

ERA example, cont'd

- (A) Earnings of ERA participants during the year prior to training compared to earnings during the year after
- (B) Comparison group earnings during the year prior to training compared to earnings during the year after
- (A) - (B)
 - e.g., (£2000 - £500) = £1500
- Approach has often been used in U.S. & U.K.

Basic Steps in CBA

1. Decide whose benefits and costs count
2. Select the portfolio of alternatives
3. Catalogue (potential) impacts and select measurement indicators
4. Determine impact quantities over the life of the project

Basic Steps in CBA

Cont'd

5. Monetize impacts
6. Choose the social discount rate
7. Add up the benefits and costs
8. Perform sensitivity analysis
9. Recommend the alternative with the largest net social benefits

Some selected under-rated steps

- **Step 3: Catalogue Potential (Physical) Impacts**
- ‘Impacts’ refers to both inputs (costs) and outputs (benefits)
- Important to list all non-trivial impacts, which is all in terms of effects on income
- Beneficial impacts can include reductions in transfer payments and increases in tax payments, increases in earnings and fringe benefits
- Cost impacts included staff time and materials

Some selected under-rated steps

- **Step 4: Determine Impact Quantities Over the Life of the Project**
- This step usually requires predictions of how long impacts will last and how they vary over time
- This is often very difficult to do accurately
- **Examples**
 - earnings
 - transfer payments

More under-rated steps

- **Step 5: Attach Money Values to All Impacts –**
- Must be done to make all impacts “commensurable; example - Staff time; but **Sometimes difficult** - example: Value of life or leisure.
- **Step 6: Choose the social discount rate** Needed because some benefits and costs occur in the future; Use of a discount rate makes benefits and costs that occur in different time periods commensurable (compute present values);
- **The appropriate rate to use is controversial; time period to discount over? (eg. 5 years?)**

Another under-rated or often skipped step

Step 8 - Perform sensitivity analysis

- to see if the results are robust to alternative assumptions
- This reduces the risks of a faulty assumption
- For example, MDRC examined whether their results changed much when alternative assumptions were made about how earnings and transfer payments change over time

Most Undervalued step: Cost Study

- There are a variety of ways of determining costs
- The goal in a CBA is to estimate net costs, not just gross costs (This requires separate calculations of costs for program groups and control groups.)
- It is usually more useful for CBAs of people-orientated programs to measure costs per case, rather than aggregate cost
 - Facilitates comparisons with other programs
 - Facilitates comparisons with benefits

Steps in Estimating Net Costs

1. Enumerate program components
2. Compute unit costs for each component for the program and control groups
3. Determine participation rates for each component for the program and control groups
4. Determine the average length of participation in each program component for the program and control groups
5. Compute the gross cost of each program component for the program and control group
6. Compute the net cost of each program component

Data Items Needed for Cost Analysis

- Time spent by clients in each program component
- Payments to clients
- Vendor payments on behalf of clients
- Salary and other costs of employing the staff operating the program and the counterfactual program
- Special purchases made for program use
- Office overhead rates or the cost of each item that comprises overhead

Under-rated Cost step: Ways of Determining Staff Time

- Often needed when the *same* staff allocate time between program and non-program clients or among different target groups or among different program activities.
- Time studies (a *bit* expensive!)
- Diaries or time sheets (may be difficult to implement)
- Interviews with either staff or participants (the weakest method)
- Staff time must be multiplied by staff salaries and fringes to determine staff costs.

Under-rated cost step: Compute Unit Costs

- Compute the average cost of providing a unit of each program component (e.g., an hour, a week, a session)
- Total expenditures on components might be available from administrative data?
- These totals then divided by the total number of “participant months”
- Note: ideally, total expenditures should include *all* costs (i.e., staff and overhead costs, costs engendered by both participants and “no shows”)
- Complication: both program group members and other may have participated in some of the same activities

Under-rated cost step: Ways of Determining Overhead

(Overhead should include all program costs not included as staff costs)

- Method 1: Multiply program staff costs by the organization's overhead rate [i.e. (its total annual expenditures) / (its total annual staff costs)]
- Method 2: Multiply annual expenditures on each overhead item (e.g., rental expenditures) by the fraction of the organization's total staff costs devoted to each program component

Key questions

- What are the main challenges in the CBA analysis ?
- What are the main priorities for responding to these challenges?
 1. Do a cost study (many methods possible)
 2. GET MORE and BETTER DATA
 3. Project future benefits (about how long do benefits last?)